

Voluntary Reporting of Venereal Diseases

—*In Contacts Previously Reported Not Infected*—

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A central registry of venereal disease cases and contacts was established in 1944 in the Illinois Department of Public Health to eliminate duplication of reporting and to provide a screening device for laboratory positives, field assignments, and correspondence. All information pertinent to the case or contact is coded on punch cards and filed alphabetically with this registry. A duplicate set of cards containing morbidity data is kept for background.

Records in this central registry show that some individuals are reported repeatedly for clinical progression in the course of syphilis, as new infections of syphilis, and as new infections of gonorrhea. This information, when filed in a central registry, provides an instrument which lends itself to analysis of administrative procedures. It is also proposed to use this method to determine whether contacts to primary or secondary syphilis cases who had been found upon initial examination to be not infected would, because of their presumed promiscuity, be reported subsequently as new cases of venereal disease. With the results of such a study in mind, efforts might be directed toward subsequent programs to follow up these contacts to primary and secondary syphilis

cases, in an effort to find new cases of venereal disease.

Such a study suggests two avenues of approach: (a) a check of the central registry to determine voluntary reporting of such contacts as cases by private physicians or clinics, and (b) an actual field demonstration on contacts found previously noninfected. This paper is based upon the first method.

Method

Since the establishment of an assignment and report form in 1944, all information on each case followed as a field assignment is recorded on a punch card, making possible the tabulation in the central registry of results and other pertinent data on venereal disease investigations. For this study, all reports of contact investigations in which information was available on contacts to primary and secondary syphilis cases were sorted from the file. The reports which indicated that the contact was not infected when examined were used in this study. A list of such contacts to primary and secondary syphilis cases who were found upon investigation to be not infected was established for each year from 1946 through 1950. Records on these contacts, giving pertinent information, such as age, sex, color, and county of residence, were filed alphabetically. The records were then checked against the central registry files for any diagnostic and treatment data available there. In some cases, central registry information represented data obtained

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prior to completion of the original investigation; in most cases, after the completion of the original investigation.

Results

Tables 1 and 2 indicate the results of a check of contact listings with the central registry. This screening was made during May 1951, and represents a 5-year check of contacts originally reported not infected, to determine if they eventually were reported by private physicians or clinics as cases of venereal disease. The central registry was used to screen this list of contacts for diagnostic and treatment data. The records of 1,935 contacts found not infected on initial investigation yielded morbidity information on 266, or 13.7 percent; 198, or 10.2 percent, were found infected sometime after the conclusion of the initial examination; and 68, or 3.5 percent, were found to have been infected with a venereal disease prior to the date of investigation. Of the 198 contacts found infected with a venereal disease in the ensuing 5 years of this study, 90, or 45.5 percent, were reported as cases of syphilis, while 108, or 54.5 percent, were reported subsequently as cases of gonorrhea. The 90 syphilis cases represent 4.6 percent of the noninfected contacts subsequently reported, with 53 of these, 59 percent, in the primary or secondary stage, while the 108 gonorrhea cases represent 5.6 percent of the orig-

inal screened contacts. A decreasing trend in the ratio of reporting new cases of venereal disease to the numbers screened each year is noted in this study. In 1946, 12.4 percent of these contacts were subsequently reported as cases, while in 1950 only 5.2 percent were found to be infected with a venereal disease.

Table 1 shows that 68 of these contacts were reported as cases of venereal disease sometime before their investigation as contacts. This case information relating to such contacts was brought to light by correspondence, recent morbidity reports, and by other means. Of the 68 contacts reported as infected before the initiation of such investigation, 29, or 42.6 percent, of the infections were syphilitic, while 39, or 57.4 percent, were gonorrhoeal.

Table 3 summarizes the results of such a screening procedure. The highest percentage of venereal disease among contacts was found to have been contracted during the first year after the examination at which the contact had been reported to be not infected. A decreasing trend in these percentages is apparent for these noninfected contacts for the next 4 years. The majority of the first-year-interval reports are for primary or secondary syphilis.

Discussion

This study indicates that of the 1,935 contacts checked, 90, or 4.6 percent, were subsequently re-

Table 1. Results of central registry screening of noninfected contacts, by year of investigation—down-state Illinois, 1946–50

Year	Contacts found not infected on initial investigation (number)	Contacts found infected after initial investigation					Contacts found infected prior to initial investigation				
		Total venereal disease		Syphilis		Gonorrhea (number)	Total venereal disease		Syphilis		Gonorrhea (number)
		Number	Percent	Primary and secondary (number)	Other syphilis (number)		Number	Percent	Primary and secondary (number)	Other syphilis (number)	
1946	460	57	12.4	18	8	31	13	2.8	2	0	11
1947	469	58	12.4	13	17	28	12	2.6	4	1	7
1948	428	41	9.6	9	6	26	16	3.7	8	0	8
1949	309	28	9.1	5	6	17	5	1.6	1	1	3
1950	269	14	5.2	8	0	6	22	8.2	8	4	10
Total	1,935	198	10.2	53	37	108	68	3.5	23	6	39

Table 2. Number and percent of cases of venereal disease reported among noninfected contacts, by year reported as a case and by year found not infected as a contact

Year reported as case	Year found not infected as contact									
	1946		1947		1948		1949		1950	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1946	27	5.9								
1947	14	3.0	22	4.7						
1948	7	1.5	16	3.4	13	3.0				
1949	5	1.1	9	2.0	20	4.7	14	4.6		
1950	4	.9	11	2.3	8	1.9	14	4.5	14	5.2
Total infected contacts	57	12.4	58	12.4	41	9.6	28	9.1	14	5.2
Total noninfected contacts	460		469		478		309		269	

ported as cases of syphilis. Of the syphilis cases found, 59 percent were diagnosed as being in the primary and secondary stages. It is interesting to note that most of these infectious cases were diagnosed during the first year after they were examined as contacts and found to be not infected. In order to determine whether any of these infectious cases were missed during their initial investigation and examination as contacts, a sample survey of similar assignments indicated that the notation "examined not infected" was entered on these investigation reports at varying lengths of time after the exposure date—70 percent were followed for 90 or more days; 20 percent, 60 to 90 days; and 10 percent less than 60 days. If this sample is acceptable as representative of the whole experience, the number of contacts subsequently reported as infected, and probably by the same initial exposure, would be insignificant. It must be remembered that 10 percent of the cases were followed less than 60 days—an interval well above the average incubation period for the disease. This, however, does not minimize the need for adequate follow-up of such contacts.

The percent of cases (4.6) subsequently reported among contacts initially found noninfected is deemed to be significant in view of the fact that these were spontaneously reported without added follow-up incentive. Compared to the rate of voluntary reporting of new cases among the population at large, this group of contacts, who have been at risk and may con-

tinue to be at risk because of established promiscuity, constitutes a reservoir of new cases toward which case-finding efforts might be directed. The statistics which in recent years have pointed out the magnitude of undiagnosed, and hence unreported, cases tempt the inference that many more new cases could be elicited by re-examining the "noninfected-contact" reservoir, for in it there may well be many subsequent exposures. Certainly, serologic surveys are not selective of such groups but are applied to the general adult population at great cost and extremely low yields of early infectious cases.

The decreasing trend in the ratio of new cases of venereal disease reported to the numbers screened each year is shown in table 2. With prolongation of time for presumed promiscuity, when all other factors are constant, increased cumulative exposure, and hence increased infection and subsequent higher incidence of voluntary reporting are expected. Certain factors which qualify these assumptions are: (a) the increased incidence of venereal disease during war periods, and (b) the present decreasing incidence of reported new infections of venereal disease. In this 5-year study, representing a period of national emergency after the termination of World War II, the reported infection rate of syphilis rose and then declined precipitously. During the peak years of infectivity, increased promiscuity probably yielded increased morbidity because of increased exposure

Table 3. Noninfected contacts later reported as venereal disease cases by interval of time between contact investigation and report as a case

Interval between contact investigation and report of contact as a case (years)	Total contacts for each period	Total venereal disease		Syphilis						Gonorrhea	
				Total		Primary and secondary		Other			
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Under 1.....	1, 935	86	4. 4	47	2. 4	37	1. 9	10	0. 5	39	2. 0
1-1.9.....	1, 666	66	4. 0	27	1. 7	11	. 7	16	1. 0	39	2. 3
2-2.9.....	1, 357	24	1. 8	9	. 7	4	. 3	5	. 4	15	1. 1
3-3.9.....	929	16	1. 7	4	. 4	0	0	4	. 4	12	1. 3
4-4.9.....	460	6	1. 3	3	. 6	1	. 2	2	. 4	3	. 7

risk, while during the years of decreasing infectivity, promiscuity may not have yielded similar increased morbidity because of the lessening of this risk.

The entire yield of the investigation of contacts to infectious cases of syphilis who were found not infected on their initial examinations will be determined not only from spontaneous reporting of such contacts as new cases of venereal disease, but also from a careful field investigation of such contacts who were not spontaneously reported. It can, however, be noted from results of this study that a follow-up of a presumed promiscuous population may be worthy of administrative trial, inasmuch as cases reported voluntarily represent only those who seek medical care from physicians who may not report them to a health department. Such an approach is now in operation on a demonstration and research basis and will be reported later.

Summary and Conclusions

1. Of 1,935 contacts reported after investigation as noninfected, 266, or 13.7 percent, were subsequently reported as having become infected with syphilis or gonorrhea. Of these,

198, or 10.2 percent, of the contacts initially investigated were found infected sometime after the conclusion of the initial investigation.

2. Syphilis cases reported in this group totaled 90, or 4.6 percent, of all noninfected contacts.

3. Early infectious (primary and secondary) syphilis totaled 53 cases, or 58.9 percent of all cases of syphilis subsequently reported.

4. The majority of all venereal disease cases subsequently reported among such "noninfected" contacts were reported within 1 year after the initial investigation.

5. The spontaneity of this reporting is emphasized and inferences drawn as to yield after re-examination of the noninfected-contact reservoir.

6. Voluntary reporting of venereal diseases by reporting agencies to the venereal disease central registry in the Illinois Department of Public Health has been utilized in this study to pinpoint administratively the need for further control measures in the follow-up of contacts to primary and secondary cases of syphilis, who, upon their initial examination and investigation, were found to be not infected with a venereal disease.