

A SURVEY OF VENEREAL DISEASE IN 18
NORTHERN INDIANA COUNTIES

763
by

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INTRODUCTION

The venereal diseases are very much a problem today in spite of our highly effective controls over communicable diseases. There has been an increase in the reported incidence and number of cases during the past several years, throughout the United States. Many people have been lulled into believing that, with the "sure cure" of antibiotic wonder drugs venereal disease was extinct, an evil like smallpox or diptheria which would never again be a major plague. They were wrong. Venereal disease is back to worry health authorities in every country of the world. Unless effective action is taken, it will become worse than ever before.

During the past five years, the number of infectious syphilis cases reported to U. S. health departments has more than tripled. There is also reason to believe that the actual incidence of syphilis is currently about 60,000 cases a year - three times the reported rate.¹

Gonorrhea, the other major venereal disease, also is on the increase. Between 1964 and 1965 the number of cases reported rose more than eight per cent.

¹Terry, L. L. "VD Alarming Comeback" in Look, December 4, 1962, p. 82.

Grim as these statistics are, they are merely a token of what lies ahead if we remain complacent about venereal disease. The Task Force, which was appointed to study the problem, has reported that "evidence of a chain reaction in the spread of syphilis infection, especially among teenagers."

Venereal disease can spread rapidly unless a vigorous control program is undertaken immediately.

There are some diseases that public-health measures can do little to control until research provides better weapons. But venereal disease does not fall into this category. Penicillin is a prompt and inexpensive cure for syphilis and gonorrhea. Effective methods of diagnosis are available. In the United States, there is no medical excuse whatever for allowing venereal disease to continue its ravages, causing more than 4,000 deaths annually and dooming many to blindness or insanity.²

That syphilis can be conquered has already been demonstrated. Following World War II, public-health departments across the country joined forces in an aggressive venereal disease control program. Congress provided liberal Federal appropriations to aid state and local health departments in the effort to find and treat every case of infect-

²Rusk, H.S. "Syphilis Cases Rise" in The New York Times, May 6, 1962, p. 82.

ious syphilis. The results were spectacular. In the ten-year period from 1947 to 1957, the syphilis rate (which is figured in terms of reported cases per 100,000 population) plummeted from 75.6 to only 3.8.³ At this point we became overconfident. We thought it was that the job was done and we rested on our laurels. Appropriations for venereal disease control were sharply reduced. The slash in anti-venereal disease spending was accomplished by an equally precipitate fall off in public concern. Magazines, newspapers and broadcasting stations, which had formerly done a magnificent job of educating the public about venereal disease, turned their attention to other problems. Churches and schools swept the subject even farther under the rug than usual. But venereal disease was not gone; it was merely forgotten.

The first warning that relaxation in prevention had occurred too soon came in 1958 when the syphilis rate crept up to 3.9 cases per 100,000. By the following year there was no mistaking the reversal of the downtrend. The syphilis rate was 4.7. It has continued to climb every year since then - to 7.1 in 1960, 11.0 in 1962, 13.9 in 1965 and it is still going up.⁴ The expert epidemiologists of the Public

³Terry, L. L. op. cit., p. 85

⁴Terry, op. cit., p. 85

Health Service's Branch had watched the slackening control efforts with mounting dismay. It is known that syphilis is a highly infectious disease and that it can spread very rapidly through promiscuous sexual contacts. If only a few cases are left unfound and untreated, this disease can start a chain reaction of reinfection. This means that reducing the incidence of syphilis to a very low level - such was accomplished in 1957 - is NOT enough. The goal must be total eradication. Is that a feasible objective?

PURPOSE

The purpose of this study is five-fold. First, to describe the kinds of problems facing city and state health officers in venereal disease control as well as the difference in size and character of these problems in different communities and different sections of the state. Second, to break down state statistics so that each county can see its own venereal disease problems in comparison with the nations problems. Third, to increase awareness among health officers and physicians in private practice of the seriousness of the venereal disease problem. Fourth, to provide authentic information about the venereal disease problem for education and information of the public. Fifth, to pre-

sent to the state and local appropriation bodies the need for adequate appropriations to develop control programs capable of coping with the venereal diseases.

PROCEDURE

The following procedure was used in making the study:

1. Questionnaires were sent to 18 counties of northern Indiana. The area of northern Indiana was determined by a line drawn from the Ohio border, due west, passing through Fort Wayne, Indiana and extending to the Illinois State line. The questionnaire consisted of five major parts: incidence, prevalence, and trends; change of information; education; public awareness; and finances at the local or county level.

The questionnaire was designed to attempt to discover information concerning syphilis and gonorrhea trends at the county level. The questionnaire was constructed so that a simple check mark or short answer could be used.

A letter of explanation and a copy of the questionnaire along with a stamped return envelope were sent to each county director. The replies to each questionnaire were recorded.

Questionnaires mailed 27

Questionnaires received 23

Percent of returns 85.2%

2. Through personal interviews with the director of the county health boards in various communities in northern Indiana.

3. Through selected readings of source books of the South Bend Public Library, Indiana University Extension Library, and the University of Notre Dame Library.

REVIEW OF RELATED LITERATURE

"Venereal disease" is a general name given to those diseases caused by germs which ordinarily cannot live outside the human body and which, therefore, are passed directly from person to person by intimate, sexual contact. The two venereal diseases we are most concerned with are syphilis and gonorrhea.

Syphilis is an infectious disease, generalized at first, subsequently localized and dispersed, which may involve many organs of the body. It is caused by a spirochete, *Treponema pallidum*.⁵ Three or four weeks after the germ of syphilis has found its way into the body the primary symptoms appear. This period between the actual passage of the germ into the body and the beginning of the symptoms is known as the incubation period. The first sign

⁵Clark, R. L. and R. W. Cumley. The Book of Health. Princeton: D. Van Nostrand, 1962, pp. 472-73.

of syphilis is a small pimple at the site where the germ of syphilis penetrated the body. This pimple is usually on the generative organs because syphilis is commonly spread by sexual contact. The small pimple grows larger and within several days a sore or ulcer is formed. This ulcer is known as a chancre and may be very small or as large as one or two inches in diameter.⁶ It contains the germs of syphilis in large numbers. Sometimes the pimple does not develop and the chancre appears as the first evidence of disease. Because of the structure of the female generative organs the chancre is frequently not observed since it may be hidden well up within the body. The chancre tends to heal spontaneously, from 10 to 40 days, whether the patient is treated or not.

Two to six months later the secondary stage appears. Small raised red areas (syphilids) may be found on the skin, or small mucous patches in the mouth or on the reproductive organs. Lymph nodes over the body usually become enlarged. About the time the eruption develops, the patient does not feel entirely well. Aside from a general run-down feeling, there may be headaches and pains in the joints and back.

⁶"Everyone Should Know." Pamphlet of American Social Hygiene Association, New York (n.d.)

Even though no treatment be taken during this period, the breaking out, the general run-down feeling, and the pains may gradually disappear from 3 to 12 weeks, but may re-appear later.⁷

The period between the disappearance of the skin eruption and the symptoms of late involvement is of variable length and is termed tertiary syphilis. A few years or as many as ten, twenty or more may elapse before the serious late complications appear. Ulcer like draining sores appear on the skin; hard nodules (gumma) occur in the tissue under the skin or in the internal organs. The most common complications of late syphilis are a particular kind of insanity and paralysis, certain diseases of the heart and blood vessels and of the bones, and several types of skin diseases and ulcers. Eventually syphilis almost always seriously disables the individual, pulls down his vitality and renders him more liable to contract other infectious diseases from which death is apt to occur.⁸

Gonorrhea is another venereal disease caused by a specific germ. It has no relationship to syphilis, although

⁷Clark and Cumley, op. cit., p. 473

⁸Cecil, R. L. and R. F. Loeb, eds. A Textbook of Medicine. 8th ed.

both are acquired in the same way and may be contracted at the same time. Like syphilis, gonorrhea is usually contracted through sexual intercourse with a person who has the disease.

Gonorrhea is caused by bacteria classified as *Neisseria gonorrhea*, called diplococci, because they always appear in pairs. The "gonococcus," sets up a purulent infection of the mucous membranes of the genital tract. This causes a yellowish, purulent discharge from the genital organs.

The organism has an affinity for columnar and transitional epithelium, so the disease is thereby limited to areas where such tissues are found. In males, a thick yellow purulent discharge of the anterior urethra usually appears 3 to 9 days after effective exposure. The inflamed state of the urethral canal results in a sharp, burning pain when urine is passed. These symptoms usually subside after two or three weeks, but the infection may ascent to the prostate gland and the testicles.⁹ These symptoms, by reason of their position and nature, are extremely distressing to the unhappy patient. They are so productive of anxiety that they make an indelible impression on his mind

⁹Clark, R. L. and R. W. Cumley, eds. The Book of Health. Houston: Elsevier Press, 1953. pp. 472-473

and impel him to seek medical assistance.

In the female the disease begins within a few days after exposure, with a mild burning or smarting in the genital area, with or without a generally unnoticeable small discharge. Examination at this time may reveal a mild inflammation of the vagina and cervix. Somewhat later, after the occurrence of one or more menstrual periods, the infection ascends the reproductive tract. It involves variously the Fallopian tubes and ovaries, spilling purulent material into the abdomen and giving rise to a peritonitis. At this time, the pain and fever may be severe or mild enough to be passed off as a stomach upset.

The acute infection subsides after a few weeks. It is followed by a chronic infection, lasting for years, that is apt to cause extensive damage to the reproductive tract. The most frequent and serious expression of this damage is total sterility.

The condition of gonorrhea in the eyes of newborn babies is properly termed gonorrheal ophthalmia neonatorum. It has probably made more people blind than any other disease, with the single exception of trachoma. The bacteria are passed to the baby's eyes as he passes through the birth canal. Within a few days an extraordinarily severe inflam-

mation, with a copious purulent discharge, develops. When symptoms subside, the baby is very apt to be completely blind, from scarring of the transparent portion of the eyeball. This condition can be prevented with the induction of silver nitrate into the baby's eyes directly following delivery.¹⁰

The gonococcus is susceptible to a variety of therapeutic agents. Gonorrhea responds well to treatment with sulfonamides and the antibiotics, but such treatment needs to be administered under competent medical supervision. A single massive dose of penicillin will cure most acute cases of gonorrhea, and repeated doses over a considerable period of time will cure chronic cases.

RESULTS AND DISCUSSIONS OF THE QUESTIONNAIRE

The last two decades constitute a remarkable record on man's success and his failures in the attack on venereal disease. During the period when control apparatus was being readied (1941 through 1947) the rate of reported cases of primary and secondary syphilis in the United States rose from 51.7 per 100,000 to 75.6. From 1948 through 1953 came

¹⁰ Otto, J. H., C. L. Julian and J. E. Tether, eds. Modern Health. New York: Holt, Rinehart, and Winston, Inc. 1963. pp. 433-434.

what might be called the period of overly decline. The rate of reported cases of primary and secondary syphilis in this country dropped from 55.9 in 1948 to 6.2 in 1953. In that year - 1953 - only 9,551 cases of primary and secondary syphilis were reported in the United States. There had been over 106,000 in 1947. These figures, incidentally, are by government fiscal years.

During the next four years (1954 through 1957) reported cases of primary and secondary syphilis continued to drop, as did the rate per hundred thousand, which hit this country's all time low, 3.8 in 1957. This was really a spectacular record.

Then in 1958, the rate of reported cases of primary and secondary syphilis began to rise again. It was 3.9 in 1958, 4.7 in 1959, 7.1 in 1960 and 10.4 in 1961. Between 1956 and 1960 there was a 132.1 percent increase in reported cases of primary and secondary syphilis in the 0 through 19 year age group and 135.8 percent increase in the 15 through 25 year age group.¹¹

Mortality from syphilis, it should be said, declined nearly uniformly from 1949 through 1960, and so did first admissions to mental hospitals from 1949 through 1959.

¹¹Rusk, H. A. "Syphilis Cases Rise" in The New York Times, May 6, 1962, p. 82.

Reports and statistics for the 18 Northern Indiana counties were similar during this period. The 18 counties included in this report are not densely populated areas with the exception of Fort Wayne, South Bend, and Gary.

On Tables 1 and 2 an actual breakdown of morbidity cases in each of the counties and cities of major significance is indicated.

Table 1

Venereal Disease Morbidity Report - Indiana 1964

New Case Cards - By County and Cities of over 10,000 Population, By State

This report does not include Out-of-State Residence

County and City	Primary and Secondary	Early Latent	Syphilis		Congenital	Neuro	Total	Gonorrhea
			Late Latent	Latent				
Indiana Total	70	179	947		59	50	1305	3810
Allen			1		1		2	4
*Fort Wayne	2	5	33		5	2	47	63
DeKalb			1				1	2
Elkhart		6	2		1		2	3
Elkhart	2		14			2	25	42
Goshen								
Fulton			3				3	5
Jasper		1	4				4	1
Kosciusko			3				4	7
			3				3	16
LaGrange								
Lake			2				2	3
E. Chicago	2		28				28	8
*Gary	7	15	24				41	2
Hammond	1	45	124			2	181	362
Highland		1	1		3		3	11
Hobart								1
La Porte	1	1	2			1	5	7
La Porte		1				2	3	5

*Cities in which venereal disease clinics are located.

Table 1 (continued)

County and City	Primary and Secondary	Syphilis			Gonorrhea		
		Early Latent	Late Latent	Congenital	Neuro	Total	
Michigan City			4			5	4
Marshall		1	1			1	2
Newton				1		1	2
Noble		1	1			2	7
							9
Valparaiso							1
Portage							
Pulaski			1			1	2
St. Joseph			1			1	4
*South Bend	1	4	9			14	323
Mishawaka							4
Starke							2
Steuben							4
Whitley							3
Total	16	81	262	11	9	379	913

*Cities in which venereal disease clinics are located.

Venereal Disease Morbidity Report - Indiana 1965

New Case Cards - By County and Cities of over
10,000 Population, by State

This report does not include Out-of-State Residence

County and City	Syphilis						Gonorrhea
	Primary & Secondary	Early Latent	Late and Late Latent	Congenital	Neuro	Total	
Indiana Total	63	126	813	57	62	1121	4116
Allen	1					1	1
*Fort Wayne		2	14	2	2	20	49
DeKalb							6
Elkhart			1			1	2
Elkhart		2	4	1	1	8	24
Goshen			1			1	3
Fulton			1			1	
Jasper			1			1	
Kosciusko		2	3	1	1	7	5
La Grange							4
Lake		1	6			7	17
East Chicago		9	11	1	2	23	2
*Gary	22	35	72	3	3	135	456
Hammond		1	4		1	6	14
Highland							1
Hobart					1	1	5
Munster					1	1	
La Porte			5	1		6	5
LaPorte			5		1	6	14
Michigan City		2	2			4	7
Marshall		1	3			4	2
Newton							
Noble	1		1			2	4
Porter		2	2			4	11
Valparaiso							4
Portage							
Pulaski			1			1	
St. Joseph		1				1	
*South Bend	1	3	5	1	1	11	302
Mishawaka							4
Starke							
Steuben					1	1	13
Whitley							1
Total	25	61	152	10	15	253	956

*Cities in which venereal disease clinics are located.

Question 1. What was the reported morbidity in your county in fiscal year 1964 and 1965 for primary and secondary syphilis and gonorrhea?

Table 3. Reported number of morbidity cases in fiscal years 1964 and 1965 for primary and secondary syphilis and gonorrhea.

Number of Cases	1964	1965	Percent Increase/Decrease
Primary and Secondary Syphilis	16	25	36% Increase
Gonorrhea	913	956	4.4% Increase

The eighteen Northern Indiana counties had a total of sixteen reported cases of primary and secondary syphilis in 1964 and twenty-five reported cases of primary and secondary syphilis in 1965 for a 36 percent increase. These same counties reported 903 cases of gonorrhea in 1964 and 956 cases of gonorrhea in 1965 for an increase of 5.6 percent.

Early latent, late, late latent, congenital and neuro-syphilis are other stages of syphilis not included in the questionnaire which bear mentioning.

Table 4. Total number of reported cases of syphilis in fiscal years 1964 and 1965.

Number of Cases	1964	1965	Percent Increase/Decrease
All Stages of Syphilis	379	263	30.6% Decrease

The eighteen Northern Indiana counties reported an increase in the number of primary and secondary cases of syphilis, but showed a decrease in all stages of syphilis. In 1964 these counties reported 379 total cases of syphilis and 263 in the fiscal year 1965 for a decrease of 30.6%. The county reporting the greatest number was Gary with 181 in 1964 and 135 in 1965. Several counties did not report one case of syphilis in the fiscal years 1964 and 1965.

One of the reasons for the increase is population mobility. Frequent short term travel and permanent long-distance movement of people are prevalent characteristics of today's American culture. There is freedom of internal movement in the United States by the very nature of our democratic way of life. Although this paper will not discuss mobility of the general population, the morbidity phase of the infectious syphilis population is examined as a problem.

An average of 13% of the total contacts named were referred to other states for investigation. In view of 1953 statistics, only 8.8% of contacts lived out of state. This suggests that mobility among the syphilis-prone population is increasing.

Question 2. If reported morbidity of primary and secondary syphilis increased/decreased in your area in fiscal 1965 please give what you consider to be the reason/reasons for such increase or decrease.

Table 5. Reasons for reported increase or decrease morbidity of primary and secondary syphilis in 1965.

Reasons for Increase	Number of Counties	Percent of Counties
Actual increase	0	0.0%
Better Case finding	2	8.7%
Better Reporting	2	8.7%
Increase not significant	1	4.3%
Reasons for Decrease	Number of Counties	Percent of Counties
Actual decrease	0	0.0%
Poorer Case finding	0	0.0%
Poorer Reporting	0	0.0%
Decrease not significant	4	17.4%

A minority of the counties show that the increase in the reported morbidity in primary and secondary syphilis in 1965 is not significant. This is equal to 4.3 percent of all the counties involved in the survey. Two directors indicated that the increase was the result of better case finding. This is equal to 8.7 percent of the counties in the survey. Two, or 8.7 percent, of the directors implied that the increase in reported morbidity in 1965 was the result of better reporting.

Four of the directors indicated that the decrease in the reported morbidity in primary and secondary syphilis as being not significant. This is equal to 17.4 percent of all replies engaged in the survey.

Question 3. If you have had any venereal disease outbreaks during fiscal year 1965, please give the number of persons involved in each outbreak, and the number of primary and secondary and gonorrhea cases discovered.

Table 6. Venereal disease outbreaks and the number of infected persons.

County Outbreaks	Number	Percent
4	P&S cases found Gonorrhea cases found	64 of all gonorrhea cases 6.7%

The response to this question indicates that sixty-four of the gonorrhea cases were the result of four county outbreaks. This is equal to 6.7 percent of all the gonorrhea cases reported in this study. An outbreak is defined as a chain of infection of ten or more cases epidemiologically. Gary reported three of the outbreaks and South Bend reported the other outbreak.

Question 4. What was the number of reported infectious venereal disease cases in your area naming prostitutes as contacts in first fiscal years 1964 and 1965?

Table 7. The number of primary and secondary syphilis and gonorrhea cases naming a prostitute as their contact.

Fiscal Year	Primary & Secondary Syphilis	Percent of all cases Pri. & Sec. Syphilis	Gonorrhea	Percent of all cases Gonorrhea
1964	1	6.2%	109	11.9%
1965	3	12%	145	15.2%

The purpose of this question was to determine the number of cases infected with primary and secondary syphilis and gonorrhea who named a prostitute as the reason for their infection in fiscal years 1964 and 1965.

One primary and secondary syphilis case in 1964, and

three primary and secondary syphilis cases in 1965 listed the prostitute as the cause of transmission of the infectious disease. This is equal to 6.2 percent of all primary and secondary syphilis cases reported in 1964, and 12 percent of all cases in 1965.

One hundred nine gonorrhea cases in 1964, and one hundred forty-five gonorrhea cases in 1965 reported the prostitute as the means of their infection. This is equal to 11.9 percent of all gonorrhea cases reported in 1964 and 15.2 percent of all gonorrhea cases in the fiscal year 1965.

Prostitution has a tremendous effect on the rate of venereal disease. Thirty or forty years ago - in the days when commercialized prostitution was a flourishing business or racket in most of our cities, as many as 98 percent of the prostitutes in some areas were infected at one time or another with a venereal disease.

Today, the situation in this country is quite different. By competent authorities it is estimated that the rate of venereal disease infection is low. Prostitution invariably attracts a variety of racketeers and creates an environment in which criminal activities flourish.

Today, society is faced with a problem of change in its moral values which has encouraged sexual promiscuity,

which in turn has caused an alarming increase in sexually transmitted diseases.

Much of popular music, dancing and twisting is frankly erotic and business interests confirm the selling point of sex by constantly using it as a theme in advertising, whether it be for films or for cigarettes or on commercial television. So young people are tempted through neglect or boredom, to break the legal and moral code which still survives. Juvenile delinquency cannot be separated from illegitimacy and infection with venereal disease.

Question 5. What was the number of persons found to be infected with primary and secondary syphilis who named contacts of their own sex in fiscal years 1964 and 1965?

Table 8. Number of infected males who named male contacts.

Fiscal Year	Number	Percent
1964	1	6.3%
1965	2	8%

Table 9. Number of infected females who named female contacts.

Fiscal Year	Number	Percent
1964	0	0.0%
1965	1	4%

The purpose of this question was to determine the primary and secondary syphilis cases number of caused by abnormal sexual relationships between members of the same sex. One of twenty-three directors reported one case of homosexual syphilis among the male population in 1964 and two cases in 1965. This is equal to 6.3 percent in 1964 and 8.0 percent of all primary and secondary syphilis cases in the survey in 1965.

In 1965, one case of homosexual primary and secondary syphilis was reported among the female population in the counties in this study, and no cases reported in 1964. In 1965, this is equal to 4.0 percent of all the primary and secondary syphilis cases.

Since the social phenomenon termed the homosexual,

or "gay" world is not new - although more widely recognized in the last decade - the question arises as to whether the occurrence of venereal disease in numbers is an old story, or is the result of a fairly recent epidemic. From the information that has been collected, Gary reported four cases of the homosexual contributing to the morbidity rate. The homosexual is more prevalent in the Western World and reports confirm the proportion of the total reported incidence in males attributed to the homosexual male varies from 10 percent to 77 percent.¹²

Question 6. How many physicians in private practice in your area reported one or more cases of syphilis and/or gonorrhea to your health department in fiscal years 1964 and 1965?

Table 10. Private physicians reporting venereal disease to the county health department.

Fiscal Year	Number of Physicians all P. & S. reporting Syphilis	Percent of P. & S. Syphilis	Number of Physicians all P. & S. reporting other Syphilis	Percent of other Syphilis	Number of Physicians all P. & S. reporting Gonorrhea	Percent of Gonorrhea
1964	1	6.4%	84	22.2%	83	9.1%
1965	2	8.0%	79	31.2%	91	9.5%

¹²Tarr, F. D. F.: The Male Homosexual and Venereal Disease. General Practitioner. 25:91-98. June 1962

The reply to this question by the county health directors indicates the lack of communications between the private physician and the health authorities. One case of primary and secondary syphilis, eighty-four cases of other syphilis and eighty-three cases of gonorrhea were reported by private physicians to the county health departments included in this study in fiscal 1964. Respectively, this is equal to 6.4 percent of all primary and secondary syphilis, 22.2 percent of all other types of syphilis, and 9.1 percent of all gonorrhea cases in fiscal 1964.

Two cases of primary and secondary syphilis, seventy-nine cases of all other types of syphilis, and ninety-one gonorrhea cases were reported by private physicians to the county health departments included in this study in fiscal 1965. This, respectively, is equal to 8.0 percent of all primary and secondary syphilis, 31.2 percent of all other types of syphilis, and 9.5 percent of all gonorrhea cases reported to the counties engaged in this study in fiscal 1965.

In all realism, one must face the fact that it is highly probable that only a minority of physicians conscientiously report their cases of early syphilis to the public health departments. The study indicates that by

by acceptable statistics estimates it is probable that the annual incidence of acute syphilis is about 60,000 cases. Yet over a five year period the average annual number of reported cases of infectious syphilis were missed or not reported each year. This delinquency of doctors in private practice has been documented further by studies of the United States Public Health Service. The Task Force estimates that about 8% of all cases were reported by the physician to county health authorities in fiscal 1965.

In this study 13.0 percent of all cases of venereal disease were reported by the physicians to the county health authorities in 1964, and 14.2 percent in 1965.

Question 7. How many physicians in private practice in your area were personally visited by representatives of the venereal disease control program during fiscal year 1964 and 1965?

Table 11. Private physicians visited by venereal disease representatives.

Fiscal Year	Number of private physicians visited	Percent Increase
1964	14	
1965	19	26.3%

The replies to this question once again indicates the lack of communication between the private physician and the local health authorities or venereal disease representatives. Fourteen private physicians were visited by a venereal disease representative in 1964, and nineteen private physicians were visited by a representative of the venereal disease program in 1965. This is equal to a 26.3 percent increase on the number of venereal disease representatives visiting private physicians in 1965 as compared to the number of representatives visiting private physicians in fiscal 1964.

When practitioners are approached in the hope of getting cooperation in reporting and in applying epidemiologic methods to their private patients, one may be faced with a number of alleged reasons why this is impractical.

First, is the excuse of the physician who lacks motivation in what ever the duty or responsibility, "no time and too busy!" In second place stands the plea of privilege to matters private between doctor and patient. Thirdly, if the patient is married, it may be argued that the family must be kept intact and not jeopardized by contacts of whatever nature will be found to be time well spent.

In Georgia, in 1956, doctors were urged to intro-

duce trained interviewers to their patients having infectious syphilis. The next three years, 1956 through 1958, were years of amazing success. More than 10 times more syphilis were reported than over the preceeding three years. Furthermore, even though in the earlier three years certain doctors had had 83% of their patients with early syphilis seen by trained interviewers, the number of patients interviewed in the second three years had increased 97%. For the years 1959 through 1962 over 99% of all patients reported as having infactious syphilis were interviewed by health department authorities. Thirty percent of these cases were reported by doctors in private practice.¹ The pattern for other health departments has thus been set, granted with variations to meet the needs of a given community.

Case finding, beginning with the private patient who has early syphilis, will need to be initiated by the doctor by introducing the trained interviewer to his patient. Trained would refer to experience in epidemiologic methods, though other more intangible attributes are probably more essential to success. The patient holds the key to success

¹Clark, E. Gurney: Needs for further progress in Venereal Disease Control. Journal - Lancet, 80:1, 1960

in contact investigation - he will divulge as much or as little as he pleases. Thus, the interviewer will need to be sensitive to all that implied in "doctor - patient" relationships, which includes all manner of confidence which must be protected by the interviewer at all costs.

Question 8. Of the venereal disease cases reported to your health department in the fiscal years 1964 and 1965 by all sources -

How many were interviewed by a representative of the venereal disease control program?

How many of those interviewed were re-interviewed by a representative of the venereal disease control program?

To what number was cluster interviewing applied?

How many contacts were located and examined?

Table 12. Number of cases interviewed, re-interviewed, cluster interviewed and the contacts located and examined.

Reply	Number of Fiscal 1964	V.D. Cases Fiscal 1965	Percent Fiscal 1964	Percent Fiscal 1965
Interviewed by a representative of the V.D. Control Program	1138	1089	88.1%	90.1%
Re-interviewed by a representative of the V.D. Control Program	917	921	80.6%	84.6%
Cluster-interviewed	362	427	30.0%	33.1%
Contacts located and examined			49.2%	52.9%

The twenty-three returning questionnaires reported that 88.1 percent of the venereal disease patients were interviewed by a representative in 1964, and 90.1 percent of the venereal disease patients were interviewed by a venereal disease representative in fiscal 1965. Eighty-eight percent of the patients interviewed in 1964 and 84.6 percent of the patients interviewed in 1965 were re-interviewed in hope that additional names would be mentioned.

Cluster - interviews were given to 362 patients in 1964 which is equal to 30.0 percent of all venereal disease

patients in fiscal 1964. This type of interview was also given to 427 patients in 1965 which is the equal to 33.1 percent of all venereal disease cases reported in fiscal 1965.

Cluster - interviewing revealed additional contacts of which 49.2 percent in 1964 and 52.9 percent in fiscal 1965 were located and examined.

Epidemiology is the sum of knowledge about disease, source of infection and method of transmission. In syphilis there is no immediate host; man is the reservoir of infection, and the disease is transmitted only by direct and intimate contact. The control of the disease must proceed directly from man himself.

The most important single step in the epidemiological process is the interview of the infected patient of sex contacts. In the last few years much progress has been made in creating a psychological atmosphere conducive to eliciting information from patients.

Syphilis patients are usually very promiscuous. The first interview does not always produce all names of contacts: the Task Force estimated that for every 100 patients re-interviewed, 43 named additional contacts.

The practice of extending the interview to include

friends and associates "cluster testing" significantly improves the epidemiological yield.

Speed is essential in control follow-up in view of the great mobility of the American people and of highly promiscuous elements in it. Improvement in the follow-up process has shown that a decade ago the public health authorities were able to locate less than 50% of sex contacts named. Today the figure is about 90 percent.

In addition to the county health department, venereal disease departments have been formed by the Department of Health, Education, and Welfare, in large cities such as Chicago, New York, Detroit or cities near a million in population. The departments primary responsibility is to combat and work toward the eradication of venereal disease.

The smaller cities do not have the venereal disease department. The eradication of venereal disease is the responsibility of the county health department, headed by a director. Working with the director is a nurse, or several nurses, whose duties are multiple, including duties similar to the venereal disease representative formally mentioned.

The three cities in this report having venereal disease clinics are South Bend, Gary and Fort Wayne. The func-

tions of the clinics are to perform epidemiologicals on the infected patients and treat them for their infection. In the cities where venereal disease clinics have not been formed, the venereal disease patient is referred to a physician for treatment.

Question 9. How many venereal disease epidemiologic report forms were referred to your health department from other States during the 1965 fiscal year? From other countries?

Table 13a. Exchange of information.

Location	Number
States	96
Counties	0

Question 10. How many venereal disease epidemiologic report forms were referred from your health department to other states during the 1965 fiscal year? To other countries?

Table 13b. Exchange of information.

Location	Number
States	108
Counties	0

In the eighteen northern Indiana counties engaged in this study, ninety-six epidemiologic reports were referred to the county health departments from other states, and one hundred-eight epidemiologic report forms were referred from the county health departments in this study to other states in fiscal 1965.

The term "epidemiological information", in the broad sense, would mean any item of knowledge contributing to an understanding of the treponematoses. This would encompass clinical diagnosis, serologic testing, treatment, and control methods. In a narrower sense, the term "epidemiological information" means contact information. Interstate and international exchange of such data is becoming increasingly important, and this paper considers this aspect of control procedure.

Control efforts are successful when founded on the technique of mass treatment, and penicillin therapy on a community - wide basis has proven the most feasible approach. In contrast, the complete control of venereal disease cannot be achieved by neatly planned campaign confined to local geographic regions. Eventually, eradication of venereal disease will depend on the success and completeness of individual contact tracing. Infected contacts who cross interstate and international boundaries pose a special threat of reintroducing venereal disease into areas where the chain of infection has been terminated.

Most of the cases were reported from Gary and this is quite understandable. Gary is only a few miles from Chicago, and both areas are highly industrialized so naturally a great percentage of commuting takes place between the two areas.

If an infected person contracts venereal disease from a person making residence in another state, the county health department would report the incident to the state health department. The state health department would then inform that state from which the infection originated and that state would inform the county health authorities where the contact resided. A thorough interview and investigation would then follow.

The value of this procedure has been proven beyond doubt. It is used not only interstate, but also internationally by some countries and should be encouraged. It is found effective in areas such as Mexico-United States or Canada-United States border regions, where close liason can be established between neighboring health departments.

Question 11. To what degree is venereal disease education included in the curriculum of schools in your jurisdiction?

Table 14. Degree of venereal disease education taught in schools.

Schools	Number	Percent of all returned Questionnaires
All	7	30.4%
Most	10	43.5%
Few	4	17.4%
None	2	8.7%

The results of this question showed that seven of the returned questionnaires indicated that venereal disease education occur in all of the schools in their jurisdiction.

This is equal to 30.4 percent of all the returns. Ten questionnaires indicated that most of the schools in their jurisdiction included venereal disease education in the curriculum. This is equal to 43.5 percent of all the returns. Four questionnaires reported a few of the schools in their jurisdiction were teaching venereal disease education and two returning questionnaires reported no venereal disease education in the curriculum of the schools in their jurisdiction. This is equal to 17.4 percent and 8.7 percent, respectively, of all the replies.

The most effective and practical way of getting venereal disease information across to the general public is through health education.

There is a great deal of ignorance regarding venereal disease in all parts of the world. Many people do not know how to recognize the danger of infection, and how these dangers affect society and the family.

The following is an example of a personal experience concerning the ignorance of the adolescent and early adult toward venereal disease.

While introducing sex and family-life education to a high school health class in 1962, venereal disease and its gradual increase was mentioned. Immediately following the

statement a student raised his hand and asked, "What is venereal disease?" Rather than answer the question the students in the class were asked to volunteer answers. Not one student in 36 was able to define venereal disease. With ten minutes remaining in the class period the students were requested to write everything they knew about syphilis and gonorrhea. Thirty-three papers were returned blank or with the answer: "I don't know". The other four students answered with a few vague sentences. It was concluded that the students were never exposed to sex education in the elementary or junior high school.

Tables 19 and 20 are tables on primary and secondary syphilis and gonorrhea by county and age. Notice that the highest percent of morbidity occurs at the age groups of 15 - 19 and 20 - 24. This factor alone points out the dire need for sex and venereal disease education in our schools.

Question 12. In what grades is venereal disease taught?

Table 15. Venereal disease orientated students.

Grades	Number	Percent of returned Questionnaires
6th	0	0.0%
7th	5	21.7%
8th	5	21.7%
9th	9	39.1%
10th	20	86.9%
11th	12	52.2%
12th	16	69.6%

The purpose of this question was to determine at what grade the students were orientated. Venereal disease education was not in the curriculum at the sixth grade level of all the counties engaged in this study. Five of the twenty-three returning questionnaires reported that venereal disease education is included in the curriculum at the seventh and eighth grade level. This is equal to 21.7 percent of all the returned questionnaires. Nine directors indicated that venereal disease was being taught to freshman, which is the equal to 39.1 percent of all the

engaging counties and cities in this study. Twenty, or 86.9 percent of the returning questionnaires reported that venereal disease education occurs at the tenth year of education. Education in venereal disease occurs in twelve counties and/or cities during the junior year of high school, and sixteen returned questionnaires have a curriculum which includes venereal disease education at the senior year of high school. Respectively, this is equal of 52.2 percent, and 69.6 percent of all the returns.

Question 13. In what courses is venereal disease education given?

Table 16. Subject including venereal disease education.

Subject	Number	Percent
Health	18	78.3%
Home Economics	2	8.7%
Biology	9	39.1%
Family Life Education	8	34.8%
Sociology	5	21.7%

The results of this question indicate a condition which appears quite favorable. Venereal disease education is being taught to varying degrees in five courses: health, home economics, biology, family life education and sociology. Of the replies, eighteen directors indicated that venereal disease education is part of the health education program. This is equal to 78.3 percent of all the replies. Nine of the directors reported that venereal disease education is offered in the biology program and eight replies indicated that venereal disease education is included in family life education.

The term "sex education" (only one part of family-life education) is likely to be interpreted differently in every school, not only in this study but in the land.

While some of its subject matter is rather simple, most of it does not lend itself to easy formalization; and therefore, the field becomes openly inviting to the amateur and subject to confusion.

In a number of the communities, and unfortunately some areas which harbor some of our larger venereal disease infections, teaching of anything which may be construed to be, or included, "sex education" is explicitly forbidden.

Sex education should be in the school curriculum

which includes venereal disease education and family life education. This opinion is formed because of the following information.

South Bend reported about one hundred forty-two girls had to drop out of school because of illegitimate pregnancies. There were also about one hundred ninety illegitimate school age pregnancies reported from the Gary district, and one hundred six illegitimate school age pregnancies reported from Fort Wayne. Galien, a rural community in Southern Michigan not included in this study, reported twenty-six school age pregnancies from an enrollment of 600 coeducational students - almost 9 percent of the female enrollment. The moral behavior, using this study as an indication, is retrogressing. This not only includes the school age population but also the adult population.

If it is decided that sex and family life education be included within the curriculum, the decision must be a cooperative one. If school teachers are given a share of the responsibility, then teachers must be prepared for their task. This preparation must include more than information about venereal disease since this is not an isolated problem. The base of study should be broad, with the family in society at the center, and the areas of responsibility clear-

ly designated, venereal disease being given its proper place in the health curriculum.

However, teachers must be on their guard not to leave with the young people in their care the impression that most teenagers are sexually casual, irresponsible or promiscuous. They must make clear that, in spite of excellent factual knowledge, it is one's feelings which may determine what one will do in a given situation. The teacher must be ready to deal with issues and questions arising out of a lesson about venereal disease - issues and questions about values, morals, standards, about love and sexual relationships.

There is another factor why sex education may be ignored. From a time long ago when "sex education", meant "venereal disease education" and little else, the concept of family life education has progressed to a point where many sex and family life educators feel that the venereal disease may be completely ignored. Their reasoning is that if children are effectively educated to live by acceptable behavior standards, the venereal diseases will pose no problem to them personally. This is truly a misconception because the two tables (Figure 17 and 18) point out that most venereal disease occurs between 15 - 19 and 20 - 24 years

of age. A problem so severe in our society can not be taken lightly or for granted, and it (venereal disease) should be presented clearly and thoroughly. A graphic presentation indicates this hypotheses in Figure 1.

HYPOTHESES

Venereal disease education-----less venereal disease

Sex education-----
 +
 Venereal disease education----Less venereal disease &
 sexual rewards

Family life education---Stable persons, families & societies

Interpersonal
 Relationships
 +
 Sex education less pathology, delinquency promiscuity
 +
 Venereal disease education illegitimacy, and venereal disease

Figure 1

Venereal disease education is defined as that education which deals with the historical, medical and social aspects of venereal disease, broadly embracing causes, effects, prevention, transmission, recognition, treatment, and control. Its objects are: (1) To modify behavior in ways which will prevent or minimize infection, and in case of infection, will lead to treatment and prevent transplant;

(2) To implant a lasting sense of the historical importance of the disease, and a feeling or urgent necessity to eradicate it; and (3) To stimulate and reinforce other areas of learning.

NORTHERN INDIANA 1964
Table 17 Primary and Secondary Syphilis and Gonorrhea by County and Age

County	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total
	P&S GC	P&S GC	P&S GC	P&S GC	P&S GC	P&S GC	P&S GC	P&S GC	P&S GC	P&S GC
Allen				3	13	20	28	4	2	2
DeKalb						2				
Elkhart		1	1		10	22	9	8	1	2
Fulton							1			
Jasper					4	1	2			
Kosciusko					5	4	2			
Lagrange					1	1				
Lake				4	88	150	1	1	3	11
Laporte					3	8	80	34	3	1
Marshall							1	1		
Newton						2				
Noble						3	1	2	1	
Porter						3	2	2		
Pulaski					1		1			
St. Joseph		1		3	86	130	61	28	22	1
Starke					1	1				
Steuben					2	2	2			
Whitley								1		
Total Northern Indiana		1	1	10	214	7	1	95	6	16
Total Indiana	0	0	17	1	10	24	9	4	21	70

Table 18 Primary and Secondary Syphilis and Gonorrhea by County and Age -

NORTHERN INDIANA 1965

County	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total
	P&S	GC	P&S	GC	P&S	GC	P&S	GC	P&S	GC
Allen					10	1	13	2	3	1
DeKalb					1	2	2	1		6
Elkhart					6	14	5	2	2	22
Fulton										
Jasper						0		0		
Kosciusko		1				1	1	2		5
Lagrange					1	1	2			4
Lake				3	11	7	6	4	5	22
Laporte			1		6	18	9	3	63	49
Marshall					1	9	10	1		26
Newton								1		2
Noble						2	1			4
Porter						9	2		1	15
Pulaski										
St. Joseph				9	1	91	50	14	22	130
Starke										6
Steuben					5	6	2			13
Whitley						1				1
Total Northern Indiana		1	1	12	1	8	7	4	5	90
Total Indiana	6	1	6	47	11	17	11	8	16	379
										63
										4116

Question 14. Please describe any other form of venereal disease education provided in the schools in your community and include information as to health department participation in the program and the type of health department participation in the program and the type of health department personnel used.

Of the twenty-three returning questionnaires, not one director answered or gave information concerning this question. It was assumed that activity or assistance is given primarily to the school in forming the curriculum, and to the community agencies and groups by loaning films, providing speakers and issuing pamphlets.

Question 15. Please report on any assistance you have given, or are prepared to give in the preparation of teachers for venereal disease education in the classroom.

Table 19. Assisting in the preparation of teachers for venereal disease education.

Source	Number	Percent
Films	7	30.4%
Pamphlet	16	69.6%
Speakers	4	17.4%
Tapes	2	8.7%

The primary purpose of this question was to find out if the classroom teacher's are being assisted in preparation for venereal disease education.

Of the twenty-three replies, seven directors indicated that their county or city has a film library and the sixteen other directors indicated that they have no film library, but could order films from the State Health Department. Sixteen directors indicated that they supply the teachers with pamphlets, four directors aid the teachers by supplying physicians and other professionals in their respective fields for oral presentations. This is equal to 69.6 percent and 17.4 percent of the replies.

Tapes are provided to the teachers by two of the counties, which is equal to 8.7 percent of all the counties in the study.

Question 16. Does your health department respond to requests for speakers, pamphlets and film showings from community agencies? Please list by name agencies in your community which have requested your help in providing venereal disease education programs.

Table 20. Providing venereal disease education programs.

Organization	Number	Percent
Schools	16	69.6%
P.T.A.	8	34.8%
Local Community Groups	13	56.5%
Newspapers	5	17.4%
Radio and T.V.	3	13.0%

The purpose of this question was to determine the response of the county health department to requests made by various community agencies. The health department assisted the School Venereal Disease Program in sixteen of the counties in this study. Eight, or 34.8 percent of the counties assisted the P.T.A. when conducting venereal disease education programs in their respective communities. Thirteen counties assisted the local community groups, 17.4 percent of the counties gave assistance to the newspapers and 13.0 percent of the counties assisted the Radio and T.V. Stations in the Venereal Disease Education Program.

A small minority of the counties indicated that requests were not made by agencies in their counties due to the absence or low number of venereal disease cases.

Question 17. Is there evidence of increased awareness of the venereal disease through -

Increased coverage by mass media-national magazines, newspapers, radio and television?

Increased requests for venereal disease information-speakers, films, materials - by community groups?

Increased requests for education material by - public schools and colleges?

Increased self-referrals to clinics?

Better cooperation of private physicians?

Requests for talks and information by medical societies?

Table 17. Public awareness.

Type	Yes	No
Increased coverage by mass media-national magazines, newspapers, radio and television	12	0
Increased requests for venereal disease information speakers, films, materials - by community groups	13	10
Increased requests for educational material by - public schools and colleges	16	7
Increased self-referrals to clinics*	3	0
Better cooperation of private physicians	13	10
Requests for talks and information by medical societies	2	23

A majority of participating counties indicated an increase in public awareness in the venereal disease problem in our society. Increased requests for venereal disease information and educational materials by community agencies and schools are reported in three counties in this study. There has been an increased coverage in radio, television and newspapers concerning the venereal disease pro-

*Clinics are located in South Bend, Fort Wayne and Gary.

blem, so that the public is more educated and informed to help fight toward the eradication of the dreaded disease.

Question 18. Please specify what further steps you would take (assuming the needed funds and personnel were available) to strengthen your program.

The twenty-three counties did not reply to this question. It was included in the questionnaire to gain information on methods to help reduce or eradicate venereal disease. This question overlaps with the next question in relation to personnel desired, and is the only evidence the author has to the lack of interest shown by the participating counties.

Question 19. What additional personnel and funds would be required to place this strengthened program for syphilis and gonorrhea control into operation within the next fiscal year?

Table 22. Additional personnel required to strengthen the venereal disease program.

Type of Personnel	Number
Physicians	5
Nurses	11
Field Epidemiologists	12
Clerical workers	4

All of the county health departments are supported by the county itself with allocations from the State or Federal Government when urgently needed. Of the county health departments contacted, the minority reported that they were under-staffed and under-financed. The replies indicated that five additional physicians, eleven nurses, twelve field epidemiologists and four clerical workers are urgently needed to complete the county staffs. This is explained when one considers the gradual increase in venereal disease during the last few years with no radical changes in personnel.

Of the health departments contacted, three counties reported that they were under-financed, with South Bend

requiring \$35,000.00, Gary \$45,000.00 and Fort Wayne about \$22,000.00. A large majority of this money would be used for added personnel.

CONCLUSIONS

The eighteen Northern Indiana counties had a total of sixteen reported cases of primary and secondary syphilis in 1964, and twenty-five reported cases of primary and secondary syphilis in fiscal 1965, which is equal to a 36.0 percent increase in morbidity. These same counties reported 903 cases of gonorrhea in 1964 and 956 cases of gonorrhea in fiscal 1965, which is the equal to a 5.6 percent increase in gonorrhea morbidity.

A minority of the counties show that the increase in reported morbidity in primary and secondary syphilis is not significant. Two directors indicated that the increase was the result of better case finding. This is equal to 8.7 percent of all returns. Two directors indicated that the increase was not significant and 4.3 percent of the directors indicated the increase in reported morbidity in 1965 was the result of better reporting.

Four venereal disease outbreaks were reported in

fiscal 1965 in which sixty-four persons were involved. All sixty-four persons involved in the outbreaks were infected with gonorrhea. This is equal to 6.7 percent of all gonorrhea cases reported in this study.

One primary and secondary syphilis case in 1964, and three primary and secondary cases in 1965 listed the prostitute as the venereal disease contact. This is equal to 6.2 percent of all primary and secondary syphilis cases reported in 1964, and 12.0 percent of all cases in 1965. One hundred-nine gonorrhea cases in 1964, and one hundred forty-five gonorrhea cases in 1965 reported the prostitute as the means of their infection. This is equal to 11.9 percent of all gonorrhea cases reported in 1964 and 15.2 percent of all gonorrhea cases in the fiscal year 1965.

One of twenty-three directors reported one case of homosexual primary and secondary syphilis among the male population in 1964 and two reported cases in 1965. This is equal to 6.3 percent of all primary and secondary syphilis in 1964 and 8.0 percent of all primary and secondary cases in 1965. One case of homosexual primary and secondary syphilis or 4.0 percent of all the primary and secondary syphilis cases was reported among the female population in 1965. Not one case of female homosexual primary and second-

ary syphilis was reported in 1964 in the counties in this study.

Two cases of primary and secondary syphilis, seventy-nine cases of all other types of syphilis, and ninety-one gonorrhea cases were reported by private physicians to the county health departments in this study in fiscal 1965.

Fourteen private physicians were visited by a venereal disease representative in 1964, and nineteen private physicians were visited by a representative of the venereal disease program in fiscal 1965.

The twenty-three returning questionnaires reported 88.1, that percent of the venereal disease patients were interviewed by a representative in 1964, and 90.1 percent of the venereal disease patients were interviewed in 1965.

Cluster interviews were given to 362 patients in 1964, and 427 patients in 1965. Cluster interviewing revealed additional contacts of which 49.2 percent in 1964 and 52.9 percent in 1965 were located and examined.

The results indicated that ninety-six epidemiologic report forms were referred from the county health departments in the counties of this study to other states in 1965.

Ten replies indicated that most of the schools in

their jurisdiction included venereal disease education in the curriculum. Four questionnaires reported a few of the schools in their jurisdiction were teaching venereal disease education and two returns reported no venereal disease education in the curriculum of the schools in their jurisdiction.

Venereal disease education did not begin earlier than the seventh grade. Five returns reported that venereal disease education was in the curriculum in the seventh and eighth grade. Nine directors indicated that venereal disease education was part of the educational program at the ninth grade level. It is indicated that most of the students are venereal disease educated during the second year of high school. This study showed that 86.9 percent of the returns reported that venereal disease education occurs during the sophomore year.

Venereal disease education is taught in five courses in the high school or junior high school. These are health, biology, home economics, family living and sociology. Eighteen directors indicated that venereal disease education is a part of the health education program, nine indicated that the biology program includes venereal disease education, and eight directors indicated that venereal disease education is offered in family life education.

The health department assisted the school venereal disease program in sixteen of the twenty-three counties in this study. Eight counties assisted the P.T.A., thirteen counties aided local community groups, five counties offered assistance to newspapers and three counties assisted the radio and T. V. stations in organizing their venereal disease education program.

A majority of participating counties indicated an increase in public awareness in the venereal disease program in our society. Increased requests for venereal disease information and educational materials by the community agencies and schools are reported in the counties in this study. Radio, television and newspapers increased their coverage on venereal disease articles and programs, making the public aware of the seriousness of the venereal disease problem.

The county health departments are supported by the individual counties, although in the case of emergencies they receive aid from the state or national government. The larger counties reported that they were both understaffed and under-financed. The larger counties indicated a need for additional physicians, nurses, field epidemiologists and clerical workers. The majority of money required

by the county health department to operate and function adequately would be used for additional personnel.

RECOMMENDATIONS

In view of the yearly increases of reported cases of venereal disease in the 18 Northern Indiana counties as well as the United States since 1958, effective control or eradication of the disease will be a long time in coming.

Any hope for control of eradication of venereal disease, which has been labeled the "most social of all ills of man" lies with higher moral standards, education, and concentrated diagnosis, treatment, and case findings (epidemiology).

The author finds it appropriate in concluding this study with the following statements, suggestions and recommendations.

1. Each child makes his or her own decisions concerning sexual conduct. Many school age children in the areas in this study are not acquiring proper knowledge and developing proper attitudes regarding sex at home, or in a religious environment. Many parents feel incompetent to instruct their children. It is assumed that many children have no contact with the church and have a weak religious foundation.

2. Children and youth are going to receive some kind of information about sex and venereal disease from some source. Too often it is back-alley information. From five years of teaching experience indications are that peers still constitute the major source of teen-agers knowledge of sex and related problems such as venereal disease and pregnancy.

3. The school has the responsibility to provide accurate information from official sources about venereal disease presented by competent understanding teachers.

4. Information of facts while very important are not sufficiently done. Woven through all programs to provide accurate information about venereal disease there should be developed an understanding of desirable and undesirable social behavior. Children and youth should be encouraged by every possible means to develop and practice proper individual and group standards of sexual behavior.

5. Education concerning venereal disease should be an essential part of a broad program of sex education. Sex education should be a part of a broad program of family life education, wherein there is adequate emphasis upon duties and responsibilities. Preparing young people to understand themselves in relation to the opposite sex with

a view toward preventing sex misbehavior, promiscuity, illegitimate pregnancy and venereal disease as a worthy health education objective. The development of proper standards of social behavior is a must.

It is important that our schools, if they are to do a thorough job in sex education, must help students understand the psychological, social, and moral implication of their sexual maturity. It is best to encourage their acceptance to their normal sex role, and must give them a feeling of normal development in their burgeoning sex interests, urges, and desires, but it is very important to help them avoid eventual catastrophe. This would be the fullest meaning of sex education and no agent is more capable of fulfilling this need than our elementary, junior and senior high schools.

When an infectious disease is prevalent, cases are easily found, through the use of rather crude screening procedures. It is also observed, that although screening and re-screening tend to reduce prevalence, they do not result in area eradication.

As prevalence decreases, case finding becomes increasingly difficult and demands much more refined epidemiologic techniques - techniques which will patiently and diligently search out the remaining cases. Unfortunately, these

techniques, though less dramatic and less rewarding in terms of numbers of cases found and treated, are no less costly than the screening programs which preceeded them. Yet, if they are not applied as a continuing program, regardless of cost, the few remaining cases will rapidly re-seed the population, and the disease will once more flourish.

The steps taken to eradicate venereal disease must be considered inadequate because of the rapid increase in the last few years.

It is first of all significant to enlist the private physician and his professional societies and associations in the control effort. It is imperative that the public health personnel makes at least two visits a year to the general practitioners who treat the majority of the cases occurring and at least one visit a year to other physicians who occasionally see and treat cases. The purpose of these visits is to explain to each physician how the program works, to enlist his cooperation in reporting all cases, and to obtain his permission for the public health department to interview all his patients.

The intensification and extension of the current interview-investigation service for all infectious syphilis is another concern of major importance in the eradication of venereal disease. It's important that re-interviews be

carried out for the simple reason that experience has shown that a second interview frequently produces contacts not obtained during the first interview. Cluster testing is another technique used intensely and with good results. It is the technique of getting patients to name friends and acquaintances with sexual habits similar to their own who might benefit by an examination for syphilis. Interviewing, re-interviewing and cluster testing take a great deal of time which the practicing physician can not afford. Provisions of this service to him and his patients must be the responsibility of public health.

One last suggestion is that all financial support should be maintained long after the reported morbidity curve begins to drop. When cases become rare, the cost per case increases and pressure usually arises to decrease expenditures. A decreasing budget and a diminishing interest can only lead to resurgence of the disease as occurred after 1957, and if this happens before the last infectious case is found and treated, venereal disease will not be eradicated.

ACKNOWLEDGMENT

Appreciation is expressed to Mr. Veryl Snyder, Assistant Professor of Physical Education and Mr. T. M. Evans, Professor of Physical Education for their criticisms, assistance and guidance.

Dr. How, director of the St. Joseph county health department, offered helpful criticisms, assisted in the construction of the questionnaire, helped in scheduling interviews with county health directors, and preferred valuable advice.

To these and to the directors of the county health departments in this study who supplied useful information, gratitude is expressed.

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APPENDIX

Dear Mr.

Enclosed is a brief description of a study that I am conducting at Kansas State University about venereal disease. This study is of 18 counties of Northern Indiana. Mr. Evans, Physical Education Director at Kansas State is assisting me, and we are seeking your cooperation.

We who are in the field of Health Education realize the importance in incidence, prevalence, trends, control problems, change of information and venereal disease education in the schools and communities. Since your training and interest is in Health Education, your cooperation in this phase of the study is needed, and I am therefore asking your assistance. The findings of this study will be completed in two months. They will then be published and sent to each person participating in this research.

Enclosed is a self addressed envelope. I will be anxiously awaiting a speedy reply and I would like to thank you for your assistance.

Sincerely,

John A. Solmos

QUESTIONNAIREINCIDENCE, PREVALENCE, TRENDS

1. What was the reported morbidity in your county in fiscal* years 1964 and 1965 for primary and secondary syphilis and gonorrhea?

Number of cases

	<u>1964</u>	<u>1965</u>
P & S Syphilis	_____	_____
Gonorrhea	_____	_____

2. If reported morbidity of P&S syphilis increased/decreased in your area in fiscal 1965 please give what you consider to be the reason/reasons for such increase or decrease. Please rank in order of importance if more than one factor applies.

<u>REASONS</u> <u>for INCREASE</u>	<u>RANK</u>			
	<u>1st.</u>	<u>2nd</u>	<u>3rd.</u>	<u>4th.</u>
Actual <u>INCREASE</u>	_____	_____	_____	_____
Better Case Finding	_____	_____	_____	_____
Better Reporting	_____	_____	_____	_____
<u>INCREASE</u> not significant	_____	_____	_____	_____
Other factors	_____	_____	_____	_____
Specify "other"	_____	_____	_____	_____

<u>REASONS</u> <u>for DECREASE</u>	<u>RANK</u>			
	<u>1st.</u>	<u>2nd.</u>	<u>3rd.</u>	<u>4th.</u>
Actual <u>DECREASE</u>	_____	_____	_____	_____
Poorer Case finding	_____	_____	_____	_____
Poorer Reporting	_____	_____	_____	_____
<u>DECREASE</u> not significant	_____	_____	_____	_____
Other factors	_____	_____	_____	_____
Specify "other"	_____	_____	_____	_____

* All figures requested are for fiscal year, July 1 through June 30.

3. If you have had any venereal disease outbreaks during the fiscal year 1965, please give number of persons involved in each outbreak,* and the number of P&S and other syphilis and gonorrhea cases discovered.

Please include descriptions and charts, if available.

Number of outbreaks _____

	<u>Outbreak #1</u>	<u>Outbreak #2</u>	<u>Additional Outbreaks</u>
No. of persons involved _____	_____	_____	_____
No. of P&S Cases found _____	_____	_____	_____
No. of other syphilis cases found _____	_____	_____	_____
No. of gonorrhea cases found _____	_____	_____	_____

4. What was the number of reported infectious venereal disease in your area naming prostitutes as contacts in fiscal years 1964 and 1965?

Number of Cases Naming Prostitutes

<u>Fiscal Year</u>	<u>P&S Syphilis</u>	<u>Gonorrhea</u>
1964	_____	_____
1965	_____	_____

5. What was the number of persons found to be infected with P&S syphilis who named contacts of their own sex in fiscal years 1964 and 1965?

<u>Fiscal Year</u>	<u>Number of infected males who named male contacts</u>	<u>Number of infected females who named female contacts</u>
1964	_____	_____
1965	_____	_____

* By "outbreaks" is meant a chain of infection of ten or more cases epidemiologically linked.

6. How many physicians in private practice in your area reported one or more cases of syphilis and/or gonorrhea to your health department in fiscal years 1964 and 1965?

<u>Fiscal</u> <u>Year</u>	<u>Number reporting</u> <u>P&S Syphilis</u>	<u>Number reporting</u> <u>Other Syphilis</u>	<u>Number reporting</u> <u>Gonorrhea</u>
1964	_____	_____	_____
1965	_____	_____	_____

7. How many physicians in private practice in your area were personally visited by representative of the venereal disease control program during fiscal years 1964 and 1965?

<u>Fiscal</u> <u>Year</u>	<u>Number of physicians visited</u>
1964	_____
1965	_____

8. Of the venereal disease cases reported to your Health Department in fiscal years 1964 and 1965 by all sources -

	<u>Number of P&S Syphilis</u>	
	<u>Fiscal</u>	<u>Fiscal</u>
	<u>1964</u>	<u>1965</u>
How many were interviewed by a representative of the venereal disease control program?	_____	_____
How many of those interviewed were re-interviewed by a representative of the venereal disease control program?	_____	_____
To what number was cluster interviewing applied?	_____	_____
How many contacts were located and examined?	_____	_____

EXCHANGE OF INFORMATION

9. How many venereal disease epidemiologic report forms were referred TO your Health Department from other states during the 1965 fiscal year? From other countries?

No. of states _____

No. of countries _____

Please list the names of the countries.

Countries:

10. How many venereal disease epidemiologic report forms were referred FROM your Health Department to other states during the 1965 fiscal year? To other countries?

No. of states _____

No. of countries _____

Countries:

EDUCATIONVD EDUCATION IN THE SCHOOLS

The following series of questions is designed to secure information as to the extent that venereal disease education is now included in the school curriculum; in what grades; and in what courses.

11. To what degree is venereal disease education included in the curriculum of schools in your jurisdiction:

SCHOOLS

In: All____ Most____ A few____ None____

12. In what grades is it taught?

Check: 6th____ 7th____ 8th____ 9th____ 10th____ 11th____
12th____

13. In what courses is venereal disease education given?

Health Education _____
Home Economics _____
Biology _____
Family Life _____
Education _____
Others _____
(Specify) _____

14. Please describe any other form of venereal disease education provided in the schools in your community and include information as to Health Department participation in the program and the type of Health Department personnel used.
15. Please report on any assistance you have given, or are prepared to give in the preparation of teachers for venereal disease education in the classroom.

EDUCATION (continued)VD EDUCATION IN THE COMMUNITY

16. Does your Health Department respond to requests for speakers, pamphlets and film showings from community agencies?

Yes _____ No _____

Please list by name agencies in your community which have requested your help in providing venereal disease education programs:

PUBLIC AWARENESS

17. Is there evidence of increased public awareness of the venereal disease through -

	<u>Yes</u>	<u>No</u>
Increased coverage by mass media - National magazines, newspapers, radio and TV	_____	_____
Increased requests for venereal disease information - speakers, films, mater- ials - by community groups	_____	_____
Increased requests for educational mater- ial by - public schools and colleges	_____	_____
Increased self-referrals to clinics	_____	_____
Better Co-operation of private physicians	_____	_____
Requests for talks and information by medical societies	_____	_____

FINANCES

Since the goal of the venereal disease control program is to reduce venereal disease incidence as rapidly as possible, the following series of questions is designed to find out in what ways your program could be strengthened to reduce the occurrence of syphilis by $\frac{1}{2}$ in the next five years.

18. Please specify what further steps you would take (assuming the needed funds and personnel were available) to strengthen your program in the following areas:
- (1) Case finding (including epidemiology and follow-up of reactive serologies):
 - (2) Training of professional personnel:
 - (3) Visits and services to private physicians:
 - (4) Research:
 - (5) Venereal Disease education in the schools:
 - (6) Public education:
 - (7) Other (specify):

19. What additional personnel and funds would be required to place this strengthened program for syphilis control into operation within the next fiscal year?

(1) Specify number and type of additional personnel required:

<u>Classification</u>	<u>Additional number needed</u>	<u>Estimated Cost</u>
Physicians	_____	\$ _____
Nurses	_____	\$ _____
Field Epidemiologists	_____	\$ _____
Health Educators	_____	\$ _____
Information Specialists	_____	\$ _____
Statisticians	_____	\$ _____
Clerical Workers	_____	\$ _____
Others (specify)	_____	\$ _____

(2) Specify amount of funds needed for additional SERVICE required - other than personnel:

\$ _____

(3) Please give your estimate of additional funds which you believe will be made available for both additional personnel and additional services-

From State appropriations: \$ _____

From Local appropriations: \$ _____

A SURVEY OF VENEREAL DISEASE IN 18 NORTHERN INDIANA COUNTIES

by

JOHN SOLMOS

B. S., Kansas State University, 1961

AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Physical Education

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1967

ABSTRACT

This study is restricted to eighteen Northern Indiana counties. The area of Northern Indiana was determined by a line drawn from the Ohio border, due west, passing thru Fort Wayne, Indiana and extending to the Illinois State line.

The purposes of this study are to describe the kinds of problems facing city and state health officers in venereal disease control; to break down state statistics so that each county can see its own venereal disease problem; to increase the awareness among health officers and private physicians of the seriousness of the venereal disease problem; to provide authentic information about venereal disease education and information of the public; and to present to state and local authorities the need for adequate appropriations to develop a capable venereal disease program.

A questionnaire was designed to attempt to discover information concerning syphilis and gonorrhea trends at the county level.

The eighteen Northern Indiana counties had a total of sixteen reported cases of primary and secondary syphilis in 1964, and twenty-five reported cases of primary and secondary syphilis in fiscal 1965. These same counties

reported nine hundred-nine cases of gonorrhea in 1964 and nine hundred fifty-six reported cases of gonorrhea in 1965.

One county indicated that the increase in reported morbidity in primary and secondary syphilis is not significant. Two directors indicated that the increase in reported morbidity was the result of better case finding, and two directors reported that the increase was the result of better reporting.

Four venereal disease outbreaks were reported in fiscal 1965. The sixty-four persons involved in the outbreaks were infected with gonorrhea.

One primary and secondary syphilis case in 1964, and three primary and secondary syphilis cases in 1965 reported that they contacted the disease from a prostitute. One hundred-nine gonorrhea cases in 1964, and one hundred forty-five gonorrhea cases in 1965 reported that the prostitute was the means of their infection.

Male homosexuality was responsible for one case of primary and secondary syphilis in 1964, and two cases of primary and secondary syphilis in 1965. Female homosexual behavior caused one case of primary and secondary syphilis in 1965.

The county health department indicated that one case of primary and secondary syphilis, eighty-four cases of

other syphilis and eighty-three cases of gonorrhea were reported by the private physician in fiscal 1964. The private physicians reported two cases of primary and secondary syphilis, seventy-nine cases of all other types of syphilis, and ninety-one gonorrhea cases to the county health departments in 1965. Only fourteen private physicians were visited by a venereal disease representative in 1964, and nineteen in 1965, which indicates very little communication between private physicians and the health department.

A venereal disease representative interviewed 88.1 percent of the venereal patients in 1964, and 90.1 percent in 1965. A re-interview was applied to 80.6 percent of the venereal disease patients interviewed in 1964 and 84.6 percent in fiscal 1965. Cluster-interviews were given to 362 patients in 1964, and 427 patients in 1965. This type of interview revealed additional contacts of which 49.2 percent in 1964 and 52.9 percent in 1965 were located and examined.

Ten replies indicated that most schools in the county health departments jurisdiction included venereal disease education. Seven directors indicated that venereal disease education took place in all the schools in their jurisdiction, and four returns indicated that vener-

eal disease education occurred in a few of the schools in their jurisdiction. Of the returning questionnaires, venereal disease education did not begin prior to the seventh grade, although five replies indicated that venereal disease education was in the curriculum in the seventh and eighth grades. Nine directors indicated that venereal disease education was part of the health or biology educational program at the ninth grade level. Most of the students were venereal disease educated in health or biology programs in the sophomore year.

The assistance given by the county health departments by the requests of the schools, local agencies and communities indicates an increase in public awareness in the venereal disease problem. Sixteen county health departments assisted the school venereal disease educational program, eight counties assisted the P.T.A., thirteen counties aided local community groups, five counties offered assistance to newspapers and three counties assisted the radio and television stations with their education programs.

The county health departments are supported by the individual counties. The larger counties indicated that they are under-staffed and under-financed. The under-staffed counties indicated a need for additional physicians, nurses,

field epidemiologists and clerical workers. A minority of the counties reported support allocations from the state or federal government in cases of emergencies.