

The Venereal Diseases



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Cover: The picture is the fifth in Hogarth's series—*The Harlot's Progress*. John Ireland described the scene—

"Released from Bridewell, we now see her in all the extremity of penury and wretchedness, dying of the malady which so frequently accompanies her profession. The two quacks, whose injudicious treatment has probably accelerated her death, are quarrelling about the efficacy of their nostrums, and each accusing the other with having poisoned her. While the maid servant is calling to them to cease quarrelling, and assist her dying mistress, the nurse is plundering her trunk of the few poor remains of former grandeur. On the floor lies a paper inscribed *Anodyne Necklace*, at that time deemed a sort of *Charm* against the disorders incident to children; and on the table a paper of Dr. Rock's pills.

"In this pitiable situation, without a single friend to close her dying eyes, or soften her sufferings by a tributary tear; forlorn!—desolate!—desolate!—and deserted—the heroine of this eventful history expires; her premature death, brought on by a licentious life, seven years of which had been devoted to debauchery and dissipation, and attended by consequent infamy, misery, and disease. The whole story affords a valuable lesson to the young and the inexperienced, and proves this great, this important truth, that *a deviation from virtue, is a departure from happiness.*"

The Venereal Diseases

THE Venereal diseases are a group of infections which have in common the same means of transmission. The causative organisms are usually acquired during sexual intercourse with an infected person. The group of diseases were given their name by Jacques de Bethencourt in 1527, after Venus the goddess of love. The major venereal diseases are syphilis and gonorrhoea. There are a number of other venereal diseases, including chancroid, lymphogranuloma venereum and granuloma inguinale, but these have been relatively uncommon in Britain. In recent years other conditions usually acquired sexually, particularly non-gonococcal urethritis and trichomonal infestation, have come to form a large part of the venereologists' work. Although in a small proportion of cases they can lead to severe complications, these latter diseases are not usually serious.

This paper traces the course and pattern of the major venereal diseases, syphilis and gonorrhoea, over recent decades and evaluates the progress made in their control and cure in terms of the reduction in mortality or the severe disability the diseases would otherwise have led to.

After the Second World War the incidence of venereal diseases rapidly declined. With the development and large scale production of penicillin and the end of the social disturbance of the war, many believed that the venereal diseases would become as rare as smallpox and diphtheria. In the event this has not turned out to be so. In this and many other countries the incidence of the venereal diseases is once again rising.

The venereal diseases have in the past provided one of the most difficult of all medical and social problems to unravel. The diseases became fully understood only at the start of the twentieth century. Their history is confused because, till then, diagnosis depended upon observations of signs and symptoms alone, and cure was assessed only by external appearances.¹

There has been much argument regarding the date of the first appearance of gonorrhoea and syphilis in Europe. Most medical historians believe that gonorrhoea is an ancient disease. In biblical times, Leviticus gave advice on ablution after copulation which might have been intended to prevent diseases acquired during sexual intercourse. In Proverbs, Wisdom tells her pupil to avoid strange women "lest his body and flesh be consumed".

The first unmistakable reference to gonorrhoea appeared in a manuscript by John of Ardennes, published in England in 1378. From this time onwards gonorrhoea is frequently mentioned, often under the names of "burning" or "clap". Gonorrhoea became the dominant venereal disease until the end of the fifteenth century and remained a difficult problem until the advent of the sulphonamides in 1937.

In the meantime, however, a far more virulent disease appeared on the European scene. Ruy Diaz de Isla (1462-1542) a surgeon in Barcelona described in 1497 "a disease, previously unknown, unseen and undescribed, which first appeared in that city . . . and spread thence throughout the world". The new disease was syphilis. As Columbus had returned to Spain in 1493, the coincidence of the two events suggested to many that syphilis had been contracted by the Europeans from the Americas. Since then the controversy has raged whether the disease in fact existed in Europe before 1493.

Ancient Egyptian cemeteries have provided evidence of disease in the bones which is consistent with a syphilitic condition. The manifestations of syphilis are similar to other diseases such as pinta and yaws, which are caused by similar organisms. It is possible that syphilis evolved from a related disease and it may well have existed in Europe in a mild form until a mutation towards the end of the fifteenth century gave rise to its present form.²

It is clear, however, that if the Europeans knew about

syphilis before 1493, it troubled them very little until it appeared as a virulent epidemic. At the time the physicians as well as the general public were surprised by the epidemic. They had no name for the disease, and at first called it after those whom they regarded as responsible for its spread. This disease was the subject of one of the last major literary works in Latin, *Syphilis Sive Morbus Gallicus*, published in 1530 and eventually took its name from the shepherd hero of that poem.

Syphilis spread quickly throughout Europe after 1493. It was a major problem among the mercenary army of Charles VIII of France when Italy was invaded and Naples besieged. In 1497 it had spread to Britain, and the Town Councils of Aberdeen and Edinburgh tried to arrest it by branding and segregating those infected. In contrast to the present day, syphilis frequently caused death during the early stages. The virulence of the disease, the foulness of the symptoms and the assumption that they had followed promiscuity gave rise to much abhorrence of the disease and of its victims.

The venereal diseases baffled the physicians for many years, and invoked voluminous writings and theories. For centuries syphilis and gonorrhoea were confused and their different symptoms were thought of as different stages of the same disease. John Hunter (1728–1793) talked of a virus and believed that the site of infection decided the type of disease, i.e. via the mucous membrane, gonorrhoea; or via the skin, the chancre of syphilis. To demonstrate his theory he innoculated himself with pus obtained from a patient with gonorrhoea. It appears that this patient must also have suffered from syphilis for Hunter developed signs of both diseases. This experiment brought him chronic ill health and eventually almost certainly killed him. The classical primary syphilitic lesion has been called the Hunterian chancre after this courageous surgeon.

Eventually the bacteriologists settled the issue. In 1879, Albert Niesser identified the gonococcus. In 1905, Fritz Schaudinn in Berlin isolated a spirochete from the exudate of a syphilitic chancre. Further experiments in the Pasteur Institute in Paris proved this spirochete to be the causative organism of syphilis which had been sought for centuries.¹

In 1906, Auguste von Wassermann, Albert Neisser and Carl Bruck developed the complement fixation test now known as

the Wassermann Reaction (W.R.). At the time this test appeared to confirm the syphilitic nature of active lesions, and also to reveal that latent syphilis could be present in an individual even though he showed no signs of the disease. This made it possible to unravel the complex course of the disease. Later it was realised that this test was not in fact specific, but could be positive in other diseases. It was not until 1948 that Nelson and Meyer discovered a truly specific test—the treponema pallidum immobilisation test (T.P.I.).

Syphilis

The causative organism of syphilis is a delicate corkscrew-shaped microbe with clear-cut, regular, tightly wound coils—a spirochete, the treponema pallidum. It has a characteristic motion made up of three components—slow undulation, rotation on its own long axis like a corkscrew and slow propulsion backwards or forwards. The treponema passes from one person to another usually through direct contact in sexual intercourse. If not treated, the disease may progress over many years, although it ceases to be infectious after a year or so.

For much of this period, there is little to signify that a serious illness has been contracted. The disease is latent in the body: the treponema have been spread throughout the body by the blood stream and its presence can be detected only by laboratory tests. Ultimately, however, in about one quarter of the cases late manifestations of syphilis will appear. In half these cases, the late manifestations will incapacitate or kill. The remainder will suffer a variety of non-lethal late manifestations which may appear from five to thirty years after the initial infection.

Where the treponema damage the circulatory system—cardio-vascular syphilis—the late manifestations of syphilis occur from about seven years after the initial infection. The aorta, the largest blood vessel leading directly from the heart may be weakened. The elastic tissue is destroyed and the aorta dilates, producing an aneurysm which may impair the functioning of the aortic valves. Rupture of the aneurysm may result in sudden death, or damage to the aortic valve leads to death through heart failure.

Where the treponema cause damage to the central nervous system or to the brain—neuro-syphilis—the late manifestations are more slow to appear, often from ten to twenty years after the initial infection. The most important are tabes dorsalis—a chronic progressive destruction of nerve fibres in the spinal cord and peripheral nerves—and general paralysis of the insane where the brain cells are progressively destroyed. In tabes, destruction of the joints may cripple the patient, while involvement of the eyes may lead to blindness.

If a woman infected with syphilis conceives, the unborn child may be infected by the passage of the treponema from the mother's blood to the tissues of the infant. The earlier pregnancies of a syphilitic woman often end in abortion, and later pregnancies may end in still birth. Other infants may survive, but many will suffer from congenital syphilis. The clinical manifestations of congenital syphilis are broadly similar to the late symptoms of syphilis acquired venereally. The most important defects are mental deficiency, blindness and deafness.

Gonorrhoea

Gonorrhoea is a more localised form of infection than syphilis, and although it can cause serious complications, these are rarely lethal. The causative organism, the gonococcus, has a predilection for the type of mucous membrane found in the genito-urinary tract. In both men and women the disease may cause sterility.

Gonorrhoea in an expectant mother can endanger the child at the time of delivery. The eye of the newborn may be infected by the gonococcus as it passes through the infected birth canal. Ophthalmia neonatorum is a complication of gonorrhoea, which before the advent of effective treatment often caused blindness.

The Control and Treatment of Venereal Diseases

THE rational control and the treatment of the venereal diseases has been possible only during the past sixty or seventy years. It was not until the late years of the nineteenth century that the nature of the disease was fully understood. The advances in micro-biology brought complementary progress in treatment which, coupled with the general progress of public health measures, led to the establishment of clinics for the control of the diseases.

Before effective treatment was available, public measures to combat the diseases were rare. Where they existed, they depended almost entirely on segregation and isolation.

The most systematic attempt in the nineteenth century to control the diseases was embodied in the Contagious Diseases Prevention Acts (1864–1869). They were prompted by the high incidence of venereal diseases among soldiers and sailors, and were designed primarily for their protection. The Acts permitted the arrest of women by special police on mere suspicion in eighteen garrison towns, a compulsory medical examination before the Justices, and detention in hospitals of those infected. The operation of the Contagious Diseases Acts, however, produced a powerful reaction and demands for their repeal. Josephine Butler (1828–1906) arose as the leader of the “Abolitionists”. Claiming that the Acts deprived the most defenceless class of its constitutional rights and that they failed as a public health measure, she agitated for their repeal through numerous publications. As a result of this campaign a Royal Commission (1870–1871) and a Select Committee of the House of Commons (1879–1882) investigated the workings of the Acts. They were suspended in 1883, and finally repealed in 1886.

The next attempt at public control of the diseases came with the outbreak of the First World War. By this time, the diseases were better understood and the discovery of new drugs had made treatment possible. The approach to the problem had changed: control was operated through advice and treatment and not through regulation and detention. A Royal Commission led to legislation in 1916 and 1917 which provided for the establishment of special clinics by local authorities providing free and confidential treatment. By 1917, 113 clinics were open in England and Wales: by 1920 the number had risen to 190.

Attendance at these clinics is entirely voluntary. As the venereal diseases do not always produce alarming symptoms in their early stages, it is necessary to warn, to remind and to encourage persons who expose themselves to risks of contracting the diseases to make use of these services. During the Second World War, the dangers of the diseases and the opportunities for advice and treatment were widely advertised. Currently, advertisement is confined for the most part, to notices in public lavatories. The most important control method currently used is contact tracing, whereby the sex contacts of infected persons can be advised confidentially that they may have contracted a venereal disease.

During the last war, however, powers were given to the venereal disease clinics under the defence regulation 33B to require a compulsory medical examination of any person mentioned by at least two others as a possible source of infection. In other countries compulsory powers still exist. These fall into two main classes. In a number of European countries, a person named as a source or a contact can be required to attend a clinic for examination. The majority of states in the U.S.A. adopt an alternative approach. A compulsory blood test to detect syphilis is required for all persons who wish to be married, and examination is also required for all potential immigrants to the U.S.A.

The history of the treatment of syphilis may be divided into three periods: the first, treatment with mercury, which ended in 1909 with the discovery by Ehrlich of '606 Salvarsan'; that of the arsphenamines, 1909-1943; and finally that of the antibiotics beginning with the use of penicillin from the mid-1940s.

The choice of mercury for the treatment of syphilis from the upsurge of the disease in the late fifteenth century was fortuitous. In the past, an ointment containing mercury, *unguentum Saracenicum* had been used for the treatment of sores, and so this ointment was used to treat the symptoms of syphilis. Its toxicity, however, led to its repeatedly falling out of favour, only to return when other drugs proved ineffective.

The discovery of 'Salvarsan' by Paul Ehrlich (1854–1915) in 1909 initiated the era of specific therapy for syphilis. 'Salvarsan', an arsenical compound could destroy treponema in the infected patient. The drug was, however, highly toxic, and relapses occurred even after repeated courses of injections. The search for safer and more effective cures was, therefore, continued. Chemical modification and pharmaceutical development eventually led to the introduction of 'Silversalvarsan', 'Neosalvarsan' and 'Neosilversalvarsan'.

These trivalent arsenicals proved highly successful. The effectiveness of arsenical treatment was further enhanced when combined with bismuth from the early 1920s.

The next advance was the treatment of syphilis with the original and later developments of penicillin. This antibiotic achieved in days what had taken arsenic and bismuth many months. It combined effectiveness with a very low toxicity. Early infectious cases could be rendered rapidly non-contagious, while late established cases could also be cured or at least the progress of the disease could be arrested by the administration of penicillin.

Treatment of syphilis with the arsphenamines and bismuth was painful, extremely prolonged and usually accompanied by a wide range of unpleasant toxic side-effects. Patients frequently defaulted before treatment was completed. There are no symptoms to alarm a person during certain stages of syphilis. The patient, therefore, saw no obvious or urgent reason to persevere with an extremely painful course of treatment. Thus in the 1930s "case-holding" was as large a problem as "contact tracing". Current treatment with penicillin is quick and painless and side-effects are confined to the relatively rare cases of penicillin sensitivity. Patients are now more ready to come forward for and to complete a course of treatment. This greater acceptance of treatment renders them non-infectious

more rapidly which further helps to curtail the spread of the disease. The patient's acceptance of treatment is clearly essential. Ease of administration and freedom from unpleasant side-effects may be a deciding factor in therapeutic effectiveness.

Up to 1937, the treatment of gonorrhoea depended mainly on local genital tract irrigation over a period of several weeks with a variety of chemical solutions. But this rarely produced a cure. The discovery of the sulphonamides in the late 1930s resulted in the cure of patients within a few days. Although by the mid-1940s, many strains of the gonococcus had become resistant to the sulphonamides, the situation was saved by the development of penicillin which proved to be even more effective in gonorrhoea than the sulphonamides.

Epidemiology

THE spread of venereal diseases depends on two related factors—the extent of promiscuity and the size of the infector pool. The first factor is a symptom of personal and public behaviour and morals. The diseases would vanish within a few decades if promiscuity ceased. The infector pool—the second factor—is increased by promiscuity, but is reduced as infected cases progress beyond the contagious stage, or more important, when infected persons are cured. The diseases would be eradicated if all infected persons were effectively treated simultaneously.

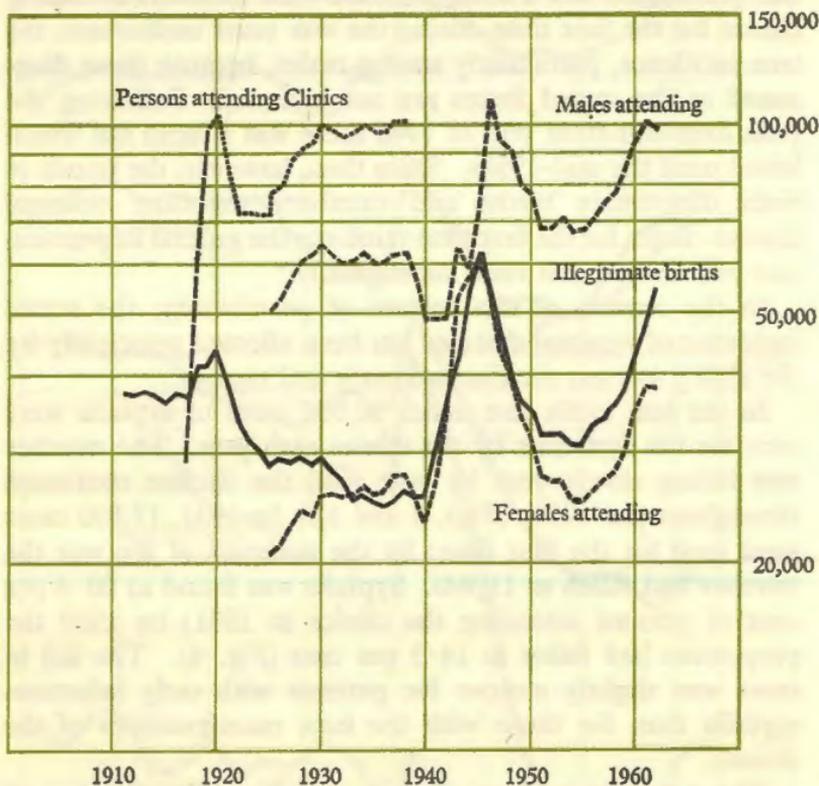
There is no reliable means of judging the extent of promiscuity in a community or of finding out whether it has increased, decreased, or remained largely the same over any period of time. The number of persons attending venereal disease clinics may indicate trends in the number of persons exposing themselves to the risks of infection. This is the number who believe they may have contracted venereal diseases which is substantially larger than the number of new cases actually diagnosed. However, changes in numbers visiting the clinics can indicate a change in the scope of contact tracing, in the impact of public health education, or a change in the willingness to seek advice. The trend in illegitimate births is an alternative measure of promiscuity, but here too the interpretation of the trend is complicated by changes in contraceptive measures, attitudes to pre-marital intercourse and the opportunities for a hurried marriage.

There is, however, a remarkable correlation—except for 1962—between the trend in illegitimate births and the trend in persons seeking advice from venereal diseases clinics (*Fig. 1*). To the extent that they are both manifestations of

Fig. 1.

**Attendance at Venereal Disease Clinics and illegitimate births.
England and Wales. 1917-1962.**

Sources: Ministry of Health. *Report of the Chief Medical Officer, 1938*. Appendix C, Table A, p. 277. 1939-1945, Appendix C, Table A, p. 272. *Annual Report Part II, 1959*, Appendix C, Table A, p. 279. 1962, Appendix C, Table A, p. 233. Registrar General. *Statistical Review Part II—Population, 1961*, Table B, p. 8.



promiscuity, they provide a useful indication of the trend in the numbers of persons who expose themselves to the risk of venereal disease.

The general pattern which emerges since the First World War is a rapid fall from high war-time levels during the early 1920s, to a fairly stable plateau which lasted until the outbreak of the Second World War. As would be expected the war years again saw a sharp increase—the numbers attending clinics for the first time during the war years understates the true incidence, particularly among males, because those diagnosed in the armed forces are not included. Following the peak demobilisation year of 1946 there was a rapid fall which lasted until the mid-1950s. Since then, however, the trends in both illegitimate births and numbers attending venereal disease clinics for the first time reinforce the general impression that promiscuity has risen substantially.*

In the context of this pattern of promiscuity, the actual incidence of venereal diseases has been affected principally by the ability to treat the diseases early and rapidly.

In the late 1920s just under 20,000 cases of syphilis were seen for the first time by the clinics each year. The number was falling slowly year by year, and the decline continued throughout the 1930s (*Figs. 2 and 3*). In 1931, 17,800 cases were seen for the first time: by the outbreak of the war the number had fallen to 11,900. Syphilis was found in 20.4 per cent of persons attending the clinics in 1931; by 1939 the proportion had fallen to 14.3 per cent (*Fig. 4*). The fall in cases was slightly steeper for patients with early infectious syphilis than for those with the later manifestations of the disease.

The war saw a sharp rise in syphilis. The number of cases seen by the clinics reached 23,900 of which nearly three-quarters were early infectious cases. The proportion of

* The causes of this rise and their fundamental moral and social implications are generally beyond the scope of this study. It might, however, be possible that the control of syphilis and ease of treatment themselves have lowered a barrier to promiscuity. It is difficult to assess whether this may be so or not and how far the fear of venereal disease is an important buttress to sexual morality. If this factor has been important, however, it is difficult to explain why during the late 1940s and early 1950s, when effective and painless treatment was first introduced, promiscuity—as measured by the indices in *Fig. 1*—decreased.

Fig. 2.

Venereal Diseases among males attending clinics for the first time. England and Wales. 1925-1962.

Source: Ministry of Health. *Report of the Chief Medical Officer, 1939-1945, Appendix C, Table A, p. 272. Annual Report Part II, 1959, Appendix C, Table A, p. 272. 1962, Appendix C, Table A, p. 233.*

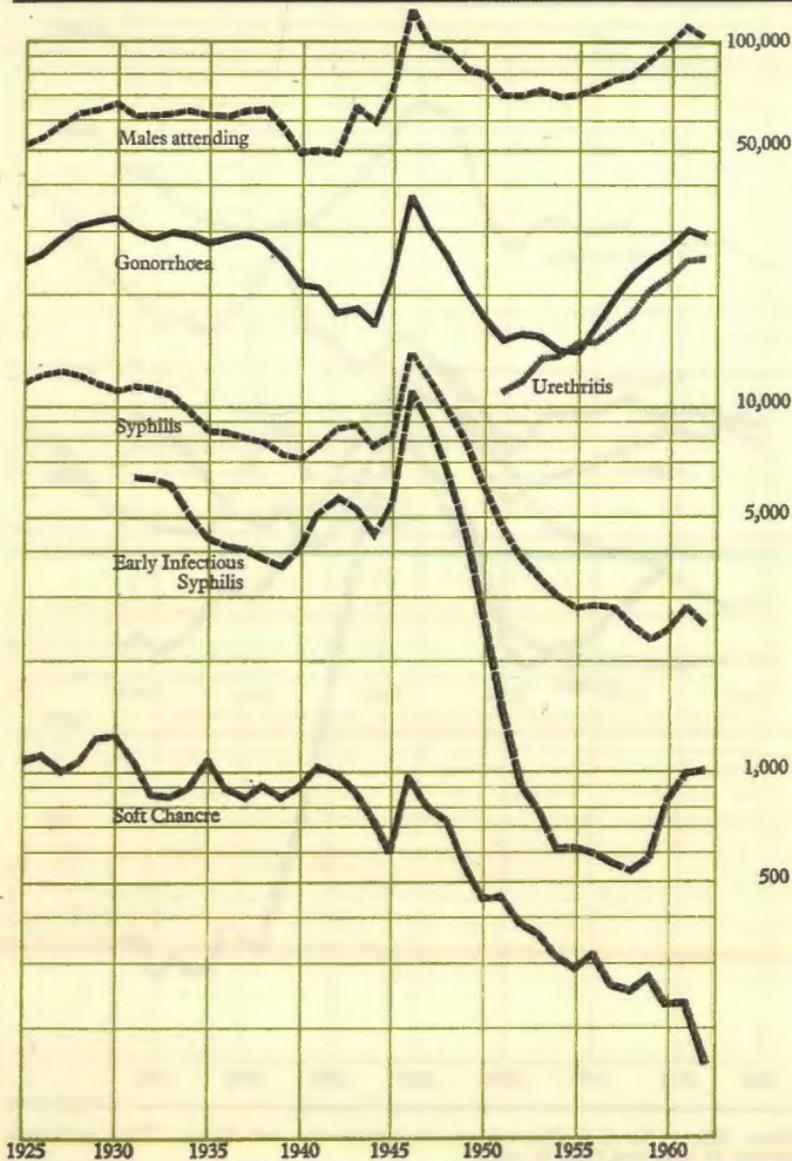
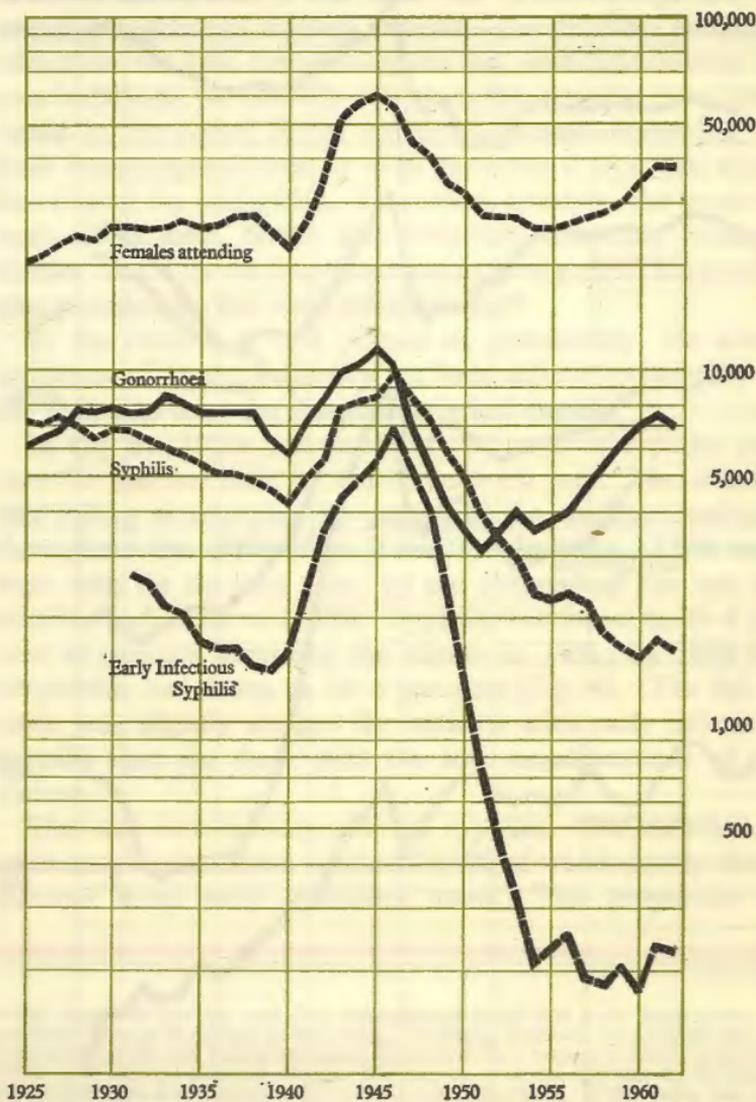


Fig. 3.

Venereal Diseases among females attending clinics for the first time. England and Wales. 1925-1962.

Source: Ministry of Health. Report of the Chief Medical Officer, 1939-1945, Appendix C, Table A, p. 272. Annual Report Part II, 1959, Appendix C, Table A, p. 272. 1962, Appendix C, Table A, p. 233.

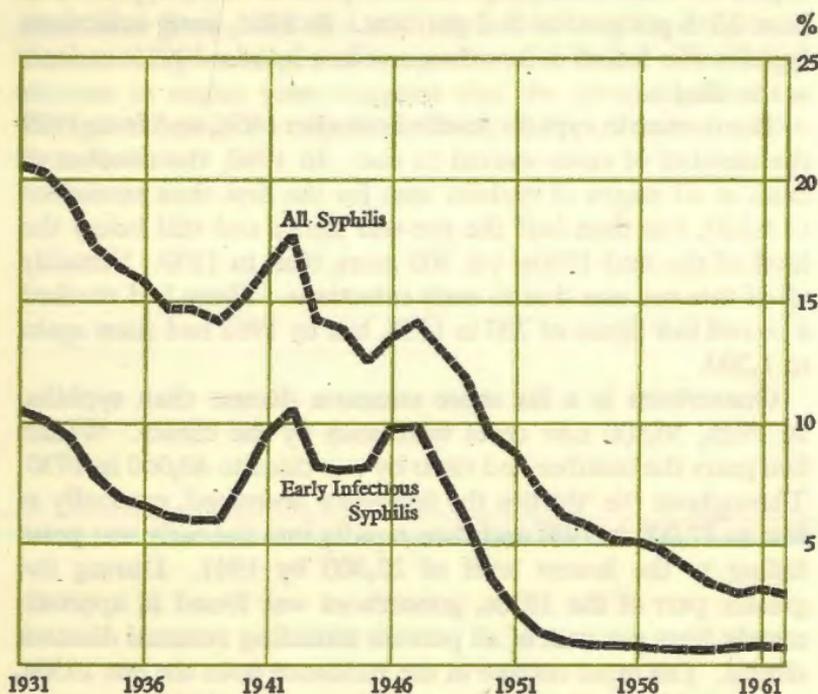


Notes: Figures for Soft Chancres among females are not shown. They numbered sixteen in 1950 and three in 1962.

Fig. 4.

Percentage syphilis found in persons attending clinics for the first time. England and Wales. 1931-1962.

Source: Figs. 2 and 3.



syphilis among all persons attending also rose—to 17·7 per cent by 1942, but fell away from then to 13·5 per cent in 1946.

The years immediately following the war saw an abrupt decline in syphilis. Between 1946 and 1956 the total number of cases fell almost four-fifths from 23,900 to 5,100. Cases of early infection fell more rapidly, by over nine-tenths—from 17,700 to 840. As a proportion of persons seen, syphilis fell from 13·5 per cent to 5·2 per cent. In 1956, early infectious syphilis was found in less than one in a hundred persons seen at the clinics.

The decline in syphilis levelled out after 1956, and from 1959 the number of cases started to rise. In 1962, the number of cases at all stages of syphilis seen for the first time amounted to 4,120, less than half the pre-war figure and still below the level of the mid-1950s, yet 300 more than in 1959. Virtually all of this rise was due to early infections. These had reached a record low figure of 700 in 1958, but by 1962 had risen again to 1,200.

Gonorrhoea is a far more common disease than syphilis. In 1925, 30,500 new cases were seen by the clinics. Within five years the number had risen by one third to 40,000 in 1930. Throughout the 'thirties the incidence decreased, gradually at first to 37,000 in 1937 and then rapidly into the early war years falling to the lowest level of 22,900 by 1941. During the greater part of the 1930s, gonorrhoea was found in approximately forty per cent of all persons attending venereal diseases clinics. The rapid decline in the incidence from the late 1930s, reduced this to thirty per cent of the total by 1941.

From the early 1940s until the end of the war the number of cases steadily rose—from 22,900 in 1941 to 47,300 in 1946. But this period of rapid increase was followed by eight years of even sharper decline—cases numbered 17,500 in 1954, or in 18·5 per cent of all persons seen for the first time that year. Gonorrhoea, however, has been rising rapidly since 1954, cases numbered 37,100 in 1961—nearly as many as seen in the early 1930s. In 1962 there was a slight decrease to 35,400.

The general picture with syphilis is a substantial decline compared with pre-war years—the greatest decline coinciding with the use of penicillin. The rise since the low levels of the mid-1950s has been generally no faster than the general trend

of promiscuity reflected by illegitimate births and persons visiting clinics. The rise in new infections among males is an exception to this general pattern and might well be attributed to infection through homosexual contact.

With gonorrhoea, the picture is dominated by the rise since the early 1950s. The incidence of the disease is almost as great as the highest levels found before the war. What decreases there have been coincided with the use of sulphonamides in the late 1930s and penicillin in the mid-1940s. The rapid increase in recent years suggests that the ground gained by therapeutic progress in the control of this disease is now virtually lost.

Social Impact

BECAUSE of their association with sex and promiscuity, the venereal diseases carry an emotive content which other diseases lack. No other disease is so closely entwined with morality, with sin and with guilt. The diseases can appear to the victim as a retribution for transgression. Guilt and shame are enhanced if a man has infected his wife and through her their offspring. A marriage can be broken up by the disease.*

Control of the venereal diseases has brought substantial benefit firstly, by reducing their incidence and secondly, by arresting their normal course among infected individuals. Congenital syphilis has virtually disappeared as a cause of death of infants under the age of one (*Fig. 5*). The death rate started to decline from the time clinics were first established and arsenical treatment available. The decline continued steadily until the outbreak of the last war. The war saw a short rise but the infant death rate from congenital syphilis fell away even more sharply with the advent of penicillin. Fifty years ago, 1,200 infants died each year from congenital syphilis: in twenty-five years the number was reduced to 120 a year. Now, an infant death from congenital syphilis in this country is a rarity.

The decline in infant mortality has been associated with a decrease in the incidence of congenital syphilis. The number of cases of congenital syphilis dealt with by venereal disease clinics among infants and young children (ages up to five years)

* The Matrimonial Causes Act 1950 provides that a marriage shall be voidable if one partner was suffering from communicable venereal disease at the time of marriage, so long as the other partner did not know of this at the time, institutes proceedings within one year of the date of marriage and ceases intercourse on the discovery of the disease.

Fig. 5.

Infant mortality per 1,000 live births. Congenital syphilis.
England and Wales. 1911-1962.

Sources: Ministry of Health. *Report on the State of Public Health, 1962, Appendix C, Table D, p. 235.*



* See Note for post 1954 rates.

Note: Rates for 1930 and earlier years have been adjusted for approximate comparability by a conversion ratio of 0.857. Death rates per thousand of infants for years after 1954—1954 0.003; 1955 Nil; 1956 Nil; 1957 Nil; 1958 0.004; 1959 0.003; 1960 Nil; 1961 Nil; 1962 0.001.

varied between 300 and 400 cases a year between 1931 and 1950. The number of cases among infants declined abruptly in 1950 falling from 227 in 1950 to eleven in 1962; the number of cases among young children fell shortly after, from 101 in 1952 to eight in 1962 (*Fig. 6*).

Gonorrhoea has a less profound effect than syphilis, rarely causing the debility or the premature death of a person who acquires the infection venereally. Its most important effect is its complication—ophthalmia neonatorum—infection of infants' eyes by the gonococcus during birth—which was the largest single cause of blindness until recent decades. In 1922, it accounted for one-third of all cases entering provincial schools for the blind.³ The routine use of antiseptic or antibacterial drops in the eyes of new born infants immediately after birth has effectively controlled this condition. By 1954 ophthalmia neonatorum accounted for less than two in a hundred cases entering blind schools. Since 1955 there have been no cases of blindness from this infection in the new-born found among blindness certificates analysed by the Ministry of Health.⁴ Blindness from congenital syphilis has also been reduced. In the 1930s, this cause accounted for approximately twelve per cent of blindness in persons aged fifteen to forty-nine years.³ By the mid-1950s it accounted for less than one per cent of blindness.⁴ The numbers have continued to fall. In 1955, congenital syphilis accounted for sixty-one among 9,012 blindness certificates analysed; by 1960 the number fell to forty-six among 10,050 certificates.⁴

The morbidity of acquired syphilis is less easy to assess. The late effects of the disease may not be felt until twenty or even thirty years after the initial infection. But even here, however, some gains are apparent. Deaths at all ages from syphilis fell from approximately 140 per million at the time the venereal disease clinics were first established to approximately sixty-five per million by the outbreak of the Second World War. The decline has been rapid since the war years and currently deaths number just under twenty per million (*Fig. 7*). The gains have been greatest with neuro-syphilis. Early diagnosis by examination of the spinal fluid makes the early treatment of neuro-syphilis possible. Cardio-vascular syphilis is less easy to detect and there has been virtually no

Fig. 6.

Cases of congenital syphilis. Ages 0-5 years. England and Wales. 1931-1962.

Source: Ministry of Health. *Annual Report Part II, 1959, Appendix C, Table C, p. 281. 1962, Appendix C, Table C, p. 234.*

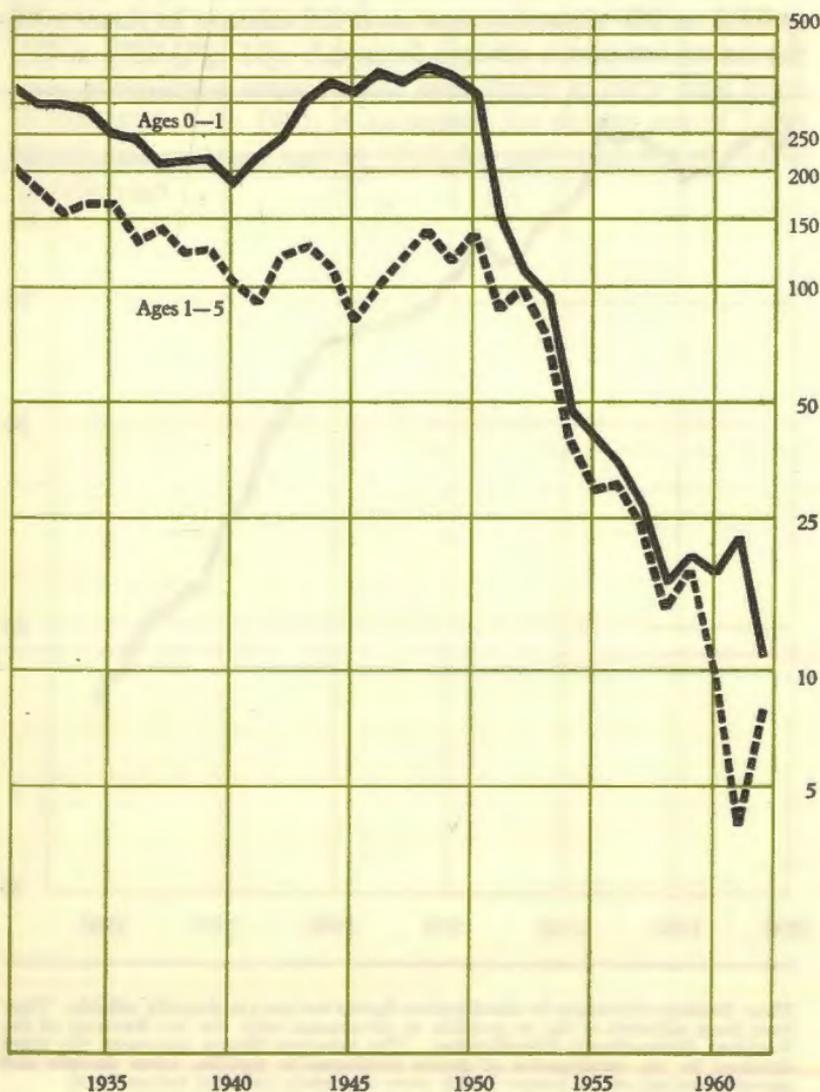
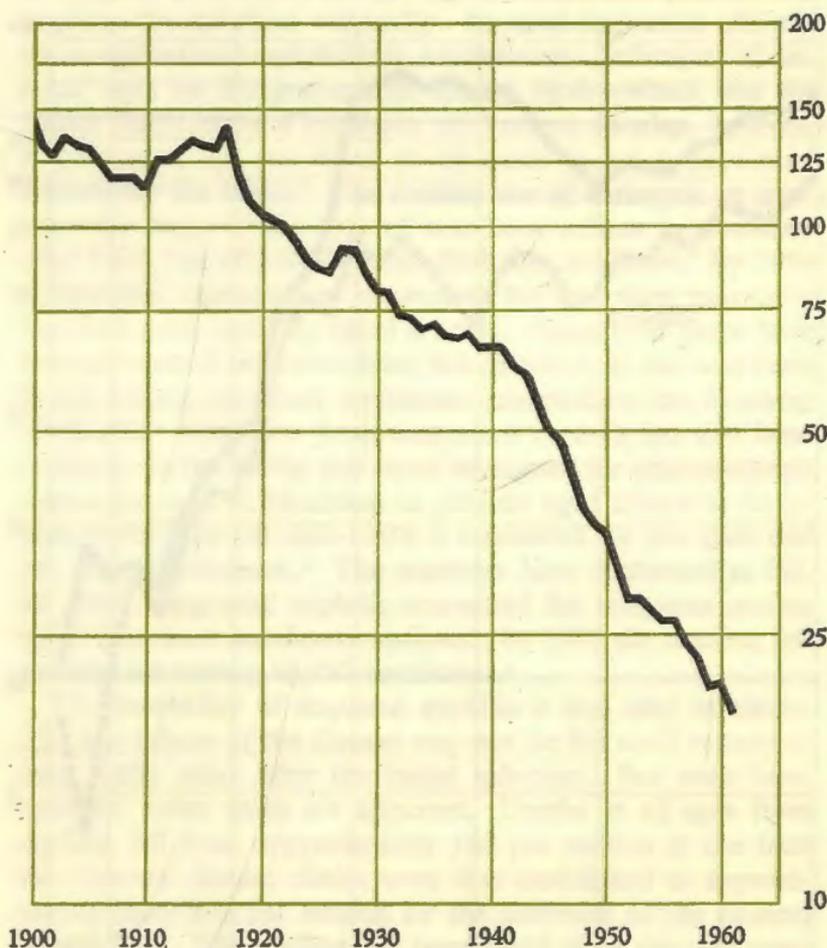


Fig. 7.

Syphilis death rates per million. All ages. England and Wales. 1901-1961.

Source: Registrar General. *Statistical Review of England and Wales Part I—Medical. Various Years.*



Note: Because of changes in classification figures are not consistently reliable. They have been adjusted as far as possible to correspond with the 7th Revision of the Standard International Classification. The pre-1930 figures represent the trend obtained by the combination of deaths attributed to syphilis, tabes dorsalis and general paralysis of the insane (which were separately classified before 1930).

improvement in cardio-vascular syphilis deaths since the early 1930s. In contrast, deaths from tabes dorsalis and general paralysis of the insane are less than one-tenth their level of the early 1930s (*Figs. 8 and 9*).

Information relating to other late effects of syphilis also show gains matching the general decline of the disease. The number of persons entering mental hospitals for the first time as a result of syphilis fell from approximately 400 in 1949 to 150 in 1959 (*Fig. 10*). Acquired syphilis accounted for six per cent of blindness among those aged thirty to forty-nine years in the 1930s.³ In 1951, it accounted for sixteen out of 7,484 certificates analysed and by 1960, for only nine out of 10,050 certificates.⁴

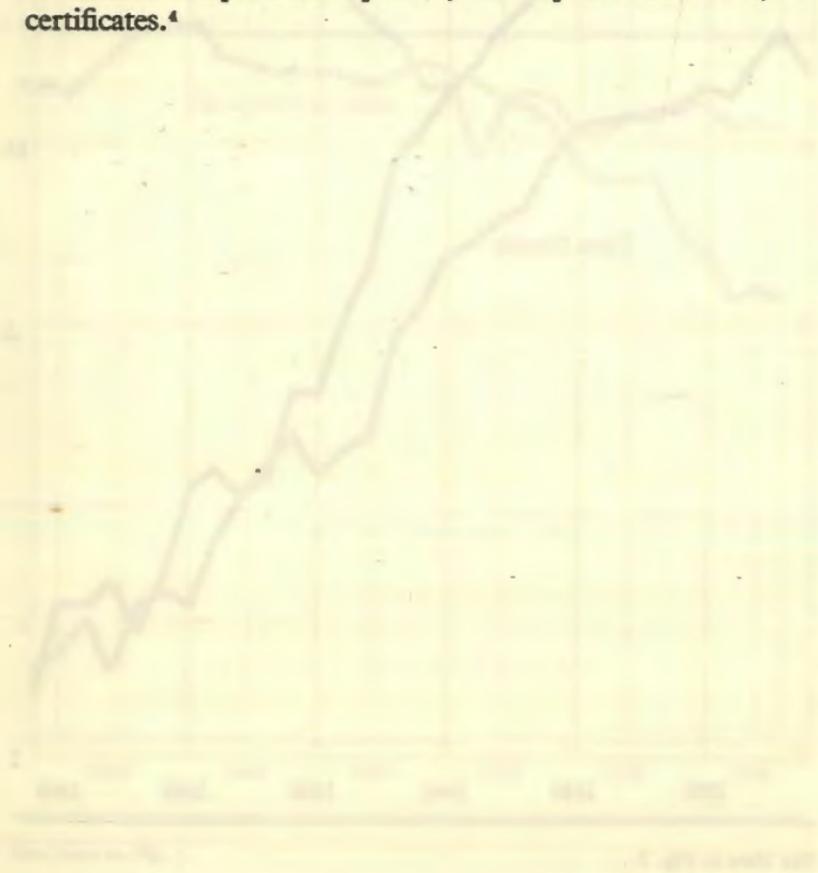
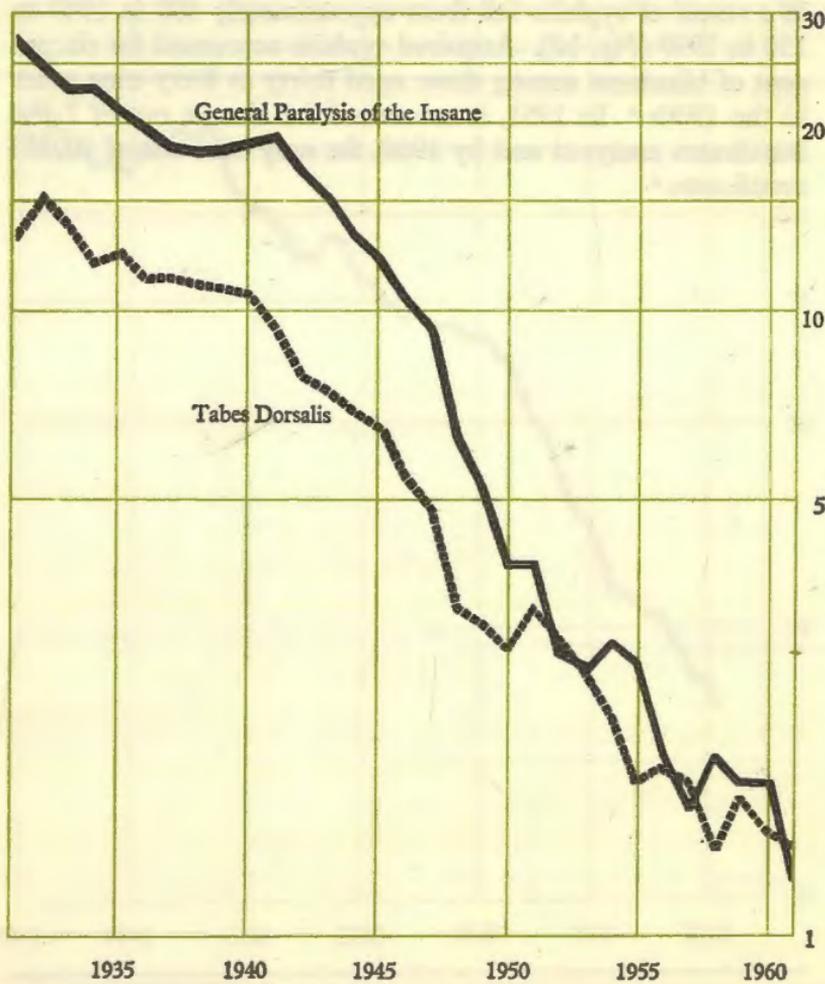


Fig. 8.

Syphilis death rates per million. Neuro-syphilis. England and Wales. 1931-1961.

Source: Registrar General. *Statistical Review of England and Wales Part I—Medical. Various Years.*

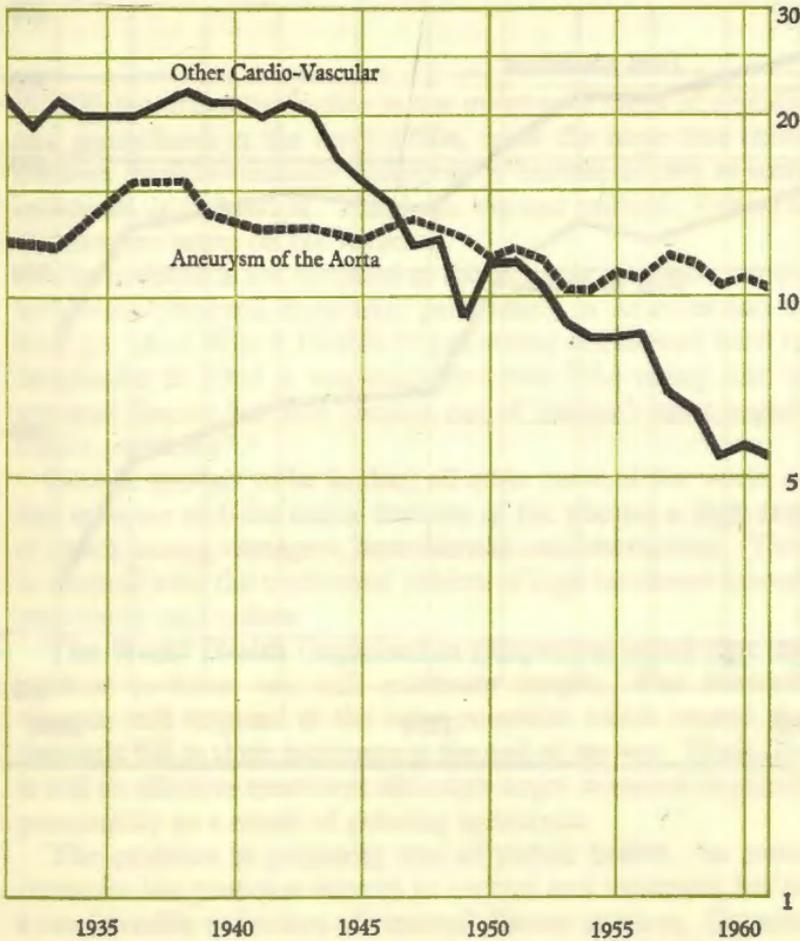


See Note to *Fig. 7.*

Fig. 9.

Syphilis death rates per million. Cardio-vascular syphilis. England and Wales. 1931-1961.

Source: Registrar General. *Statistical Review of England and Wales Part I—Medical. Various Years.*

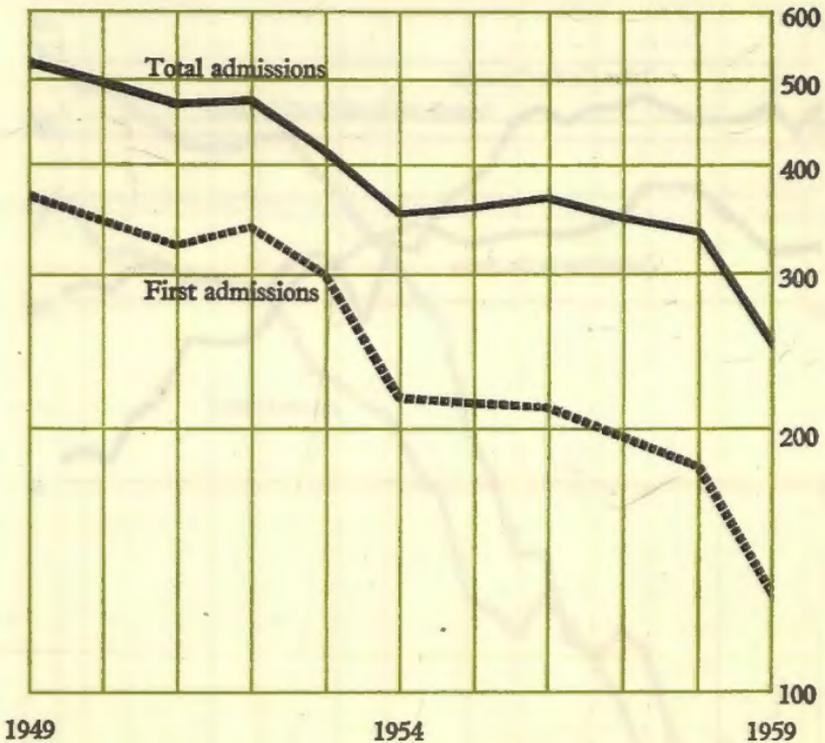


See Note to Fig. 7.

Fig. 10.

Admissions to Mental Hospitals. Syphilis. England and Wales. 1949-1959.

Sources: Registrar General. *Supplements on Mental Health*, 1949, Table M 16, p. 84. 1950-1951, Table M 23, p. 168. 1952-1953, Table M 11, p. 123. 1954-1956, Table M 11, p. 123. 1959, Table M 11, p. 53.



The Present Situation

WITH the dramatic decline in the number of cases of syphilis and gonorrhoea in the early 1950s, came the hope that these diseases would eventually disappear or become as rare as such infections as diphtheria. This hope was not realised. Venereal diseases are again on the increase.

The problem is not confined to this country as similar trends have been observed elsewhere, particularly in America and in Europe. At a World Health Organisation conference held in Stockholm in 1963 it was suggested that "the rising tide of venereal disease has now become one of Europe's most urgent health problems".⁵

Europe appears to be leading all other parts of the world in this increase and the major features of the rise are a high rate of attack among teenagers, homosexuals and immigrants. This is coupled with the traditional pattern of high incidence among prostitutes and sailors.

The World Health Organisation symposium noted that the medical problem was still relatively simple. The venereal diseases still respond to the same remedies which caused the dramatic fall in their incidence at the end of the war. Penicillin is still an effective treatment although larger doses are required presumably as a result of growing resistance.

The problem is primarily one of public health. In some countries the post-war success in control and treatment led to a considerable reduction of venereal disease services. Doctors as well as the general public may have downgraded the danger of the diseases and believing them to be rare often failed to diagnose them. The success of penicillin has also perhaps lessened the urgency of the continued search by pharmaceutical manufacturers for more effective specific remedies.

More generally, information about venereal diseases has mainly been directed at men conscripted to the armed services, and most women have remained profoundly ignorant of the diseases and their manifestations. Women often present no symptoms of infection, particularly in gonorrhoea and, therefore, may form a reservoir of undiagnosed and untreated infection. In addition to this, the rise in travel abroad and the use of immigrant labour have increased the risks of contracting disease. With the high birth rate immediately after the war, a larger number of young persons are now reaching sexual maturity, with greater sexual freedom than in the past, but without corresponding knowledge or responsibility.

The major lesson of the recent history of venereal disease is that although drug therapy has brought substantial gains, it is not by itself the answer. Two other factors are important. First, prevention is better than cure, and the dangers of contracting venereal disease must be widely recognised. Second, even when effective therapy is available, control or eradication of a disease is only possible if all those who are infected come forward for treatment.

Gains made during the early 1950s will be preserved or the ultimate goal of eradication attained only by a vigorous programme of social and public health education.

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