

World Forum on Syphilis

THE WORLD FORUM on Syphilis and Other Treponematoses, held in Washington, D.C., September 4-8, 1962, provided an overview of syphilis problems and of control programs throughout the world. The meeting was sponsored jointly by the American Venereal Disease Association, the American Social Health Association, and the Public Health Service, with the cooperation of the World Health Organization and the International Union Against the Venereal Diseases and the Treponematoses.

Representatives from 30 countries presented scientific papers. Selected papers on administration of venereal disease control programs, casefinding, and the international and local aspects of venereal disease control, are briefly covered in this report.

CONTROL

Eradication

Venereal syphilis, remarked Dr. William J. Brown, chief of the Venereal Disease Branch, Communicable Disease Center, Public Health Service, has characteristics which make one wonder that it has survived at all. Its causative germ is frail and depends on a single means of transfer during a comparatively brief infectious period. In the infectious stage, this disease is easy to detect, diagnose, and treat curatively. A single injection of penicillin can make the patient noninfectious. Moreover, Brown said, the disease is absolutely preventable.

Yet syphilis has recently been increasing "in threatening proportions." In the United

States, despite great progress in control since 1900, "brief, gainful sprints have been interrupted by long barren seasons of public apathy," Brown reported. In 1947 "an astounding total of more than 100,000 cases of venereal syphilis" were brought to treatment as a result of mass screening and therapy. By 1955 syphilis had declined to one-seventeenth of its 1947 level, and by 1957 a low of roughly 6,200 cases was reached. At this point, however, many control programs were cut back or eliminated. Thereafter, venereal disease increased steadily until, in fiscal year 1962, 20,000 cases were reported.

We failed to control the disease, Brown believes, because all of our programs stopped short of eradication. We had not made up our minds that venereal syphilis could and would be eliminated. Moreover, the success that the United States achieved in reducing syphilis during the early postwar years contributed, he thinks, to the recent increases. It is more difficult and more time consuming to search out the last cases and bring them to treatment. Because these eliminations do not register "astounding totals," results look small when compared with earlier achievements.

The United States, however, is now "equipping to attack venereal syphilis from every side." With the medical and control resources available, Brown considers eradication a workable and urgently necessary objective. Refined administrative and control techniques will allow the United States, he believes, to take full advantage of medical advances in diagnosis and

treatment. Moreover, a large force of mobile nonmedical public health specialists is being trained to complement the medical force in an epidemiologic capacity wherever needed. Also, the medical and public health concepts of eradication are being disseminated through an expanding program of education for professionals.

As the volume of current syphilis cases is reduced once more, investigators must, through intensive casefinding techniques, seek out all remaining cases, Brown reiterated. As a first step in the control campaign, he recommended that recognition be given to "the literally hundreds of political subdivisions in the United States in which syphilis has been eradicated." From then on work should continue toward expansion of these peripheries. If any new case is reported in a clean territory, it must be examined, with the full force of the epidemiologic resource.

Legal Framework

The legal framework for conduct of syphilis control programs must provide safeguards for those charged with administrative responsibility and yet guarantee enough flexibility to allow incorporation of new or more effective control techniques into the basic program, according to Edward F. Tuerk, chief of Operations and Development, Venereal Disease Branch, Communicable Disease Center, Public Health Service.

Since we cannot legislate effectively against acts which lead to transmission of venereal disease, said Tuerk, we must concern ourselves with the disease. Our legal basis for doing so lies in the general power and responsibility of the State, within the general concept of police power, to provide for public safety, health, and morals. The legal powers of the health agency derive from State legislation, and the agency's rules are promulgated through codes or regulations specifying either prohibitions or requiring performance of certain duties.

Codes and regulations concerning communicable diseases, however, have not kept pace with the changes of health department procedures required by technological advance, Tuerk said. Therefore, questions often arise as to the legal basis for some of the activities carried out in connection with case reporting, isolation, and

quarantine, examination of contacts and suspects, and premarital and prenatal tests.

In general, Tuerk stated, individual reports of infectious disease have been considered administrative rather than public records. Release to unauthorized persons accordingly is generally prohibited. For present methods of venereal disease control, the name of the diseased person and other identifying data are essential. Therefore, in view of the nature of venereal disease transmission, pertinent laws concerning case reporting probably should be reviewed and amended, if necessary, Tuerk suggested, to assure confidentiality without sacrifice of purpose.

The State has the power to require that cases of infectious disease be reported. In at least 15 States, both public and private laboratories are likewise required to notify health authorities of each positive finding in a test for syphilis. The State may also require laboratories to meet certain standards, especially if the laboratories are licensed to perform premarital or prenatal tests required by State law.

In many States, only physical isolation of the infected is provided for by health department codes and regulations, although for some time "antibiotic quarantine" has been practiced by the use of long-acting penicillin. Treatment of venereal disease patients and contacts can be justified, Tuerk said, on the basis of the older quarantine regulations. He cautioned, however, that care must be exercised, "since the imputation that a person is venereally infected may be libellous and *prima facie* actionable." He also urged that quarantine ordinances be revised to incorporate provisions for new control practice.

Swedish Reform

Dr. Malcolm Tottie, consultant to the Swedish National Board of Health, said that the Swedish law dealing with venereal disease, enacted in 1918, was designed to protect the community; it makes little reference to the infected person. A study is currently seeking ways to revise the law so that it will serve both society and the individual. This law provides for free examination, treatment, drugs, and hospital care for the infected. If a patient fails to follow the treatment prescribed, there are legal

means to force his examination and referral to hospital care, Tottie reported. Exposure of others to the risk of venereal disease is punishable with up to 2 years of forced labor.

[Sweden reported 120 cases of infectious syphilis in 1961; a low of 75 cases had been reached in 1958.]

Public Health Team

Three speakers discussed the role of the public health physician, interviewer, and investigator in syphilis control.

The Physician. Dr. Otto Ravenholt, health officer and director of the Topeka-Shawnee County Health Department, Kans., stated that the first task of the public health physician is to consider why the introduction of easier treatment methods and improved laboratory tests for syphilis has not produced the gains expected.

The problem, he asserted, has been failure to get notification to the health agency of identified syphilis cases. To improve reporting of venereal disease, Ravenholt recommended that reliance upon private physicians for reporting of venereal disease be supplemented with the legal requirement that private laboratories report positive tests to public health authorities. Although the theoretical difference between reporting by laboratories and physicians is minor, he said, the practical difference is that laboratories usually report while physicians frequently do not.

The second task of the public health physician is to create a more effective community program for syphilis control. The public health physician, he emphasized, must clarify to his private practitioner colleagues that treatment of only those infected persons who seek treatment cannot control syphilis in the community and that followup of contacts is needed. The help of private physicians is essential in arranging for interviews with infected patients by epidemiologic investigators who can trace the contacts. Ravenholt believes that private physicians, despite difficulty in reporting cases, will cooperate in the interview followup of their patients when notification originates with the laboratory.

The Interviewer. Study the patient and promote his dignity, was the recommendation of Robert R. Swank, of the Venereal Disease Branch, Communicable Disease Center, Public

Health Service, for removing barriers in interviews with venereal disease patients.

These self-imposed barriers are justifiable, he said, although the interviewer's task is to break them down. The patient with venereal disease may resent his diagnosis, with its moral and asocial overtones. He may dislike discussing his behavior with a stranger, especially if it is deviate; he may fear possible legal implications or even blackmail. A sense of loyalty arising out of the sexual intimacy may keep the patient silent or cause him to lie. The possibility of retaliation or bodily harm may frighten him. The patient can perhaps envision family or marital discord and general loss of status. He may not know that this public health program is confidential, or he distrusts the personnel.

The interviewer, Swank said, needs a thorough understanding of the medical and epidemiologic facts about syphilis, as well as training in effective interviewing methods. Formal training must be supplemented by inservice training programs. As the interviewer gains in ability, he is more readily accepted by venereal disease patients. He develops tact and becomes increasingly cogent. As he learns to close an interview as a helpful friend, the patient is more likely to cooperate in plans for another interview.

The successful interviewer bears in mind the potential of multiple contacts and uses all his techniques and experience to obtain information about all actual contacts. Through cluster testing, for example, he finds other infectious persons who are not sexual contacts of the patient but members of related sociosexual groups.

The original interview with the patient is the most important. Studies indicate that 50 percent of contacts brought to treatment are the first and second named by the patient. However, Swank stated, the value of repeated interviewing of all, or most all, patients with primary and secondary syphilis reduces epidemiologic failure rates by 33 percent.

The Investigator. Field investigation of sexual contacts and suspects follows the interview with the venereal disease patient. The venereal disease investigator seeks to find the persons named and persuade them to report quickly to physicians or clinics for medical attention.

William H. Hamlin, health program repre-

sentative of the venereal disease control section, Virginia State Department of Health, suggested the following rules for the investigator: (a) never reveal name of an informant to a contact; (b) never tell a contact or suspect he actually has a disease; (c) never gossip, for loose talk reduces an investigator's effectiveness to zero; (d) try to see the suspected individual personally (if it is necessary to leave appointment card, it should imply importance, make no mention of disease, be enclosed in plain sealed envelope with the person's name on it, and be marked "personal"); (e) avoid taking medical records into the field (if they must be taken, avoid displaying them and exercise every care to prevent loss).

Generally, syphilis investigations receive priority. Meriting precedence are contacts to persons with primary and secondary syphilis, teenagers and young adults with high-titered reactive serologic tests for syphilis, and any cluster suspect or associate indicated to have lesions. Promptness is also a consideration, and with this in mind investigations should generally be arranged geographically.

Sources of information are most important to the investigator, Hamlin said. The investigator should develop acquaintances in places where people gather to spend their leisure, such as in bars and restaurants. Teachers, local welfare workers, and rural storekeepers may provide valuable information. Hamlin believes police and sheriff's files should be used only as a last resort, for the investigator must avoid being associated with law enforcement.

Memphis Methods

During a period when most cities in the United States experienced a sharp rise in primary and secondary syphilis, Memphis, Tenn., experienced a decrease. A contributing factor, according to Dr. Nobel W. Guthrie, assistant director of the Memphis-Shelby County Health Department, was the type of treatment given to gonorrhea patients and contacts at the venereal disease clinic.

Since gonorrhea is several times as common as syphilis, most of those with syphilis will have previously sought medical attention for gonorrhea. Therefore, to treat the population at risk of developing syphilis, gonorrhea pa-

tients and contacts in Memphis have, since 1956, been given a dose and type of penicillin which cures not only the gonorrhea but any incubating syphilis as well. Dosage consists of 1.2 million units of benzathine penicillin, in addition to 600,000 units of penicillin with aluminum monostearate in a separate injection.

There are about 30 cases of primary and secondary syphilis per year in Memphis, whereas in the middle forties, 700 to 800 cases had been reported annually, Guthrie said. Moreover, in 1962, among 13 similar-sized cities in the south, Memphis had the lowest rate, 8 per 100,000 population; the highest was 108.

Although the number of reported late latent syphilis cases in Memphis increased in 1960 and 1961, Guthrie attributed this seeming increase to duplicate reporting and increased intensity of followup of positive tests. Nor was the increase due to masking of early syphilis by the gonorrhea treatment, as some have suggested, for the mean age of late latent syphilis patients rose during the period of benzathine penicillin treatment of gonorrhea. If early syphilis had been masked by the treatment, the mean age would have declined, Guthrie explained.

An increase in the number of clinic cases of gonorrhea in men occurred, Guthrie reported, 2 months after Memphis curtailed followup of gonorrhea, in line with the 1960 Public Health Service program of directing maximum efforts to early cases of syphilis. Two months following resumption of standard epidemiologic practice, the number of male gonorrhea patients seen at the Memphis venereal disease clinic dropped to the range "usual before the curtailment," he said.

Prophylaxis Without Diagnosis

Prophylactic treatment without clinical diagnosis can be justified for all sexual contacts of patients with infectious syphilis, Dr. John C. Hume, professor of public health administration at Johns Hopkins University, Baltimore, Md., stated. He raised several problems encountered in diagnosing treponemal disease but outlined, as he termed it, "no quick and easy solutions" to them.

Given a strain of treponeme of unknown source, it is impossible with current techniques, Hume stated, to establish that it was originally

from a case of venereal syphilis, endemic syphilis, yaws, or pinta. All the various treponemal diseases manifest initial lesions, followed by more extensive "secondary" manifestations; all exhibit the phenomenon of latency. The major difference, he said, is in the types of tissue involved in the later stages. Even with respect to response to treatment, differences are quantitative.

Venereal syphilis is ubiquitous; pinta is found in a truly focal and limited area; endemic syphilis and yaws are intermediate in distribution. Environmental differences are believed by some to determine the differences among the strains of treponemes. Environmental differences probably account for the variation in mode of transmission, the age distribution of the disease, and the early, as well as possibly even the late, manifestations of the disease in the individual. Also, both in vitro and in vivo experiments indicate that the optimum temperature for the treponemes is 35°–37° C. This temperature preference, Hume commented, has major implications as to location and nature of lesions in the infected and, indirectly, as to the mode of transmission.

Treponemal diseases can be differentiated from the nontreponemal by history taking, physical examination, and serologic tests, except in a small minority of cases in which it is difficult or impossible to rule out other disease processes. With regard to successful management of the patient and protection of public health, differentiation among the treponemal diseases themselves, Hume stated, has little significance under most circumstances. If treatment adequate for the cure of syphilis is administered, the patient is cured, and public health is protected. Coexistence of venereal syphilis in an urban area and yaws in surrounding areas, with varying admixtures of each, will, of course, have significance in planning campaigns against the treponematoses, Hume acknowledged.

Control programs and eradication campaigns obviously must be adapted to the exposed populations. Where there is a favorable ratio of physicians to population and low disease prevalence, it is difficult to keep up interest in control. Physicians come to know less and less about treponemal diseases as rates fall and clin-

ical material for teaching becomes rare. Strong emphasis has to be placed on maintaining an awareness of the diseases among the groups responsible for treatment and control and on making wide use of the clinical material available for teaching.

Where the ratio of physicians to population is low and prevalence high, the correct response is to develop educational institutions and to employ highly trained professionals only in top positions, as for certain current yaws campaigns.

The extent of diagnosis before treatment will also vary with circumstance. In reality, Hume said, there is probably little treatment without some form of diagnosis. Diagnosis is not always a product of careful physical examination. It may consist, he stated, merely of selecting all members of a community which has a high prevalence of disease.

The diagnostic procedures employed will depend to a great extent on the number and quality of facilities available and the extent of the disease. In a country with a high prevalence, limited personnel and fiscal resources, a complete diagnostic workup on each individual would mean postponement of effective treatment of the population for many years. Thus in one small country virtually the entire population was given penicillin.

In the United States, where the elaborate and well-staffed control programs of earlier years have been drastically cut, the limited resources must be used carefully, too, Hume emphasized, to assure the greatest possible yield of infectious cases located, diagnosed, and treated. Efforts continue to refine the definition of high-yield groups in the U.S. population.

The decision as to whether to treat before clinical diagnosis depends partly also upon the various risks. In most medical centers, it has long been considered proper to treat immediately persons exposed to infection by accidents such as pricking the finger with a contaminated needle. On this basis, many experts, Hume said, will condone prophylactic therapy before diagnosis for a pregnant woman known to be a sexual contact of a person with infectious treponemal disease. Fewer, "but still a great number," will recommend that all sexual contacts of such a person be given immediate treat-

ment. This course, Hume stated, is justifiable as a community health measure, and in this instance "what is best for the community is also best for the patient."

Treponemal disease is sometimes treated inadvertently when infected persons receive varying types and amounts of antibiotics for intercurrent conditions. This occurs more often in countries, such as the United States, where medical care and antibiotics are abundant. When the amount of antibiotics is insufficient to cure the treponemal disease, the question has arisen whether the disease is masked so that many infections enter latency unsuspected and subsequently develop into unnoticed relapse or late manifestations. We know neither how many inadequately treated persons there are in the population who are in the infectious or later stages of treponemal disease nor the effects of inadequate treatment on the patient and the community, Hume said. He concluded, however, that on balance the inadvertent therapy is probably more helpful than harmful.

Physician Participation

The treatment of patients with syphilis by private practitioners is to some degree of secondary importance in overall control, since, by contrast, they contribute so little to casefinding and investigation of contacts, said Dr. R. H. Kampmeier, professor of medicine at Vanderbilt University School of Medicine, Nashville, Tenn.

Except in the large cities, it is assumed, Kampmeier said, that private physicians in the United States now treat more patients with early syphilis in their offices than are treated in public clinics. According to an "acceptable statistical estimate" of 60,000 acute syphilis cases in the United States in a recent year, a probable 53,500 were missed or not reported. Some of the decreasing incidence of syphilis in the decade after World War II was perhaps more apparent than real as unreported cases became "lost" in doctors' practices, Kampmeier suggested. If doctors do not even report syphilis cases, he said, they are unlikely to attempt to identify the patients' sexual contacts.

Kampmeier suggested these reasons for the physicians' failure to cooperate in reporting and epidemiologic followup: (a) lack of ade-

quate knowledge of epidemiology of syphilis; (b) hesitancy and embarrassment, of older physicians particularly, in discussing sexual matters, especially with females and homosexuals; (c) poor motivation; (d) slow development of plans to assist the practicing physician in investigation of contacts; and (e) unwillingness of the patient to return for observation and lack of means to persuade him.

Kampmeier reported finding patients in university hospitals with manifestations of acute syphilis that had not been recognized by undergraduates, members of the house staff, or younger attending physicians. Even when acute syphilis is diagnosed for them, he said, they do not think of investigation for contacts. Telephone consultation about a syphilis case with the more recently graduated physicians, Kampmeier has found, proves all too often "useless and even dangerous because of their lack of understanding and misinterpretation" and "the cause of safety" requires a followup letter with explanations in black and white.

Over the past several years, he reported, there has been no organized effort in many medical schools to give instruction in the clinical aspects of syphilis; students do not see syphilis in a clinical setting. To correct this situation, local public health officers, Kampmeier suggested, should invite selected members of the faculty and medical students to their venereal disease clinics for clinical experience, teaching, and a demonstration of epidemiologic methods, including an interview with a patient.

Participation in the control and eradication of syphilis requires an understanding of the biology of the disease, infectivity, relapse, intrauterine transmissibility, latency, and possible progress to serious disease of the great vessels. The physician should not, Kampmeier emphasized, treat a patient who has a positive blood test without first taking a careful history of past illnesses, antisyphilitic treatment, and previous or intervening blood tests, or without making a physical examination to determine whether the patient has late or late latent syphilis or syphilis of only several years' duration. If the diagnosis is early latency, the physician's responsibilities include arranging for investigation of the patient's contacts. Some 25 percent of patients with untreated syphilis ex-

perience clinical secondary relapse within 5 years, Kampmeier reported, and similar dangers exist even for those treated for acute syphilis.

Caseworker services need to be extended to private physicians, to assist them in investigation of patients' contacts. Kampmeier cited "Georgia's amazing success" using trained interviewers for patients of private physicians.

Public health officials might also assist private physicians of syphilis patients by teaching the public to respect the advice of a doctor when he recommends followup and stresses the need for periodic reexaminations. Some means ought also to be cooperatively developed to gain cooperation of the recalcitrant or uncooperative patient, Kampmeier said.

ADMINISTRATION

In a venereal disease control program, public health departments have responsibilities to private physicians, hospital staffs, private and hospital laboratories, and schools of nursing. Two public health physicians, a director of State laboratories, and a nursing consultant of the Communicable Disease Center, Public Health Service, outlined ways in which public medicine can promote venereal disease control by aiding private practitioners and agencies.

Philadelphia's Program

In Philadelphia the vast majority of private physicians welcome all assistance the public health department can offer in diagnosis, treatment, and followup of venereal disease once they are aware of the aims and objectives of the venereal disease program, reported Dr. John William Lentz, chief of venereal disease control, Philadelphia Department of Public Health.

A 1958 law, Lentz said, requires both private and public laboratories to report all reactive serologic tests routinely to the city health department with patient's name and address and name of attending physician. With few exceptions he stated, physicians have supplied morbidity reports and permitted health department investigators to interview their infectious syphilis patients. This cooperation is due in large measure, Lentz believes, to "a highly select group of disease control investigators imbued

with the importance of being tactful and considerate."

The Philadelphia Department of Public Health has extended its syphilis casefinding program into the large city hospital, where an investigator, a public health physician, and a clerical assistant are assigned full time. Reactive serologic tests are processed daily, and here the public health physician can teach optimum diagnosis and treatment to the house staff.

The department has been unable to promote additional teaching time for venereal diseases in the crowded curriculums of medical schools in the area. However, some of the professional venereal disease control personnel of the health department teach public health methods of venereal disease diagnosis, treatment, and control as faculty members of several medical schools.

Moreover, to broaden the education of medical students, interns, residents, and practicing physicians in modern methods of diagnosis and treatment of syphilis and gonorrhea, the department offers paid summer training courses to a limited number of medical students in the venereal disease control program. It also offers civil-service-exempt positions in venereal disease clinics to selected medical residents on a fee-per-hour basis.

Future health department plans call for issuing a weekly venereal disease letter to physicians in the area, for informing graduating medical students about the department's venereal disease program and services, and also for visiting periodically those private physicians who diagnose and treat venereal diseases in their practices.

Hospital Participation

One public health department responsibility toward hospitals is to "stimulate routine use of serologic tests for syphilis in all hospitals and for all patients," according to Dr. William J. Dougherty, director of the division of preventable disease, New Jersey State Department of Health. Specifically, tests should be performed on all hospital patients and outpatients (newly admitted and readmitted) who were last tested more than 6 months before, on all patients with skin disease, and on all patients with non-syphilitic venereal diseases, he said.

Another important responsibility of a health

department is to promote and assist in self-evaluation studies of a hospital's management of syphilis diagnosis and treatment. One hospital, Dougherty reported, discovered through self-evaluation that physicians seemed to pay little attention to reactive blood tests recorded on patients' charts. Other hospitals found that in seeking evidence of syphilis their physicians frequently failed to examine the vagina and cervix of the female contacts of infected patients.

Health departments may need to assist hospitals financially in their treatment of syphilis. The closing of many public venereal disease clinics has left the treatment burden on private physicians and hospitals. Many States reimburse the physicians for syphilis treatment; only a few hospitals receive fees. Yet many hospitals could offer such services, Dougherty believes, if facilities and financing were provided. He recommended that health departments consider grants-in-aid for such purposes.

Instruction for Nurses

In most areas of the United States, the student nurse is graduated without fully recognizing that venereal disease is still a public health problem, according to Hilda A. Nivala, chief nursing consultant, Venereal Disease Branch, Communicable Disease Center, Public Health Service. Yet nurses will very likely see venereal disease patients. Public health nurses participate in about one-half of the total investigations of venereal disease reported in the United States. Nurses employed in doctors' offices also assist in diagnosis and treatment of venereally diseased patients.

Nivala believes that the best way for a public health department to improve the education of nurses in venereal disease is to enable the student nurse to participate in the program during field practice inasmuch as there is a dearth of clinical cases in a hospital setting. The health department might also assist instructors in schools of nursing by providing up-to-date data on the incidence and prevalence of venereal disease in the community and by sharing teaching aids and opportunities for in-service education and observation in the field agency. An interpretation of health department functions to physicians and hospitals is also important.

Laboratory Cooperation

In Georgia reactive serologic tests for syphilis performed in private and hospital laboratories are reported to the State health department, according to E. J. Sunkes, director of laboratories, Georgia Department of Public Health. Of the 801,000 blood tests for syphilis made during 1961 in Georgia, 37 percent were performed in private and hospital laboratories and 63 percent in public health laboratories.

Daily confidential reports of reactive serologic or dark-field specimen tests are made by the private and hospital laboratories on forms provided by the State. Their excellent cooperation is believed to be due in part to frequent orientation visits made by representatives of the State venereal disease control service and of the State laboratories, as well as to the simplified reporting system.

In addition to setting standards of performance for other laboratories, the State laboratory makes easily available a testing service involving, by performance or referral, the utilization of all standard tests. This service is reserved for selected cases in which the routine testing results are not considered adequate.

In Georgia the standards of performance are set within the framework of approval for premarital and prenatal blood testing as required by law. Currently 51 hospitals, 30 private laboratories, and 11 municipal, State, and institutional laboratories are on the approved list for conducting the premarital and prenatal tests for syphilis.

SOCIAL ASPECTS

Disruptive Forces

Until recently efforts to limit venereal disease have been largely focused on technical aspects of control. However, with syphilis increasing, especially in cities, we are returning to the earlier concept of the social nature of the venereal diseases, commented Dr. Ralph R. Sachs, executive officer of the Los Angeles City Health Department.

Social forces affecting venereal disease control in Los Angeles are typical of any large city, Sachs said. Increasing mobility promotes transient relationships and greater opportuni-

ties for casual sexual encounters. Urbanization breaks down old cultural patterns and makes it harder for parents to instill moral standards. The effects are seen in the sevenfold increase in syphilis among 15-19 year olds in Los Angeles during the past 5 years. Moreover, big cities attract the deprived and misfits of every type, including homosexuals. In Los Angeles, Sachs reported, half of the male patients with primary and secondary syphilis, during interviews by health officials, named male contacts exclusively.

To offset the effects of these disruptive social forces, the Los Angeles Health Department is conducting a comprehensive program of visits to private physicians and laboratories and using the cluster technique in casefinding.

Health department representatives visit physicians to discuss venereal disease epidemiology and treatment. The department tries to obtain blanket approval from the doctor to handle interviewing of all his future syphilis patients. In addition, specific approval on each patient is also requested. Doctors are seldom trained to conduct such interviews, Sachs commented. Interviews with homosexuals are often particularly difficult for the doctor.

In meetings with laboratory directors, department representatives emphasize that no private venereal disease patient is ever approached until his doctor has been consulted. This is stressed because private laboratories have apparently not always reported reactive serologic tests to the health department because of fear of upsetting doctors and losing business.

The Los Angeles Health Department has effectively increased the epidemiologic yield of infectious syphilis by employing the cluster technique. From 208 source cases in the Los Angeles area in 1961, investigations of associates, not named as contacts but merely suspected, yielded 100 persons with early syphilis, brought to treatment, Sachs reported.

The Social Setting

The level of group cohesiveness largely determines whether a person with syphilis will seek medical diagnosis, according to Dr. Robert O. Carlson, executive officer of the American Sociological Association. His conclusion is based on results of a study, which sought to determine within "a sociological frame of reference,"

the factors influencing the prediagnostic behavior of 500 Mississippi Negroes with primary and secondary syphilis.

Part of the subjects, termed the "volunteers," had followed a so-called rational course of action and sought immediate medical care; others, the "nonvolunteers," had avoided diagnosis of their symptoms.

The study indicated that the nonvolunteers avoided diagnosis because they found in their primary groups the most acceptable solution to their personal problems, including medical problems. The groups to which they belonged were deeply involved in the emotional and social needs of their members.

The volunteers, on the other hand, lacked such strong and sure ties within their primary (more cohesive) groups and found solutions to personal problems in the institutional structure of the community, for example, public health agencies which provided medical care.

The volunteers did not prove to be better informed than the nonvolunteers. Both volunteers and nonvolunteers were simply responding to their "individual life situations" and customary problem-solving routines. Even the length of time they waited before seeking treatment seemed to correspond to the degree of social cohesiveness they felt; the greater the feeling, the longer the delay.

This study indicates, Carlson said, that the nonvolunteer is more likely to be persuaded to seek diagnosis by a person-to-person, missionary approach, in which one member of his social group receives successful treatment and is encouraged to return to his friends and family and report his experience, than by intensive venereal disease educational programs. Programs associated with symbols of authority are likely to alienate such recalcitrant prospects.

African Communications

In Africa, persons of authority, such as village chiefs, teachers, and priests, as well as physicians and health workers, serve effectively in disseminating venereal disease information. Dr. T. Adeoye Lambo, medical superintendent of the neuropsychiatric center of the Aro Hospital at Abeokuta, Nigeria, reported good results with local leaders as person-to-person information media. Medical services, particu-

larly ambulatory clinics, have also proved effective information agents. Impersonal mass communication efforts have been far less successful, Lambo stated.

Lambo stressed the need for adapting venereal disease information and mode of presentation to the persons concerned. In Africa, he said, this information varies from a simple delineation of the common manifestations of venereal disease and its medical and social consequences to a technical description of the causative agent. Communication media employed range from simple stage plays and posters to technical lectures.

Lambo emphasized the need for starting venereal disease control information from a point having emotional interest for the people receiving the information. Since for Africans procreation is the ultimate goal of marriage, anything that would disturb or impair that ability would certainly cause distress and be avoided, he said. Therefore Lambo advocated emphasizing sterility in women, congenital malformations, and high infant mortality as possible consequences of syphilis.

In Africa, dissemination of venereal disease information is simplified, Lambo believes, by the "relaxed atmosphere about the subject."

Both adults and children speak freely about the disease. In most African tribes it is not associated with moral issues. On the other hand, the extremely permissive attitudes toward the disease may hinder control. In some places, he reported, gonorrhea is practically regarded as part of growth into manhood. Attitudes toward the disease are so permissive that any form of bone, joint, or collagen disease is generally considered a manifestation of a typical gonorrheal infection, he said.

Africa, also, is feeling the effects of increasing urbanization and population mobility. Social distintegration, resulting from destruction of tribal traditions and a general weakening of family ties, has led to increased alcoholism, prostitution, and venereal disease. Young girls migrating to the African cities in search of work are particularly vulnerable. "In present-day Africa," Lambo stated, "simple and healthy customs still prevail only in small isolated villages which present no attractions for tourists or seasonal workers."

While venereal treponematoses have been increasing in the tropical urban communities of Africa, improved living standards and eradication campaigns have caused yaws almost to disappear, Lambo said.

Symposium on Environmental Measurements

A symposium on environmental measurements, sponsored by the Public Health Service, will be held September 4-6, 1963, in Cincinnati, Ohio.

The symposium will bring together research scientists and technical directors engaged in environmental field studies and control programs for discussions on the design of environmental measurement systems and the interpretation of data. The discussions will cover a broad range of environmental measurements, with emphasis on air and water parameters. Particular attention will be given to operations required in sampling, detection, recording, validation, interpretation, and in drawing conclusions.

Further information on the symposium is available from the co-chairmen of the program, John S. Nader, Laboratory of Engineering and Physical Sciences, Division of Air Pollution, and Dr. E. C. Tsivoglou, Technical Services Branch, Division of Water Supply and Pollution Control, at the Sanitary Engineering Center, 4676 Columbia Parkway, Cincinnati, Ohio.