

VD FACT SHEET - 1962

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Public Health Service

**Basic Statistics on the Venereal Disease Problem
in the United States**

**VD FACT SHEET
1962**

Nineteenth Revision

**U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
Communicable Disease Center
Atlanta 22, Georgia**

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Contents

	Page
Introduction	1
Incidence and Prevalence	2
Costs of Uncontrolled Syphilis	3-4
Reported Mortality and Insanity Due to Syphilis	5-6
Reported Cases of Venereal Diseases	7-12
Health Department Case-finding Activities	7, 13
Reported Morbidity Rates by Age	14-15
Reported Cases of Congenital Syphilis, by Age	16
Treatment of Syphilis	17-20
Gonorrhea	21-24
Penicillin Reactions	25-26

Introduction

The VD Fact Sheet is intended as a handy source of basic statistics on the venereal diseases in the United States. In this booklet, public health specialists, students, physicians, and other persons interested in medical data will find venereal diseases measured by incidence and prevalence. The general public will find tables showing the costs of uncontrolled venereal disease and the frequency of psychoses and deaths from syphilis. While the results of case-finding are measured in terms of cases reported, the actual amount of case-finding effort is seen in the volume of diagnostic examinations and epidemiologic activity. As there is no agent for immunizing the population, finding and treating cases continues to be the only feasible means of controlling venereal disease.

Facts on these aspects of the venereal disease problem and program are presented in the text and tables which follow. The information is current as of the date of publication, and it supersedes any previously published data. Where no source is cited, the data presented are based on statistics collected by the Venereal Disease Program or upon estimates made by the Program. Where data are indicated as being for "fiscal years," the period runs from July 1 of the previous year through June 30 of the year indicated on the table. Rates per 100,000 population shown in this Fact Sheet are based on appropriate population estimates obtained from the Bureau of the Census.

Incidence and Prevalence

The incidence of a disease is defined as the number of new cases occurring in a given area within a specified period of time, usually a year; prevalence is the number of cases existing at a point in time. Thus, if 2,000 cases of previously undiscovered syphilis exist in Norfolk, Va., on January 1, and 500 new cases occur during the ensuing year, the incidence of syphilis for the year would be 500 cases. The prevalence of cases at the beginning of the year would be 2,000 and the prevalence of cases at the end of the year would be 2,500 if no other cases were found and none cured during the year.

Reported cases understate incidence and prevalence. This occurs, first, because all cases diagnosed are not reported; second, because all cases occurring or existing do not come to medical attention. However, the Venereal Disease Program estimates that a minimum of 60,000 cases of syphilis occur in the United States each year, and that there are 1,200,000 persons in the population who need treatment for syphilis. The incidence of gonorrhea is estimated to be one million cases per year.

From time to time, prevalence data have been obtained on large groups of persons. One of these groups, Selective Service Registrants examined for military service in World War II, was not only a large group but a fairly random selection of the young male population. The syphilis prevalence rates per 1,000 examined, by age and race, for the first two million registrants examined are shown below:

TABLE 1
PREVALENCE RATES OF SYPHILIS DETECTED PER 1,000
MALE SELECTEES AND VOLUNTEERS EXAMINED
November 1940 to August 1941, by Race and Age

Age Groups	White	Nonwhite	Unknown	Total
18 - 20	11.1	105.8	29.7	55.1
21 - 25	10.2	191.7	25.3	30.1
26 - 30	21.0	294.8	46.6	54.4
31 - 35	37.9	357.8	80.6	83.5
36 - 40	44.4	375.6	103.2	101.9
TOTAL	17.6	245.2	41.0	46.1

In 1946, the prevalence of syphilis among examined sexual contacts of persons known to have primary or secondary syphilis was approximately 50 percent for white males, 51 percent for white females, 55 percent for nonwhite males, and 59 percent for nonwhite females. More recent data available for the total of all contacts to primary or secondary syphilis indicate that 37 percent of contacts examined in fiscal 1962 were infected compared to 54 percent in 1946.

Costs of Uncontrolled Syphilis

The statistics presented in Table 2 indicate the toll imposed by syphilis upon the manpower and economy of the country.

The estimate of man-years of disability for institutionalization of the syphilitic insane is based on the total number of patients in mental institutions and upon the proportion of those diagnosed as having syphilitic psychoses. Patients in state, county, private, and Veterans Administration hospitals for the permanent care of the insane are included.

The cost of maintenance is based upon the number of patients with syphilitic psychoses in tax supported institutions and upon the average per patient maintenance cost. The three percent of patients with syphilitic psychoses maintained in private institutions has not been included.

Disability attributed to cardiovascular syphilis and to locomotor ataxia is based on conservative estimates of the prevalence of these late manifestations of syphilis.

The loss of life expectancy indicates the loss of future years of life for persons dying of syphilis in 1960. It is based on the expected years of life remaining to persons of that age, race and sex. The loss of income indicates the probable earnings of these persons for the productive years of life lost to age 65. It is based on the average personal income for adults during 1960.

While disabilities and deaths from syphilis have been diminishing in recent years, costs and losses per case have been rising. As a result, total costs and income losses from syphilitic disabilities and deaths remain high compared to previous estimates.

On the basis of findings of research conducted in Macon County, Alabama, it has been estimated that the life expectancy of a Negro male between the ages of 25 and 60 years, infected with syphilis and receiving no appreciable treatment for his infection, is reduced by about 17 percent.*

* Shafer, J.K.; Usilton, Lida J.; Gleeson, Geraldine A.: Untreated Syphilis in the Male Negro: A prospective study of the effect on life expectancy. Public Health Reports, 69:684-690, July 1954. Milbank Memorial Fund Quarterly, 32:262-274, July 1954.

(Case of Uncontrolled Syphilis)

TABLE 2
ESTIMATED ANNUAL COSTS OF UNCONTROLLED SYPHILIS*

MAN-YEARS OF SYPHILIS DISABILITY PER YEAR	
Institutionalization for syphilitic insanity (1960)	24,000
Disability from cardiovascular syphilis, including aneurysm (1960)	5,600
Disability from locomotor ataxia (1960)	700
Disability from syphilitic blindness (1960)	12,600
ECONOMIC COSTS OF SYPHILITIC PSYCHOSES AND SYPHILITIC BLINDNESS PER YEAR	
Maintenance of patients with syphilitic psychoses (1960)	\$49,366,000
Maintenance of syphilitic blind (1960)	\$5,500,000
LOSS OF LIFE EXPECTANCY FROM DEATHS DUE TO SYPHILIS IN MAN-YEARS (1960)	
White males	21,526
White females	9,671
Non-white males	11,156
Non-white females	6,421
Total population	48,774
LOSS OF INCOME TO AGE 65 AT 1960 ADULT INCOME RATE	\$50,760,000

* Estimates based on most recent available data for years indicated.

Reported Mortality and Insanity Due to Syphilis

Mortality statistics are compiled by the National Office of Vital Statistics from duplicates of death certificates filed with State or local registrars. Mortality rates for syphilis are calculated by dividing the number of deaths in a given year by the population for that year and multiplying by 100,000 (rate per 100,000 population). The infant mortality rate for syphilis for a given year is obtained by dividing the deaths due to syphilis among children under one year of age by the number of live births in the year multiplied by 10,000 (rate per 10,000 live births).

Since deaths from syphilis represent case-finding and treatment failures, mortality due to syphilis may be considered an inverse measure of the success of the syphilis control program.

It has been the practice since 1900 to revise the International Lists of Causes of Death about every 10 years to keep abreast of medical progress. These revisions have at times affected the continuity of syphilis mortality statistics. "The Sixth Revision of the International Lists of Causes of Death," which became effective in 1949, reduced reported syphilis deaths by about 26 percent. In "The Seventh Revision of the International Lists of Causes of Death," which was published in 1955 and became effective beginning January 1958, an increase of 3.3 percent for syphilis and its sequelae occurred by reason of a change in interpretation of "aneurysm of the aorta" reported in a sequence involving arteriosclerosis of sites other than the aorta. It should be noted, however, that the interpretation of such sequences reverted in 1959 to that used with the Sixth Revision. Mortality rates given in this *FACT SHEET* have been adjusted to the basis of the Seventh Revision. No adjustment was made for infant mortality since it was affected very little by changes in the Seventh Revision.

Insanity due to syphilis is measured by the rate of first admissions to mental hospitals because of syphilis. Excluded are admissions to psychopathic hospitals which provide only temporary care, and admissions to Veterans Administration facilities. The number of admissions is obtained from "Patients in Mental Institutions" published by the National Institute of Mental Health. Since only first admissions are included in the rate, the figures over a period of years represent a measure of the trend of incidence of syphilitic insanity.

Data on mortality and insanity due to syphilis are presented in Table 3.

1907***	1.0
1908***	1.8
1909***	1.3
1910***	1.1
1920	2.0
1921	3.3
1922	3.2
1923	3.0
1924	3.1
1925	3.1
1926	3.1
1927	2.0
1928	2.8
1929	2.0
1930	2.0
1931	2.0
1932	2.0
1933	2.0
1934	2.0
1935	2.0
1936	2.0
1937	2.0
1938	2.0
1939	2.0
1940	2.0
1941	2.0
1942	2.0
1943	2.0
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1988	2.0
1989	2.0
1990	2.0
1991	2.0
1992	2.0
1993	2.0
1994	2.0
1995	2.0
1996	2.0
1997	2.0
1998	2.0
1999	2.0
2000	2.0

TABLE 3
 REPORTED MORTALITY AND INSANITY DUE TO SYPHILIS
 UNITED STATES
 1940 - 1962

Calendar Year	Syphilis Mortality* Rates per 100,000 Population			Infant Mortality Due to Syphilis, Rates per 10,000 Live Births			First Admissions to Mental Hospitals Due to Syphilis Rates per 100,000 Population**
	Total	White	Nonwhite	Total	White	Nonwhite	Total
1940	10.7	7.3	40.2	5.30	2.50	25.20	6.1
1941	9.9	6.9	35.2	4.10	1.80	21.00	6.1
1942	9.0	6.4	31.4	3.00	1.50	15.00	6.1
1943	9.0	6.4	41.2	2.52	1.18	12.76	5.8
1944	8.3	5.8	29.3	2.67	1.17	13.50	5.6
1945	7.9	5.6	27.3	2.50	1.07	12.59	5.5
1946	6.9	4.9	23.8	1.64	.66	9.20	4.7
1947	6.5	4.7	22.1	1.40	.51	8.21	4.2
1948	5.9	4.2	19.9	1.24	.49	6.31	3.7
1949	5.8	4.2	19.2	.84	.29	4.41	3.2
1950	5.0	3.7	16.1	.57	.24	2.59	2.6
1951	4.1	3.0	13.4	.34	.12	1.73	2.1
1952	3.7	2.7	11.4	.24	.10	1.14	1.8
1953	3.3	2.4	10.9	.14	.04	.77	1.5
1954	3.0	2.3	9.2	.11	.03	.54	1.3
1955	2.4	1.7	7.9	.08	.03	.41	1.0
1956	2.3	1.7	7.1	.06	.02	.31	.8
1957	2.2	1.7	6.9	.06	.05	.16	.8
1958	2.0	1.5	6.4	.07	.02	.36	.6
1959	1.7	1.3	4.9	.06	.02	.23	.4
1960***	1.7	1.3	4.9	.05	—	—	.4
1961***	1.8	—	—	—	—	—	—
1962***	1.6	—	—	—	—	—	—

* Seventh Revision, International Lists of Causes of Death; see Mortality, Page 5 for explanation

** Does not include admissions to V. A. and psychopathic hospitals; rate based on population of area reporting

*** Estimated

Source: Mortality and Natality Data, National Office of Vital Statistics; First Admissions to Mental Hospitals, National Institute of Mental Health; Rates based on population estimates of the Bureau of the Census

Reported Cases of Venereal Disease

All states require that syphilis and gonorrhea cases coming to medical attention be reported to the state or local health officer. Other venereal diseases are also reportable in most states. Quarterly, each state submits to the Public Health Service a summary of the cases reported to it. All cases not previously reported, regardless of duration, are to be included in the report. The reported morbidity, as reported cases are sometimes called, indicates the volume of successful casefinding.

The trend of reported cases of early syphilis (or reported case rates) over a period of years may be indicative of incidence trends if no significant changes in case-finding effort have occurred. Reported cases of syphilis in the later stages may be considered as an indication of past case-finding failure as well as present success. Trends in reported cases must be interpreted with caution since changes in case-finding effort are reflected in morbidity data just as much as changes in incidence and prevalence.

Reported cases of venereal diseases are shown in Table 4 through Table 8. During the years 1955-1958, reported cases of primary and secondary syphilis, the recently acquired infectious stage of the disease, remained fairly level at about 6,500 cases per year. However, in fiscal year 1959, reported cases of infectious syphilis began to increase and continued to increase at an accelerated rate through 1961. In 1962, the increase was not nearly as great as in the 3 preceding years. These increases are believed to be due to a combination of better reporting by private physicians, to better casefinding, and to a real increase in incidence in most areas.

Health Department Case-Finding Activities

The correct interpretation of case-finding success depends upon a knowledge of the volume of case-finding effort. Table 9 shows the volume of case-finding effort in public clinics and cases of venereal disease found through these efforts. Total activity is indicated by the number of diagnostic examinations performed and investigations completed. The section of contact investigation indices indicate the volume of contacts named and the success in finding cases of syphilis on a per patient basis. It should be noted that at least one infected contact should be identified for each case of primary or secondary syphilis.

TABLE 4

CASES OF SYPHILIS AND GONORRHEA REPORTED TO THE PUBLIC HEALTH SERVICE
BY STATE HEALTH DEPARTMENTS, AND RATES PER 100,000 POPULATION
All Reporting Areas in United States
1919 - 1962

Fiscal Year	SYPHILIS		GONORRHEA	
	Cases	Rates per 100,000	Cases	Rates per 100,000
1919	100,466	113.2	131,193	147.8
1920	142,869	145.3	172,387	175.4
1921	184,090	172.3	189,927	177.7
1922	171,824	157.7	152,959	140.4
1923	172,258	156.2	156,826	142.2
1924	194,936	174.2	161,676	144.5
1925	201,692	181.2	166,208	149.3
1926	205,595	196.1	164,808	157.2
1927	196,457	171.9	160,793	140.7
1928	185,437	174.2	147,219	138.3
1929	195,559	169.2	156,544	135.4
1930	213,309	185.4	155,875	135.5
1931	229,720	197.4	155,895	134.0
1932	242,128	208.2	154,051	132.5
1933	238,656	193.4	149,823	121.4
1934	231,129	186.7	153,542	124.1
1935	255,856	205.6	162,763	130.8
1936	267,717	212.6	163,465	129.8
1937	336,258	264.3	182,460	143.4
1938	480,140	372.0	198,439	153.8
1939	478,738	367.1	182,314	139.8
1940	472,900	359.7	175,841	133.8
1941	485,560	368.2	193,468	146.7
1942	479,601	363.4	212,403	160.9
1943	575,593	447.0	275,070	213.6
1944	467,755	367.9	300,676	236.5
1945	359,114	282.3	287,181	225.8
1946	363,647	271.7	368,020	275.0
1947	372,963	264.6	400,639	284.2
1948	338,141	234.7	363,014	252.0
1949	288,736	197.3	331,661	226.7
1950	229,723	154.2	303,992	204.0
1951	198,640	131.8	270,459	179.5
1952	168,734	110.8	245,633	161.3
1953	156,099	100.8	243,857	157.4
1954	137,876	87.5	239,661	152.0
1955	122,075	76.0	239,787	149.2
1956	126,219	77.1	233,333	142.4
1957	130,552	78.3	216,476	129.8
1958	116,630	68.5	220,191	129.3
1959	119,981	69.3	237,318	137.0
1960	120,249	68.0	246,697	139.6
1961	125,262	69.7	265,665	147.8
1962	124,188	68.1	260,468	142.9

NOTE: Beginning in 1939, all States are included in the reporting area.
Military cases excluded after 1940.
Rates based on population estimates by the Bureau of the Census.

TABLE 5
 CASES OF VENEREAL DISEASE REPORTED TO THE PUBLIC HEALTH SERVICE
 FISCAL YEARS 1951 - 1962
 (Known Military Cases Are Excluded)

Fiscal Year	SYPHILIS					GONORRHEA	OTHER VENEREAL DISEASES		
	Total Syphilis*	Primary and Secondary	Early Latent	Late and Late Latent	Congenital		Chancroid	Granuloma Inguinale	Lympho-Granuloma Venereum
United States									
1951	198,640	18,211	52,309	107,133	12,836	270,459	4,707	1,637	1,332
1952	168,734	11,991	38,365	101,920	9,240	245,633	3,837	1,069	1,235
1953	156,099	9,551	32,287	100,195	8,021	243,857	3,490	785	1,103
1954	137,876	7,688	24,999	93,601	7,234	239,661	3,294	607	917
1955	122,075	6,516	21,553	84,741	5,515	239,787	2,863	584	875
1956	126,219	6,757	20,014	89,851	5,535	233,333	2,322	419	602
1957	130,552	6,251	19,046	96,856	5,452	216,476	1,860	348	449
1958	116,630	6,661	16,698	85,974	4,839	220,191	1,574	332	436
1959	119,981	8,178	17,592	86,776	5,215	237,318	1,604	282	485
1960	120,249	12,471	16,829	84,195	4,593	246,697	1,555	273	800
1961	125,262	18,781	19,146	80,942	4,388	265,665	1,595	296	842
1962	124,188	20,084	19,924	78,264	4,085	260,468	1,401	203	635
United States and Territories									
1951	208,137	18,709	55,734	110,864	14,638	278,898	4,769	1,645	1,341
1952	176,462	12,447	40,646	105,389	10,426	253,984	3,969	1,089	1,237
1953	162,805	9,855	33,831	103,970	8,986	251,986	3,579	791	1,111
1954	141,838	7,898	25,834	96,017	7,649	245,077	3,348	613	925
1955	124,925	6,698	22,232	86,392	5,779	244,363	2,937	590	883
1956	128,645	6,885	20,591	91,252	5,702	238,568	2,366	420	611
1957	132,510	6,323	19,492	98,135	5,597	220,614	1,887	352	463
1958	118,404	6,746	17,125	87,071	4,978	224,268	1,607	333	458
1959	121,598	8,285	17,998	87,725	5,345	241,004	1,673	282	504
1960	121,474	12,577	17,206	84,845	4,672	249,719	1,587	276	805
1961	126,534	19,075	19,666	81,336	4,433	268,570	1,627	297	850
1962	125,583	20,540	20,496	78,606	4,104	263,527	1,420	204	656

* Includes "Stages of Syphilis Not Stated."

TABLE 6
 REPORTED SYPHILIS CASE RATE PER 100,000 POPULATION
 FISCAL YEARS 1941 - 1962

Fiscal Year	Total Including Not Stated	Primary and Secondary	Primary, Secondary and Early Latent	Late and Late Latent	Congenital
United States Civilians					
1941	368.2	51.7	134.4	153.9	13.4
1942	363.4	57.1	145.1	153.1	12.8
1943	447.0	63.8	179.8	195.7	12.6
1944	367.9	61.7	158.5	159.6	10.7
1945	282.3	60.5	140.5	111.8	9.7
1946	271.7	70.9	151.6	93.6	9.0
1947	264.6	75.6	152.0	86.5	8.7
1948	234.7	55.9	123.8	86.1	9.2
1949	197.3	37.1	94.7	83.3	9.8
1950	154.2	21.6	65.1	75.5	9.0
1951	131.8	12.1	46.8	71.1	8.5
1952	110.8	7.9	33.1	66.9	6.1
1953	100.8	6.2	27.0	64.7	5.2
1954	87.5	4.9	20.8	59.4	4.6
1955	76.0	4.1	17.5	52.7	3.4
1956	77.1	4.1	16.3	54.8	3.4
1957	78.3	3.8	15.2	58.1	3.3
1958	68.5	3.9	13.7	50.5	2.8
1959	69.3	4.7	14.9	50.1	3.0
1960	68.0	7.1	16.6	47.6	2.6
1961	69.7	10.4	21.1	45.0	2.4
1962	68.1	11.0	21.9	42.9	2.2

TABLE 7

REPORTED VENEREAL DISEASE CASE RATES PER 100,000 POPULATION BY COLOR AND SEX
 UNITED STATES CIVILIANS
 Fiscal Years 1958 - 1962

Disease, Stage and Year		TOTAL			WHITE			NONWHITE		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
Total Syphilis (includes Not Stated)	1958	68.5	74.3	63.0	29.5	35.3	24.1	383.0	392.9	373.8
	1959	69.3	75.7	63.2	30.7	36.7	24.9	377.3	390.1	365.3
	1960	68.0	76.3	60.6	32.3	39.1	25.8	352.0	371.1	334.0
	1961	69.7	79.1	60.5	33.6	40.7	26.6	349.6	380.6	319.9
	1962	68.1	77.1	59.5	32.9	40.0	26.0	340.4	367.5	314.9
Primary and Secondary Syphilis	1958	3.9	5.2	2.7	1.6	2.5	0.7	22.6	27.0	18.6
	1959	4.7	6.6	2.9	2.0	3.3	0.7	26.6	33.4	20.2
	1960	7.1	10.1	4.2	3.1	5.3	1.0	38.7	48.0	29.9
	1961	10.4	14.5	6.5	4.0	6.6	1.4	60.6	76.2	45.7
	1962	11.0	14.8	7.4	3.8	6.3	1.4	66.7	81.5	52.9
Early Latent Syphilis	1958	9.8	9.4	10.2	3.4	3.8	3.0	61.9	55.6	67.8
	1959	10.2	10.1	10.2	3.5	4.1	3.1	62.9	58.7	66.9
	1960	9.5	10.0	9.2	3.4	4.1	2.9	57.9	56.0	59.6
	1961	10.7	11.6	9.7	4.0	5.0	2.9	62.6	64.0	61.1
	1962	10.9	12.1	9.8	4.2	5.4	2.9	63.1	63.8	62.4
Late and Late Latent Syphilis	1958	50.5	56.0	45.2	22.6	27.4	18.1	275.3	289.7	261.9
	1959	50.1	55.2	45.2	23.0	27.4	18.7	266.4	279.1	254.6
	1960	47.6	53.0	42.8	23.8	28.0	19.7	237.4	251.5	224.0
	1961	45.0	50.0	40.2	23.7	27.5	19.9	210.4	226.2	195.3
	1962	42.9	47.5	38.5	23.1	26.9	19.5	196.1	209.6	183.4
Congenital Syphilis	1958	2.8	2.1	3.6	1.2	0.8	1.6	16.1	12.9	19.1
	1959	3.0	2.3	3.7	1.4	1.0	1.8	15.8	12.4	19.1
	1960	2.6	1.9	3.3	1.3	0.9	1.7	12.7	10.0	15.4
	1961	2.4	1.9	3.0	1.3	0.9	1.7	11.4	9.5	13.2
	1962	2.2	1.7	2.8	1.2	0.8	1.6	10.3	8.4	12.0
Gonorrhea	1958	129.3	183.7	77.5	29.3	42.4	16.8	937.4	1338.1	563.7
	1959	137.1	194.6	82.3	33.3	48.1	19.1	964.2	1373.7	580.8
	1960	139.6	203.2	79.9	37.6	55.7	20.2	948.7	1371.8	549.0
	1961	147.8	212.8	84.7	42.5	61.6	23.8	964.3	1400.2	549.9
	1962	142.8	211.3	76.8	43.0	63.1	23.6	914.6	1374.4	482.5

Population used to calculate rates are based on estimates by the Bureau of the Census.

TABLE 8

REPORTED VENEREAL DISEASE CASE RATES PER 100,000 POPULATION
 UNITED STATES CIVILIANS
 FISCAL YEAR 1962

State	Syphilis		Gonorrhea	Other Venereal Diseases
	Total	Primary & Secondary		
Alabama	46.9	17.1	115.8	1.7
Alaska	23.4	3.0	277.6	.0
Arizona	61.3	9.0	184.8	1.2
Arkansas	92.1	13.9	426.0	.9
California	53.1	9.8	142.3	.5
Colorado	30.9	3.4	99.8	.0
Connecticut	29.2	4.8	68.3	.3
Delaware	178.2	8.7	172.9	3.1
District of Columbia	260.1	94.7	1,114.6	35.7
Florida	152.8	34.6	231.8	6.5
Georgia	69.0	18.4	192.8	6.7
Hawaii	14.6	2.0	30.0	.4
Idaho	4.0	.3	70.2	.1
Illinois	77.7	10.0	256.7	.4
Indiana	29.0	1.8	64.6	.0
Iowa	33.2	.7	47.8	.0
Kansas	52.1	2.5	108.2	.6
Kentucky	56.9	5.5	107.8	.1
Louisiana	153.8	39.2	172.7	4.0
Maine	6.7	1.1	20.7	.0
Maryland	90.8	17.9	187.3	.8
Massachusetts	50.3	7.7	48.2	.2
Michigan	43.8	3.7	132.3	1.2
Minnesota	7.4	2.4	53.6	.1
Mississippi	26.1	4.8	230.5	3.2
Missouri	98.0	4.4	179.2	1.5
Montana	33.2	.4	56.1	.1
Nebraska	30.8	.8	53.3	.4
Nevada	62.1	17.2	156.6	.3
New Hampshire	16.5	1.8	18.3	.0
New Jersey	90.2	16.0	59.6	.4
New Mexico	112.8	7.0	131.8	.5
New York	135.3	23.2	145.4	1.0
North Carolina	84.5	13.7	170.2	1.7
North Dakota	4.4	.5	93.5	.2
Ohio	34.3	2.9	100.8	.4
Oklahoma	66.2	4.9	206.6	.1
Oregon	29.6	2.2	64.0	.4
Pennsylvania	95.3	8.2	56.2	.2
Rhode Island	36.6	3.3	22.5	.4
South Carolina	102.6	30.0	385.9	1.1
South Dakota	20.7	2.9	144.3	.0
Tennessee	52.7	9.6	249.3	1.2
Texas	48.6	14.7	237.4	2.8
Utah	18.0	.4	38.5	.1
Vermont	2.5	.8	27.1	.0
Virginia	84.8	10.2	175.4	.7
Washington	15.4	1.7	83.4	.2
West Virginia	70.7	2.8	54.2	.3
Wisconsin	18.5	1.3	31.1	.0
Wyoming	5.7	.3	20.6	.3
United States Total	68.1	11.0	142.8	1.2

SOURCE: Cases - Morbidity reports submitted to PHS.

Population - estimates prepared by Bureau of the Census.

TABLE 9
HEALTH DEPARTMENT CASE-FINDING ACTIVITIES, UNITED STATES
Fiscal Years 1957 - 1962

Clinic and Epidemiologic Data	1957	1958	1959	1960	1961	1962
Diagnostic examinations in public clinics	1,777,498	1,925,552	1,911,557	1,840,464	1,785,187	N.A.
Percent of examinations in which one or more venereal diseases were found	15.2	13.4	13.1	13.3	14.6	N.A.
Number of contact investigations completed	207,757	212,896	223,755	222,052	225,541	186,784
Number of other suspect investigations completed	175,612	186,304	208,068	227,523	239,835	234,305
Contact investigation indices*:						
Approximate number of contacts obtained from each primary and secondary syphilis patient (contact index)	3.45	3.66	3.95	3.95	4.10	4.03
Approximate number of syphilis infections identified in the contacts of each primary and secondary patient (epidemiologic index)	.86	.91	1.07	1.07	1.22	1.24
Approximate number of syphilis infections brought to treatment in the contacts of each primary and secondary patient (brought-to-treatment index)	.48	.49	.54	.52	.55	.52
Approximate number of primary and secondary syphilis infections brought to treatment in the contacts of each primary and secondary patient (lesion-to-lesion index)	.27	.29	.30	.31	.33	.32

* Indices for 1957 - 1958 computed on a slightly different basis.

TABLE 10
 PRIMARY AND SECONDARY SYPHILIS
 AGE - SPECIFIC CASE RATES BY AGE GROUPS, RACE AND SEX
 Calendar Years** 1956, 1959, 1960, 1961

AGE	YEAR	WHITE			NONWHITE			TOTAL		
		Male	Female	Total	Male	Female	Total	Male	Female	Total*
0 - 9	1956					.3	.2			
	1959	.1		.1	.4	.4	.4	.1	.1	.1
	1960				.3	.4	.3		.1	.1
	1961				.3	.8	.6	.1	.1	.1
10 - 14	1956		.1	.1	1.6	6.2	3.9	.2	.9	.5
	1959	.1	.2	.1	1.4	5.4	3.4	.3	.9	.5
	1960	.1	.1	.1	2.1	9.2	5.7	.3	1.3	.8
	1961	.1	.1	.1	5.2	12.0	8.6	.7	1.6	1.2
15 - 19	1956	2.4	2.7	2.6	56.9	64.6	60.9	9.4	10.7	10.1
	1959	4.1	2.2	3.1	76.7	88.4	82.7	13.0	12.8	12.9
	1960	5.0	3.5	4.2	130.4	130.6	130.5	20.4	19.2	19.8
	1961	6.5	4.0	5.2	153.6	164.0	158.9	24.7	23.8	24.2
20 - 24	1956	10.8	2.9	6.4	136.6	75.4	103.0	27.0	12.0	18.6
	1959	17.4	3.1	9.6	187.7	97.6	139.8	40.2	15.1	26.5
	1960	25.8	5.3	14.7	355.6	185.0	262.1	67.0	28.2	45.9
	1961	26.5	6.9	15.9	396.6	231.8	307.1	73.2	35.5	52.8
25 - 29	1956	8.6	2.0	5.2	83.6	42.8	61.2	16.6	6.8	11.5
	1959	15.6	2.1	8.6	135.2	58.7	94.3	29.3	9.0	18.7
	1960	25.9	3.3	14.2	229.1	106.9	162.1	49.3	16.4	32.1
	1961	26.0	4.2	14.7	306.6	139.7	215.2	58.3	21.4	39.0
30 - 34	1956	5.6	1.4	3.4	52.1	28.7	39.5	10.5	4.4	7.3
	1959	11.8	1.4	6.4	94.2	27.1	57.6	20.3	4.4	12.0
	1960	20.3	2.1	10.9	138.7	59.0	95.1	33.1	9.0	20.6
	1961	21.8	2.5	11.8	182.1	71.6	121.6	39.3	10.9	24.6
35 - 39	1956	3.4	.9	2.1	28.4	15.6	21.5	5.8	2.4	4.0
	1959	7.1	1.2	4.1	48.6	19.9	33.3	11.3	3.2	7.1
	1960	11.7	1.3	6.3	75.7	25.8	49.1	18.4	4.0	10.9
	1961	12.0	1.8	6.7	106.4	42.5	72.2	21.9	6.4	13.9
40 - 44	1956	2.4	.7	1.6	18.9	7.6	12.9	4.1	1.4	2.7
	1959	4.2	.7	2.4	27.0	10.2	18.0	6.3	1.7	3.9
	1960	6.3	1.1	3.6	44.0	15.6	29.0	10.1	2.6	6.2
	1961	7.4	1.7	4.5	65.4	23.6	43.3	13.2	4.0	8.4
45 - 49	1956	1.9	.6	1.2	13.7	7.2	10.3	3.0	1.2	2.1
	1959	2.4	.4	1.4	16.4	6.7	11.3	3.7	1.1	2.4
	1960	3.8	.8	2.3	22.0	9.0	15.3	5.6	1.7	3.6
	1961	4.9	1.4	3.1	36.2	12.3	23.8	8.0	2.5	5.2
50 +	1956	.8	.2	.5	5.6	2.5	4.0	1.2	.4	.7
	1959	1.1	.3	.7	6.9	2.4	4.6	1.5	.5	1.0
	1960	1.3	.2	.7	8.0	3.0	5.4	1.9	.4	1.1
	1961	1.6	.4	.9	11.3	4.1	7.6	2.4	.7	1.5
Total	1956	2.4	.8	1.6	26.7	18.6	22.5	5.0	2.8	3.9
	1959	4.1	.8	2.4	39.1	22.7	30.7	8.0	3.3	5.6
	1960	6.3	1.2	3.7	63.4	38.3	50.4	12.8	5.5	9.1
	1961	6.7	1.5	4.1	79.1	49.0	63.6	15.0	7.1	11.0

* Includes race and sex not stated.

** Cases Per 100,000 Population. Rates for 1956, 1959 and 1961 are based on population estimates of the Bureau of Census. Rates for 1960 are based on United States Census of population, 1960.

TABLE 11
GONORRHEA
AGE - SPECIFIC CASE RATES BY AGE GROUPS, RACE AND SEX
Calendar Years** 1956, 1959, 1960, 1961

AGE	YEAR	WHITE			NONWHITE			TOTAL		
		Male	Female	Total	Male	Female	Total	Male	Female	Total*
0 - 9	1956	.4	2.1	1.2	8.6	25.6	17.0	1.4	5.3	3.3
	1959	.4	1.9	1.1	8.4	26.8	17.5	1.5	5.5	3.4
	1960	.4	1.9	1.1	10.2	34.0	22.1	1.8	6.6	4.1
	1961	.4	2.3	1.3	9.6	30.9	20.2	1.7	6.5	4.1
10 - 14	1956	1.1	6.0	3.5	51.3	188.9	120.9	7.1	28.7	17.7
	1959	1.0	6.1	3.5	57.5	146.6	101.9	7.9	24.1	15.8
	1960	2.2	6.1	4.1	94.2	150.1	122.2	13.8	24.8	19.2
	1961	1.6	7.1	4.3	59.1	104.1	81.6	9.0	20.0	14.4
15 - 19	1956	83.3	69.0	75.9	2966.2	2360.6	2653.0	455.3	363.6	407.8
	1959	95.1	79.0	86.9	3090.3	2181.9	2627.3	462.4	338.3	399.3
	1960	109.2	88.5	98.7	3126.8	2178.3	2642.2	480.9	347.1	412.7
	1961	106.5	95.4	100.8	3107.7	1849.1	2465.0	476.8	312.0	392.7
20 - 24	1956	266.8	76.9	160.6	7934.6	2745.8	5080.5	1254.9	410.4	783.3
	1959	322.1	93.2	197.2	7413.7	2487.2	4797.4	1268.8	396.9	794.7
	1960	370.8	112.6	230.5	8237.9	2716.3	5211.7	1354.4	443.7	859.2
	1961	392.1	120.8	245.4	8117.7	2540.9	5089.5	1365.8	428.2	858.6
25 - 29	1956	160.8	41.3	98.6	5169.1	1395.1	3102.9	698.1	201.4	438.3
	1959	186.0	47.6	114.3	4823.9	1371.5	2977.5	715.7	208.3	451.7
	1960	225.0	51.3	134.7	5047.4	1364.4	3030.1	779.1	217.8	485.5
	1961	241.0	59.1	146.5	5314.1	1361.1	3149.4	823.6	224.3	510.3
30 - 34	1956	91.0	23.8	56.1	2770.3	691.4	1655.0	369.0	97.6	227.6
	1959	111.2	26.1	67.3	2764.2	669.0	1620.3	386.1	100.3	237.5
	1960	124.6	28.3	74.9	2788.3	688.4	1640.7	412.7	107.8	254.4
	1961	139.5	29.3	82.6	2832.7	633.2	1628.8	433.5	103.1	261.9
35 - 39	1956	52.3	17.1	34.0	1384.9	358.0	835.3	180.6	52.0	113.8
	1959	62.8	16.2	38.6	1459.6	370.3	878.5	203.5	53.8	125.6
	1960	72.8	17.5	44.1	1452.7	348.2	864.0	218.1	54.2	132.9
	1961	76.6	16.9	45.7	1506.4	322.1	872.8	227.4	51.2	135.9
40 - 44	1956	30.4	9.7	19.8	597.9	169.6	369.7	86.1	26.6	55.5
	1959	38.2	11.2	24.3	750.6	178.6	443.5	104.6	28.1	65.0
	1960	41.2	10.9	25.6	730.1	177.9	438.3	109.6	28.3	67.7
	1961	47.0	11.1	28.5	783.3	157.2	451.7	120.4	26.5	71.9
45 - 49	1956	19.1	7.1	13.0	296.3	95.2	192.3	45.5	15.8	30.4
	1959	21.5	6.6	13.9	340.4	83.6	204.2	52.4	14.5	33.0
	1960	24.9	7.1	15.8	343.0	89.8	211.9	56.4	15.6	35.6
	1961	27.7	7.6	17.5	342.6	87.8	210.1	58.8	15.8	36.9
50 +	1956	5.9	1.7	3.7	77.5	30.5	53.5	11.7	3.9	7.6
	1959	6.9	1.5	4.1	90.5	22.8	55.5	13.7	3.2	8.2
	1960	6.7	1.8	4.2	92.5	22.3	56.3	14.2	3.6	8.6
	1961	9.0	2.0	5.3	101.9	27.3	63.3	17.2	4.1	10.3
Total	1956	86.4	17.5	30.7	1410.2	600.7	991.5	192.6	81.9	135.9
	1959	52.4	19.5	35.6	1367.0	544.3	942.4	199.0	79.0	137.5
	1960	59.8	21.9	40.4	1381.8	554.9	954.0	210.2	83.6	145.3
	1961	63.8	23.6	43.2	1388.7	502.0	930.1	215.7	79.4	145.8

* Includes race and sex not stated.

** Cases Per 100,000 Population. Rates for 1956, 1959 and 1961 are based on population estimates of the Bureau of the Census.
Rates for 1960 are based on United States Census of Population, 1960.

TABLE 12

REPORTED CASES OF CONGENITAL SYPHILIS, BY AGE
UNITED STATES (EXCLUDING TERRITORIES)

Age	1959		1960		1961		1962	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0 - 1 Year	98	3.8	132	4.7	218	7.9	219	8.1
1 - 4 Years	26	1.0	52	1.9	44	1.6	38	1.4
5 - 9 Years	33	1.3	28	1.0	18	.7	31	1.1
10 Years and Over	2,417	93.9	2,570	92.4	2,481	89.8	2,427	89.4
Total, Known Age	2,574	100.0	2,782	100.0	2,761	100.0	2,715	100.0
Unknown Age	2,641		1,811		1,627		1,370	
GRAND TOTAL	5,215		4,593		4,388		4,085	

CASES UNDER 1 YEAR OF AGE

Case rates of congenital syphilis under 1 year of age per 10,000 live births were estimated in fiscal year 1959 to be 0.5, in 1960 to be 0.5, in 1961 to be 0.8, and in 1962 to be 0.8.

INFANT MORTALITY DUE TO SYPHILIS - See Table 3

Treatment of Syphilis

Congenital Syphilis

Recommended treatment for early congenital syphilis (less than 2 years) consists of (1) procaine penicillin G in oil with 2-percent aluminum monostearate (PAM) or aqueous procaine penicillin G, in a total dosage of 100,000 μ /kg. of body weight, given in divided doses at 2- or 3-day intervals; or (2) aqueous procaine penicillin G in total dosage of 100,000 μ /kg. in 10 equally divided daily doses. Late congenital syphilis is treated with the same schedules as for comparable manifestations of acquired syphilis.

The earlier penicillin therapy is instituted for congenital syphilis, the more satisfactory the results.

Early Syphilis

Benzathine penicillin G and PAM are the most widely used penicillin preparations for the treatment of early syphilis. Since benzathine penicillin G maintains a detectable blood level for a much longer period of time than PAM, a smaller total dosage is required for satisfactory results. The recommended schedules are 2,400,000 units of benzathine penicillin G administered in a single session (1,200,000 units in each buttock) or 4,800,000 units of PAM, 2,400,000 units at first session, and subsequent injections of 1,200,000 units given at 2- or 3-day intervals. If aqueous procaine penicillin G is used, 600,000 units should be administered daily for 8 days to total 4,800,000 units.

For the patient who is sensitive to penicillin, erythromycin or tetracycline is recommended for the treatment of syphilis. Of these two, only erythromycin (oral) has been clinically evaluated by the Public Health Service in the treatment of early syphilis. In order to establish a minimum dosage requirement, the initial schedule consisted of 10 grams covering a period of 8 to 10 days. Since this dosage proved inadequate (table 13), the schedule was increased to 15 grams, 1.5 grams a day for 10 days, and later to 20 grams in 10 days. The cumulative rate of failures plus reinfections at the 12th month of post treatment observation was 15.4 percent for the 15-gram schedule and 14.8 percent for the 20-gram schedule. Since there is no apparent difference between the two schedules, the combined results are shown in table 14.

Although it is impossible to separate accurately relapses from reinfections, the higher retreatment rates in the primary stages than in the secondary on these higher dosage schedules, substantiate the opinions of the clinicians that the majority of cases requiring additional treatment were reinfections rather than treatment failures. It is doubtful, however, if any oral therapy covering a period of days, regardless of dosage, will give results which equal those obtained with injectable repository preparations since most venereal disease clinic patients are too irresponsible to follow a prescribed schedule.

Neurosyphilis

A cooperative study conducted by the Public Health Service and leading neurosyphilologists in the United States has demonstrated that penicillin is the most effective treatment yet known for neurosyphilis.

Asymptomatic Neurosyphilis – Among 765 patients with asymptomatic neurosyphilis, approximately 75 percent of whom were treated with a minimum of 4,800,000 units of penicillin, only one bona fide progression to symptomatic neurosyphilis was observed; 11 other patients exhibited minor neurologic changes. In contrast, among 467 patients treated with metal chemotherapy, 29 progressed to symptomatic neurosyphilis and an additional 15 showed minor neurologic changes.

Paresis – Six hundred and twenty-nine patients were treated for paresis with penicillin only, 60 percent of whom received a minimum of 6,000,000 units. Paresis was diagnosed severe in 330, moderately severe in 141, and mild in 158. Five years after treatment 42 percent of those with severe psychoses were in remission or showed significant improvement, 45 percent remained unchanged, and only 13 percent had progressed or died from paresis. Progression or death from paresis occurred in 7.0 percent of those with moderately severe psychosis and in less than one percent of those with mild psychosis. Further proof of the effectiveness of penicillin is the fact that among those who survived, one-third of those who had been institutionalized, and two-thirds of those who had been unable to work at time of treatment, were gainfully employed 5 years later.

The total recommended dosage of penicillin for both symptomatic and asymptomatic neurosyphilis is 6,000,000 to 9,000,000 units. Any benefit from more than 10,000,000 units is doubtful and has not been demonstrated. Treatment schedules are as follows:

Benzathine penicillin G – 3,000,000-unit at 7-day intervals.

PAM – 1,200,000 units at 3-day intervals.

Aqueous procaine penicillin G – 600,000 units daily.

Syphilis in Pregnancy

Congenital syphilis is completely preventable. Adequate treatment of the mother during the first 18 weeks of gestation prevents infection of the baby; adequate treatment after the 18th week cures the baby in utero.

In two studies, comprising 528 infants born to treated syphilitic mothers, approximately 98 percent of the children were nonsyphilitic. The percentage varied slightly by stage of mother's syphilis during pregnancy.

In the absence of relapse or reinfection a woman treated with penicillin for syphilis will not require further treatment in the event of pregnancy.

TABLE 13

RESULTS OF PROPIONYL ERYTHROMYCIN IN
THE TREATMENT OF EARLY SYPHILIS(CASES WITH NO HISTORY OF SYPHILIS OR TREATMENT)
SCHEDULE: 10 gms. total in 8 to 10 days

Months Observed	Cases Observed	CUMULATIVE PERCENT			All Other Cases	
		Clinical or Serorelapse	Probable Reinfection	Total Retreated	Percent Seropos.	Percent Seroneg.
Seronegative Primary Syphilis						
3	30	3.3	10.0	13.3	0.0	86.7
6	28	6.8	10.0	16.8	0.0	83.2
9	24	11.0	14.1	25.1	0.0	74.9
12	19	11.0	18.8	29.8	0.0	70.2
Seropositive Primary Syphilis						
3	76	2.5	2.5	5.0	59.3	35.7
6	62	8.6	8.4	17.1	21.1	61.7
9	53	13.7	8.4	22.2	13.3	64.5
12	44	13.7	12.7	26.5	11.5	62.0
Secondary Syphilis						
3	78	2.5	1.3	3.8	96.3	0.0
6	62	23.4	2.9	26.3	56.1	17.6
9	51	32.5	2.9	35.4	41.1	23.5
12	40	34.7	10.3	45.0	35.0	20.0
Total Syphilis						
3	184	2.6	3.2	5.9	65.3	28.8
6	151	14.6	6.3	20.8	31.7	47.5
9	128	21.1	7.1	28.1	21.9	50.0
12	102	21.9	12.7	34.6	18.6	46.8

TABLE 14

RESULTS OF PROPIONYL ERYTHROMYCIN IN
THE TREATMENT OF EARLY SYPHILIS

(CASES WITH NO HISTORY OF SYPHILIS OR TREATMENT)

SCHEDULE: 15 - 20 gms. total in 10 days

Months Observed	Cases Observed	CUMULATIVE PERCENT			All Other Cases	
		Clinical or Serorelapse	Probable Reinfection	Total Retreated	Percent Seropos.	Percent Seroneg.
Seronegative Primary Syphilis						
3	34	0.0	2.9	2.9	0.0	97.1
6	29	0.0	9.6	9.6	0.0	90.4
9	23	0.0	13.9	13.9	0.0	86.1
12	16	0.0	13.9	13.9	0.0	86.1
Seropositive Primary Syphilis						
3	90	0.0	3.3	3.3	72.2	24.4
6	75	7.6	4.5	12.2	41.2	46.6
9	57	9.2	6.1	15.3	22.9	61.8
12	39	9.2	8.7	17.9	12.8	69.3
Secondary Syphilis						
3	82	0.0	0.0	0.0	98.8	1.2
6	64	4.4	4.4	8.8	72.3	18.9
9	54	4.4	8.1	12.5	48.4	39.1
12	42	4.4	8.1	12.5	37.9	49.6
Total Syphilis						
3	206	0.0	1.9	1.9	70.9	27.2
6	167	5.2	5.2	10.4	46.0	43.6
9	134	5.8	8.1	13.9	29.2	56.9
12	98	5.8	9.1	14.9	21.5	63.6

In the absence of relapse or reinfection, a patient treated with penicillin for syphilis will not require further treatment in the event of pregnancy.

Gonorrhea

Diagnosis

The fluorescent antibody technique in the diagnosis of gonorrhea has been used experimentally in selected venereal disease clinics throughout the country. Although there is variation by clinic, the over-all results (table 15) indicate that the delayed FA test is approximately 70 percent more effective than the culture in detecting the gonococcus. The site from which the specimen was obtained made little difference in the number of positive results to the delayed FA test (33.1 to 35.8 percent) whereas 27 percent more positive cultures were obtained from cervical than from urethral or vaginal specimens.

The delayed FA test was positive in 80 percent of female contacts with clinical evidence of gonorrhea and in 57 percent of those who were asymptomatic (table 16). In contrast, gonorrhea was detected in only 3.0 percent of women screened for cervical cancer (in general over 30 years of age), in 8.7 percent of prenatal examinees, and in 10.6 percent of foodhandlers.

Treatment

The presently recommended schedule of treatment for uncomplicated gonorrhea in males is a single intramuscular injection of 1,200,000 units of PAM; in females, 1,800,000 units of PAM or 600,000 units of PAM plus 1,200,000 units of benzathine penicillin G (or 1,800,000 to 2,400,000 units of a preparation combining procaine penicillin G and benzathine penicillin G). The failure to control this disease has resulted, however, in less standardization of treatment for gonorrhea than for syphilis.

Numerous antibiotics are effective in the treatment of gonorrhea. Preliminary results of an evaluation of treatment of gonorrhea in the female, using the delayed fluorescent antibody (FA) technique as a test of cure (table 17) indicate that some may be superior to penicillin administered in dosages of less than 2,400,000 units.

Table 15

COMPARISON OF LABORATORY TECHNIQUES IN THE DETECTION
OF THE GONOCOCCUS IN THE FEMALE

Site of Specimen	Laboratory Technique	Total Examined	Result of Examination					
			Positive		Negative		Unsatisfactory	
			#	%	#	%	#	%
Total Patients	Culture	5637	1450	25.7	4147	73.6	40	0.7
	Direct FA	5646	1075	19.0	4571	81.0		
	Delayed FA	5647	2458	43.5	3189	56.5		
	Total	5649	2499	44.2	3150	55.8		
Cervix	Culture	5596	1300	23.2	4236	75.7	60	1.1
	Direct FA	5604	745	13.3	4859	86.7		
	Delayed FA	5604	2006	35.8	3598	64.2		
	Total	5606	2074	37.0	3532	63.0		
Urethra	Culture	5618	1024	18.2	4523	80.5	71	1.3
	Direct FA	5638	598	10.6	5040	89.4		
	Delayed FA	5640	1943	34.5	3697	65.5		
	Total	5642	2022	35.8	3620	64.2		
Vagina	Culture	5622	1026	18.2	4516	80.3	80	1.4
	Direct FA	5643	472	8.4	5171	91.6		
	Delayed FA	5647	1871	33.1	3776	66.9		
	Total	5648	1962	34.7	3686	65.3		
Other Sites	Culture	4	2	50.0	2	50.0		
	Direct FA	4	1	25.0	3	75.0		
	Delayed FA	4	3	75.0	1	25.0		
	Total	4	3	75.0	1	25.0		
Total specimens	Culture	16840	3352	19.9	13277	78.8	211	1.3
	Direct FA	16889	1816	10.8	15073	89.2		
	Delayed FA	16895	5823	34.5	11072	65.5		
	Total	50624	10991	21.7	39422	77.9	211	0.4

TABLE 16

FREQUENCY OF POSITIVE DELAYED FA TESTS IN FEMALES
BY TYPE OF CASE EXAMINED

Clinical evidence of Gonorrhea	Type of Case	Total Examined	Positive Delayed FA Test	
			Number	Percent
NO	Contact of known GC	1,778	1,015	57.1
	Volunteer	1,412	540	38.2
	VD other than GC	719	200	27.8
	Cervical Cancer screening	125	4	3.2
	Premarital	131	25	19.1
	Prenatal	1,030	74	7.2
	Jail inmate	1,182	247	20.9
	Food handler	942	95	10.1
	Other or unspecified	660	251	38.0
	Total	7,979	2,451	30.7
YES	Contact of known GC	1,430	1,138	79.6
	Volunteer	646	432	66.9
	VD other than GC	109	47	43.1
	Cervical Cancer screening	4	0	0.0
	Premarital	12	5	41.7
	Prenatal	56	19	33.9
	Jail inmate	215	61	28.4
	Food handler	78	12	15.4
	Other or unspecified	128	90	70.3
	Total	2,678	1,804	67.4
TOTAL (Including un-specified)	Contact of known GC	3,321	2,233	67.2
	Volunteer	2,095	984	47.0
	VD other than GC	849	248	29.2
	Cervical Cancer screening	135	4	3.0
	Premarital	146	31	21.2
	Prenatal	1,102	96	8.7
	Jail inmate	1,424	311	21.8
	Food handler	1,059	112	10.6
	Other or unspecified	799	348	43.6
	Total	10,930	4,367	40.0

TABLE 17

EVALUATION OF SCHEDULES OF TREATMENT FOR GONORRHEA IN THE FEMALE USING DELAYED FLUORESCENT ANTIBODY TECHNIQUE AS TEST OF CURE

Schedule of Treatment	Total Cases Treated	Cases Completing Followup	Cured	
			Number	Percent
Mysteclin F (oral) - 3 grams 500 mg. every 4 hours	143	98	81	82.7
Cyclmycin (oral) - 3 grams 500 mg. every 4 hours	98	77	63	81.8
Panmycin phosphate (IM) - 500 mg. 250 mg. at 24-hour interval	65	53	43	81.1
PAB (procaine penicillin G and benzathine penicillin G) - 2,400,000 u. - Single IM injection	95	74	56	75.7
Chloromycetin - 1 gram Single IM injection	138	98	69	70.4
Combination schedule - One IM Injection each of PAM - 1,200,000 Benzathine penicillin G	62	50	35	70.0
Aqueous procaine penicillin G 1,200,000 u. - Single IM injection	90	62	42	67.7
Benzathine penicillin G - 1,200,000 u. - Single IM injection	86	71	48	67.6
PAM - 1,200,000 u. - Single IM injection	188	128	84	65.6
Streptomycin - 1 gram Single IM injection	149	102	60	58.8
Total	1,030	730	430	58.1

Penicillin Reactions

Since penicillin is the drug of choice for the treatment of both syphilis and gonorrhea, the Venereal Disease Branch is concerned with the frequency and severity of reactions to penicillin therapy. Through the cooperation of venereal disease clinics two studies have been conducted to determine their frequency — one in 1954, the other in 1959. The 1959 study was patterned after the 1954 study, the single departure being a request that, if possible, patients be detained in the clinic for a 30-minute period following treatment.

Results of these two studies are shown in Table 18. Reactions to penicillin were reported in 9.7/1,000 patients treated in 1959 and in 5.9/1,000 patients treated in 1954. This increase, amounting to 64 percent in the frequency of reactions reported, is attributable, at least in part, to the delay in dismissing patients after treatment. This is evidenced by the fact that a significant increase is noted only among patients treated on single session schedules. In general, such patients are not seen following treatment; but by detaining them in the clinic for a half-hour the clinicians were afforded an opportunity to observe reactions which otherwise would not have come to their attention.

In both studies, urticaria was the most frequent type of reaction, occurring in approximately 5/1,000 patients treated. Moderate to severe anaphylaxis also occurred with approximately the same frequency in 1959 as in 1954, 0.3/1,000 and 0.2/1,000 respectively. However, mild anaphylactoid reactions, generalized pruritis, vertigo or syncope, gastrointestinal disturbances, and chills, fever or headache were reported more frequently in 1959. No fatal reactions occurred during either study period.

TABLE 18
COMPARATIVE FREQUENCY OF REACTIONS TO PENICILLIN IN 1959 AND 1954
BY VARIOUS FACTORS KNOWN TO INFLUENCE THE RATE

	1959 S T U D Y			1954 S T U D Y		
	Total	Cases Reacting		Total	Cases Reacting	
	Cases	Number	Rate/1,000	Cases	Number	Rate/1,000
Grand Total	25,550	248	9.7	19,510	116	5.9
Epidemiologic treatment	5,938	32	5.4	3,757	10	2.7
Gonorrhea	15,104	83	5.5	12,026	29	2.4
Syphilis	3,229	122	37.8	3,442	77	22.4
Procaine penicillin G in oil	10,294	122	11.9	12,179	97	8.0
Benzathine penicillin G	6,164	74	12.0	7,109	17	2.4
Single session schedule	21,502	122	5.7	17,710	51	2.9
2-7 day schedule	1,768	45	25.5	694	14	20.2
Schedules of 8 or more days	2,280	81	35.5	1,106	51	46.1
Previous penicillin						
Reacted	154	18	116.9	121	12	99.2
Did not react	20,547	185	9.0	14,214	56	3.9
No previous penicillin	2,866	26	9.1	3,750	34	9.1
White - Male	1,546	24	15.5	965	7	7.3
Female	1,121	16	14.3	670	7	10.4
Negro - Male	11,297	78	6.9	9,548	32	3.4
Female	8,702	84	9.7	7,738	51	6.6
10-19 years of age	5,127	23	4.5	3,908	12	3.1
20-29 " " "	11,660	95	8.1	9,512	37	3.9
30-39 " " "	4,513	52	11.5	3,674	34	9.3
40-49 " " "	1,595	33	20.7	1,252	21	16.8
50 years and over	1,102	36	32.7	1,012	11	10.9