# STATISTICS & VENEREAL DISEASES

## Increase in Venereal Disease in England and Wales*

By

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*Preamble*: Annual reports published by the Ministry of Healh, British Co-operative Clinical Group's studies and a large number of medical literature iilustrate that during the recent years there has been an enormous increase in the incidence of venereal diseases in England and Wales. This increase coincided with a similar increase in most part of the world, and despite modern methods of treatment the problem of venereal diseases, in fact, remained large and intractable... There could be many reasons for the failure to control venereal infection, some of which are clear but others still remain obscure (Hossain,-1968; 1968a). Venereal disease perpetuates through sexual promiscuity, and modern trends suggest sexual behaviour is perhaps increasingly becoming casual among every age and socio-economic group of people (Hossain, 1967a). Emphasis has been on promicuity as the main behavioural factor in the spread of venereal disease.

Perhaps because it is traditional to blame venereal diseases on the immigrants, and Britain has a long tradition of absorbing foreign workers, who in recent years have been mostly Commonwealth citizens, in addition, the problem with immigrants received a great deal of attention in England and Wales (John,-1963; Laird, 1961; Laird and Morton, 1959; Morton, 1963; Watt, 1958). As the increasing number of venereal disease cases coincided with the more incoming immigrants, Morton (1963) suggested that the rise was inseparably associated with increasing number of immigrants, though national figures may not reflect the local prepoderance of cases (Laird, 1961). To what extent these immigrants have contributed to the problem is another aspect of discussion, and has been partly discussed elsewhere (Hussain, 1970). Accepting the hypothetical role played by the immigrants Willcox (1965) concluded that the immigrants had merely aggravated an existing problem in England and Wales, and there would still have been some inrease had there been no immigrants. (Willcox, 1962a). In Britain everyone thus became conscious of an increase in venereal disease in England and Wales in recent years, and the situation was exaggerated by the large influx of immegrants, who are mostly coloured.

Although the increasing number of reported cases has been apparent from mid-1950s, scientific evidence is still lacking supporting the recrudescence of venereal diseases. No attempt had been made to interpret the alleged increase in spite of an overall appraisal. A confusion therefore naturally arises; has there really been an increasee in recent years in venereal diseases in England and Wales, and are the immigrants responsible for it? Conversely, is it not possible,

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as Willcox (1966) pointed out on American explanation regarding the recent increase in gonorrhoea cases there that "it was only the doctors reporting more cases, so it looked as if there was in increase." However, there is also a reason to assume that over-reporting is perhaps not so infrequent because of the different practice of recording venereal disease cases from one clinic to another in Britain.

*Venereal Disease Sttistics*: A survey (Br. J. vener. Dis.) revealed that a substantial proportion of venereal conditions in Britain were not included in the official figures to the extent that about 15% to 20% of gonorrhoea cases alone were excluded (Catterall, 1963; King and Nicol, 1961). Thus, not all cases of venereal infection are reported to the national health authorities (Curtis, 1963; Gelman et al., 1963; WHO Chron.). Many cases remain excluded as they are treated by private physicians, army doctors, and other specialists who, being outside the speciality of venereology, do not equally feel it necessary to report every case. Whether it is due to the stigma or sense of shame of the disease, collection of accurate data of venereal diseases is usually impracticable. For this natural hindrance, unlike other disease situatior, analysis of statistical picture of venereal diseases is not entirely valid.

Host-parasite reactions also play some part in the number of cases reported. Emergence of asymptomatic cases perhaps due to wide use of antibiotics or to emergence of less virulent micro-organisms (Hossain, 1968) has now become a sizeable problem. Penicillin and other anticiotics are now so widely used for a variety of other conditions that they may only supress undiagnosed venereal infections, while in some cases selt-treatment (Andersen, 1966) is evident. In addition, failure to develop any specific but highly sensitive diagnostic technique has resulted in certain problem in identifying some cases, for instance, gonorrhoea in females (Hossain, 1967). Moreover, some conditions which are predominently transmitted sexually and which venereologists naturally include within their speciality foa greater care and management, viz. trichomoniasis (Hossain, 1967c), are still largely attended by general practitioners and other specilists.

*Bias in Venereal Disease Statistics of England and Wales*:

Despite having bias in venereal disease statistics it is generally agreed that the data nonetheless may illustrate the trend of a country, though not the true incidence (WHO Chron.). How accurately this may apply to the venereal disease situation of England and Wales is not known and, therfore, deserves close examination.

The annual figures published by the Ministry of Health for England and Wales shows the number of 'cases' and not the number of persons involved Because an individual may (and, in sexually transmitted diseases, freuently does) contribute to a number of infections in a year, the number of 'cases' thus reported has no importance, though it may cause optic illusion and thus may influence one emotionally. On the other hand, 500 cases in a 5 million population and 500 cases in a 3 million population do not convey the equal significance. Similarly, 500 cases contributed by 500 individuals do not equally convey the same scientific

meaning as it is with 500 cases resulted by 300 persons. What is important that an increase in the number of reported 'cases' as may indicate on increase of cases, may equally result due to increase in total population situation as well. On the other hand, the number of persons involved may be the same or there may not be significant difference though there may a difference in the number of cases. So it is with the decrease in the reported numer of cases. The number of cases, therefore, cannot support any evidence. It also deserves consideration that the population has never shown any decrease in England and Wales (Ministry of Health, 1968). The total population in England and Wales was 43,815,000 in 1951. which showed a 5.4 per cent increase and rose to 46,205,000 in 1961. The mid-year population estimate thereafter increased progressively every year and showed an increase of 4.7 per cent from 1961 to 1967 reaching to a total population of 48,391,000. It is therefore not possible for any statistical calculation or to define the risk-group of people.

The national figure includes only cases attending for the first time (i. e. diagnosed as a new case) at any clinic (excluding cases transferred from centre to centre) in England and Wales, though it is well known that some patients do attend a number of clinics for a variety of reasons for the same condition without being transferred. Moreover, in London and at other places where there are a number of venereal disease clinics, somewhere even within a few minutes walk (e. g., the clinics at the Middlesex Hospital and the University College Hospital in London), it has been seen that persons attending a particular clinic suddenly attended another clinic for certain covenience. Since these people, though may not be many in number, are always included as new patients in different clinics, it is possible that certain amount of increase in the reported number of cases has resulted from such attendence, and not due to any increase.

It is often very difficult to establish a diagnosis between relapse and re-infection. In some cases the infection may persist due te treatment failure, misdiagnosis, or as a result of less virulent micro-organisms (Hossain,-1967b). Although re-infection can be catagorised as new cases, inclusion of relapses appears undesirable. As no effort is made to exclude the relapses, there is a reason to doubt that the inclusion might have resulted in a certain increase in the reported number of cases.

The practice of diagnosis varies from one venereal disease clinic to another. After an active episode of gonorrhoea, for example, some patients might be left with a mild urethral discharge persisting over a variable period of time. Most clinics do not pay any attention to this natural phenomenon during the subsequent follow-up, while others show enthusiasm of including them as new cases of 'non-gonococcal' urethritis. This inclusion might also, to some extent, result in the ncrease in the reported number of cases.

Again, some patients while attending the clinics for the same condition do not always bring their hospital cards. Most clinics pay a considerable effort

searching through the master records and index cards so that a duplicate card can be issued. Wheather it is due to less number of staff coupled with an over-load of work, other clinics do not show similar enthusiasm. The cases are therefore re-entered there as new cases which, though hitherto undesirnble, might result in a natural increase in the number of cases reported.

*Venereal Disease Situation in England & Wales*:— No scientific interpretation is therfore possible from the available statistics wheather there has really been any increase in venereal disease situation in England and Wales in recent years. Catterall (1967) pointed out that during 1965 new cases alone visited the venereal disease clinics in England and Wales at the rate of more than one case per minute of each eight hour working day throughout the year. While the report understated the magnitude of the problem because not all cases were included in the Ministry of Health's annual figures, on which the estimate was based, the estimate also exaggerated the situation because there is reason to believe that the data might contain certain amount of over-reporting. Moreover, emphasis has been made on the number of 'cases' and not of patients. In addition, a substantial proportion of the 'cases' had no venereal infection to the extent that approximately one-quarter of the 'cases' in that year had neither any infection nor required any form of the treatment. This estimate, though crudely warrants on a sizeable problem of administration and management, it in no way suggests an increased magnitude of venereal infections.

The national figures for England and Wales may yet show a trend and it is perhaps possible to associate their implication, though the scope is far limited. An analysis has therefore been made on the venereal disease statistics published by the Ministry of Health (1968, Appendix C).

*Gonorrhoea*: In England and Wales, the reported number of cases among the males was 19,620 in 1957 which inreased to 29,519 in 1961. The number of cases showed little upward or downward trends during the following years, and then reached to 30,645 in 1967. Among the females, the reported number of cases was 4,761 in 1957 which continuously increased and reached 11,184 in 1967.

Similar was the situation in most other parts of the world. In fact, the problem with gonococcal infection is overwhelming (Hossain, 1968) and the available diagnostic technique has failed to identify undetected sources of the infection. The extremely infectious nature of the disease and a very short incubation period combined with lack of immunity make the statistical possibility of acquiring and of spreading the infection extremely great (Willcox, 1962). Reinfection is quite common and people have been seen acquiring the infection several times in a year, while relapses are not so infrequent. Moreover, because there has possibly been a profound change in sexual morality among all age and sex groups of people (Hossain, 1967a), an overall increase in the number of gonorrhoea cases might well be anticipated.

For all these reasons, though the reported number of cases in England and Wales showed a substantial increase, the Ministry of Health's statistics provide no evidence of a real increase of infection affecting more number of total population. There are also certain other factors which need close consideration, of which population situation is of great importance. On this aspect, as emphasized earlier, the total population of England and Wales has also increased consideably over the years (Ministry of Health, Table A).

*'Non—Gonococcal' Urethritis*: The impact of the problem of 'non-gonococcal' urethritis in females is neither known, nor notified in separate catagory. It was not an "official" venereal disease of the Ministry of Health's statistics till 1950. Since 1951, however, the figures are only available in the males alone in England and Wales, and the reported number of cases among them has shown a three-fold increase during a period of 17 years, and rose from 10,794 cases in 1951 to 32,318 cases in 1967.

Whether it is a real reflection of the situation, the increase appears to be unparalleled in spite of the numerous bias introduced in the venereal disease statistics. Yet, it can perhaps neither prove any increase nor, if there was an increase, can illustrate the extent of increase.

The terminology itself is a misnomer and indicates a venereal origin. While majority preferred terminology of non-specific urethritis it is equally probable of both venereal and non-venereal origin. However, this suggestion of a venereal origin and other factors relating diagnosis of cases could possibly lead to certain amount of exaggeration. A proportion of cases do not have any history of sexual exposure suggesting that not all cases could rightly be catagorised as eventual outcome of a promiscuous relationship. Moreover, the present attitude of the persons attending venereal disease clinics also needs appreciation. The overall attitude of the people towards venereal diseases has changed considerably during the past years which is self-evident from the number of people attending the clinics but were not found to have any form of venereal infection. This attitude itself has possibly prompted some cases to attend venereal disease clinics for having certain amount of urethral discharge, whether or not it was pathognomic. Besides, as the treatment of the condition does not resulting an imediate relief of symptoms there is a reason to believe that some unhappy patients might go to a number of clinics seeking an immediate cure.

*Syphilis*: Althogh some cases of syphilis remain excluded from the national fligures (Br. J. vener. Dis.), the statistical picture thereof does not appear to be so biased. It can therefore possibly reflect the near trend of the infection being aided by the facts that the number of re-infection within a year is too seldom and so the relapses, while very few diagnosed to have syphilis do attend one clinic or another. This data thus excludes a number of snags in reporting and over-reporting of cases which are possible with other cases attending venereal disease clinics. Therefore, if syphilis can be taken as an index to interpret the

increase in venereal diseases, the available figures for syphilis in England and Wales (Ministry of Health, Appendix C) rather show a decline in the reported number of cases. This decline appears far more pronounced when the increase in the total population situation is also taken into consideration. If there has been an increase in venereal disease situation in England and Wales, an increase in the reported number of cases of syphilis, however partial may be, would have been obvious.

The reported number of cases among males was 2,747 in 1957 which increased to 2,947 in 1958 and, then started to decline and reached 2,371 in 1963. During the following two years, 1964 and 1965, there has been slight recrudescence and the number of cases was 2,507 and 2,811, respectively, after which it again declined to 2,434 in 1967. Among females the number of cases was 2,230 in 1957 which declined to 1,545 in 1960, thereafter rising to 1,712 in 1961, it declined again and reached 1,169 in 1967.

*Chancroid*: The reported number of cases of chancroid has always been negligible in England and Wales in spite of a continuous increase in total population. There were 254 cases in males in 1957, which dropped to 63 in 1967. Similar was the case in females, among whom there were 6 cases in 1957 and 12 in 1958, which dropped to only one in 1967.

*Other Minor Conditions requiring Treatment*: This catagory includes a number of conditions requiring any form of treatment, some of which are transmitted predominently sexually or through a very close contact. Although none of the conditions are recognised officially to be venereal diseases for the purpose of notification, these conditions are generally considered by the venereal disease clinics in Britain and are reported collectively for the annual figures published by the Ministry of Health. As it has been with the 'non-gonococcal' urethritis the number of cases in this catagory in England and Wales was 14,332 in the males in 1957 (11,607 in 1951) which jumped to 25,337 in 1967, and in the females it increased from 11,317 in 1957 (8517 in 1951) to 28,417 in 1967.

*Other Conditions requiring No Treatment*: In England and Wales, the number of cases in males in this catagory was 25,032 in 1957 which rose to 28,748 in 1967, showing somewhat a flattened curve during the years between 1963 and 1967 and the number of cases ranged between 25,217 and 30,324. In females, there were 9,098 cases in 1957 which rose to 15,946 in 1966 and 15,958 in 1967.

None of these cases had any type of infection, whether venereal or non-venereal, nor required any form of treatment. Many of them just attended the clinics because they had taken the risks and were therefore anxious. This trend itself along with the cases who had "other minor conditions requiring treatment" do clearly emphasize an increasing awareness of sexually transmitted diseases, and a gradual change of attitude of the people and willingness of attending venereal disease clinics. There is perhaps no longer any stigma and a sence of shame for attending a venereal disease clinic.

Thus, when everyone in Britain is aware of an 'increase' in venereal diseases, it is only the cases of gonorrhoea which showed certain amount of increase, though there is a serious doubt whether such an increase in 'cases' occured due to increase in infection. Similar is true as regards the 'non-gonococcal' urethritis in man. When generous allowances are made for various snags in reporting and over-reporting of cases and on such other relevant informations as increased population movement and increase in total population situation, contrary to the remours there is perhaps very little, or no, evidence of a real increase in venereal diseases in England and Wales in recent years. Emphasis could also be placed that the number of reported 'cases' of gonorrhoea and non-gonococcal' urethritis has yet increased during the past years even when a serious restrictions were imposed to the entry of immigrants into Britain through the Commonwealth Immigration Act. On the other hand, in spite of large number of immigrants, other venereal diseases of which the sources are usually outside Britain, remained uncommon.

*Snags with B. C. C. G. Statistics* : The British Co-operative Clinical Group (B. C. C. G., 1968; 1968a) has made a number of studies on the "Country or Origin" of the venereal disease cases in England and Wales as well as in Scotland, covering approximately 90 per cent or more cases of the national total in a number of years. These studies have established that the immigrants have contributed to the venereal disease situation of the country significantly, though emphasis has been made on the number of 'cases' and not on individuals whose number, despite every restrictions increased substantially. Although the statistical analysis of the reports is presented to the best available technique, the results of those reports do not entirely appear to be valid because of a number of inter-related factors (Hossain, 1970).

The most imortant of all snags the B.C.C.G. studies shoving is relating to the selection of venereal disease clinics participating the studies, which has been biased due to introduction of human choice. In fact, neither are the clinics selected through any sophisticated sampling technique, nor Included all the venereal disease clinics of the country so as to remove the discrepnacy. It mostly included the clinics which have certain amount of importance or a large attendences, being situated in the cities and towns, urban areas and seaports, where the immigrants usually concentrate for varieties of prospects. It therefore excluded the clinics, usually situated in the remote areas, which were possibly attended by persons born in the United Kingdom in general. This makes probable that inclusion of those clinics could possibly result in a decrease in the proportion of the immigrants than that has been illustrated through the B C.C.G. studies.

These studies also succeeded in illustrating a considerable exaggeration in the proportion of immigrants contributing (including importing) to the venereal disease situation due to inclusion of all the venereal disease clinics situated at the sea-ports. This effect has been possible because the B.C.C.G. failed to maintain

any extra catagory for the seafarers in their statistics. These sea-ports are often frequented by an extremely large number of foreign ship cargos. As a usual pattern, on landing ashore, some seafarers do run for sexuel excitement and thus eventually acquire or disseminate venereal infection, and those who are already infected from such an infection attend the nearby venereal disease clinics. In fact, irrespective of nationality, culture, custom and religion, seafarers (Haro and Pataiala, 1961; Idsoe and Guthe, 1963; Schofiield, 1965) are notorious in this respect and, export and import of venereal infection is perhaps a natural occupational by-product of them. These seafarers, many of whom born outside of the United-Kingdom, cannot be catagories as "immigrants" as such. Absence of extra classification in those "Country of Origin" studies has therefore made it possible to include everyone born outside of the United Kingdom. in exremely large number of immigrants responsible. This inclusion of them along with immigrants ordinarily residing in Britain and attending venereal disease clinics has established their contributions, though the real situation may not be the same or similar.

Moreover, the studies are also handicapped because of the bias introduced in reporting the cases as it is with the Ministry of Health's report. In addition, an accurate estimate of the role played by the immigrants to the venereal disease situation cannot be made on the number of cases alone.

Because of all these snags the B.C C.G. studies have failed to prove scientifically the role played by the immigrants in recent venereal disease situation as well as an increase in venereal disease.

*Conclusion*: The venereal disease statistics of any country are known to possess a number of bias. So it is with that of Great Britain. The avaiable venereal disease statistics of England and Wales merely report certain number of "cases". Depending upon the population situation, an increasing number of 'cases' may indicate anything between an increase and a decrease. So as to estimate an increase or decrease one needs the incidence and prevalence rates of the condition, and the number of persons involved and risk in each age and sex group of people. Until such a data is available, no scientific interpretation is possible. For this reason confusion therefore still exists as to whether there has really been an increase in venereal diseases in England and Wales in recent years.

It is only gonorrhoea and 'non-gonococcal' urethritis which have shown certain amount of increase in the reported number of cases in England and Wales, and the statisties of both these conditions, more particularly when the 'cases' are taken into account and not the patients, have a number of pitfalls. Even if this increase could be accepted as a real increase, there is no evidence to prove the the extent to which it has increased. On the other hand, despite an increasing population situation in England and Wales, other venereal diseases showed a negative association to the alleged increase.

Indeed, there has been certain load of cases of having some form of symptoms requiring and of having no infection and thus require not reatmen.

This by itself reflects an increasing problem in administration, and can establish an evidence of gradual change of attitude and of general awareness of the people.

Scientific evidence is still lacking as to the contribution of the immigrants, whether foreign or Commonwealth citizens.

It is unique despite a questionable association that no one in Great Britain has denied the recent increase in venereal diseases, and the influence of the large influx of immigrants (overseas people living ordinarily in Britain). The available venereal disease statistics of the country can neither support an increase nor establish the role played by the immigrants as such. What they indicated is a clear evidence of an increasing burden on administration and management.

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