



Technical

Discussions



Washington, D. C.  
September-October 1970

---

Provisional Agenda Item 16

CSP18/DT/4 EN  
24 August 1970  
ORIGINAL: ENGLISH

THE ESSENTIAL ELEMENTS OF A SYPHILIS CONTROL PROGRAM

by

William J. Brown, M. D.  
Chief, Venereal Disease Branch  
State and Community Services Division  
Center for Disease Control  
Public Health Service  
U. S. Department of Health, Education, and Welfare  
Atlanta, Georgia, U. S. A.

### The Essential Elements of a Syphilis Control Program

Before considering specific components of an effective syphilis control program in a country, it would be well to introduce the subject by making two points very clear. The first is that adequate funds, on a continuing basis, are needed to support any control program designed to do the job. This is basic. It may seem obvious but as a famous man once said, "It would be trite to state the obvious if it were not for the universal neglect thereto."

The second introductory point is that dedicated leadership at the national level is essential. Health officials at top level must have the desire to do something about the syphilis problem and must lend their support to program directors in their control endeavors.

Having made these two points, discussion of the essential elements of a syphilis control program can now proceed. First, it is necessary to define the problem. Definition of the problem is the first step in the process of building an effective control mechanism.

The syphilis problem has been likened to an iceberg, that is, only part of it is visible. The visible part of the syphilis problem is that part which is being seen and recognized by the medical community. The invisible part is those cases which exist in the community but do not come to medical attention.

To determine the full extent of the syphilis problem requires that quantitative information be gathered on both the visible and invisible parts of the problem.

The visible part of the problem can generally be documented by a survey of existing medical facilities to determine how much syphilis is being seen. Among the facilities which can be queried and the kinds of information which can be gathered are:

1. Mental institutions - the number of first admissions due to syphilitic psychoses and the number of resident patients with syphilitic psychoses.
2. Laboratories - volume of serologic testing for syphilis and percentage of specimens with evidence of syphilis.
3. Government and private clinics and hospitals - the number of infectious and non-infectious syphilis cases diagnosed, and the extent and policy for serologic testing.
4. Health department vital statistics records - the number of deaths attributed to syphilis.
5. Private physicians or a representative sample of physicians - the number of infectious and non-infectious cases diagnosed and the extent and policy for serologic testing of patients.

6. Military medical facilities - the amount of syphilis diagnosed among members of the military.

7. Pharmacies - the number of persons requesting drugs for what appears to be primary or secondary syphilis.

The extent of the hidden part of the syphilis problem is somewhat more difficult to assess than the visual part since it will require the initiation of blood testing surveys among various population groups to determine prevalence of disease. It is important in these blood testing surveys to pinpoint population segments of very high and very low prevalence because any control program with fixed but limited resources designed to find hidden disease will concentrate on the population segments which have the greatest amount of disease. It is also important to determine if there are geographic or regional differences in the prevalence of syphilis.

Among the likely groups which should be tested on a sample basis in order to pinpoint the problem are military personnel, various occupation groups ranging from the unskilled to professionals, hospital inpatient and outpatient admissions, patients of private physicians, applicants for marriage, pregnant women, prostitutes and different ethnic groups. Each survey should show the prevalence of positive tests and untreated cases by age and sex.

It is noted that although testing in selected groups will adequately pinpoint groups of higher and lower prevalence, such data will not usually suffice to make overall prevalence estimates for the total population. An overall and accurate prevalence estimate for the total population would require selection of a representative sample of the universe (city or nation or adults, etc.) for which the estimate is to be made. A sample of as few as two thousand persons, properly drawn by an experienced statistician, could give a fairly precise overall estimate of prevalence.

Having defined the problem, consideration should next be given to other essential elements in a syphilis control program. These elements are:

1. Case reporting
2. Free diagnostic and treatment services
3. Laboratories
4. Records
5. Casefinding through bloodtesting
6. Education
7. Laboratory reporting of positive serologic tests

8. Program evaluation

9. Epidemiology, including patient interviewing, contact tracing, case prevention and exchange of epidemiologic information.

First, it is necessary to have good case reporting. After the control program is underway, case reporting will be one of the most valuable tools for the ongoing evaluation of trends of disease. But of all the control elements good case reporting has been the most difficult to achieve in the U.S.A. To secure case reporting, a law or health department regulation should be passed which requires practicing physicians and clinicians to report every diagnosed case. The law should perhaps contain a penalty for failure to report cases.

Second, it is important to operate free public diagnostic and treatment clinics with locations and hours of operation most convenient to the public. Evening hours should be scheduled if possible for those patients who work during the day. These clinics should be staffed with physicians trained in the diagnosis and management of syphilis. And there should be an adequate staff of nurses, laboratory personnel and clerical workers to assure a smooth and efficient clinic operation. Clinics should naturally be located in the most populous urban areas of the country. Part-time clinics can be conducted in the less populous towns and villages. Mobile clinics may be considered to occasionally cover the more remote and inaccessible areas of the country.

In connection with venereal disease clinics, one additional important point should be made, and that is the attitude of all clinic personnel towards patients. The patients may be infected with syphilis and they may be poor and unable to pay a private physician, but they are sensitive human beings entitled to dignified treatment. From the admission clerk to the clinic director, attitudes towards the patients can make the difference between a good clinic and a bad one.

It goes without saying that adequate drugs should be available. And good records should be maintained. A medical record of each patient should be maintained which contains the diagnosis by stage, history of laboratory tests, medical history, dates and amounts of treatment, and any follow-up medical and laboratory examinations.

A final note about the effect of treatment should be made here. Treatment in itself is a degree of control but it must be administered early in the course of primary syphilis to prevent any spread of infection. Otherwise, treatment is just a service to patients and contributes little to real control of the disease.

Laboratories should be considered next. They are an integral part of any syphilis control program, and laboratory service should be free. There

should be serologic laboratories located in different parts of the country where each can provide the best service to public clinics and private physicians. A few good quality laboratories are better than a greater number of laboratories with lower quality performance. It is recommended that a single standard non-treponemal test, such as the VDRL slide test, be performed in each laboratory. Darkfield microscopes should be provided in all clinics and persons should be trained to perform this test. The central laboratory of the country should offer the fluorescent treponemal antibody absorption test (FTA-ABS) to clinics and physicians for problem cases only.

In connection with laboratories, it is important that private laboratories performing serologic tests for syphilis be registered with the health department and given periodic performance evaluations to assure that serologic tests for syphilis are performed accurately.

Casefinding, that is, blood testing programs, have to be developed. In order to achieve maximum efficiency with fixed but limited resources, bloodtesting should be oriented towards the highest prevalence groups. The ability to do this will depend to a large extent upon how sharply the distribution of the problem was delineated in the study of the extent of the problem. Laws requiring blood testing of persons upon certain occasions, for example, at time of application for marriage, are extremely effective in bringing this about. In some instances, one may have to depend upon the voluntary cooperation of medical facilities to secure blood testing of their patients or one may even have to contract with them on a reimbursable basis to blood test patients or certain segments of their patients.

In any case, there should be extensive blood testing in any group which has higher than average prevalence of syphilis. Among the groups to be considered for blood testing are admissions to any hospital or physician's office serving patients with a high prevalence of syphilis; military personnel; industries which have workers with a high prevalence of syphilis or occupation groups with a high prevalence of syphilis; applicants for marriage; pregnant women; prostitutes; persons living in high prevalence parts of cities or in high prevalence regions of the country; and ethnic groups with a high prevalence of disease.

The success of any blood testing program, even those that may be required by law, will depend largely on the knowledge and support of both the public and the medical community. This leads to the next essential element to a control program.

Any well-balanced syphilis control program should certainly have a dynamic program of public education. In addition to the use of mass media, such as newspapers, radio, TV, motion pictures, magazines, etc., the health educator should work closely with PTA groups, church groups, school principals, and other civic organizations to assure that the VD message gets across to the public, including school children.

In addition to the public education program, the health department should maintain a continuous effort to ensure that professional education is provided to private physicians, medical students, nurses, laboratory personnel, VD investigators and clinic workers. Such a professional program will ensure that the medical and public health professions have the latest methods and techniques recommended for the diagnosis and treatment of syphilis.

As previously noted, case reporting is one of the biggest problems we have in syphilis control in the United States. In order to improve case reporting, most of the states have passed laws which require laboratories to report reactive test results to the health department which in turn follows up with the attending physicians to ensure that final diagnoses are made and that case reports are made to the health department. Almost half of the cases reported in the United States now come to health department attention because a laboratory first reported a positive (reactive) test. Although it has not totally solved the problem of under-reporting of cases, reporting of positive (reactive) tests by laboratories is a necessary component of the syphilis control program in the United States. If one has a problem of under-registration of cases, one may also find a laboratory reporting program to be essential.

Records and reports are most essential to definition of the problem. Furthermore, a good record system is of great assistance to the program director and to other VD personnel in carrying out an efficient case finding program. It also provides data for continuous evaluation of various program activities. A good record system can be quite basic and does not require a computer or other complex data processing facilities. In addition to case reports and clinic records, it should include what is called in the United States a Venereal Disease Central Registry, which consists essentially of:

1. A 3 x 5 index card containing the name and address of each person in the community with syphilis.
2. A file of all sex contacts being investigated in the process of syphilis epidemiology.
3. A file of syphilis suspects including those persons on whom a reactive serologic test for syphilis has been reported.

The control program should be continuously evaluated at regional and national levels. Changes in the extent of the problem should be under continuous observation and the productivity of each program element studied. The least efficient or effective components should be modified or discarded, and more effective components added.

As resources become more available in a country, a good program of syphilis epidemiology should be planned and executed. In some ways, epidemiology is not as fundamental as blood testing or clinic operations but, if

one hopes to attain any degree of prevention, syphilis epidemiology is essential. In order to truly control the spread of syphilis, it is most essential that each person diagnosed with infectious syphilis or early latent syphilis under one year's duration be interviewed for his or her sex contacts from whom the disease may have been caught or to whom the disease may have been transmitted. The named contacts should be immediately located and brought to examination. Speed in syphilis epidemiology is most important to achieve the best syphilis control and prevention. Well-rounded syphilis control programs certainly need well-trained VD interviewer-investigators. They should be trained persons with the proper attitude toward the disease and its control. And the need for confidentiality in the whole process of eliciting names of sex partners cannot be over-emphasized so that the reputations of patients and alleged contacts may not be in any way damaged. In connection with the epidemiology program, it is recommended that a standard epidemiology report form such as the PAHO Form 202 (attached) be used. Such a form provides for the efficient exchange of epidemiologic information between different health jurisdictions.

A further refinement and extension of the interviewing process is known as the cluster procedure in the United States, but time does not allow adequate discussion of this procedure today. It is mentioned only for the sake of completeness. Epidemiologic (preventive) treatment of sex contacts who are serologically and clinically negative on first examination is also recommended.

In closing, a few general observations should be made.

1. If prostitution is a problem in syphilis control, it is recommended that control of prostitution be a function of the police department rather than the health department.
2. Training of physicians, laboratory technicians, nurses, interviewers and clerical personnel must be an intensive and continuous process.
3. National leadership and financial support must be maintained for a successful syphilis control program.
4. Stress the fundamentals of control where one's budget does not permit other worthwhile but more costly procedures.
5. Continually analyze program data to evaluate successes and failures and to revise measures of the extent and distribution of the syphilis problem.
6. Professional education should be aimed at private physicians stressing the need for complete case reporting.

Essential elements of a syphilis control program have been discussed. It is hoped some of them will be helpful in control endeavors in the countries represented here today.

<b>CONTACT'S LAST NAME</b>		<b>GIVEN NAMES</b>		<b>(And Nicknames)</b>		<b>CONTACT'S COMPLETE ADDRESS (Include State or its equivalent and Country)</b>			
<b>DATE REPORTED</b>	<b>AGE</b>	<b>COLOR OR RACE</b>	<b>SEX</b>	<b>MARITAL STATUS</b>		<b>OTHER IDENTIFYING AND LOCATING INFORMATION (As Speech, Teeth, Physical defects, Place and hours of employment, Hang-outs, Friends, Relatives, etc., be Specific)</b>			
<b>HEIGHT</b>	<b>SIZE</b>	<b>HAIR (Color, Style)</b>	M <input type="checkbox"/> F <input type="checkbox"/> M <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/> D <input type="checkbox"/> Sp. <input type="checkbox"/> Unk. <input type="checkbox"/>	<b>COMPLEXION OCCUPATION</b>					
<b>PLACE (And Hour) OF ENCOUNTER</b>		<b>CONTACT REPORTED BY PATIENT WITH:</b>		<b>PATIENT No.</b>		<b>USE REVERSE SIDE OF FIRST COPY FOR DRAWING A MAP IF HELPFUL (Mailing Address to Which Completed Disposition is to be Sent)</b>			
<b>DATE OF LAST EXPOSURE</b>		Gonorrhea <input type="checkbox"/> Syphilis <input type="checkbox"/> Stage <input type="checkbox"/> Other VD <input type="checkbox"/> Specify _____		Interviewer's Name _____					
<b>CONTACT'S RELATION TO PATIENT</b>		<b>REPORTING AGENCY (Complete Name)</b>		<b>INTERVIEWER'S NAME</b>					
Wife or <input type="checkbox"/> Husband <input type="checkbox"/> Friend <input type="checkbox"/> Other <input type="checkbox"/> Specify _____									

**DISPOSITION**

<b>INVESTIGATING AGENCY</b>	<b>DATE OF DISPOSITION</b>	<b>INVESTIGATOR</b>
<b>IF INFECTED ENTER DISEASE AND STAGE IN APPROPRIATE BOXES BELOW</b>		
<b>ACTION TAKEN</b>	<b>DISEASE</b>	<b>STAGE</b>
BROUGHT TO TREATMENT <small>(Previously Untreated This Infection)</small>		
RETURNED TO TREATMENT <small>(Previously Treated This Infection)</small>		
UNDER TREATMENT		
ALREADY TREATED		
REFUSED TREATMENT		
OTHER (Specify)		
	LOCATED—UNCOOPERATIVE—NOT EXAMINED	
	NOT INFECTED	
	CANNOT LOCATE—REASON:	
	MOVED (If Known Enter New Address On Reverse Side)	
	INSUFFICIENT INFORMATION TO BEGIN INVESTIGATION	
	EPIDEMIOLOGIC TREATMENT—SYPHILIS	
	EPIDEMIOLOGIC TREATMENT—GONORRHEA	
	OTHER (Specify)	