

DOCUMENT RESUME

ED 115 513

SE 019 987

AUTHOR Dotterweich, Andrew H., Jr.
TITLE An Educational Program to Combat Venereal Disease.
PUB DATE Jan 74
NOTE 60p.; Mini Practicum submitted in partial fulfillment of the requirements for the degree of Doctor of Education, Nova University

EDRS PRICE MF-\$0.76 HC-\$3.32 Plus Postage
DESCRIPTORS Doctoral Theses; Educational Research; *Health Education; Instructional Programs; *Program Development; *Program Evaluation; Secondary Education; *Secondary School Science; Sex Education; *Venereal Diseases

IDENTIFIERS Research Reports

ABSTRACT

The purpose of this practicum was to develop, implement, and evaluate an educational program to combat venereal disease. The objectives of the program were: (1) to increase public awareness of the problem of venereal disease, (2) to alert parents and students to the dangers of venereal disease, (3) to enable students to make rational judgments about their own conduct in terms of their knowledge of venereal disease, and (4) to provide assistance for those who had contracted venereal disease and who needed medical attention. The educational aspect of the program included community meetings for parents, a publicity campaign by newspaper and radio, free literature, and instruction in the public high school. Biology teachers, social studies teachers, and the school nurse participated in the instructional activities. A total of 468 students and 110 parents completed evaluation forms. In addition, the evaluations of teachers and the program chairman are included in this report.
(Author/CP)

* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *

ED115513

SE

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRO-
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIGIN-
ATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT
OFFICIAL NATIONAL INSTITUTE OF
EDUCATION POSITION OR POLICY

An Educational Program to Combat Venereal Disease

by Andrew H. Dotterweich, Jr.

Submitted in partial fulfillment of the require-
ments for the degree of Doctor of Education, Nova
University

Baltimore Cluster
Dr. Howard C. Allison

Mini Practicum
January, 1974

TABLE OF CONTENTS

	PAGE
ABSTRACT	(i)
INTRODUCTION	(ii)
HISTORICAL BACKGROUND	1
IDENTIFICATION OF THE PROBLEM	7
THE OBJECTIVE OF THE PROGRAM	8
IMPLEMENTATION OF THE PROGRAM	8
Orientation of the Faculty and the Community	8
Role of the Steering Committee	9
Assessment of Needs	9
Function of the Community Information Committee	10
The community meeting	11
The publicity campaign	13
The expendable literature	13
The Instructional Personnel Committee	14
Implementation of the Instructional Activities	15
Biological aspects of the disease	15
Social-psychological aspects of the disease	17
Medical aspects of the disease	18
THE EVALUATION OF THE PROGRAM	19
Pupil Evaluation	19
Parent Evaluation	21
Teacher Evaluation	22
Committee Evaluation	23

Program Analysis by the Chairman	25
RECOMMENDATIONS FOR IMPROVEMENT OF THE PROGRAM	27
FURTHER APPLICATIONS	29
APPENDIX A: Flow Chart of the Delivery System that was Used	30
APPENDIX B: Baltimore County Policy Statement	32
APPENDIX C: "Minor Consent Law"	33
APPENDIX D: Milestones in Venereal Disease Control	34
APPENDIX E: Activities for Biological Aspects	39
APPENDIX F: Activities for Social Studies Aspects	42
APPENDIX G: Pupil Evaluation Form	44
APPENDIX H: Parent Evaluation Form	45
APPENDIX I: Teacher Evaluation Form	46
APPENDIX J: Committee Evaluation Form	47
APPENDIX K: Tables Depicting Reported Cases in Maryland . .	48
BIBLIOGRAPHY	51

ABSTRACT

The purpose of this practicum was to develop, implement, and test an educational program to combat venereal disease. Since a need was shown for such an endeavor, the program was presented by a multi-disciplinary team, evaluated by all participants, and indicated that the students, the staff, and the community of Randallstown High School achieved an increase in the awareness, the understanding, and the seriousness of the problem of venereal disease.

INTRODUCTION

The increasing concern throughout the country regarding the frightening growth of venereal disease among adolescents and the corresponding need for our pupils to be informed about this teenage health hazard has led to the development and implementation of the enclosed project on venereal disease education.

Since the objective of the program was to provide a means of changing attitudes and behaviors towards the problem, it attempted to accomplish that task through a multi-disciplinary approach that utilized both school and community resources.

The section on program implementation explains those many processes that were required by the various committees in planning objectives, in developing activities, and in presenting the biological, the social-psychological, and the medical aspects of the project.

The section on evaluation not only contains a compilation of responses by all participants, but critical comments that have aided in the analysis of the program by its chairman, and in the development of a list of recommendations that may enhance the efforts of other venereal disease programs.

Appendix A contains a flow chart that should be utilized while following the section on program implementation. Appendix B is a confidentiality statement made by our local board of education, while Appendix C cites a newly enacted Maryland law that was designed to help students with health problems. Appendix D presents the historical development of venereal disease control that shows the previous efforts of society in combating the sickness. Appendices E and F describe various teaching activities

that were recommended for use by our instructors. Appendices G, H, I, and J are samples of the evaluation forms that pupils, parents, teachers, and committee members completed. Appendix K is a list of three tables that depict the reported cases of VD in Maryland during the past 12 years.

While the program was an attempt to change the laissez-faire attitude of the school and the community, it must be understood that it is only the beginning of an on-going process to eliminate the worst social dilemma of mankind.

HISTORICAL BACKGROUND

One of the most pressing concerns in the school of today is the rapid increase in venereal disease among adolescents and the corresponding need for all students to have some knowledge of this health hazard and the resources available that can aid in its control.

Although there have been many important contributions in venereal disease control,¹ the statistics of current incidence are quite alarming even though it is estimated that approximately 85 per cent of all infectious syphilis cases and only 20 per cent of gonorrhea cases are reported to the health authorities of Maryland. During 1972 more than 16,000² cases of gonorrhea were reported in the state, and therefore, gave this state the distinction of ranking ninth in the nation for gonorrhea incidence. Our young people present a very serious problem because 25 per cent of all cases affects those under 20 years of age; and that figure represents only those cases reported to the health authorities. And to make those figures seem more frightening, it has been calculated that one teenager contracts venereal disease every two minutes of each day.³

To find one single cause for these disturbing facts is impossible. However, factors can be found in the false security that effective

1

The history of the attempts to control venereal disease is found in Appendix D.

2

Refer to Table 1 which lists the reported cases of syphilis and gonorrhea in Maryland in 1972.

3

Maryland Blue Cross and Blue Shield, Spread This Ugly Story Around, pp. 5-6.

medical treatment offers; in the changing values of our society concerning sex; in the continuous sex centered approach that the media uses on our teenagers; in the misconception on the part of many people that the "pill" offers safeguards against disease; in the increase in promiscuity and its promotion through the media; in the universal lack of a positive program on sex education; in the general lack of information that there is a venereal disease problem in our community; and finally, in the widespread ignorance concerning the resources that are available for treatment of this serious problem.

No one should question the continual need to educate our young people about syphilis and gonorrhea, especially when one finds out that the two can cause insanity, paralysis, blindness, deafness, heart disease, sterility, crippling arthritis, and death. A few years ago many were lulled into a false sense of security. People thought that because of the penicillin treatment that were developed during World War II venereal disease was defeated. And with the decline of incidence, and therefore, the risk of infection, not only did the public lose

4
The multi-billion dollar a year advertising market that deals with the psycho-education of children is explained thoroughly in Vance Packard, The Hidden Persuaders, New York: Pocket Books, Inc., 1965, pp. 135-143.

5
School Health Services, ed. by Charles C. Wilson, M.D., Washington, D.C.: National Education Association and the American Medical Association, 1964, p. 33.

6
Grace Naismith, "What You Should Know About VD," Reader's Digest, New York: The Reader's Digest Association, Inc., 1972, p. 7. (Reprinted)

7
Elizabeth Williams, Venereal Disease, Connecticut: Pendulum Press, Inc., 1969, pp. 11-25.

interest, but government funds for control and education were cut off. Syphilis decreased from 106,539 in 1947 to a low of 6,251 cases in 1957; but then in the six years following 1957, infectious syphilis among children⁸ between 15 and 19 almost tripled.

With the disturbing statistics at his disposal, the late President Kennedy in 1962 proposed "the initiation of a major ten year program aimed at the total eradication in this country of what he termed 'this age-old scourge of mankind.'⁹" And then in 1964 in a telegram to the president of the American Venereal Disease Association, the late President Johnson continued his support of Kennedy's ten year plan for the eradication of venereal disease and urged "parents, educators, youth leaders, and all other responsible citizens to continue the fight¹⁰ against this disease."

The effectiveness of the ten year plan can certainly be challenged, because the more than two million new cases of gonorrhea and 75,000 new cases of syphilis that occur each year in the United States coupled with the fact that gonorrhea in Maryland has increased more than one hundred per cent over 1965¹¹ is ample proof that something went wrong. And although the National Commission on Venereal Disease has recommended that \$46,150,000 be appropriated to battle the disease in 1973 with an

8

William F. Schwartz, Teacher's Handbook on Venereal Disease Education, Washington, D.C.: National Education Association, 1965, p. v.

9

Ibid.

10

Ibid.

11

Maryland Blue Cross, loc. cit.

12

increase to \$68,035,000 in 1977, it is evident that a different approach in fighting this disease must be utilized.

Perhaps one of the solutions to the problem would be in the implementation of a comprehensive venereal disease program to supplement our already existing sex education program. This past year only two of the forty five secondary schools in Baltimore County had introduced some kind of venereal disease education.¹³ There is no question that sex education brought forth much resistance from various religious and community leaders; venereal disease education will likewise suffer the same experience. The opposition in the past has varied a great deal, but the majority of those organizations has strong ties with the "far right." Among those groups, the John Birch Society is the most vocal because "it has launched a national campaign to restrict or, preferably, eliminate sex education programs in the school;"¹⁴ and the attitude of that organization concerning venereal disease education will be just as vehement.

In many articles that I have read, there is the feeling on the part of many people, and not only the highly vocal ones, that we must keep this morbid subject away from our "nice kids." It is because this disease has always been associated with the filthiest and most guilt-laden aspect of sexual behavior that many people not only are hesitant in

13

The two schools were Lansdowne Senior High and Randallstown Senior High.

14

"Schoolmen Disagree With Critics of Sex Education," Nation's Schools, 84, No. 1, July, 1969, 47.

admitting any concern over the problem, but refuse to be associated
15
with any attempt to eradicate it.

There is also the attitude among many people that those individuals who have contracted venereal disease should suffer for their indiscretion. Dr. Thomas Parran, former Surgeon General of the United States, was aware of this attitude and pointed out . . .

that if it be assumed as self-evident that all victims of syphilis are guilty of sexual misconduct, regardless of the facts in the matter; if those interested in fighting the disease be suspected to be suffering from a guilty conscience; if free discussion of the disease be considered a serious breach of taste, if not actually forbidden, it may be taken for granted that it will be difficult to teach people to avoid syphilis, to look for early symptoms, and to get treatment when such symptoms are observed.¹⁶

Fr. Francis L. Filas, S. J., Chairman of the Department of Theology at Loyola University in Chicago, commented on the attitude of people and stated:

To say that the venereally infected get what they deserve is the most raw, uncharitable expression that one can imagine. The love which God the Creator expects us to show toward our neighbor, at a minimum, would mean that we would not callously look on and wish evil, even to those who seem to have brought such evil on themselves. But even if we were to admit so bigoted and interpretation of biblical doctrine as to say that venereal disease was divine punishment for sin, we would still be forgetting that venereal disease also can strike the completely innocent.¹⁷

The negative attitude of people that Dr. Parran and Fr. Filas so well elucidate must be changed, but it will not be effected by wishful

15

Maybe these critics would change their minds if they were constantly made aware that their taxes help pay for the approximately \$50 million each year for treatment for patients with syphilitic psychoses.

16

Schwartz, op. cit., p. 2.

17

Ibid.

thinking. Although the Baltimore County school system has had a program in sex education for approximately five years, it has not had a comprehensive venereal disease program to complement it.

It should be expected, however, that political and religious groups will fight any such proposal. Initially, there were many objections to the introduction of sex education, but once informed, the vast majority of parents accepted the program as something positive and important to the well-being of their children. One of the biggest criticisms, however, will be that the subject of venereal disease will inevitably lead into moral and religious issues and debates. In commenting on venereal disease education, Fr. Filas of Loyola University, answered this concern when he stated:

Venereal disease education, while it does not contradict them, nevertheless properly prescinds, or abstracts, from, any explicit moral and religious judgment. The inclusion of venereal disease education in any department of the curriculum does not mean an invasion into the sphere properly belonging to moral training. In fact, sponsors should be on the alert that its objective, scientific presentation should never invade the domain of religious or presume to speak outside its correct field.¹⁸

Although most will agree that the school has a definite role in the investigation and the solution of this major health problem, there appears to be a tendency on the part of many people in Baltimore County to hide the real problem of venereal disease from the public. It does not make sense that Baltimore County with approximately 700,000 people and with similar socio-economic conditions has such a low rate of

18

Ibid.

syphilis and gonorrhoea when compared with other large subdivisions, such as, Anne Arundel, Montgomery, and Prince George's. It could be that Baltimore County is doing an effective job in controlling venereal disease; it could also mean that it is one of the worst offenders in not reporting cases to the health department. It is to this latter that I subscribe when I state that the "cover-up" condition has created not only a desperate need for public awareness of the growth and consequences of venereal disease, but a need for a program that will educate and hopefully cause an affective change in the attitude of all of our citizens. It is this attitude that is now responsible for only one venereal disease clinic serving the entire county for two hours a week. A change must take place as quickly as possible, but it will only come through education and the knowledge that a problem exists.

IDENTIFICATION OF THE PROBLEM

Since the latter part of last year, my office had an increasing number of students who were asking to go to the health clinic for family planning information. Many of those students were later diagnosed as having some type of venereal disease.

In surveying the condition, several factors became evident. First, there was no health clinic that provided for family planning service in the immediate community. Second, while most of our students had some kind of sex education in the lower grades, most had little or no knowledge of venereal disease. And lastly, the community and staff were unaware of the problem, the laws, and the policies that contribute to the present situation.

19

Refer to Table 2 and Table 3 which compares the incidence of syphilis and gonorrhoea in all of Maryland's subdivisions.

THE OBJECTIVE OF THE PROGRAM

The objective of the program was to help create an informed school community which can deal more effectively with the venereal disease problem. Since ignorance of the disease prevents treatment and control, a greater understanding will provide a means of changing attitudes and behaviors towards venereal disease. Therefore, the program at Randallstown High attempted to accomplish the following:

1. Increase public awareness of the problem of venereal disease, the laws that help the youth in its cure, and the facilities available for its control.
2. Alert our students and parents to the dangers of venereal disease and to help them understand the biological, medical, and social-psychological factors involved in the disease.
3. Enable our students to make rational judgments about their own conduct in terms of their knowledge of venereal disease.
4. Provide sources of assistance for those who may have contracted venereal disease and who need medical attention.

20

IMPLEMENTATION OF THE PROGRAM

Orientation of the Faculty and the Community

The first step toward implementation was made by presenting the problem to the faculty through our department chairmen and the community through our executive board of the parent, teacher, student association. Both groups responded in a most positive manner. In fact, after

20

Refer to Appendix A for a flow chart that outlines the sequence.

listening to the statistics, viewing a slide presentation that depicted the sickness in all of its horror, and being made aware of the lack of understanding, both groups were most anxious to implement such a comprehensive program. The details concerning the program and its implementation were turned over to a steering committee.

Role of the Steering Committee

The steering committee which consisted of the principal, the program coordinator, the president of the PTSA, the school nurse, and the social studies, science, guidance, and home economics department chairmen, established the purposes of the program. They were:

1. To assess the needs of the school and the community.
2. To develop the program that will be used.
3. To establish the specific purpose, method of treatment, and the resources needed to implement the program
4. To plan the community meeting that will inform all citizens of the problem and the program.
5. To evaluate the content covered, the materials used, the resource personnel, the community meeting, the reactions of the teachers, and parent responses.
6. To plan for the following year.

Assessment of Needs

The steering committee compiled a list of resources and constraints that could have contributed to the success or rejection of the overall program. The resources consisted of the following:

1. A cooperative faculty, parent, and student group willing to work towards a successful program.
2. A faculty member who had recently participated in a venereal disease education workshop.
3. Funds available for postage, materials, and other supplies.

4. Good contacts with the news media to help in promoting our program.
5. The availability of speakers and group leaders that committed themselves to speak and lead various aspects of the program.
6. The abundance of free materials from various health agencies.

The constraints consisted of the following:

1. The lack of funds on the part of the health department officials that prevent additional facilities.
2. An uninformed faculty and community.
3. A lack of teaching materials.
4. An untrained staff.
5. Conflicting policy statements concerning absences of students for confidential treatment or advice with respect to venereal disease, pregnancy, contraception ..., (See Appendix B.) and the Senate Bill 201, "The Minor Consent Law." (See Appendix C.)

After evaluating our resources and constraints, the committee decided that it was necessary to form two subcommittees. One was responsible for community information, while the other planned the venereal disease education program for the school.

Function of the Community Information Committee

The community information committee consisted of the program chairman, the school nurse, a representative from the PTSA, and a member from the student council. Its purpose was to inform the school and the community about health concerns by completing the following activities:

1. Organizing and implementing a community meeting jointly sponsored by the school and the PTSA.

2. Promoting and publicizing our venereal disease program through the local media and student produced posters.
3. Procuring pamphlet racks, placing them in strategic locations, and obtaining expendable pieces of literature on venereal disease, drugs, pregnancy, and other health problems.

The community meeting: Before discussing the mechanics of such a meeting and in order to have proper direction, the committee first listed the purposes for such an activity. They were:

1. To discuss, clarify, and answer those social-health questions which often vex parents and students.
2. To discuss what students learn about syphilis and gonorrhea in biology and social studies classes.
3. To discuss and determine how the minor consent law deprives parents of the right to know about the sexual activity of the own children.
4. To discuss and understand the provisions of the law on confidentiality.
5. To discuss the meaning of immunity from prosecution and who has it.

In organizing the program, it was decided that in order to have the interaction necessary and at the same time cover the essential information, small groups had to be used. The problem of whether enough resource people would be available to lead the groups was quickly dispelled when the program chairman located nine competent leaders. Their roles were properly discussed via the telephone and further explained in a follow-up letter.

The two hour evening meeting began with a large group presentation which lasted for 15 minutes. During that time, the purposes of the meeting were explained, the leaders were introduced, and the directions concerning the grouping of participants were given. The grouping was

accomplished by giving a card which contained a room number to each person as they entered the auditorium. By giving a different card to each person, the nine groups were evenly distributed.

The original plans had called for nine groups of 25 people. In the first group meeting which was to last 45 minutes, the group leader who was accompanied by one of our venereal disease education teachers was to present many facts with little or no interaction. Following this presentation, each group was to divide with half going with the teacher to another room and the other half remaining with the resource person. In this phase of the program, there was to be much interaction and discussion. The problem, however, was that we only had half of the expected turnout.

What seemed to be a disappointment turned into a rewarding experience. We quickly combined several of the groups so that they totalled approximately 20 people and asked the group leaders to share their expertness with others. Since most of the leaders had different competencies, and since their groups were now small enough, not only was more information disseminated, but much interaction took place. In fact, the groups became so motivated that discussion lasted past the end of the program.

In the evaluation of the meeting by the committee, several factors became evident. They were:

1. Although there was only half of the expected turnout in attendance, there were now 150 better informed people.
2. Since there was a newspaper reporter at the meeting interviewing the participants for a story in the local press, more people became familiar with the problem through the news media.

3. Since the meeting was widely publicized both in the school and through the community, another means must be established to gain better attendance at future meetings.

One of the suggestions made was a personalized telephone campaign to all of the parents in the school community.

The publicity campaign: The purpose of our publicity campaign was not only to have people attend our community meeting or to explain to the public what the school was doing, but to call attention to the fact that venereal disease is a serious problem for all and not only those afflicted. Our campaign consisted of the following:

1. Displaying in all commercial establishments throughout the community our student produced posters.
2. Sending home via our students a flier explaining the program and asking for their support.
3. Publicizing on radio stations and in the local newspapers not only the community meeting but the problem itself.
4. Announcing on the school intercom about the problem and the program.

Another part of our campaign will be in the presentation of a television show. WMAR TV has expressed an interest in airing a public affairs broadcast on venereal disease and asked us to participate. The station will send their equipment to tape a panel-type show during the first part of January.

The expendable literature: The main objective for providing this service was to inform everyone throughout the school about current and future health problems. It has accomplished this in part by providing to the students and staff pamphlet racks located in the library and the health suite which contain expendable pieces of literature on venereal disease, drugs, pregnancy, and other health problems. All of the

materials were available free on request from community health agencies, such as, Blue Cross and Blue Shield, and the Maryland State Department²¹ of Health and Mental Hygiene.

The Instructional Personnel Committee

This committee consisted of all personnel teaching the program, the principal, the program chairman, and the science and social studies chairmen. The purposes of this committee were:

1. To determine when the program was to take place.
2. To set up certain time limitations on the duration of the program.
3. To coordinate the efforts of the three departments who were involved in the instructional process.
4. To determine which classes would be grouped most efficiently.
5. To review the instructional materials and resources that were to be used.

It was decided by the group that the proper time to begin implementing the instructional aspects of the program would be the week after Thanksgiving. The members further decided that the length of class time would cover no more than two weeks with the science department taking half of that time in explaining the biological aspects to²² its tenth grade biology students. The second week then would be devoted

21

Refer to the list of free resource materials in the bibliography.

22

Since some of our students take chemistry in the tenth grade, it was necessary to re-schedule them with biology teachers who were considered better prepared to teach the biological aspects of the program.

to the medical and the social-psychological aspects of the program.

In order to maintain a proper follow up of what was experienced in the biology classes, the nurse presented the medical aspects before the social studies teachers made their presentation. During a two day period, the nurse spoke to all of our tenth grade students in groups that ranged from 35 to 90 each. Following her involvement, the social studies teachers presented the social-psychological aspects and aided in the evaluation by distributing and collecting the surveys.

Implementation of the Instructional Activities

The three aspects of the program, the biological, medical, and the social-psychological, were presented by a multi-disciplinary team consisting of biology teachers, social studies teachers, and the school nurse. Each area of the instructional format was consistent with the discipline it represented.

Biological aspects of the disease: The biological aspects of the program were designed sequentially and inductively. Since much of the biological content that was presented to the students was already a part of the regular science program, it was only a matter of incorporating venereal disease information to it. However, in order to maintain the proper sequence, it was necessary to review in some cases and to pre-
23
view in others certain biological concepts. Therefore, the teachers were asked to include in their presentations the following objectives

23

Needless to say, this process posed a problem to some staff members and students.

in the order listed below:

1. Describe a microbe or "germ".
2. Distinguish the kinds of microbes.
3. Name those microbes that cause venereal disease.
4. Demonstrate microorganisms similar to those that cause venereal disease.
5. Describe the male and female reproductive anatomies.
6. Describe the means of transmission of venereal disease.
7. Identify and disprove those misconceptions about the transmissions of venereal disease.
8. Extend the scope of information pertaining to venereal disease.

The student objectives maintained the same sequence and included:

1. Name the different kinds of microorganisms.
2. Identify microorganisms similar to those which cause venereal disease.
3. Distinguish between syphilis and gonorrhea germs.
4. Name and identify the structure and functions of the human reproductive system in order to understand the effects of venereal disease.
5. Distinguish between the symptoms of gonorrhea and syphilis in men and women.
6. Apply a rule about the transmission of the disease.
7. Demonstrate an understanding of the biological aspects of venereal disease by the completion of a fact sheet.

In order to achieve those teacher and student objectives, a list of activities was suggested. A description of those activities is included in Appendix E on page 39.

Social-psychological aspects of the disease: The social-psychological aspects of the program involved student understanding of those attitudes and values that concern venereal disease. This portion of the program afforded the social studies department who taught it an opportunity to deal with a current problem that concerned its students. Those teachers who were assigned to implement the program attempted to show the balance of responsibility between the individual and society to create a climate in which the venereal diseases can be dealt with effectively. Their objectives, therefore, were:

1. Helping students analyze behaviors that pertain to venereal disease.
2. Surveying attitudes, strengths, and weaknesses.
3. Providing opportunities to increase understanding and interaction through the discussion of values and data.
4. Illustrating real social and psychological problems by using real case studies.
5. Portraying the venereal disease problem by graphic illustrations.

The student objectives were:

1. Communicating their feelings and problems with other members of their peer group.
2. Developing a personal code of behavior through the information acquired.
3. Coping more adequately with the problems related to venereal disease.
4. Understanding the social and psychological problems that are caused by venereal disease.
5. Understanding the student role in the eradication and prevention of the disease.

In order to achieve those teacher and student objectives, a brief

description of the activities is included in Appendix F on page 42.

Medical aspects of the disease: The medical aspects of the program were presented by our nurse. After she reviewed the purpose for what was taught in the science and social studies classes, she showed a movie from our film library entitled VD - A New Focus which acted as a summary for the program. Following this activity, there were a question and answer period that helped to clarify many misconceptions that developed along the way and to reinforce the need for understanding the problem.

The complete objectives on the role of the nurse included:

1. Reinforcing previous discussions concerning causative organisms, modes of transmissions, and symptoms.
2. Identifying methods of diagnosis and treatment.
3. Describing epidemiological control and the role of the county and state health department.
4. Identifying community resources that control the disease.

The student objectives included:

1. Understanding the relationship between the biological, social-psychological, and the medical aspects of the program.
2. Becoming aware of what kind of treatment is available for those who have the disease.
3. Knowing where one may go for treatment.
4. Knowing the process that the health department uses for the control of the disease.
5. Understanding the measures that one may take to prevent venereal disease.

THE EVALUATION OF THE PROGRAM

Upon completion of the program, an evaluation to determine its effectiveness was conducted. Included in the evaluation was a survey which included:

1. All students who participated in the program.
2. All parents of those students who were participants.
3. All faculty members not directly involved.
4. All faculty members who had a role in its implementation.

A detailed analysis of each phase of the evaluation follows:

Pupil Evaluation

468 students out of a possible 500 completed the survey. 24 Their responses to the first part of the questionnaire follow:

1. The unit was:	Excellent	30
	Good	257
	Fair	89
	Poor	12
	No Response	80
2. The movies and slides were:	Excellent	105
	Good	252
	Fair	99
	Poor	12
3. The materials were:	Excellent	31
	Good	226
	Fair	87
	Poor	24
	No Response	100
4. The time spent was:	Too Long	25
	Not Enough	193
	Adequate	237
	No Response	13

24

An example of the pupil evaluation form is shown in Appendix G on page 44.

5. The material presented by the teacher could be understood:	Yes	399
	No	20
	Uncertain	49
6. You discussed the program with your parents:	Yes	93
	No	316
	Uncertain	13
	No Response	46
7. You gained a better understanding of VD through the program:	Yes	357
	No	62
	Uncertain	47
	No Response	2
8. Would you go for treatment if it meant being interviewed by a Public Health Representative:	Yes	342
	No	22
	Uncertain	91
	No Response	13

The second part of the survey asked for student comments that would help in the planning of the program for next year. Some of the most frequent comments were:

"It was good to have it in school because I don't want to ask my parents."

"Excellent, have (the program) every year."

"Don't preach it!"

"Teachers should not convince us that we will get VD."

"Some teachers were uncomfortable in presenting the ideas."

"A man should speak to the boys and a woman to the girls."

"Too much technical talk."

"Everybody seemed rushed."

"The subject is more serious than drugs."

"We should know more about it."

"The teachers should be better trained to answer technical questions."

"There should be more discussion."

"The social studies teachers repeated what the biology teachers said."

"There should be taped real-life illustrations presented for discussion."

25

Parent Evaluation

110 parents responded to the 500 forms that were sent home.

Their reactions follow:

1. Did you know the school had a VD program?	Yes	60
	No	50
2. How did you learn of the program?	PTSA Bulletin	10
	PTSA Meeting	10
	Northwest Star	4
	Community Times	2
	Son or daughter	48
3. What would be the best method of informing parents about this kind of program?	PTSA	1
	PTSA Bulletin	5
	Letter	5
	Son or daughter	5
	Circular	1
4. Would you be interested in seeing the materials of instruction?	Yes	70
	No	29
	No Response	11
5. Do you think the program is important?	Yes	94
	No	6
	No Response	10
6. Did your child discuss the materials with you?	Yes	52
	No	58

Question seven asked for comments concerning our program. Some of the most significant reactions were:

"All teenagers should know about the problem."

"I don't believe ignorance is bliss."

25

An example of the parent evaluation form is shown in Appendix H on page 45.

"It is good to have this information now and in the future."

"I am pleased that qualified people can teach this subject."

"Problems of life are needed to be taught both in school and at home."

"Great"

"It is a necessary program."

26

Teacher Evaluation

54 teachers out of a possible 67 who were not directly involved in the program responded to this phase of the evaluation. Their reactions follow:

1. Have your classes made you aware that the VD program was going on?	Yes	12
	No	42

11 of the yes responses overheard their students speaking about the program or saw some literature left in their rooms. The other yes response said he knew what was going on because he was displaced from his room.

2. Was the program an interference in any way with your activities?	Yes	2
	No	52

One of the yes responses stated that the program caused less emphasis in her class on human development, while the other noted that several students arrived late.

3. Did your students approach you with questions concerning the program?	Yes	2
	No	52

The two yes responses concerned room changes.

4. Did the program make you aware of any attitudinal change in your students?	Yes	3
	No	50

The three yes comments were:

"We were VD'd to death!"

"I know more now than before."

"We had it before"

26

An example of the teacher evaluation form is shown in Appendix I on page 46.

5. The teacher reactions to the program were:

"Needed, necessary"

"Good, excellent"

"I don't believe the boys can confide in the nurse."

"Important"

"If handled right, its great."

"Too many periods used."

"Kids still won't talk about VD."

"I know very little."

"Follow up the program in the 11th and 12th grade."

"Don't be persuasive - good start."

"I learned a lot from the booklet that was left in my room."

6. The teacher suggestions for improvement were:

"Show film to everyone."

"I would like to know more about the subject so that I would be more qualified to answer questions."

"More emphasis should be placed on the medical aspects."

"Invitations should be extended to interested faculty members to participate."

"There should be a "Hot Line" for VD."

"Two periods are enough."

27

Committee Evaluation

With the exception of the program chairman, who was the author of this project, all other members of the committee responded to the

27

An example of the committee evaluation form is shown in Appendix J on page 47.

questionnaire. Their reactions follow:

- | | | |
|--|-----------|----|
| 1. Was the goal of familiarizing our 10th grade students to the problem of VD met? | Yes | 13 |
| | No | 0 |
| 2. Should the program as designed be continued next year? | Yes | 9 |
| | No | 3 |
| | Uncertain | 1 |

The three no reactions stated that the program should be expanded in the biology classes.

3. The strengths in the planning, teaching, and evaluation of the program as stated by all members of the committee are summarized, as follows:

Material was abundant and excellent.

Cooperation between the departments was most evident.

Everyone had a positive attitude.

The program was well organized. It filled a real need.

The guide was simple to follow.

Everyone was enthusiastic.

The overlap was good.

There was a willingness to change from the regular program.

The sharing of ideas was good.

Students felt free and comfortable.

4. The weaknesses were:

Much was redundant.

There were some contradictory remarks.

Some material became available only at the last minute.

Teachers should adhere more to the schedule.

Too much time was spent in science causing the students to be tired of the subject in social studies.

The case studies need to be improved.

Some chemistry students missed part of the program because of a schedule conflict.

5. Suggestions for overcoming weaknesses included:

Plan the program in September.

Obtain materials earlier.

Coordinate the program with the sex education program that is taught in the junior high schools.

Don't combine classes.

Teach reproduction first.

Present the medical aspects to smaller groups.

Don't combine chemistry and biology classes.

Begin the program in September.

Chemistry classes should be combined with other chemistry classes.

Program Analysis by the Chairman

Although there are certain parts of the program that must be improved upon for next year, the effectiveness of our efforts became evident through the evaluation process. The indicators that were used to judge the effectiveness of the project were certainly in evidence, because the evaluations indicated that:

1. There was an increase in community interest and involvement concerning the problem and the program.

Through the community meeting where over 150 people were in attendance, the local media which printed stories and news releases concerning our program, the instruction of over 500 students who reacted in a favorable manner, the 110 parents who became involved through our survey, and our forthcoming television show, this objective was met.

2. There was an increase in the understanding of the problem of VD by those students who participated in the program

357 students claimed that they gained a better understanding of

venereal disease through the program, while 62 claimed they did not.

3. There was an increase in teacher awareness concerning the problem and the program.

Our entire staff became aware through faculty and department meetings, committee meetings, intercom announcements, posters, and staff interaction.

4. There were positive responses by most participants concerning the program and the materials used.

Over 80% of the student participants were favorable in their reaction to the program and materials used. The teachers who participated also reacted favorably as indicated by their comments.

5. There was good teacher-student interaction.

There had to be more than adequate teacher-student interaction when 399 students answered yes to the way the material was presented. However, although there were positive reactions concerning the above point, there were many students who indicated that they felt uneasy in discussing certain topics that were under consideration.

6. There was a positive attitude developed for the treatment of venereal disease.

342 out of 455 students who returned their evaluation forms stated that they would seek treatment. It should be further emphasized

28

See item 7 of the pupil evaluation on page 20.

29

Refer to the pupil evaluation on pages 19 and 20.

30

Refer to the committee evaluation on page 24.

31

See item 5 of the pupil evaluation on page 20.

32

See item 8 of the pupil evaluation on page 20.

that many students developed such an attitude that they wanted to know what more could be done to spread the word about the problem of VD in order that the disease can be eradicated.

7. There was a positive attitude about continuing the program.

All of the committee members expressed a desire to continue the program either in the present form or a modified one. In the comments made by the students, this fact was reinforced. In fact, in all of the surveys, there were but two negative reactions to the program.

8. There was parent awareness of the school program and the venereal disease problem among teenagers.

Although the extent of this awareness is difficult to ascertain because of the small parent response to the survey and the community meeting, over 200 parents did become more informed through their participation. There is no way one can evaluate the extent of awareness that came about through the news media and will evolve through our television presentation.

RECOMMENDATIONS FOR IMPROVEMENT OF THE PROGRAM

Since venereal disease education is a most complex project requiring a team effort, it is necessary to have an orderly plan of

33

See item 2 of the committee evaluation on page 24.

34

Refer to student comments on pages 20 and 21.

35

110 parents did respond to our survey while 125 attended our community meeting. The figure as indicated could be misleading because there could be a duplication of parents who responded.

organization directed by a competent and motivated staff. Therefore, in order to conduct an improved program that will use the same basic format, the following recommendations and the reasons for them are, as follows:

1. Train all staff members through an in-service course or summer workshop prior to their teaching of the program. Many of the teachers were not as informed as they should have been about medical and technical facts.

2. Invite other staff members who are interested in the subject to participate in the program. Some of those staff members who "has to teach" the program were not only ill-equipped but showed little motivation to produce an outstanding job.

3. Re-design the social-psychological aspect of the program. In certain situations, there was little interaction between the teacher and student. This may have been caused by the inappropriate case studies that were used or the way they were presented. To remedy this condition, the case studies may have to be placed either on audio or video tape.

4. Encourage more community participation. The lack of participation may have been caused by improper communication. One way to correct this would be by implementing a personalized telephone campaign.

5. Utilize more professional resources, such as, doctors, and public health nurses. Although this procedure was recommended, no teacher made use of such help.

6. Invite teachers who have unassigned periods to participate in the program. Since venereal disease is everyone's business, all staff members should be encouraged to participate in some capacity.

7. Select a program coordinator before school opens in the fall. This person must have ample time to establish suitable dates, update the program, collect additional materials, and build a better program based on the experience of the past programs.

8. Assign an aide to work with the coordinator for the duration of the program. There is much typing, duplicating, and ordering of resources needed in order to have an efficient and productive program.

9. Collect all needed supplies and materials before the program commences. The lack of equipment or materials when needed is most disturbing and frustrating.

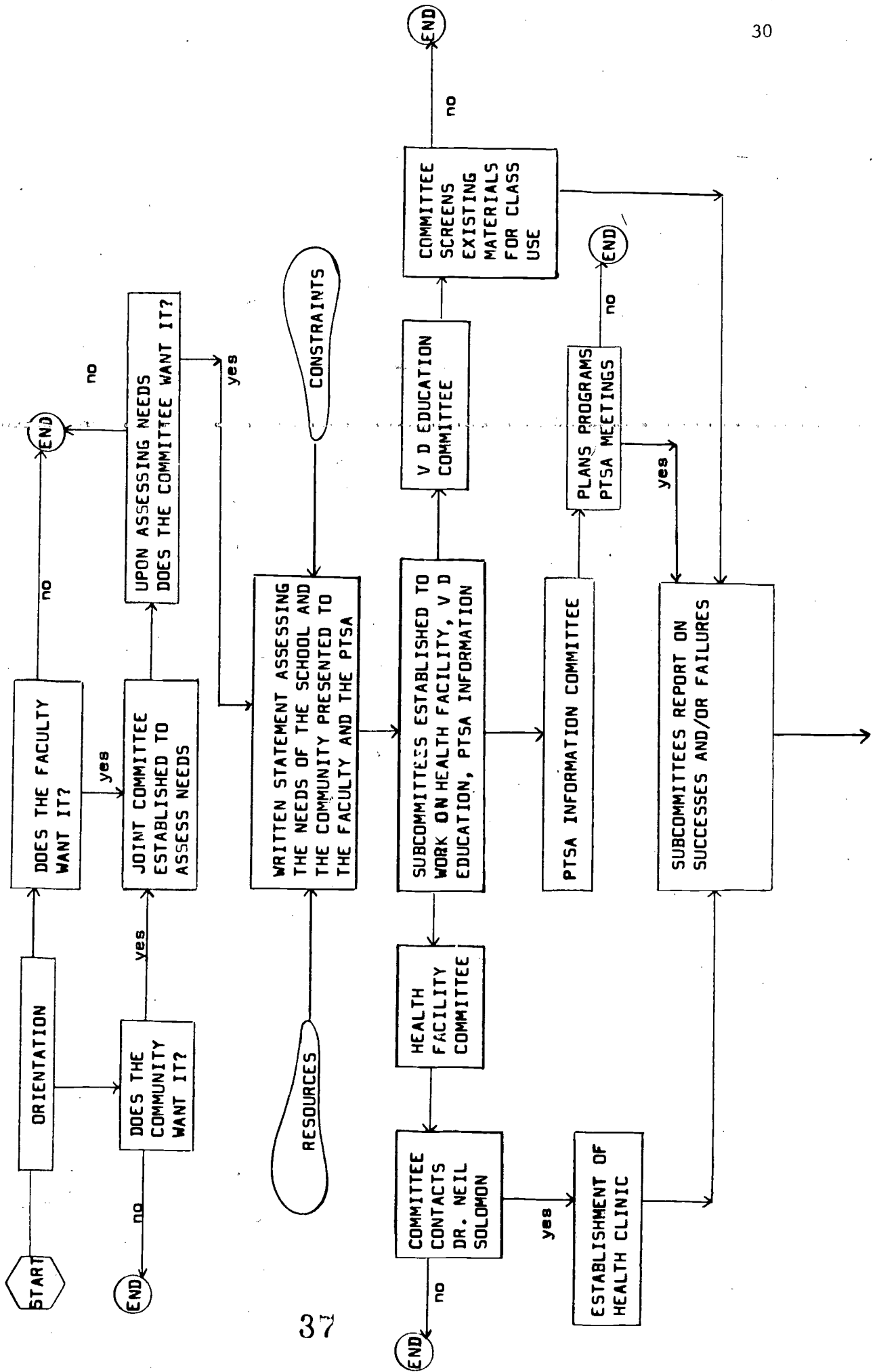
10. Present all materials of instruction used in the program to parents and other community members at a community or PTSA meeting. This activity could produce the parental interest that is needed.

FURTHER APPLICATIONS

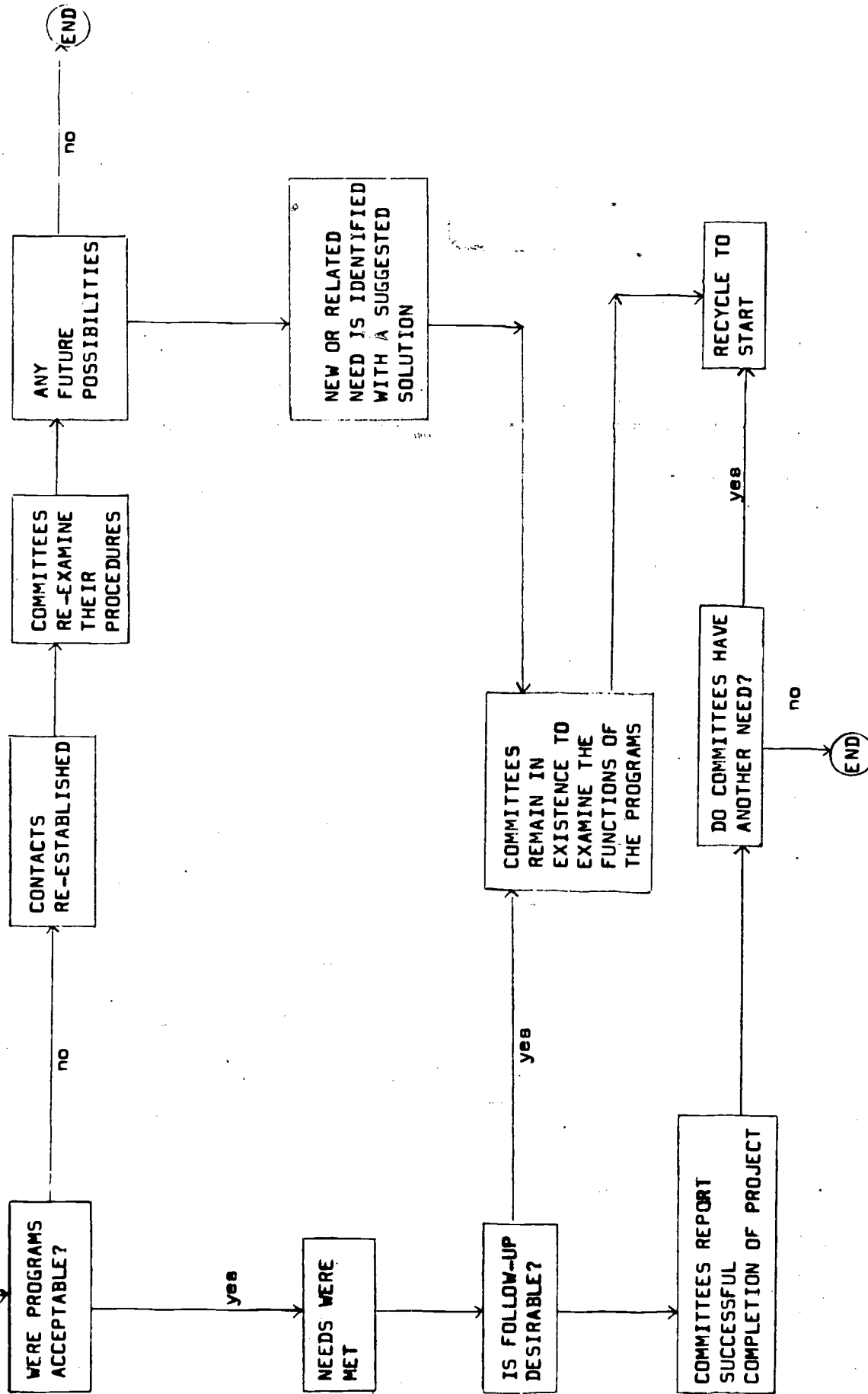
Our supervisor of health education has shown a great interest in this practicum. He has requested that I share the results with him so that the ideas, strengths, weaknesses, and recommendations are utilized in future programs on venereal disease that will be presented in Baltimore County.

APPENDIX A

DELIVERY SYSTEM FOR VENEREAL DISEASE EDUCATION, INFORMATION, AND ESTABLISHMENT OF A FACILITY TO SERVICE THE COMMUNITY



continued



APPENDIX B

BOARD OF EDUCATION OF BALTIMORE COUNTY

Greenwood

August 24, 1972

To: All Principals

Re: ABSENCES FOR CONFIDENTIAL TREATMENT OR ADVICE WITH RESPECT
TO VENEREAL DISEASE, PREGNANCY, CONTRACEPTION, OR DRUG ABUSE

Article 43, Section 135, of the Annotated Code of Maryland, as enacted by 5.B. 201 at the 1971 Session of the General Assembly, provides for the confidential treatment or advice by physicians with respect to venereal disease, pregnancy, contraception, or drug abuse. We have been advised by the office of the Attorney General that Article 43, Section 135, has no effect on the school attendance provisions of Article 77, The School Law.

Therefore, Pupil Services coded index policy P.S. 670.7, regarding pregnant school girls, will not be placed in effect. (Our memorandum of March 30, 1972, instructed you to hold this policy in abeyance until further word was obtained from the office of the Attorney General.)

Absences caused by treatment or advice with respect to venereal disease, pregnancy, contraception, or drug abuse shall be handled in accordance with normal procedures for recording absences.

(signed)
John B. Shock, Jr.
Associate Superintendent
Division of Administration

ejp

cc Mr. Joshua R. Wheeler
Mr. Robert Y. Dubel
Mr. Eugene G. Ricks
Associate Superintendents
Assistant Superintendents
Dr. Charles M. DeWitt
Mr. John E. Seebold
Dr. Walter M. Snyder

APPENDIX C

"Minor Consent Law"

SENATE BILL NO. 201

Section 1. Be it enacted by the General Assembly of Maryland, that Section 135 of Article 43, of the Annotated Code of Maryland (1970 Supplement) title "Health", subtitle "Practitioners of Medicine", be and it is hereby repealed and that a new Section 135 be enacted to read as follows:

- (a) A minor shall have the same capacity to consent to medical treatment as an adult if one or more of the following apply:
- (1) the minor has attained the age of eighteen (18) years.
 - (2) the minor is married or the parent of a child.
 - (3) the minor seeks treatment or advice concerning venereal disease, pregnancy, or contraception not amounting to sterilization.
 - (4) in the judgment of a physician treating a minor, the obtaining of consent of any other person would result in such delay of treatment as would adversely affect the life or health of the minor.
 - (5) the minor seeks treatment or advice concerning any form or drug abuse as defined in Section 2(d) of Article 43B of the annotated code.
- (b) No physician or person acting under the direction of a physician treating a minor pursuant to the minor consent shall not be liable civilly or subject to any penalty, criminal or civil, disciplinary, solely by reason of the minor's lack of capacity to consent under the provisions of subsection (a) hereof.
- (c) Upon the advice and direction of a treating physician or if more than one, any one of them, members of the medical staff of a hospital, public clinic or physician licensed to practice medicine, may, but shall not be obligated to, inform the spouse, parent, custodian, or guardian of a minor in the circumstances enumerated in subsection (a) hereof, as to the treatment given or needed and the information may be given to or withheld from the spouse, parent, custodian, or guardian without the consent of the minor patient and over the express refusal of the minor patient providing the information; the providing or withholding of the information rests in the sole discretion of a member of the medical staff of the hospital, or public clinic or the physician licensed to practice medicine, as the case may be.

Section 2. And be it further enacted, That this Act shall take effect July 1, 1971.

APPENDIX D

36

MILESTONES IN VENEREAL DISEASE CONTROL

- 1901 THE PHENOMENON OF COMPLEMENT FIXATION was first described by Bordet and Gengou. This discovery later provided the basis for the development of the Wasserman test for syphilis.
- 1903 THE FIRST SUCCESSFUL INOCULATION OF APES WITH SYPHILIS was reported by Metchnikoff and Roux, who thus stimulated wider experimental work in this disease.
- 1905 MOTILE SPIROCHETE IN EARLY SYPHILITIC LESIONS was demonstrated by Schaudinn and Hoffman. The organism, originally called Spirocheeta pallida, was later more correctly named Treponema pallidum.

In the same year Donovan found the causative organism of granuloma inguinale in smears made from ulcerative lesions.

- 1906 THE FIRST SEROLOGIC TEST FOR SYPHILIS was developed by Wasserman, Neisser, and Bruck, on the basis of Bordet and Gengou's earlier work with complement fixation. In the same year, Wasserman and Plaut reported on the complement fixation reaction in paratic spinal fluid.

Darkfield apparatus was first applied by Landsteiner and Mucha to the identification of spirochetes in the lesions of early syphilis.

Detre was the first to report that syphilitic human serums gave complement fixation when combined with extracts of syphilitic liver, condylomas, or tonsillar secretion.

- 1907 EHRLICH DEVELOPED SALVARSAN (Arsphanamine) after 606 experiments. This drug became the first effective chemotherapy for syphilis.

Original observations that a precipitate sometimes formed when the aqueous liver extract used in the Wasserman test was added to syphilitic serum were made by Michaelis. These observations were later developed by Jacobsthal and other scientists into a series of precipitation tests for syphilis.

- 1921 SAZERAC AND LEVADITI INTRODUCED BISMUTH into the treatment of syphilis to enhance the efficacy of the arsphenamines.
- 1928 FIRST IMPORTANT STEP TOWARD COOPERATIVE RESEARCH in the treatment of the venereal diseases on an international basis was taken in 1928 at Geneva, Switzerland. The Health Organization of the League of Nations set up a commission to examine in certain American and European nations the methods and results of treatment for syphilis. The Cooperative Clinical Group, composed of directors and co-workers in five large syphilis clinics, was organized in the United States and published from 1931 through 1942 many

monographs which were widely used by the medical profession as guides in the management and treatment of all stages of syphilis.

A discovery of tremendous but unrecognized significance -- the action of penicillium on bacteriologic cultures -- was made by professor Alexander Fleming in London. However, this finding was not further developed or applied until the outbreak of the Second World War.

1931 THE CAUSATIVE AGENT OF LYMPHOGRANULOMA was first described as a filterable virus by Hellerstrom and Levaditi.

1932 ARSENOXIDE OF ABSPHENAMINE FOR TREATING SYPHILIS was organized by the Public Health Service, in cooperation with the American Society of Clinical Pathologists. The committee was composed of two members of the American Society of Clinical Pathologists, two syphilologist, and two Public Health Service officers. The committee, later called the National Advisory Serology Council, brought about standardization of reagents and techniques, exchange of information, uniformity, and wide efficiency in serology.

The American Neisserian Medical Society was organized. In cooperation with the Public Health Service, it conducted studies on the use of sulfa drugs in the treatment of gonorrhoea.

1935 CONTINUOUS INTRAVENOUS-DRIP METHOD of administering arsenical drugs was devised by Chargin, Leiger, Hyman. Additional shortened but effective schedules of treatment were introduced by Eagle, Schoch, and others, using multiple injections of arsenoxides and bismuth. As a result, treatment could be completed in from 10-days to 26-weeks, in contrast to the 18-month schedule commonly used for treatment before this time.

Connecticut legislature adopted the first state law considered adequate to protect marriages from syphilis by requiring premarital examinations of both bride and groom as a prerequisite to issuance of a marriage license.

1936 DR. PARRAN BECAME SURGEON GENERAL of the Public Health Service and initiated the modern venereal disease control program. The appropriation for venereal disease control for the year was only \$58,000. Public apathy was still quite prevalent. Indignation was registered by the public at the refusal of radio authorities to allow Dr. Parran to use the word "syphilis" in a radio address. Articles and books by Dr. Parran, the American Social Hygiene Association and physicians in private practice and in state and local health departments, helped break down the public "taboo" on the mention of syphilis and the public discussion of venereal disease. President Roosevelt and individual members of Congress supported a National Conference on Venereal Disease Control Work called by the Surgeon General in December, 1936, to crystallize plans and correlate knowledge of venereal disease on a national scale.

1938 THE LAFOLLETTE-BULWINKLE BILL, passed in May, got the national venereal disease control program under way. The legislation authorized a national policy of grants-in-aid to states sufficient to establish and maintain adequate measures for prevention, treatment, and control of the venereal diseases.

1940 THE 8-POINT AGREEMENT was formulated by the Army, Navy, Public Health Service, American Social Hygiene Association, and private health and welfare agencies to establish a wartime venereal disease control program. A conference of State and Territorial Health Officers adopted this program. A conference cooperation between Federal and State governments and the armed services. Selective Service blood testing programs and other measures which have contributed greatly to the knowledge of incidence and prevalence of venereal disease in the United States were developed.

Of the 15 million men examined under the Selective Service Act, 728,000 were found to have positive or doubtful blood tests for syphilis. Of this group, more than 300,000 were made eligible for service during World War II as a result of rapid treatment methods. In addition to the above case-finding program by the Division of Venereal Disease, analysis was made of the selectees and volunteers with positive blood tests among the first 2 million men examined. This analysis provided a unique opportunity for estimating the prevalence of syphilis in the United States at that time. It was the first time in medical history that the opportunity arose to study the national distribution of a disease in a complete, but age-restricted population.

1942 RAPID TREATMENT CENTERS WERE ESTABLISHED for the hospitalization of patients in a nationwide system as a wartime measure to help curb the spread of syphilis and other venereal disease infections in areas of high concentrations of military and war industry personnel. Arsenotherapy schedules lasting from one day to several weeks were instituted.

The isolation and purification of cardiolipin by Mary C. Pangborn was an important contribution to standard blood testing methods. This discovery gave impetus to the development of new antigens, new testing procedures, and the modification of existing techniques for cardiolipin-type antigens, which materially advanced the serodiagnosis of syphilis.

1943 PENCILLIN WAS FIRST APPLIED IN THE TREATMENT OF SYPHILIS by Mahoney, Arnold and Harris of the Public Health Service Venereal Disease Research Laboratory. This was the most significant single development in the entire field of therapy since Ehrlich's discovery of salversan. In the same year, gonorrhoea was treated successfully with penicillin by Harrell, Cook, and Thompson. The effective treatment required only a few days and, most important, was effective with patients who had not responded to treatment with sulfonamides.

Anderson developed a successful method for cultivating Donovan bodies of granuloma inguinale in the yolk sac of the developing chick embryo. The organisms were classified as bacteria and called *Donovania granulomatis*.

- 1944 SINGLE INTRAMUSCLAR INJECTION OF PENICILLIN IN OIL AND BEESWAX was found effective in the treatment of gonorrhea by Romansky and Rittman. At about the same time, Van Slyke and Steinberg succeeded in reducing to three hours the time required for the treatment of gonorrhea with aqueous penicillin solution given in four injections an hour apart. Later, treatment that could be completed within two hours was developed. These procedures largely eliminated the necessity for hospitalization of gonorrhea patients and were readily applicable to office practice and out-patient clinic treatment.
- 1946 THE VDRL MICROLOCCULATION TEST FOR SYPHILIS was developed by Harris and associates at the Venereal Disease Research Laboratory of the Public Health Service. Using cardiolipin antigens, the test was standardized, reproducible, rapidly performed, and characterized by acceptable sensitivity and specificity.
- 1948 PROCAINE PENICILLIN G IN OIL became available for general use. Previous experiments had shown that various salts of penicillin and calcium salts. A single injection of 300,000 units of procaine penicillin G in oil gave demonstrable blood concentrations of penicillin for from 20-30 hours, as did a similar dose of POB. Procaine penicillin G in oil, however, had the advantage of being more easily administered than POB and gave fewer reactions. Soon after the production of procaine penicillin G in oil, it was found that the absorption of penicillin could be delayed still further by adding aluminum monostearate to the penicillin-oil mixture. Single injection schedules of this preparation were employed for the treatment of early syphilis and the first report of their efficacy was made in 1949 by Thomas, Rein and Kitchen.
- 1949 THE TREPONEMA PALLIDUM IMMOBILIZATION TEST was developed by Nelson and Mayer, giving promise of a specific diagnosis test for syphilis.
- 1954 SINGLE INJECTION OF BENZATHINE PENICILLIN G was established as the method of choice for treatment of early syphilis. A two year study by Smith and associates yielded success rates of 96-100 per cent in the primary and secondary stages of the disease.
- 1955 THE TREPONEMA PALLIDUM COMPLEMENT FIXATION TEST (TPCF) was developed by the Venereal Disease Experimental Laboratory, Chapel Hill, North Carolina. The test was developed to answer the need for a more specific serologic test for syphilis, practical enough to be done in the average serologic laboratory. This was the first practical test using a chemical extract of virulent *Treponema pallidum* as antigen for the serodiagnosis of syphilis.

- 1957 THE REITER PROTEIN COMPLEMENT FIXATION (RPCF) was developed after a decade of experimentation with the protein-antigen fraction of Treponema Reiter, described in 1949 by D'Alessandro, Oddo, and Daranoni, and proved to compare favorably with other treponemal and non-treponemal tests.
- 1958 THE APPLICATION OF FLUORESCENT TAGGED ANTIBODY TECHNIQUES to a serologic test for syphilis (FTA) using a suspension of the virulent Treponema Pallidum as an antigen showed promise as an inexpensive laboratory test for syphilis. Sensitivity and specificity compare favorably with other treponemal and non-treponemal tests currently in use.
- 1961 THE TASK FORCE REPORT to the Surgeon General of the Public Health Service recommended that the following steps be taken to accomplish the objective of the practical eradication of syphilis in the United States:
1. An intensive effort to enlist the cooperation of private physicians.
 2. The reporting of all positive specimens by name of patient by all laboratories to the appropriate health authorities.
 3. Intensification and extension of current interview investigation techniques to cover all cases of infectious syphilis.
 4. Development of a comprehensive and dynamic education program for professional workers as well as for the general public.
 5. Continuation of research in the immunology of syphilis, in therapy and in laboratory procedures. Expansion of research in adolescent and young adult sex behavior.
 6. Continued support of the problem in future years even as the reported infectious syphilis morbidity curve begins to drop.

APPENDIX E

ACTIVITIES FOR BIOLOGICAL ASPECTS OF VENEREAL DISEASE

Activity 1: Mythology vs. Biology

The Origins of Disease

Ask students to research the knowledge and misconceptions of the disease from early times. Each student should be able to report one major misconception about the origin of any disease from any time period that they prefer.

Conduct an open discussion in which students share the misconceptions that they researched, changing the myths to facts by using known biological evidence.

Activity 2: What Causes Venereal Disease?

Bacterial Microorganisms Causing Syphilis and Gonorrhea

Compile on the chalkboard or overhead projector an extensive list of different diseases named by the students in the class. Have the students make their own copies and then look for diseases which can be grouped together. Discuss various groupings with the class, then limit them to two categories, allowing them to recognize communicable and non-communicable as the two major groups for discussion. Conduct a discussion on the difference between communicable and non-communicable diseases.

Activity 3: Biological Basis for Venereal Disease

Venereal Disease Terminology

Have students write a paragraph associating all of the key words listed below. Select a topic sentence such as:

"Venereal disease is no longer a mystery illness."

"Science has eliminated much of the fear of the unknown in the realm of venereal disease."

Key words:

syphilis bacteria gonococcus microorganisms

venereal disease communicable diseases

spirochete gonorrhea

Activity 4: Where do Venereal Disease Microorganisms Live?

Reproductive Anatomy

Explain how students may use anatomical diagrams to gain information about venereal disease. They should be informed that the diagrams are being used to specifically locate where infection and damage occur. Pose the question that each diagram will attempt to answer. By giving them this information, they will more closely examine each diagram as it is discussed.

Examine with your students the two diagrams of the female reproductive anatomy. Have the students locate the following infection sites: vagina, cervix, uterus, fallopian tubes, ovaries, anus, and rectum. Discuss symptoms and effects of syphilis and gonorrhea in the female.

Examine with your students the diagram of the male reproductive anatomy. Have the students locate the following sites: penis, urethra, vas deferens, anus, and rectum.

Discuss the symptoms and effects of syphilis and gonorrhea in the male.

Discuss the reason for infections occurring at the site of reproductive organs of the male and female. Draw conclusions on the mode of transmission of microorganisms.

Activity 5: How do Symptoms of Gonorrhea Differ in Men and Women?

Reasons for Symptomatic Differences in Males and Females

In order to show how the urogenital systems of males and females differ in relation to the infection sites of gonorrhea, use a tracing exercise based on the diagrams of the reproductive organs.

Give students tracing paper and ask them to:

- Place half of the paper over the male urogenital diagram.
- Draw a line from the bladder out.
- Draw a line from the testis out.
- Place an arrow at the end of each orifice.

After completing the above, ask them to:

- Place the other half of the paper over the female urogenital diagram.
- Draw a line from the bladder out.
- Draw a line from the ovary out.
- Place an arrow at the end of each orifice.

Ask the students to examine their two line tracings, then write an explanation of the following statement: Men notice the symptoms of gonorrhea more readily than women.

Activity 6: Use of Circulatory Chart

How Syphilis and Gonorrhea Spread Through the Body

Students must understand that the spread of syphilis and gonorrhea throughout the body is dependent on the vascular system.

Help students discover how this occurs by providing them with a diagram of the circulatory system. Have students place a pencil mark at the usual entry point and begin a line journey through the vascular system. Explain to them that the pencil line represents the journey of the spirochete and gonococcus throughout the body.

Have students react to the following questions:

1. How did this activity demonstrate the spread of syphilis and gonorrhea throughout the body?
2. How did this activity provide you with evidence for connecting the following two seemingly unassociated statements?

A chancre may appear on the sex organs.

Henry VIII died from syphilis of the liver.

Activity 7: Venereal Disease Treatment Schedule

Diagnosis and Treatment of Venereal Diseases

The Maryland State Department of Health and Mental Hygiene has specific directives to physicians on the diagnosis and treatment of venereal diseases. Distribute the "Venereal Disease Treatment Schedule - General Considerations" to the students and ask them to draw up a list of questions which might be asked by a physician or Health Department representative.

Invite a physician or a representative in to your class to discuss the questions that your students developed.

APPENDIX F

ACTIVITIES FOR SOCIAL STUDIES ASPECTS OF VENEREAL DISEASE

Activity 1: Case Studies

An Examination of Real Venereal Disease Situations

Actual case studies are to be read and discussed by small groups of students. Following this activity, students are to return to the room for a class discussion. In order to provoke a discussion, the teacher will be able to utilize the following questions:

1. Was the person embarrassed before going to the doctor?
2. Did the doctor help the person medically and psychologically?
3. Could the person have acted more responsibly?
4. How do the public health agencies help in the treatment?
5. Does the society show any responsibility to the individual?

Activity 2: Role Playing

The following situations were suggested:

1. A boy discovers that he is infected and must tell his girl.
2. A girl discovers that she is infected.
3. A girl or boy discusses the possibility of infection with a doctor.
4. A student discusses a problem with the school nurse.
5. A parent talking about the bad people who contract VD.
6. Young people discussing new sexual freedoms with a member of the older generation.

Activity 3: Illustrating Venereal Disease Problems

By using the prepared transparencies of statistical charts and graphs, compare the incidence of VD in Baltimore County, Maryland, United States, and the world.

Compare the rate of incidence between age groups and the socio-economic levels.

Discuss the reasons for the different rates in different areas of Maryland, the United States, and the world.

Activity 4: Reflections on the Implications of the Venereal Disease Epidemic

Personal Views of Venereal Disease

Provide your students with an opportunity to reflect on the implications of the venereal disease epidemic. Written assignments will give them this opportunity. Some of the assignments could be:

1. Describe the kind of person that would make a good VD investigator?
2. How could the following people help control VD?

Students
Teachers
Parents
Doctors
Clergymen
School nurses
School administrators
Public officials

3. What would cause a person not to seek treatment?
4. Write an evaluation of your own attitudes, strengths, and weaknesses in the following areas:

The ability to discuss VD without embarrassment.

The knowledge of the minor consent law on VD in Maryland.

Your familiarity with treatment procedure and facilities.

APPENDIX G
RANDALLSTOWN HIGH SCHOOL
VENEREAL DISEASE PROGRAM

PUPIL EVALUATION FORM

Randallstown High School has just presented a program designed to familiarize its 10th grade students with the biological, medical, and the social-psychological aspects of venereal disease. This program was planned and taught by the science and social studies departments and the school nurse.

We are now in the process of evaluating the program so that we can improve it for next year. Your opinions are most important to us, therefore we are asking your help. Please complete the following items and return it to your social studies teacher.

DRAW A CIRCLE AROUND THE WORD THAT BEST SHOWS YOUR OPINION.

- 1. The unit was . . . Excellent Good Fair Poor
- 2. The movies and slides were . . . Excellent Good Fair Poor
- 3. The materials were . . . Excellent Good Fair Poor
- 4. The time spent on the program was Too long Not long enough Adequate
- 5. Was the material presented by the teacher in a way you could understand? Yes No Uncertain
- 6. Did you discuss the program with your parents? Yes No Uncertain
- 7. Did you gain a better understanding of VD through the program? Yes No Uncertain
- 8. Would you go for treatment for VD even if it meant being interviewed by a Public Health Representative? Yes No Uncertain

Part II PLEASE MAKE ANY COMMENT YOU WISH ABOUT THE VD PROGRAM THAT WOULD HELP US IN PLANNING FOR THE FUTURE!



APPENDIX H

RANDALLSTOWN HIGH SCHOOL

VENEREAL DISEASE PROGRAM

PARENT EVALUATION FORM

Randallstown High School has just completed a program designed to familiarize its 10th grade students with the biological, medical, and social-psychological aspects of venereal disease. This program was planned and taught by the science and social studies departments and the school nurse.

We are now in the process of evaluating our program, and we need your help. It is important for us to have your ideas and opinions concerning this program so that we may improve upon it for next year.

Please complete the following questions and have your son or daughter return the form to his social studies teacher. Your cooperation is greatly appreciated.

1. Did you know that Randallstown High School had a venereal disease program prior to this form?

YES _____ NO _____

2. If your 1st answer is yes, how did you learn of the program? (Check as many as may apply.)

PTSA Bulletin _____ PTSA Meeting _____ Northwest Star _____
Community Times _____ Son or Daughter _____ Other _____ (Please specify) _____

3. If you were not aware of the VD program, what would have been the best method of informing you?

4. Would you be interested in seeing the materials of instruction that were used in the program?

YES _____ NO _____

5. Do you think it is important for teenagers to know about venereal disease?

YES _____ NO _____

6. Did your son or daughter discuss the materials with you?

YES _____ NO _____

7. We welcome your comments, criticisms, and suggestions concerning the VD program. Please comment below.

APPENDIX I

RANDALLSTOWN HIGH SCHOOL

VENEREAL DISEASE PROGRAM

TEACHER EVALUATION FORM

Randallstown High School has just completed a program designed to familiarize its 10th grade students with the biological, medical, and the social-psychological aspects of venereal disease. This program was planned and taught by the science and social studies departments and the school nurse.

We need the help of those teachers who were not involved in the planning and implementing the program so we can better plan for next year. Therefore, would you please complete this evaluation form and return it to Mr. Dotterweich? Your cooperation is greatly appreciated.

1. Have your classes made you aware of the fact that the venereal disease program has been going on? If yes, how?

YES _____ NO _____

2. Have you considered this program an interference in any way with your classroom activities? If yes, how?

YES _____ NO _____

3. Have your students approached you with questions concerning the venereal disease program? If yes, what kind of questions did they ask?

YES _____ NO _____

4. Have you become aware of any attitudes on the part of your students concerning the VD program? If yes, please explain briefly.

YES _____ NO _____

5. Please indicate any reactions that you may have in regard to the VD program.

6. Please list your suggestions for improving the program for next year.

APPENDIX J

RANDALLSTOWN HIGH SCHOOL

VENEREAL DISEASE PROGRAM

VD COMMITTEE EVALUATION FORM

1. Do you think our goal of familiarizing our 10th grade students on the biological, medical, and the social-psychological aspects of venereal disease was met?
YRS _____ NO _____
2. Should the venereal disease program as it is presently designed be continued next year?
YES _____ NO _____
3. Please list those STRENGTHS that you noted during the planning, teaching, and evaluating phases of the program.
4. Please list those WEAKNESSES that you noted during the planning, teaching, and evaluating phases of the program.
5. What suggestions do you have for overcoming any weaknesses that you noted?
6. Other comments:

APPENDIX K

TABLE 1

INFECTIOUS SYPHILIS AND GONORRHEA
 REPORTED CASES BY POLITICAL SUBDIVISIONS
 MARYLAND 1972 37

	Primary and Secondary Syphilis	Gonorrhea
Maryland State	825	16,147
Baltimore City	567	11,345
Total Counties	247	4,688
State Institutions.	11	114
Allegany	2	48
Anne Arundel	28	664
Baltimore	18	233
Calvert	-	16
Caroline	5	97
Carroll	6	18
Cecil	5	45
Charles	4	118
Dorchester	5	248
Frederick	11	108
Garrett	-	5
Harford	22	250
Howard	3	60
Kent	-	47
Montgomery	33	672
Prince George's	58	1,145
Queen Anne's	5	22
Saint Mary's	10	148
Somerset	4	89
Talbot	3	137
Washington	3	194
Wicomico	15	281
Worcester	7	43

37

State of Maryland, Department of Health and Mental Hygiene
 301 West Preston Street, Baltimore, Maryland 21201

TABLE 2

PRIMARY AND SECONDARY SYPHILIS CASES AND RATES (PER 100,000 POPULATION)--1961-1971 38

COUNTY	1961		1962		1963		1964		1965		1966		1967		1968		1969		1970		1971	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
MARYLAND ST.	548	17.2	549	16.9	555	16.5	538	15.5	499	14.1	572	15.8	622	16.8	485	12.9	430	11.5	453	11.5	661	16.5
Balto. City	381	40.7	384	41.2	421	45.5	399	43.3	347	37.8	413	45.2	369	40.6	319	35.1	285	31.7	310	34.2	450	49.9
Allegany	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	2.2	6	6.8	1	1.1	4	4.6	0	0.0	0	0.0
Anne Arundel	17	7.9	12	5.4	28	11.7	41	16.5	37	14.4	11	4.1	18	6.5	15	5.2	14	4.9	21	7.0	20	6.5
Baltimore	14	2.7	7	1.4	17	3.2	16	3.0	21	3.7	10	1.7	11	1.9	14	2.4	9	1.5	11	1.7	19	3.0
Calvert	15	92.0	6	33.9	0	0.0	0	0.0	4	21.7	9	49.5	10	54.0	0	0.0	1	5.2	0	0.0	0	0.0
Caroline	1	5.1	5	26.9	2	9.4	0	0.0	4	19.3	3	14.9	12	59.5	6	29.9	1	5.1	3	15.1	6	30.3
Carroll	0	0.0	2	3.6	1	1.8	2	3.4	0	0.0	3	4.9	4	6.3	3	4.6	2	3.1	2	2.8	1	1.4
Cecil	3	6.0	3	5.9	2	3.7	1	1.8	0	0.0	2	3.7	0	0.0	3	4.5	0	0.0	1	1.8	5	9.3
Charles	16	47.4	3	8.2	1	2.6	1	2.7	5	13.2	14	35.6	13	31.2	3	7.0	1	2.3	2	4.2	0	0.0
Dorchester	21	70.2	17	57.2	12	38.8	5	16.0	6	19.3	1	3.4	31	105.5	2	6.8	3	10.3	1	3.4	6	20.5
Frederick	3	4.1	3	3.8	1	1.2	0	0.0	1	1.2	6	7.3	22	25.6	8	9.1	14	16.3	9	10.6	4	4.6
Garrett	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	7	29.7	0	0.0	0	0.0	0	0.0	0	0.0	1	4.6
Harford	10	12.6	14	17.5	2	2.3	9	9.7	2	2.1	5	4.9	9	8.6	6	5.6	4	3.7	5	4.3	9	7.5
Howard	0	0.0	1	2.6	1	2.3	0	0.0	0	0.0	3	6.0	7	13.2	3	5.4	0	0.0	0	0.0	1	1.5
Kent	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	6.4	1	6.4	0	0.0	0	0.0	0	0.0
Montgomery	26	7.2	19	5.1	14	3.6	22	5.3	6	1.4	8	1.8	18	4.0	12	2.6	14	3.0	8	1.5	36	6.6
Prince Geo.	7	1.9	18	4.5	22	4.9	21	4.3	29	5.5	14	2.5	40	6.9	33	5.4	27	4.4	34	5.1	48	6.9
Queen Annes	0	0.0	1	6.4	3	16.8	1	5.7	0	0.0	0	0.0	1	5.6	3	16.7	0	0.0	0	0.0	2	10.8
Saint Marys	4	10.0	3	7.5	1	2.3	1	2.3	9	20.8	4	9.5	8	18.4	2	4.6	6	13.6	5	10.5	15	31.0
Somerset	3	15.4	4	19.1	2	10.0	1	5.0	2	10.0	1	5.0	5	25.7	4	20.7	2	10.3	7	36.9	1	5.3
Talbot	4	18.3	9	37.8	5	21.1	2	8.7	7	30.4	15	67.2	2	9.1	5	22.7	5	22.5	5	21.1	9	37.7
Washington	1	1.1	3	3.2	1	1.0	6	6.0	8	7.7	5	4.7	7	6.5	6	5.5	5	4.6	4	3.8	7	6.6
Wicomico	10	19.9	1	1.9	2	3.8	5	9.4	6	11.4	14	26.6	12	22.8	16	30.2	22	41.2	10	19.4	6	10.9
Worcester	6	25.2	4	16.0	6	24.1	5	19.7	5	19.7	6	23.0	13	49.9	11	42.0	3	11.4	10	40.9	5	20.5

VD - 7/72

*Migrant Screening Program in Dorchester County in 1967.

TABLE 3

GONORRHEA CASES AND RATES (PER 100,000 POPULATION)--1961-1971 39

COUNTY	1961		1962		1963		1964		1965		1966		1967		1968		1969		1970		1971	
	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
MARYLAND ST.	6603	207.1	5581	172.3	6021	178.8	6620	191.0	6825	192.2	7613	210.6	8540	231.3	10231	271.6	13040	347.3	14900	384.7	15333	381.6
Balto. City	5981	638.5	4972	533.4	5254	568.4	5526	599.2	5670	617.8	6060	663.0	6660	731.9	7191	791.1	9771	1088.3	11425	1269.4	11200	1241.7
Allegany	6	7.2	7	8.3	11	12.6	15	17.1	15	16.9	22	24.5	30	43.4	49	55.9	38	43.8	50	59.5	62	73.9
Anne Arundel	162	75.0	161	73.0	228	95.2	257	103.2	260	104.6	310	116.1	545	196.4	922	322.2	806	281.1	827	277.9	832	270.9
Baltimore	70	13.6	87	17.0	59	11.3	60	11.1	60	12.1	42	7.3	56	9.6	247	41.7	207	34.9	154	24.8	174	28.5
Calvert	10	61.3	2	11.3	0	0.0	1	5.8	1	5.4	2	11.0	1	5.4	2	10.6	6	31.0	9	43.5	5	23.6
Caroline	4	20.4	21	112.9	9	42.5	14	70.9	19	91.6	30	148.5	46	228.1	34	169.1	52	264.9	73	369.0	84	424.2
Carrroll	0	0.0	4	7.2	4	7.1	8	14.0	17	27.8	7	11.5	7	11.0	16	24.5	17	26.5	19	27.5	30	42.3
Cecil	5	9.9	6	11.7	12	22.2	6	10.6	5	8.9	6	11.2	41	74.9	76	137.4	45	84.7	45	85.4	62	115.2
Charles	0	0.0	5	13.7	2	5.2	13	35.2	23	60.7	13	33.0	21	50.5	25	58.5	44	103.1	34	71.3	67	135.1
Dorchester	58	194.0	76	254.8	85	274.5	104	332.3	103	331.9	124	416.4	162	551.6	242	828.8	267	916.9	230	782.1	171	583.6
Frederick	1	1.4	2	2.6	17	21.1	10	12.1	8	9.5	9	10.9	8	9.3	12	13.7	16	18.6	19	22.3	75	86.7
Garrett	0	0.0	0	0.0	1	4.4	0	0.0	2	9.1	1	4.2	0	0.0	2	8.2	3	12.7	0	0.0	1	4.6
Harford	28	35.4	78	97.4	31	35.8	93	89.3	131	137.3	116	114.8	190	181.6	201	186.1	211	194.8	161	139.5	138	114.8
Howard	2	5.3	4	10.2	3	6.8	4	8.5	11	23.1	11	21.9	22	41.4	12	21.7	20	36.2	43	69.4	75	115.0
Kent	3	19.1	1	6.3	7	3.0	11	67.0	2	12.5	10	64.1	7	44.7	18	115.4	24	151.4	34	210.5	35	216.1
Montgomery	22	6.1	44	11.8	61	15.5	65	15.7	67	15.9	119	27.1	139	30.8	217	46.7	396	84.7	303	57.9	485	88.9
Prince Geo.	92	24.3	8	2.0	120	26.7	247	50.8	230	43.4	237	43.0	227	39.0	431	70.3	413	67.2	665	100.6	810	115.9
Queen Annes	1	5.9	1	6.4	5	28.0	3	17.1	0	0.0	1	5.6	8	44.5	21	116.7	17	95.7	26	141.1	27	145.2
St. Marys	40	99.6	14	67.0	9	20.8	44	99.1	27	62.4	24	57.2	18	41.4	23	52.5	85	192.8	77	162.4	119	246.4
Somerset	0	0.0	1	5.1	0	0.0	0	0.0	4	20.0	4	20.1	18	92.4	24	124.4	48	247.0	57	301.2	51	271.3
Talbot	22	101.7	10	42.0	40	168.5	63	272.8	59	256.0	75	336.0	78	353.1	146	663.6	116	522.8	179	755.8	169	707.1
Washington	3	3.2	3	3.2	16	16.5	35	34.8	24	23.2	26	24.6	71	66.4	73	67.1	82	76.0	86	82.8	136	129.2
Wicomico	76	151.2	43	83.4	39	73.5	39	73.2	59	112.3	101	191.7	121	229.5	172	325.1	251	469.9	269	495.9	330	602.2
Worcester	12	50.4	6	24.0	4	16.1	12	47.4	12	47.2	27	103.4	36	138.1	33	216.0	72	274.3	94	384.5	152	623.0

BIBLIOGRAPHY

- _____, About Syphilis and Gonorrhea, Washington, D.C., U. S. Department of Health, Education, and Welfare, 1970. (Public Health Service Publication No. 410.)
- Blanzaco, Andre, VD: Facts You Should Know, New York: Scott, Foresman and Company, 1970.
- Brooks, Stewart M., The VD Story, New York: A.S. Barnes and Company, 1971.
- Grover, John., VD The ABC's, New Jersey: Prentice-Hall, Inc., 1972.
- Kaylin, S. O., Writing Practicum Reports, Fort Lauderdale: Nova University Press, 1972.
- Morton, R. S., Venereal Diseases, Baltimore, Maryland: Penguin Books, Inc., 1966
- Naismith, Grace, "What You Should Know About VD," Reader's Digest, September and October, 1972. (Reprinted from September and October issues of the Reader's Digest and distributed as a public service by Reader's Digest and the 3M Company.)
- Packard, Vance, The Hidden Persuaders, New York: Pocket Books, Inc., 1965
- _____, Questions and Answers About VD, Baltimore, Maryland: Baltimore City Health Department.
- Rosebury, Theodore, Microbes and Morals, Viking Press, 1971.
- _____, "Schoolmen Disagree With Critics on Sex Education," Nations Schools, 84, No. 5, July, 1969, 47.
- Schwartz, William F., Teachers Handbook on Venereal Disease Education, Washington, D.C.: National Education Association, 1965.
- _____, Spread This Ugly Story Around, Baltimore, Maryland: Maryland Blue Cross and Blue Shield
- _____, Strictly for Teenagers, Washington, D.C.: U. S. Department of Health, Education, and Welfare, 1964. (Public Health Publication No. 913.)
- _____, The Venereal Diseases, Baltimore, Maryland: Baltimore City Health Department, 1972.

_____, Venereal Disease Education Programs: A Guide for Teachers and Nurses, Towson, Maryland: Baltimore County Board of Education, 1973.

_____, VD Facts You Should Know, Baltimore, Maryland: Maryland State Department of Health and Mental Hygiene

Vogel, Virginia., Facts About Venereal Diseases, Chicago: Science Research Associates, Inc., 1969.

Webster, Bruce, What You Should Know About VD and Why, New York: Scholastic Book Services, 1967

_____, What Everyone Should Know About VD, Greenfield, Massachusetts: Channing: Bete, Co., 1969.

Williams, Elizabeth S., Venereal Disease, Connecticut: Pendulum Press, Inc., 1969.

Wilson, Charles C., editor, School Health Services, Washington, D.C.: National Education Association, 1964.

Free Resource Material

About Syphilis and Gonorrhea

U.S. Public Health Service
U.S. Government Printing Office
Washington, D. C.
20402

Do You Know About the Most Commonly Reported Communicable Disease?

Pfizer Laboratories
New York, New York
10017

Maryland's VD Problem and You

Maryland State Department of Health and Mental Hygiene
301 W. Preston St.
Baltimore, Maryland
21203

Plain Talk About VD

Youngs Drug Products
P. O. Box 5
Piscataway, New Jersey
08854

Spread This Ugly Story Around

Maryland Blue Cross and Blue Shield
7800 York Road
Towson, Maryland
21204

Strictly for Teenagers

U. S. Public Health Service
U. S. Government Printing Office
Washington, D. C.
20402

Things You Should Know About VD

National Research Association
Box 1627
National City, California
92050

Time for a Showdown

Pfizer Laboratories
Grand Central, New York
10017