THE TABOO ON GENITO INFECTIOUS DISEASES

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June 2, 1939

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The term "syphilis" and "gonorrhea" have at last been brought before the public. The taboo placed upon the discussion of the genito-infectious diseases is undoubtedly due to the fact that, in the majority of cases, the method of transmission of these diseases is by sexual intercourse, and any discussion of any topic concerning sex, even though this performance is in itself fundamental to the propagation of the human race, has been ostracized by the all important public opinion for so long a time. Perhaps, if these genito-infectious diseases were spread by insects, rodents, or other means, the taboo would never have existed.

However, because all discussion of sex or of any item pertaining to sex has been strictly forbidden by social prejudice, the public has been kept in ignorance of the truth concerning syphilis and gonorrhea. Even the medical profession, except for a few physicians who dared to specialize in this field, practically ignored the management of these two diseases, probably because they were influenced by their own prejudices as well as by public opinion.

During the World War, the Health Departments were stirred

to temporary activity by the emergency need for venereal disease control at that time. However, as the war came to an end, so did the enthusiasm forthe task of control. There was no longer any immediate emergency.

Now, the public has been made to face the situation as a public health program largely because of the work of Sergeant General Parran. These problems of venereal disease control have been switched from a social hygiene problem to a public health program. The newspapers, radio, and miscellaneous publications have made the public realize the importance of controling these diseases. They have presented facts which have been gathered through decades of research by the medical profession. The etiology, methods of diagnosis, methods of transmission, methods of prevention, and methods of treatment of these diseases have all been definitely outlined by different doctors and groups of doctors. With the information concerning gonorrhea and syphilis which we now have at hand and the public attitude toward gonorrhea and syphilis which we are now creating, it should be possible to entirely rid civilization of these diseaes. I say "<u>should</u> be possible" because the results will depend to a large extent upon the cooperation of the people with their doctors and health departments.

I. WHAT IS SYPHILIS

Syphilis is a communicable disease caused b a spirochete organism. This organism was discovered by Schlaudinn who first called it spirochaeta pallida but who later changed its name to treponema pallidum because he was unable to determine that it had the undulating membrane which characterizes the spirochete. The organism is a member of the genus of flagellated protozoa, the treponema. Pallida, or pallidum is derived from the fact that the organism is highly resistant to ordinary bacteriological stains.

The Treponema Pallidum is tightly coiled, a microscopic organism varying in length from less than one to two or three times the diameter of a red blood cell, this length sometimes containing as many as twenty coils. Its motility is made possible by its "typical" rolling motion which allows it a relatively slow forward progress.

This organism is very delicate and may be easilykilled by drying, or even by the use of the mildest of antiseptics. Except when acquired before birth, the organism enters the body through the skin or mucous membranes by direct contact with open lesions or with articles recently soiled by secretions laden with spirochetes. While the spirochete is unable to pass through unbroken skin, even the most microscopic of scratches or breaks in the skin affords prompt entry. The mucous membranes offer less resistance than does the skin. Even though there are no breaks in the mucous membrane, it is the work of only an hour or two for the spirochete to wriggle through it. However, during this time, the organism can be very easily killed by the use of mild antiseptics, soap and water, or drying. A break in the skin offers prompt and immediate entry for the organism and, once underneath the skin, it begins to

multiply very rapidly. First it enters the lymph capillaries which carry it to the lymph glands, the fi st line of defense of the body. The lymph glands act as a temporary filter and incubator, but after a short time, the organisms get into the blood stream and are carried all over the body. All of this occurs long before there is any outward sign of the disease.

Syphilis, unlike many of the other diseases, can be spread by direct contact alone. There isno intermediary host such as insects or animals. Since the spirochete lives only on moist surfaces, it can live only a short time outside of the human body. To transmit the disease by casual contact, the patient must have an open sore from which the organism is transferred to another person. Secretions of the body are also infectious.

The old time wet nurse was found to be a prolific source of spread. Doctors, nurses, and dentists often acquire the disease while caring for patients. Many cases have been traced back to a kiss. Cigarrettes, pipes, and drinking glasses when transferred from mouth to mouth may be a means of infection.

Because the spirochete is able to grow and develop most readily on the mucous membranes of the human body, syphilis is spread chiefly through sexual contact.

Syphilis is a general infection producing both systemic and local reactions of the body. It is a chronic disease and lies dormant in the bodyfor long periods during which time there are no obvious symptoms. Any tissue which has a lowered resistance, such as a bruised bone or

or a bruise on the skin, furnishes an excellent site of attack for the organism. The symptoms of syphilis are classified into three groups; primary, secondary, and tertiary. Early syphilis includes the primary and secondary stages, and late syphilis comprises the teritary stage.

About twelve to forty days after exposure to syphilis, the chancre or primary lesion of syphilis appears at the point of contact. This chancre is usually painless, and does not itch. It usually resembles a round ulcer with sharp, raised edges, feels hard to the touch, and has a punched-out appearance. The lymph glands nearest the chancre are swollen and painless.

However, a chancre may not be typical. If hidden in the genitals of a woman, it may not be recognized at all. On the lips, it may appear as a fever blister, or on the tonsil as a sore throat, on the tongue or cheeks one may think of it as a stomach ulcer or a cold sore. A dark field examination is the only positive way in which one may be sure the lesion is a chancre and not one of the above-mentioned benign ulcers. The dark-field examination shows the silvery colored spirochetes wriggling around on a dark background under a microscope with an attachment giving an indirect light.

This dark field examination is the first test to diagnose syphilis. It will show positive results during the sero-negative stage of the disease--before the organisms appear in the blood stream, usually in the first few days of the disease. If the disease is diagnosed during this sero-negative stage, and good treatment is begun at once, syphilis can be

cured in eighty-six per cent of the cases.

The next step is the "Wassermann" or blood test. Although the original Wassermann test has been modified by Kolmer, Kahn, Kline, and others, in this paper, I will refer to any blood test or spinal fluid test for syphilis by the term "Wassermann." The Wassermann test is based upon a biologic phenomenon called fixation of complement. Since a description of the test is so complicated, I will not attempt to describe it here as such a test is of use only to doctors, medical students, and laboratory technicians. The Kline and Kahn tests are precipitation tests.

Because these tests are so delicate, there isa possibility of a laboratory error. Hence, no person who does not have a history or present symptoms of syphilis should be labeled a "syphilitic" on the strength of one positive laboratory report. The test should be repeated, and the second examination should be done preferably by another laboratory. Yaws and leprosy must both be eliminated from the diagnosis before a diagnosis of syphilis can definitely be established because both of the above mentioned diseases will distort the laboratory findings.

The sero-negative stage, the first few days or weeks after the appearance of the chancre, shows a negative Wassermann because the blood changes giving rise to a positive blood test have not yet occurred. During this sero-negative primary stage, the dark-field examination is the only test reliable for diagnosis.

After a course of treatments of an old case of syphilis, the Wassermann becomes negative, and the symptoms disappear. This does not

mean that the disease is cured, as so many lay people believe. It merely means that the condition is improving but at this time, treatment must not be stopped. The possibility of heart and central nervous system complications are multiplied several times by an interruption or cessation of treatment during the first year.

Following the primary stage about four to eight weeks or more, the signs and symptoms of the secondary stage begin to appear. The most common sign and probably the first sign of this stage to be noticed is the skin eruption. This rash may resemble almost any skin eruption such as measles, chicken pox, food rash, or even small pox. The rash may entirely cover the body, or it may be so mild that it is never detected.

This skin eruption rarely itches, and so is seldom scratched to form an open sore. However, in moist warm areas, such as under the arms, between the thighs, and buttocks, or under the breasts, the rash may be open and very dangerous to touch.

When the rash occurs on mucous membranes, it is called "mucous patches". These usually occur in the mouth and are nearly always open and therefore very dangerous. Along with this rash there may or may not be headache, fever, sore throat, indigestion, or other such symptoms. A common symptom of secondary syphilis is the patchy falling of the hair and eyebrows, causing a "moth-eaten" appearance.

It is this last mentioned symptom which often enables physicians to recognise secondary syphilis on the street. The swelling of glands

all over the body is also a common occurrence during this stage. The signs and symptoms of this stage, however, vary so greatly with the different individuals that almost any combination of symptoms may occur. In some cases these symptoms are so mild that the patient himself does not notice them.

"These symptoms last from a few hours to many weeks at which time they disappear often never to return, although many times there are recurrences of the lesions at variable intervals for as long as two to three years. All during this secondary stage, the blood tests are positive. For this reason, as well as because the disease is more cureable in the first and second stages, and also far more infectious, the disease is sometimes classified as early and late syphilis. The former comprising primary and secondary syphilis and being subdivided into sero-negative primary syphilis (negative Wassermann) and sero-positive primary syphilis (positive Wassermann)."[1]

If all cases of syphilis in the primary and secondary stages followed the "textbook form", they would be easily recognized. The difficulty is that so few cases are typical. Moore, of Johns Hopkins, says that in one man out of nine, and one woman out of three all early symptoms are so evanescent as to be unrecognized unless by accident.

In the late stages the disease, syphilis, strikingly assumes the role of "the Great Imitator" as it is called by many. It has probably earned that name because it is so often mistaken for other diseases. As has been mentioned previously, the primary chancre when located on the lips is often mistaken for a common "cold sore", while if located in the urethra

a diagnosis of gonorrhea may be given. The eruption of secondary syphilis is often confused with small pox, scarlet fever, measles, acne, etc. However, in its late stages, syphilis may imitate almost every known skin disease from carbuncle to psoriasis. It even imitates itself by producing lesions resembling those of its early stages. It affects the heart; it destroys the optic nerve; it eats into the bone; it unbalances the mind; and it causes almost any form of human ailment imaginable. Sir William Osler, M.D., once said, "Know syphilis in all its forms, and you know clinical medicine." Syphilis may work swiftly or slowly sometimes withholding its overwhelming attack for twenty years or more and occasionally waiting for a new generation.

The differentiation of syphilis from other diseases is most difficult due to its versatile ability to imitate other diseases and its variable effect upon different individuals. Because its effects, symptoms, and trends differ so greatly, I will describe and discuss only the most common forms of late or tertiary syphilis.

After the secondary stage, syphilis may pursue one of several courses. The body may overcome the organism and a cure be so established without treatment. Bruusgaard of Oslo, Norway, in a study of untreated syphilitics concluded that more than a quarter had recovered spontaneously.[1]

However, Bruugaard's conclusions must not be taken too seriously as he examined only a small number of patients (304 and of the 473 patients from which these were selected, 164 died andtheir deaths may bave been

[1] Nelson and Crain - "Syphilis, Gonorrhea, and the Public Health"

caused in some instances by syphilis. Also, some of the above number had been only recently infected, and the final outcome of their infections could not be predicted.

After the secondary stage, the disease sometimes lies dormant or latent for many months, and sometimes years. During this latent period, it is very difficult to determine the presence of the disease except by blood or spinal fluid tests. Yet for most of these patients who harbor latent syphilis, the spirochete will eventually gain the upper hand and the processes of destruction will begin.

Lesions of late syphilis on the skin and bones sometimes appear within a very few years, while signs of syphilis ofthe central nervous system may not appear for from ten to twenty years and symptoms of cardiovascular syphilis seldom appear before twenty or moreyears.

Deaths caused by syphilis also vary. In some cases, the disease will be fatal in three or four years. In other cases, there will be a slowly progressive decline over a period of many years, and , in still other cases, death may be very sudden after a long period of seemingly excellent health.

Syphilis seems very much less likely to produce clinically detectable symptoms in women than in men. Pregnancy has a modifying effect upon syphilis wiping out all or nearly all of the clinical symptoms. Blood tests and past history must be relied upon for the diagnosis of syphilis

during pregnancy.

Cardiovascular syphilis is less common in white people than in negroes, while central nervous system syphilis is more common in white people. Of these, white people, central nervous system syphilis seems to attack more males than females.

The syphilis organism uses the blood stream only as a convenient made of transportation to other tissues of the body where it lodges to continue or complete its destruction. Syphilis is, therefore, not a "blood disease" as it is so often called. While it seems to have a special predilection for the cardiovascular and central nervous systems, syphilis of the optic nerve, bones, skin and liver are quite common. It attacks almost any structure of the body including the stomach, spleen, rectum, kidneys, testicles, lungs, and larynx.

When the organism enters the tissues, it causes an inflammatory process. This is typical of the disease both in the early and late stages, the difference being in the degree of inflammation.

As the tissues build up resistance to the organism, the lesion tends to heal and scar tissue forms. Recurrence of the lesion with an extension of the damage to the tissue takes place when the healing has not been complete. When the inflammation is at its peak, some of the organisms escape into the blood stream and are carried to other tissues in the body to set up other inflammations, cause other lesions, and so continue along their path of destruction. This inflammation reaction is such a slow chronic procedure that the clinical symptoms may not appear until considerable damage

has been done. Cardiovascular and central nervous system syphilis are examples of this. Although this process of tissue destruction is usually a very slow one, it sometimes changes its technique to that of a relatively explosive reaction producing a lesion of the tissue known as the "gumma." This "gumma" varies in size from the microscopic to the size of one's fist. It is almost impossible to find the organism in these "gumma" except by inoculation of animals which fact would tend to assert the theory that the process ofthe formation ofthe gumma resulted in an almost complete destruction of the organism or else the patient is extremely sensitive to a very small number of the organisms. While the gumma is a characteristic lesion of the skin, liver and bones, it may be found in almost any syphilis infected tissue in the body.

Cardiovascular syphilis, or syphilis of the heart and blood vessels is very common in the later stages of the disease. Syphilis is the most common cause of aneurism of the aorta and is probably also an important cause of many cases of arteriosclerosis. When it attacks the heart it affects principally the coronary arteries, the heart muscle, or the valves. Angina pectoris is often due to syphilis. The symptoms of cardiovascular syphilis are very similar to the symptoms caused by any other heart and blood vessel disease.

Syphilis of the central nervous system may attack either the brain, the spinal cord or both. General paresis, one of the most common forms of syphilis of the central nervous system, is the result of degen-

eration of various areas on the surface of the brain by the syphilis organism. The symptoms are usually both mental and physical varying in accordance with the area of the brain that is affected. The physical symptoms usually include either a paralysis or twitching of the muscles. Speech defects are very common, and the patient will have difficulty in pronouncing certain words especially a number of words containing the same letters. Irregular pupils and increased reflexes are other symptoms. As more of the brain tissue becomes infected, the patient gradually develops a weakness in all muscles which eventually becomes so severe as to force him to remain in bed a helpless invlaid with no control over bowel movements or voiding.

The mental symptoms usually progress gradually, beginning with careless habits. The patient then becomes unreliable and develops a tendency to exaggerate. He develops grandiose ideas, and overestimates not only his physical abilities, but also his mental capacities and past accomplishments. Sometimes the nature of the disease will not be recognized until the patient gets into serious difficulties through his over confidence and egotistical ideas.

General paresis is most common with the predominance of the mental symptoms, and these patients are usually committed to an institution for the insane where they are either given treatment for the disease or are at least cared for properly. Since the brain tissue is usually quite extensively destroyed before medical aid is summoned, and because brain and other

nervous tissue does not regenerate, there is usually no cure for these cases. The most we can hope to accomplish for them is a checking of the invasion of the destructive processes by the syphilis organism.

Locomotor ataxia or tabes dorsalis is another frequent form of tertiary syphilis and may occur as long as fifteen or twenty years after the initial infection. It is a chronic disease of the spinal cord and is characterized by a lack of coordination of muscular movement, and a characteristic gait known as ataxia.

The symptoms develop gradually and usually begin with sensation disturbances, such as peculiar sensations around the feet or anus, or shooting pains down the legs. Many times the patient has "crises" or severe attacks of sharp pains which may occur in almost any organ of the body, but usually occur in the stomach and are associated with attacks of nausea and vomiting.

The ataxic gait is typical of this stage. The patient lifts his feet high, and, keeping them wide apart brings them down quite forcibly. He is usually unable to walk unless he can see his feet, because he has no sensation of where his feet are, loses his equilibrium and falls. The knee jerks and similar reflexes are greatly diminished if they are present at all. The patient will flounder horribly at such tests as placing his heel on his leg or his finger on the tip of his nose while his eyes are closed due to his lack of muscle coordination which in turn is due to a loss of sensitivity. The pupil contracts to light, but not to accommodation.

The patient will also fail in the Romberg test which is the inability to stand with the feet together when the eyes are closed.

Some complications of this phase of the disease are: associated symptoms of syphilis of the brain causing blindness, paralysis of eye muscles, etc; chronic cystitis and infection of both the urinary tract and the kidneys; sometimes painless ulcers develop on the feet due to the disturbance of the mutrition of the tissues.

In the terminal stage of this disease, the patient becomes unable to walk and becomes a bedridden invalid with complete loss of control over bowel movements and voiding.

This condition is somewhat more hopeful than that of general peresis. The disease processes can be checked by the use of the specific drugs for syphilis such as the heavy metals, bismuth, mercury, salvorsan, the arsephenamines, and iodides. The muscle tone can be improved by the use of massage, heat and light treatments, etc., and a certain amount of muscle coordination brought back.

The duration of syphilis depends upon how soon the vital organs are seriously involved, the resistance of the tissue to the syphilis organism, and the type and duration of treatment, if any, received by the patient.

While the above are the most common forms of tertiary syphilis, they are by no means the only ones. Deafness, blindness and other permanent

defects are often traceable to this same organism. When syphilis has made its victim pay finally with his life in premature death or, even worse, in a living death, that in which the mind is gone, or worse yet, that in which the mind remains yet all physical health has gone, that chapter of its work is finished. However, syphilis is not content with taking or ruining one life for its owner. Instead it writes a sequel often in the lives of others with whom the deceased one had contacts as well as their descendants. It has been proved that in cases of syphilis, stillbirths are four times as frequent as in pregnancies where syphilis is not present. Even when the baby born of a syphilitic mother who has not undergone treatment during her pregnancy, succeeds in entering their world alive, that child hasonly one chance in six of being healthy. Of the five unhealthy, or congenitally syphilitic children, one-fourth to one-half die during the first year, and very few live to maturity and those who do manage to excape with their lives are either physically disfigured or disabled or are mentally handicapped.

Syphilis is no respector of persons, it attacks the weak and the strong, the innocent and the guilty, the rich and the poor, the young and the aged, the prostitute and the society debutante.

Syphilis is a highly prevalent and very contagious disease, ranking fifth as a cause of death in America as compared to such notorious killers as cancer, pneumonia, heart disease, cerebral hemorrhage, and tuberculosis and if the truth were known, many of the deaths accredited to heart disease and cerebral hemorrhage could, no doubt, betraced back

to syphilis. Ten per cent or one person in every ten whom you meet, statistically speaking, has syphilis, or, to give it a round number, there are approximately twelve million syphilitics among us at the present time and new cases are coming to light at all times.

Anthony M. Turano says, "The complete syphilization of the republic is a definite possibility in the next few years unless it is checked."[1]

[1] American Mercury - April 1937: "Syphilis: Mrs. Grundy's Disease"

II. THE CONTROL OF SYPHILIS

It would be reasonable to suppose that with the discoveries that have been made and the subsequent amassing of evidence against syphilis that there would be little difficulty to stamping it out for good. Perhaps if the same situation were applied to another disease, the problem would not loom so large. However, the above-mentioned discoveries and accumulated knowledge have rather served as the first wedges used in the control of syphilis, for an appalling amount remains to be done before there will be even a semblance of extermination of this dread disease.

Among the outstanding problems facing science and medicine concerning syphilis are: (1) More efficient methods of diagnosis (2) More easily administered forms of treatment, (3) More readily available laboratory facilities, and (4) more prompt detection and location of sources of infection. Of these, the last would appear to be by far the most important since, with already existing methods, a high percentage of cure is possible, but a cure can be established only when the infected person or persons are reached for treatment. The difficulty in reaching these patients for treatment can definitely be traced back to the taboo placed by public opinion on any subject pertaining to sex. Although the public is, at the present time, being forced to face the syphilis question squarely, there is still a large group of people who regard syphilis as a definite social stigma and although they realize that it is necessary to do something about it, they refuse to cooperate in the program or even to include themselves in the "might have" list. Unfortunately,

many of these people "who could not possibly have syphilis, or if they have no one will ever find it out," are the very ones who are infected and are spreading the disease because of their fear of "what the neighbors will think."

Anthonly M. Turano says, "Unfortunately in Puritanical America, babies are sill brought by storks, decent people copulate only in wedded antisepsis, and the pubic region is mentionable nowhere except in alleys and medical colleges. If the existence of sexual diseases is at all recognized, the approved method of dealing with them is by anointing the population with ecclesiastical oils and moral salves. But, since pathogenic germs are more sensitive to chemicals than to homilies, they have managed to multiply with little interference."[1]

Perhaps Dr. Turano is a little old fashioned and severe, at least at the present time, in his "sizine up" of the American public, but the above quotation will serve to show something of what the public health departments and medical profession were up against when their active campaign against syphilis was begun in 1935.

In 1935, Dr. Thomas Parran was refused time on the radio by the Columbia Broadcasting Company because he intended to mention venereal diseases in a soberly scientific lecture. The reason for refusing the broadcast was, of course, the indecency of mentioning copulation to mixed audiences. It was also mentioned that the subject was objectionable for aesthetic reasons. This in a civilized nation in 1935.

[1] American Mercury - April 1937: "Syphilis: Mrs. Grundy's Disease"

However, in the last four years, this taboo has been broken down to a large extent. At least, the public is allowing the subject to be discussed, even though in rather a hushed voice in some circles, and the medical and public health groups are no longer being hindered to such a great extent by public opinion.

Even though the control of syphilis is a twentieth century program some had visions of a people free from this disease several centuries ago.

Some countries have progressed much more rapidly than others. While some coun ries have equipped themselves with excellent control facilities, others have lagged far behind and the United States belongs, unfortunately, in the latter group. She is only just now facing her problem of syphilis.

Some countries have made great steps in controlling this disease. In Denmark a regulation was made in 1788 offering every person treatment for venereal disease regardless of their financial status. Although little was accomplished b this, it was a step in the right direction. Later this regulation was reinforced with the order that all people known or suspected of having syphilis should be first encouraged with gentleness and reasoning to take treatment, and if they refused, they were to be forced to take treatment. In 1866 a law was passed that anyone who knew or suspected that he was infected and practiced sexual intercourse should be imprisoned and sentenced to hard

labor. In 1906, professional prostitution was abolished by law.

Since 1920, the State Serum Institute in Denmark has maintained a central registration of all syphilitic patients. The Institute performs all Wassermann Tests.

The Danish people are not too optomistic even with a case rate of twenty per 100,000 population. Syphilis is accepted, discussed, and treated as any other contagious disease. Because of this, the patients are not hampered by the fear of publicity, cost of treatment, or lack of treatment and consequently come to the clinics freely.

Ninety eight and three tenths per cent of all these patients complete their full course of treatment as compared with sixty to eighty percent in the United States.

Sweden seems to have accomplished even more than Denmark with her control program. In 1919, she had 5,976 cases of syphilis and in 1936 she had only 399. Free treatment has been available since 1817.

The Swedish program differs from that of Denmark in that Sweden traces sources of infection while Denmark does not. Sweden's case rate is seven per 100,000 population.

Norway's case rate has dropped from 360 in 1919 to 30 in 1933.

In the United States, Kansas, Nebraska, and Oregon have the lowest case rates. Their incidence of syphilis is 50, 140 and 180 per 100,000 people respectively. In the same survey, cities with populations of 50,000 or more show case rates ranging from 300 to 2900 per 100,000

an average of 800. Even the attack rate for white people, which is 328 per 100,000 is very high in comparison to Sweden's total rate of 7.

Perhaps the high United States rate can partially be explained by the facts that the United States have certain population and cultural factors which the Scandinavians do not have. The United States has both sparsely and thickly settled areas. The general make up of the people is different. The American people have definite ideas of their own democracy and individual rights. While they are quite idealistic, they are also prone to cover over most unpleasant facts by a thick coat of false modesty.

The French and Italians treat their poor in clinics and use prophylactics and governmental regulation of prostitutes as a means of prevention.

In Germany compulsion of treatment is resorted to rather than education and persuasion.

In Russia, education is the main method of control along with plenty of facilities for treatment. All of these countries are decreasing their case rates. The differences in their methods is probably due, partially at least, to the differences in the temperments of their people.

No doubt, the control of syphilis in the United States would be most workable if the individual states worked out their own programs with the aid of a federal advisory committee. This would, in fact, almost

seem imperative due to the fact that the American population is so "well-mixed."

Before any control program could be instituted in most of the states, as in Oregon, free diagnostic facilities had to be supplied. Then after the diagnostic centers have been established, some one must be given the authority to enforce control. Because syphilis belongs in the group of reportable communicable diseases, the logical person to be vested with this authority is the health officer.

With available sources of scientific knowledge, the health officer should be able to launch an extensive and intensive educational program.

Individual doctors should cooperate in this part of the program by helping to distribute this information to their patients. This information should be suitable for the understanding of the average lay person's mind. It should include the nature of the disease, its extent, and the value of early treatment as well as the fact that it can be and often is contracted innocently. Taking into consideration, the natural curiosity of the American public, this should stimulate them to seek further information. Each county should have at least one diagnostic and treatment clinic, where the indigent as well as anyone else residing in the county may receive service. Since drugs do cost money, it would probably be advisable for the clinic to be run on a pay and part pay basis until such a time when the drugs are furnished free of

charge. In out-of-the-way places, the local doctor should be called upon to treat the patients thereby assuring each patient of receiving treatment without severe loss of time and money spent in transportation.

Contacts should be followed up, as well as the source of infection located and placed under treatment, in the syphilis program just as in the tuberculosis program. The Wassermann should be popularized just as the tuberculin and Shick tests have been. Every prospective partner of marriage should be examined and a blood test taken. Every prospective mother should be a Wassermann Test run. A routine blood test should be run on every patient who calls on a physician, regardless of his complaint, and if it is found positive, further examination done.

The public health nurse plays an important role in this comparatively new drama. Thomas Parran says that the problem now is to teach 130,000,000 citizens that by cooperation of private and official agencies, and a reasonable expenditure of money, they can buy safety against this virulent and highly contagious disease.[1]

Dr. Parran also points out that the three salient points of this program are: the location of early cases, the ascertaining of original sources, and the follow up of all contacts; the securing of money, drugs, and doctors to make treatment possible for all cases; and the education of physicians and public health officials

[1] Parran, Thomas, M.D. - "Shadow on the Land"

into a united group who will use scientific methods.

Of course, as in all public health programs, the first and foremost duty of the public health nurse is that of prevention. Before she can even attempt to prevent syphilis she must educate her people and remove from their minds the heavy curse of ignorance resting there. She must teach them that syphilis is just another communicable disease which must be controlled and show them how they can do their part in helping to curb this dreaded scourge.

She must work for the education of adolescents in school as to the true implications of the disease; she must also work to obtain uniform marriage laws in all the states and territories; she must locate all pregnant women and use her influence to get them to a physician for examinations and blood tests before the fifth month. If syphilitic pregnant women start treatment before the fifth month and continue treatment throughout pregnancy, they will be assured of nearly a one hundred per cent chance of a normal, healthy baby.

Blood tests of all babies born of syphilitic mothers should be repeated with medical supervision for at least a two years period.

In the child health program, the nurse must bealert for

signs of congenital syphilis in pre-school and school children as it is so highly contagious as to be a real menace to other children. However, regular treatment insures a non-infectious patient for social contacts. When a case of syphilis is found in a school, all the students should be subjected to a blood test and treatment should be given to all those who are found to be infected. The nurse should "interpret the true significance ofthe disease to the parents and teachers to save cruel humiliation to the child." The child must also be "gradually made aware of the nature and implications of his disease.

Some of the points which the nurses educational program should teach are:

1. If the patient and physician do their respective functions wisely; cure is all but inevitable.

2. Quick recognition is the hope of the afflicted.

3. That under no circumstances should the patient treat himself.

4. That the patient must under no circumstances kiss or have sexual relationships with anyone until he has been instructed by his physician that he may safely do so.

5. That much depends on a patient's speaking truthfully in talking with his doctor.

6. That cure depends upon the determination of the patient in seeing the treatment through.

7. That a woman with syphilis must not conceive until her doctor tells her she may.

In summary, the program for control of syphilis should consist of case finding, adequate treatment facilities, control and education through follow-up, preventive medical measures and persistent and universal medical education.

If the Public Health Nurse, the public and the doctors do their respective parts in this fight, there is no reason why syphilis, one of the most dreaded diseases of the twentieth century should not be practically non-existent in a few decades.

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A HEALTH AND RECREATION PROGRAM FOR STUDENT NURSES

Friedle Bauer Ney