

PUBLIC HEALTH

Syphilis: Social Scourge

Although syphilis was nearly stamped out only a few years ago, it is now spreading in the United States and abroad because of indifference and lack of public understanding.

➤ **SYPHILIS**, one of the world's oldest and most dangerous social diseases, is spreading rapidly in the United States and the world despite the widespread use of penicillin.

Because of indifference and lack of public understanding, this highly infectious venereal disease, which was nearly stamped out by 1955 with the aid of penicillin, is back near the top of the list of reported cases of communicable diseases in the U.S. and abroad, following closely behind scarlet fever and measles.

What is most startling is that more than one-fifth of all cases reported each year occur in teen-agers.

The problem, according to Dr. William J. Brown, chief of the Venereal Disease Branch, Communicable Disease Center, Atlanta, Ga., has arisen from the faith placed in penicillin by both the public and physicians.

Less than two hours of syphilology (the study of venereal disease) are taught to the average medical student now. Before penicillin, however, the study was considered essential. Doctors do not easily diagnose or even attempt to identify the symptoms of syphilis, he told **SCIENCE SERVICE**.

Even more confusing to the problem is the fact that venereal disease was once diagnosed mainly on economic status or income. Now those in the upper middle class and even the upper class contract the disease as often as those in the lower classes, and the lower classes now have the ability to pay for treatment.

In 1947 more than 100,000 cases of syphilis were treated in this country. This was the peak year. By 1955, syphilis had declined to six percent of the 1947 level.

More than 20,000 cases were reported in the United States alone last year, Dr. Brown said, with more than 4,000—at a very minimum—deaths.

The great increase in syphilis during the past few years comes from what he calls Brown's Law, stated:

"That, as a disease control program approaches the end-point of eradication, it is not the disease but the program which is the more likely to be eradicated."

This, he explained, is exactly what happened to syphilis. Doctors and the public were so sure the disease would be stopped with penicillin, they stopped guarding against it, leaving themselves wide open for a renewed attack.

Syphilis and gonorrhea are easily transmitted by an infected person, the health official continued. Finding the infected contacts and treating them, and educating the public to prevent further incidences are important to the eradication of this social disease.

"A strong and vigilant control program

which continues to the point of eradication, and a well-founded educational program which teaches young people not only the dangers of venereal disease but the continuing responsibility of the community are required," Dr. Brown said.

The problem of getting education of venereal disease and health into the school systems is great, he said. In 29 states there is provision for instruction about venereal diseases.

But reasons ranging from "opposition of religious groups" to "emphasis upon the 3-R's, because health education does not affect accreditation" have stopped this valuable educational program in many places.

In the 15- to 19-year-age group alone, the years of secondary school, cases of venereal disease in the United States increased from 1,179 in 1956 to 2,736 in 1960, an increase of 132%.

Dr. Brown pointed out that the U.S. Government, thus the public, is paying \$8 million each year for the control of syphilis in this country, while it is paying another \$50 million a year to the support of the syphilitic insane, pathetic products of venereal disease.

The use of penicillin and other wonder drugs against venereal disease has decreased the fear of contracting syphilis. This may have increased sexual contacts over the past few years, although some scientists doubt this. Increased travel here and abroad has increased the mobility of those infected with syphilis.

The problem of carrying disease from one place to another is not new. The crew of Columbus, according to theory, contracted syphilis in America and carried it back to Europe in 1492.

It is well known, however, that the military, during both World Wars, spread the disease on both sides of the ocean. Border areas and large cities are also focal points for communicable disease.

The 10 leading U.S. cities, Dr. Brown said, reported approximately half of the cases of syphilis in 1962. Rural areas, however, are not excluded from the problem of venereal disease.

Prostitution no longer is the great danger it was 30 or 40 years ago. Less than five percent of the cases reported are blamed on the prostitute.

This decrease has come about by better education on sex, better medical treatment and stricter control by local, state and the Federal governments.

Since the entire problem is again on the rise, Dr. Brown said, a Task Force has been assigned by the Surgeon General of the Public Health Service to aid in the control and education campaigns of the Government. This group will be visiting 100,000

physicians across the country twice a year to discuss the problem of syphilis. It will visit another 130,000 doctors once a year, along with several laboratories. Increased reporting of cases of the disease, both by the patient and the physician, should come from this part of the campaign, Dr. Brown hopes.

The Task Force is also going directly to the schools and communities to ask for better sex education and fuller cooperation among health officials, the public and the schools.

The intent of the World Forum on Syphilis and Other Treponematoses, held in Washington, D. C., under the guidance of Dr. Brown, was not only to act as an exchange for international information on the problem, but to highlight the problem of syphilis for the public in all parts of the world, he said.

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GENERAL SCIENCE

President Urges Science Talent Recognition

➤ **NATIONAL Science Youth Month**, which extends the whole of October, has the support of President John F. Kennedy.

In an official White House statement, he said:

"If we are to realize the great scientific potential of our Nation in the years to come, we must first recognize and develop the scientific talent of our young people.

"I am pleased therefore to commend the 48 outstanding scientific, educational, industrial and governmental groups sponsoring National Science Youth Month. I would also like to join these groups in calling attention of all Americans to the unlimited opportunities in scientific careers and the need for the scientific and technological talents of our young people to be recognized and used.

"The observance of National Science Youth Month this October will, I believe, stimulate more young Americans to pursue sound educational programs and encourage more of our citizens to reach a better understanding of the role of science in the world in which we live."

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TECHNOLOGY

Powerful Flash Prints Electronic Circuits

➤ **PRINTED WIRE** circuits on ceramic backing, which make possible modern electronic and radio devices, may soon be made with a high-intensity flash.

The flash, more powerful but similar in action to an electronic photography lamp, produces high temperatures with a small amount of heat because it lasts only thousandths of a second. In operation, a ceramic board may be coated with copper oxide, covered with a circuit pattern cut into a light-reflecting shield and exposed to the flash. The copper remains in the pattern as a conductor. The technique can also be used for joint soldering.

The new method was developed by Armour Research Foundation scientists, Layton C. Kinney and Edwin H. Tompkins.

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