VD FACT SHEET - 1965

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
1965

Twenty-second Revision

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PUBLIC HEALTH SERVICE
Communicable Disease Center
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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 casefinding 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 Branch of the Communicable Disease Center, or upon estimates made by the Branch. 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

The incidence of syphilis is defined as the number of new cases occurring in a given area within a specified period of time, usually a year.

Since the symptoms of primary and secondary syphilis appear soon after the disease is acquired, the number of primary and secondary cases occurring in the population within a given period of time would be the same as the incidence of syphilis.

Cases of primary and secondary syphilis are reportable by law in all of the 50 States and the District of Columbia. In the fiscal year ending June 30, 1965, there were 23,250 cases reported to health departments by physicians and clinics in the United States. But the number of cases reported understates actual incidence for two reasons:

1. Not all cases are diagnosed, and
2. Not all diagnosed cases are reported.

In July 1962, the American Social Health Association, in cooperation with the American Medical Association, the National Medical Association, and the American Osteopathic Association sent a questionnaire to every private physician in the United States. One of the questions asked was "How many new cases of primary and secondary (infectious) syphilis did you treat between April 1 and June 30, 1962?"

One hundred and thirty-one thousand two hundred and forty-five responding physicians indicated they treated 13,930 cases of infectious syphilis during these three months (an estimate of 55,720 cases for the year 1962). These 55,720 cases plus 13,769 cases of infectious syphilis treated in 1962 by public clinics (not included in the survey) total an estimated 69,489 newly acquired cases of syphilis treated. Actually, 69,489 cases can be considered minimum incidence since it does not include cases treated by physicians who failed to respond to the survey nor cases occurring but not detected during the year. This estimate is presented only to show that the actual incidence of syphilis is much higher than reported new cases. In fact, if one considers that at least half of the cases occurring are not detected until the late or latent stages of disease, then the actual annual incidence of syphilis would be at least twice the estimated 69,489 cases treated in 1962.

Costs of Uncontrolled Syphilis

The statistics presented in Table 1 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 1963. 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 per capita personal income rate for 1963.

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.

TABLE 1

ESTIMATED ANNUAL COSTS OF UNCONTROLLED SYPHILIS*

MAN-YEARS OF SYPHILIS DISABILITY PER YEAR	
Institutionalization for syphilitic insanity (1963)	19,000
Disability from cardiovascular syphilis, including aneurysm (1963)	5,600
Disability from tabes dorsalis (1963)	300
Disability from syphilitic blindness (1963)	11,000
ECONOMIC COSTS OF SYPHILITIC PSYCHOSES AND SYPHILITIC BLINDNESS PER YEAR	
Maintenance of patients with syphilitic psychoses (1963)	$49,974,000
Maintenance of syphilitic blind (1963)	$4,957,000
LOSS OF LIFE EXPECTANCY FROM DEATHS DUE TO SYPHILIS IN MAN-YEARS (1963)	
White males	18,164
White females	7,667
Non-white males	9,245
Non-white females	5,227
Total population	40,303
LOSS OF INCOME TO AGE 65 AT 1963 PER CAPITA PERSONAL INCOME RATE	$31,741,000

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

Reported Mortality and Insanity Due to Syphilis

Mortality statistics are compiled by the National Vital Statistics Division 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 casefinding 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 2.

TABLE 2

REPORTED MORTALITY AND INSANITY DUE TO SYPHILIS
UNITED STATES
SELECTED YEARS 1940-1965

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
1945	7.9	5.6	27.3	2.50	1.07	12.59	5.5
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	1.6	1.3	4.5	.07	.04	.24	.4
1961	1.6	1.2	4.5	.05	.02	.18	.3
1962	1.5	1.2	3.9	.07	.02	.33	.2
1963	1.4	1.2	3.5	.07	.01	.22	.1
1964***	1.4	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
1965***	1.5	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

* Seventh Revision, International Lists of Causes of Death, 1955; see Mortality, Page 5 for explanation.
** Does not include admissions to Veterans Administration and psychopathic hospitals; rate based on population of area reporting.
*** Estimated

Source: Mortality and Natality Data, National Vital Statistics Division; 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 or case rates of early syphilis over a period of years may be indicative of incidence trends if no significant changes in casefinding effort have occurred. Reported cases of syphilis in the later stages may be considered as an indication of past casefinding failure as well as present success. Trends in reported cases must be interpreted with caution since changes in casefinding effort are reflected in morbidity data just as much as changes in incidence and prevalence. Table 5 shows venereal disease case rates per 100,000 population by race and sex. However, race differences are biased. The reason for this is twofold: 1) Nonwhites have a tendency to seek treatment at public diagnostic facilities where reporting is complete. 2) Whites have a tendency to seek treatment at private diagnostic facilities where reporting is not complete.

Reported cases and case rates of venereal diseases are shown in Table 3 through Table 9. 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. Since 1962, the increases were not nearly as great as in 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.

The trend of reported cases of congenital syphilis by age is shown in Table 6.

The trend of age-specific case rates by age-groups by race and sex for primary and secondary syphilis and gonorrhea are shown in Table 7 and Table 8.

TABLE 3

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

Fiscal Years 1919-1940

Fiscal Year	ALL STAGES OF SYPHILIS		GONORRHEA	
	Cases	Rates	Cases	Rates
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

NOTE: Beginning in 1939, all States are included in the reporting area.

TABLE 4

CASES OF VENEREAL DISEASE REPORTED TO THE PUBLIC HEALTH SERVICE BY STATE HEALTH DEPARTMENTS, AND RATES PER 100,000 POPULATION
Fiscal Years 1941-1965
(Known Military Cases Excluded)
United States

Fiscal Years	SYPHILIS										GONORRHEA		CHANCROID		GRANULOMA INGUINALE		LYMPHOGRANULOMA VENEREUM	
	All Stages*		Primary and Secondary		Early Latent		Late and Late Latent		Congenital									
	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rate	Cases	Rates	Cases	Rates
1941	485,560	368.2	68,231	51.7	109,018	82.6	202,984	153.9	17,600	13.4	193,468	146.7	3,384	2.5	639	.4	1,381	1.0
1942	479,601	363.4	75,312	57.0	116,245	88.0	202,064	153.1	16,918	12.8	212,403	160.9	5,477	4.1	1,278	.9	1,888	1.4
1943	575,593	447.0	82,204	63.8	149,390	116.0	251,958	195.7	16,164	12.6	275,070	213.6	8,354	6.4	1,748	1.3	2,593	2.0
1944	467,755	367.9	78,443	61.6	123,038	96.7	202,848	159.6	13,578	10.7	300,676	236.5	7,878	6.1	1,759	1.3	2,858	2.2
1945	359,114	282.3	77,007	60.5	101,719	79.9	142,187	111.8	12,339	9.7	287,181	225.8	5,515	4.3	1,857	1.4	2,631	2.0
1946	363,647	271.7	94,957	70.9	107,924	80.6	125,248	93.6	12,106	9.0	368,020	275.0	7,091	5.2	2,232	1.6	2,603	1.9
1947	372,963	264.6	106,539	75.6	107,767	76.4	121,980	86.5	12,271	8.7	400,639	284.2	9,039	6.4	2,403	1.7	2,688	1.9
1948	338,141	234.7	80,528	55.9	97,745	67.9	123,972	86.1	13,309	9.2	363,014	252.0	8,631	6.0	2,315	1.6	2,494	1.7
1949	288,736	197.3	54,248	37.1	84,331	57.6	121,931	83.3	14,295	9.8	331,661	226.7	7,218	4.9	2,611	1.8	2,170	1.5
1950	229,723	154.2	32,148	21.6	64,786	43.5	112,424	75.5	13,446	9.0	303,992	204.0	5,796	3.9	2,017	1.4	1,635	1.1
1951	198,640	131.8	18,211	12.1	52,309	34.7	107,133	71.1	12,836	8.5	270,459	179.5	5,707	3.1	1,637	1.1	1,332	.9
1952	168,734	110.8	11,991	7.9	38,365	25.2	101,920	66.9	9,240	6.1	245,633	161.3	3,837	2.5	1,069	.7	1,235	.8
1953	156,099	100.8	9,551	6.2	32,287	20.8	100,195	64.7	8,021	5.2	243,857	157.4	3,490	2.3	785	.5	1,103	.7
1954	137,876	87.5	7,688	4.9	24,999	15.9	93,601	59.4	7,234	4.6	239,661	152.0	3,294	2.1	607	.4	917	.6
1955	122,075	76.0	6,516	4.1	21,553	13.4	84,741	52.7	5,515	3.4	239,787	149.2	2,863	1.8	584	.4	875	.5
1956	126,219	77.1	6,757	4.1	20,014	12.2	89,851	54.8	5,535	3.4	233,333	142.4	2,322	1.4	419	.3	602	.4
1957	130,552	78.3	6,251	3.8	19,046	11.4	96,856	58.1	5,452	3.3	216,476	129.8	1,860	1.1	348	.2	449	.3
1958	116,630	68.5	6,661	3.9	16,698	9.8	85,974	50.5	4,839	2.8	220,191	129.3	1,574	.9	332	.2	436	.3
1959	119,981	69.3	8,178	4.7	17,592	10.2	86,776	50.1	5,215	3.0	237,318	137.1	1,604	.9	282	.2	485	.3
1960	120,249	68.0	12,471	7.1	16,829	9.5	84,195	47.6	4,593	2.6	246,697	139.6	1,555	.9	273	.2	800	.5
1961	125,262	69.7	18,781	10.4	19,146	10.7	80,942	45.0	4,388	2.4	265,665	147.8	1,595	.9	296	.2	842	.5
1962	124,188	68.1	20,084	11.0	19,924	10.9	78,264	42.9	4,085	2.2	260,468	142.8	1,401	.8	203	.1	635	.3
1963	128,450	69.3	22,045	11.9	18,683	10.1	81,736	44.1	4,140	2.2	270,076	145.7	1,242	.7	196	.1	589	.3
1964	118,247	62.9	22,733	12.1	18,104	9.6	72,184	38.4	3,737	2.0	290,603	154.5	1,260	.7	145	.1	543	.3
1965	113,018	59.7	23,250	12.3	17,315	9.1	67,636	35.7	3,505	1.9	310,155	163.8	1,083	.6	144	.1	873	.5

*Includes "Stage of Syphilis Not Stated."

TABLE 5

REPORTED VENEREAL DISEASE CASE RATES PER 100,000 POPULATION BY RACE AND SEX

Fiscal Years 1961 - 1965

(Known Military Cases Excluded)

UNITED STATES

Disease, Stage and Year		TOTAL			WHITE			NONWHITE		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
Syphilis (All Stages)*	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
	1963	69.3	78.1	60.9	33.9	40.7	27.3	337.9	364.7	312.9
	1964	62.9	71.4	54.8	30.1	36.5	24.1	310.0	338.0	284.9
	1965	59.7	67.9	52.0	26.7	32.6	21.3	304.9	332.5	279.2
Primary and Secondary Syphilis	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
	1963	11.9	15.6	8.4	3.8	6.0	1.6	73.7	88.9	59.4
	1964	12.1	15.7	8.7	3.7	5.9	1.5	75.3	89.9	61.7
	1965	12.3	15.6	9.1	3.3	5.2	1.6	78.8	93.9	64.8
Early Latent Syphilis	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
	1963	10.1	11.0	9.1	3.4	5.0	2.8	57.4	58.0	56.8
	1964	9.6	10.8	8.5	3.4	4.5	2.3	56.8	58.7	54.9
	1965	9.1	10.4	8.0	2.8	3.9	1.8	56.3	58.7	54.0
Late and Late Latent Syphilis	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
	1963	44.1	48.8	39.6	24.9	28.2	20.8	192.9	206.5	180.3
	1964	38.4	42.5	34.4	21.4	24.7	18.4	166.2	179.1	154.3
	1965	35.7	39.8	31.9	19.2	22.3	16.2	158.9	170.8	147.9
Congenital Syphilis	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
	1963	2.2	1.7	2.8	1.2	0.9	1.5	10.2	7.8	12.5
	1964	2.0	1.5	2.4	1.1	0.8	1.4	8.8	7.1	10.5
	1965	1.9	1.4	2.3	1.0	0.7	1.3	8.3	6.6	9.9
Gonorrhea	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
	1963	145.7	220.7	74.5	46.0	69.3	23.9	901.1	1380.4	454.0
	1964	154.5	238.1	75.5	49.0	73.1	26.1	951.0	1495.6	444.8
	1965	163.8	253.6	79.0	51.6	76.6	27.8	999.2	1583.7	456.4

*Includes "Stage of Syphilis Not Stated."

TABLE 6

REPORTED CASES OF CONGENITAL SYPHILIS, BY AGE*
UNITED STATES
Fiscal Years 1962 – 1965

Age Group	1962		1963		1964		1965	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0 - 1 Year	330	8.1	410	9.9	374	10.0	373	10.6
1 - 4 Years	57	1.4	58	1.4	59	1.6	59	1.7
5 - 9 Years	47	1.1	47	1.1	24	0.6	44	1.3
10 Years and Over	3,651	89.4	3,625	87.6	3,280	87.8	3,029	86.4
GRAND TOTAL	4,085	100.0	4,140	100.0	3,737	100.0	3,505	100.0

*Cases not reported by age have been prorated according to known ages. In 1962, states failed to report the ages of approximately one-third of congenital cases. Since 1962, approximately 90% of congenital cases have been reported by age.

CASES UNDER 1 YEAR OF AGE

Case rates of congenital syphilis under 1 year of age per 10,000 live births:

1962 0.8
1963 0.9
1964 0.8
1965 0.8

INFANT MORTALITY DUE TO SYPHILIS – See Table 2

TABLE 7

PRIMARY AND SECONDARY SYPHILIS
UNITED STATES
AGE-SPECIFIC CASE RATES* BY AGE GROUPS, RACE AND SEX
Calendar Years 1956, 1962, 1963, 1964

AGE	YEAR	WHITE			NONWHITE			TOTAL		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
0-14	1956	.0	.0	.0	.4	1.8	1.1	.1	.3	.2
	1962	.0	.1	.0	1.7	4.3	3.0	.3	.7	.5
	1963	.1	.1	.1	1.6	4.1	2.8	.3	.6	.5
	1964	.0	.0	.0	1.4	4.8	3.1	.2	.8	.5
15-19	1956	2.4	2.7	2.6	56.9	64.6	60.9	9.4	10.7	10.1
	1962	5.6	3.8	4.7	158.4	180.1	169.5	24.3	25.4	24.8
	1963	5.0	3.7	4.4	137.6	168.1	153.2	21.4	24.2	22.8
	1964	4.6	3.4	4.0	134.5	169.9	152.5	20.9	24.5	22.7
20-24	1956	10.8	2.9	6.4	136.6	75.4	103.0	27.0	12.0	18.6
	1962	24.1	6.0	14.3	435.7	271.6	346.1	75.5	39.2	55.8
	1963	23.5	7.2	14.7	432.0	264.4	341.1	73.8	38.8	54.8
	1964	20.3	6.9	13.0	419.0	277.1	342.5	69.4	39.7	53.4
25-29	1956	8.6	2.0	5.2	83.6	42.8	61.2	16.6	6.8	11.5
	1962	22.7	4.2	13.0	316.5	168.4	235.7	57.0	25.0	40.2
	1963	21.7	5.2	13.1	345.8	183.1	257.2	59.4	27.7	42.8
	1964	18.8	4.1	11.1	362.5	187.5	267.3	58.6	27.2	42.2
30-39	1956	4.5	1.1	2.8	40.9	22.5	31.1	8.2	3.4	5.7
	1962	14.3	2.1	8.0	160.6	66.4	109.5	30.2	9.7	19.5
	1963	15.3	2.5	8.7	171.5	79.9	121.7	32.3	11.8	21.7
	1964	13.4	2.6	7.8	191.3	89.2	135.6	32.9	13.1	22.6
40-49	1956	2.2	.6	1.4	16.4	7.4	11.7	3.6	1.3	2.4
	1962	5.9	1.1	3.4	56.5	23.4	39.1	11.0	3.4	7.1
	1963	6.5	1.4	3.9	64.9	28.5	45.7	12.3	4.2	8.1
	1964	6.2	1.5	3.8	71.5	33.6	51.4	12.7	4.9	8.7
50+	1956	.8	.2	.5	5.6	2.5	4.0	1.2	.4	.7
	1962	1.9	.3	1.0	14.6	4.7	9.5	3.0	.6	1.8
	1963	1.8	.3	1.0	15.3	4.8	9.8	3.0	.7	1.7
	1964	1.8	.3	1.0	19.3	6.0	12.3	3.3	.8	2.0
Total	1956	2.4	.8	1.6	26.7	18.6	22.5	5.0	2.8	3.9
	1962	6.0	1.4	3.7	85.2	56.9	70.6	15.2	7.9	11.5
	1963	6.1	1.6	3.8	87.5	59.0	72.7	15.6	8.4	11.9
	1964	5.5	1.6	3.5	91.4	62.9	76.6	15.6	8.9	12.1

* Cases Per 100,000 Population. Rates for 1956, 1962, 1963, and 1964 are based on population estimates of the Bureau of the Census.

TABLE 8

GONORRHEA
UNITED STATES
AGE-SPECIFIC CASE RATES* BY AGE GROUPS, RACE AND SEX
Calendar Years 1956, 1962, 1963, 1964

AGE	YEAR	WHITE			NONWHITE			TOTAL		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
0-14	1956	.5	3.2	1.8	19.5	66.9	43.0	3.0	11.7	7.2
	1962	.6	2.9	1.7	25.0	47.7	36.3	4.0	9.4	6.7
	1963	.8	3.3	2.0	25.5	46.1	35.8	4.3	9.6	6.9
	1964	.8	3.6	2.2	30.8	49.7	40.2	5.2	10.5	7.8
15-19	1956	83.3	69.0	75.9	2966.2	2360.6	2653.0	455.3	363.6	407.8
	1962	103.5	86.6	94.9	2890.0	1631.3	2245.7	444.1	275.8	358.0
	1963	113.1	94.2	103.5	2932.7	1469.3	2185.7	461.5	265.5	361.9
	1964	117.0	101.9	109.3	3096.5	1536.6	2300.2	491.4	283.9	386.2
20-24	1956	266.8	76.9	160.6	7934.6	2745.8	5080.5	1254.9	410.4	783.3
	1962	407.7	127.5	255.2	8009.2	2396.5	4949.3	1357.3	411.2	842.3
	1963	438.6	129.9	270.9	8267.8	2254.2	5006.9	1402.7	390.6	853.0
	1964	439.0	133.4	273.6	8691.7	2174.4	5182.9	1455.0	381.7	874.7
25-29	1956	160.8	41.3	98.6	5169.1	1395.1	3102.9	698.1	201.4	438.3
	1962	260.8	64.8	158.5	5186.3	1283.0	3056.4	835.5	219.5	512.3
	1963	276.1	58.3	162.8	5365.8	1155.4	3073.7	868.3	197.3	517.2
	1964	279.7	63.5	167.2	5781.8	1184.4	3280.5	917.6	204.9	544.8
30-39	1956	72.0	20.5	45.3	2119.0	535.1	1270.2	277.0	75.4	172.1
	1962	109.4	25.5	65.9	2108.6	458.0	1213.4	326.8	76.8	196.6
	1963	114.2	24.3	67.7	2277.8	427.7	1271.7	350.0	72.7	205.9
	1964	116.2	24.4	68.8	2451.2	466.2	1368.8	371.9	78.0	219.3
40-49	1956	24.9	8.5	16.5	454.8	135.5	287.0	66.6	21.5	43.5
	1962	38.1	8.8	23.1	590.2	125.0	344.9	92.9	20.9	55.8
	1963	42.9	9.5	25.7	666.3	122.0	378.6	104.7	21.3	61.7
	1964	39.8	9.1	24.0	719.0	114.5	398.6	107.3	20.2	62.3
50+	1956	5.9	1.7	3.7	77.5	30.5	53.5	11.7	3.9	7.6
	1962	8.7	1.7	5.0	97.3	28.8	61.7	16.5	4.0	9.9
	1963	9.4	1.8	5.3	106.0	23.4	62.9	17.9	3.6	10.3
	1964	10.7	2.5	6.3	147.6	24.9	83.3	22.8	4.4	13.0
Total	1956	44.6	17.5	30.7	1410.3	600.6	991.6	192.6	81.9	135.9
	1962	65.9	24.1	44.4	1349.7	468.8	893.4	214.5	76.4	143.5
	1963	71.9	24.9	47.8	1420.7	436.4	910.6	229.0	73.7	149.2
	1964	73.6	26.7	49.5	1535.9	448.9	972.2	245.3	77.1	158.8

* Cases Per 100,000 Population. Rates for 1956, 1962, 1963, and 1964 are based on population estimates of the Bureau of the Census.

TABLE 9

REPORTED VENEREAL DISEASE CASES AND CASE RATES PER 100,000 POPULATION*
UNITED STATES (Known Military Cases Excluded)
FISCAL YEAR 1965

STATE	SYPHILIS				GONORRHEA		Other Venereal Diseases	
	All Stages		Primary & Secondary					
	Cases	Rates	Cases	Rates	Cases	Rates	Cases	Rates
Alabama	2,207	65.3	1,306	38.6	3,647	107.8	37	1.1
Alaska	32	14.7	7	3.2	627	287.6	2	.9
Arizona	686	43.9	280	17.9	3,047	195.2	16	1.0
Arkansas	1,087	56.7	244	12.7	6,381	332.7	16	.9
California	11,634	65.5	1,939	10.9	36,376	204.9	47	.3
Colorado	599	31.1	38	2.0	2,041	106.0	2	.1
Connecticut	689	25.2	150	5.5	2,421	88.0	7	.2
Delaware	753	156.2	70	14.5	1,055	218.9	1	.2
Dist. of Columbia	1,728	217.7	551	69.4	10,405	1,310.5	657	82.7
Florida	5,530	98.7	2,168	38.7	10,239	182.6	218	3.8
Georgia	2,479	59.0	1,067	25.4	10,969	261.4	291	7.0
Hawaii	108	16.9	21	3.3	323	50.4	0	—
Idaho	17	2.5	6	.9	808	117.8	1	.1
Illinois	6,135	58.8	1,356	13.0	26,746	256.1	35	.3
Indiana	1,192	24.7	72	1.5	3,903	81.0	1	—
Iowa	823	29.8	33	1.2	2,224	80.7	5	.2
Kansas	867	39.6	19	.9	2,650	121.1	7	.3
Kentucky	1,706	54.7	187	6.0	3,410	109.5	1	—
Louisiana	2,924	85.2	737	21.5	4,986	145.2	73	2.1
Maine	184	18.9	7	.7	296	30.5	0	—
Maryland	3,142	93.0	466	13.8	6,410	189.8	11	.4
Massachusetts	1,982	37.4	263	5.0	4,246	80.2	9	.1
Michigan	5,346	66.3	732	9.1	12,896	159.7	109	1.3
Minnesota	230	6.5	108	3.1	2,182	62.1	1	—
Mississippi	841	36.7	519	22.7	4,757	207.7	30	1.3
Missouri	4,238	96.9	267	6.1	9,443	215.9	67	1.5
Montana	188	27.1	24	3.5	417	60.0	0	—
Nebraska	413	28.2	63	4.3	984	67.4	3	.2
Nevada	316	79.0	56	14.0	800	200.0	0	—
New Hampshire	100	15.5	23	3.6	173	26.7	1	.2
New Jersey	5,311	80.1	1,040	15.7	3,882	58.6	8	.2
New Mexico	515	52.2	122	12.4	1,666	168.8	1	.1
New York	19,879	111.2	3,464	19.4	32,946	184.4	131	.7
North Carolina	2,282	47.9	1,082	22.7	9,404	197.5	93	2.0
North Dakota	21	3.4	1	.2	584	92.1	0	—
Ohio	4,717	46.8	637	6.3	13,015	129.1	9	.1
Oklahoma	1,430	58.8	140	5.8	3,352	137.8	7	.2
Oregon	354	19.0	54	2.9	2,290	122.8	7	.4
Pennsylvania	5,690	49.7	475	4.2	7,918	69.2	14	.1
Rhode Island	400	45.2	20	2.3	293	33.0	0	—
South Carolina	1,765	70.9	845	33.9	8,140	326.9	19	.7
South Dakota	201	28.4	55	7.8	927	130.9	1	.1
Tennessee	1,947	51.6	564	15.0	9,353	248.1	17	.4
Texas	5,205	50.9	1,378	13.5	27,325	267.2	122	1.2
Utah	160	16.1	16	1.6	471	47.7	1	.1
Vermont	12	2.9	1	.2	189	46.3	0	—
Virginia	2,475	58.5	339	8.0	7,433	176.1	14	.3
Washington	358	12.2	80	2.7	3,371	115.1	6	.2
West Virginia	1,081	60.2	71	4.0	825	45.9	0	—
Wisconsin	969	23.6	84	2.0	1,758	42.9	1	—
Wyoming	70	20.8	3	.9	151	44.7	1	.3
United States Total	113,018	59.7	23,250	12.3	310,155	163.8	2,100	1.2

* Rates less than .05 not shown.

Health Department Casefinding Activities

Table 10 shows the volume of casefinding investigations performed by public clinics. The data on contact investigations indicate the volume of contacts named and the various indices show the success in finding cases of syphilis on a per patient basis.

TABLE 10
HEALTH DEPARTMENT CASEFINDING ACTIVITIES, UNITED STATES
Fiscal Years 1960 – 1965

Clinic and Epidemiologic Data	1960	1961	1962	1963	1964	1965
Number of contact investigations completed	222,052	225,541	186,784	179,715	192,580	186,386
Number of other suspect investigations completed	227,523	239,835	234,305	243,257	241,016	245,715
Contact investigation indices:						
Approximate number of contacts obtained from each primary and secondary syphilis patient (contact index)	3.95	4.10	4.03	3.98	3.86	3.69
Approximate number of syphilis infections identified in the contacts of each primary and secondary patient (epidemiologic index)	1.07	1.22	1.24	1.17*	1.13*	1.11*
Approximate number of syphilis infections brought to treatment in the contacts of each primary and secondary patient (brought-to-treatment index)	.52	.55	.52	.47*	.46*	.45*
Approximate number of primary and secondary syphilis infections brought to treatment in the contacts of each primary and secondary patient (lesion-to-lesion index)	.31	.33	.32	.30	.31	.32

*Excludes Missouri, South Carolina and Tennessee

Treatment of Syphilis

Congenital Syphilis

Recommended treatment for early congenital syphilis (less than 2 years) consists of 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 procaine penicillin G in oil with 2-percent aluminum monostearate (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 (20-30 grams) or tetracycline (30-40 grams) is recommended for the treatment of syphilis.

Epidemiologic Treatment

The treatment of all sex contacts of patients with early infectious syphilis is recommended as the most effective procedure for preventing the spread of syphilis. Although clinically and and serologically negative at time of initial examination, some of these contacts will have incubating syphilis and some, particularly females who may have an inconspicuous or no primary lesion, will already have developed syphilis. It is suggested, therefore, that contacts be treated for syphilis (rather than for incubating syphilis) with a dosage of 2,400,000 units of benzathine penicillin G.

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.

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 units at 7-day intervals.
PAM – 1,200,000 units at 3-day intervals.
Aqueous procaine penicillin G – 600,000 units daily.

Treatment of Gonorrhea

The treatment of gonorrhea is in a state of uncertainty although penicillin still remains the drug of choice. Some strains of the gonococcus are developing increasing resistance to penicillin, but this resistance is relative and not absolute. As a result it is necessary to recommend on an interim basis short acting penicillin preparations in larger doses. Treatment schedules are presently being evaluated and until results are available the following are recommended:

Uncomplicated gonorrhea in men: Aqueous procaine penicillin G, 2,400,000 units in one IM injection.

Uncomplicated gonorrhea in women: Aqueous procaine penicillin G, 4,800,000 units IM in two injection sites at one visit, or the combination of aqueous procaine penicillin G and procaine penicillin G in oil with 2 percent aluminum monostearate for two separate IM injections of 2,400,000 units in each site given at one visit.

Prophylactic or epidemiologic treatment for gonorrhea (male and female) is accomplished with the same treatment schedules as for uncomplicated gonorrhea.

Treatment of gonorrhea with severe complications must be individualized using large amounts of short acting penicillin.

Excluding the likelihood of reinfection, retreatment is indicated if the discharge in uncomplicated male gonorrhea persists for three or more days following initial therapy and the smear, F.A., or culture is still positive. In uncomplicated gonorrhea in the female retreatment is indicated if followup cultures or F.A. procedures remain positive for gonococci. Retreatment consists of doubling the original dosage at a single visit or in divided doses on two successive days.

Gonorrhea patients sensitive to penicillin may be treated effectively with tetracycline, erythromycin, or oleandomycin. These may be administered as a single oral dose of 1.5 grams or 0.5 grams given orally every 4-6 hours until 2-3 grams have been given.

Gonorrhea patients who are sexual contacts to infectious syphilis should be given full prophylactic therapy for syphilis (2,400,000 units of benzathine penicillin G) as well as recommended therapy for gonorrhea. While long acting forms of penicillin (such as benzathine penicillin) are ideal in syphilotherapy, they are not indicated in routine gonorrhea treatment.

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 three studies at 5-year intervals (1954, 1959 and 1964) have been conducted to determine their frequency.

The 1959 and 1964 studies were 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. Reactions to penicillin were reported in 5.9/1,000 patients treated in 1954 and in 9.7/1,000 treated in 1959. This increase of 64 percent was attributed mainly to the delay in dismissing patients after treatment. Preliminary tabulations of the 1964 data indicate there has been no increase since 1959.

In each study, urticaria was the most frequent type of reaction, occurring in from 4-6/1,000 patients treated. Moderate to severe anaphylaxis was observed in 0.15-0.35/1000 patients treated.

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