VD Fact Sheet

Division of Venereal Disease

Office of Statistics

DECEMBER, 1952
ISSUE NUMBER 9

FEDERAL SECURITY AGENCY
Public Health Service

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FEDERAL SECURITY AGENCY
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INTRODUCTION

The VD Fact Sheet is intended to serve persons interested in public health and venereal disease problems as a handy source of basic statistics on the venereal diseases in the United States. The extent of the problem facing venereal disease control is indicated by the data on current incidence and prevalence while the costs of uncontrolled venereal disease and the frequency of psychoses and deaths from syphilis are indicative of the seriousness of the VD problem. On the other hand the results of the control program are indicated by trends for the past several years in incidence, prevalence, admissions to mental institutions, and deaths. The results of case-finding effort are measured in terms of cases reported while the actual amount of case-finding effort by public facilities is described by the volume of diagnostic examinations and epidemiologic activity. Since there is no agent for immunizing the population, the only feasible means of controlling venereal diseases are the finding and treating of cases. Therefore facts about the efficacy of various types of treatment are very necessary to an understanding of venereal disease control.

Facts on these various measures of the VD problem and program are presented in the text and tables which follow. The information is current as of the date of publication and supersedes any previously published data. Where no source is cited, the data presented are based on statistics collected by the Division of Venereal Disease or upon estimates made by the Division. Where data are indicated as being for "fiscal years", the period runs from July 1 of the previous year to June 30 of the year indicated on the table. For the most part rates shown in this Fact Sheet are based on appropriate population estimates obtained from the Bureau of the Census.

INCIDENCE

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 one year. As in many other diseases, the true incidence of syphilis is not known since many cases are not discovered until they have entered the later stages, and some cases may escape detection completely. Furthermore, because of incomplete reporting some discovered cases do not come to the attention of health officials. Estimates of syphilis incidence, however, have been prepared from available data. One estimate in use for several years gives the minimum incidence since it is merely the number of reported primary, secondary, and early latent cases. Recently new incidence estimates have been prepared using available data on trends of reported cases in each stage. These estimates are shown in Table 1.

Less is known about the incidence of gonorrhea, but it is estimated to be at least five times the syphilis incidence.

TABLE 1

ESTIMATED INCIDENCE OF SYPHILIS
Continental U.S. and Armed Forces 1/ Fiscal Years 1941-1952

Fiscal Year	Estimated Minimum Incidence Among Civilians	Estimated Incidence 2/ Civilians Only	Estimated Incidence 2/ Civilians and Armed Forces 1/
1941	177,000	306,000	312,000
1942	192,000	308,000	321,000
1943	232,000	306,000	334,000
1944	201,000	285,000	331,000
1945	179,000	271,000	323,000
1946	203,000	278,000	337,000
1947	214,000	275,000	301,000
1948	178,000	231,000	246,000
1949	139,000	187,000	199,000
1950	97,000	148,000	155,000
1951	71,000	120,000	126,000
1952	50,000	102,000	110,000

1/ Includes Armed Forces Overseas

2/ This is the new incidence estimate based on trends of reported cases in all stages. This estimate is intended to supersede the previously used minimum estimate.

PREVALENCE

The prevalence of a disease is defined as the total number of cases existing in a specified area at a point of time. The true prevalence of syphilis in the United States has not, of course, been established since this would require the examination of every person in the country within a minimal period of time. Estimates of prevalence have been made, however, and it is now estimated that there are 2,100,000 persons in the United States requiring treatment for syphilis.

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 2

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

Age Groups	White	Non-white	Other and 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. 1/ More recent data available for the total of all contacts to primary or secondary syphilis, indicates that 34 percent of contacts examined in 1951 were infected compared to 54 percent in 1946. 2/

No prevalence estimates of the other venereal diseases are available.

1/ Rion, J.W.; Iskrant, A.P.: Differentials in the Process of Contact Investigation. Journal of Venereal Disease Information, 29:231-239, August 1948.

2/ Results in the two years are from comparable areas submitting contact investigation data to the Division of Venereal Disease.

COSTS OF UNCONTROLLED VENEREAL DISEASE

On the basis of studies of untreated syphilis cases, it is estimated that 20,000 of the 169,000 cases reported in the fiscal year 1952 would develop late disabling manifestations of paresis, other syphilis of the central nervous system with psychoses, tabes dorsalis, optic atrophy, or cardiovascular syphilis if they had not been discovered and treated. A total of 295,000 productive man years would have been lost, involving economic losses of $662 million of income and $66 million in income tax payments to State and federal governments. While the above estimates are hypothetical since they indicate the costs which might have been incurred if these cases had not been discovered, the data presented in Table 3 are estimates of the actual annual costs for persons who were not discovered in time to prevent disabling late manifestations of syphilis.

TABLE 3

ESTIMATED ANNUAL COSTS OF UNCONTROLLED VENEREAL DISEASE 1/

Man-years of Venereal Disease Disability Per Year	
Hospitalization for syphilitic insanity (1950)	42,438
Disability from cardiovascular syphilis, including aneurysm (1949)	12,332
Disability from locomotor ataxia (1949)	2,080
Disability from syphilitic blindness (1949)	39,000
Economic Costs of Syphilitic Psychoses and Syphilitic Blindness Per Year	
Maintenance of patients with syphilitic psychoses (1950)	$41,162,000
Loss of income by patients with syphilitic psychoses (1950)	86,489,000
Loss of State and Federal income tax payments from patients with syphilitic psychoses (1950)	6,790,000
Maintenance of syphilitic blind (1949)	18,750,000
Loss of Life Expectancy Due to Syphilis in Man Years (1949) Per Year 2/	
White Male	73,896
White Female	28,421
Non-White Male	47,765
Non-White Female	27,684
Total Population	177,766
Loss of Income for 177,766 Man Years at 1949 adult income rate	$336,156,000

1/ Revised estimates based on most recent available data for years indicated.

2/ Computed according to the Sixth Revision, International Lists of the Causes of Death; not comparable to previous computations.

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 that year multiplied by 1,000 (rate per 1,000 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.

The method of classifying deaths is revised decennially by international agreement. 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. (Vital Statistics in the U.S., 1949, P.H.S., and Statistical Letter No. 23, August 1949 V.D. Division.) Mortality rates given in this Fact Sheet have been adjusted to the basis of the Sixth Revision for all years previous to 1949, and are not comparable to previously published rates. Infant mortality was affected very little by the Sixth Revision, and no adjustment was made.

Insanity due to syphilis is measured by the rate of first admissions to mental hospitals because of syphilis. Excluded, are admission to psycopathic 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 4.

TABLE 4

REPORTED MORTALITY AND INSANITY DUE TO SYPHILIS
Continental U. S.
1939 - 1951

Calendar Year	Syphilis Mortality Rates Per 100,000 Population 1/			Infant Mortality Due to Syphilis, Rates per 1,000 Live Births			First Admissions to Mental Hospitals Due to Syphilis Rates per 100,000 Population 2/
	Total	White	Non-White	Total	White	Non-White	Total
1939	11.1	7.7	40.8	.57	.28	2.60	6.6
1940	10.7	7.3	40.2	.53	.25	2.52	5.8
1941	9.9	6.9	35.2	.41	.18	2.10	6.1
1942	9.0	6.4	31.4	.30	.15	1.50	5.9
1943	9.0	6.4	31.2	.25	.12	1.28	5.4
1944	8.3	5.8	29.3	.27	.12	1.35	5.3
1945	7.9	5.6	27.3	.25	.11	1.26	5.2
1946	6.9	4.9	23.8	.16	.07	.92	4.7
1947	6.5	4.7	22.1	.14	.05	.82	4.2
1948	5.9	4.2	19.9	.12	.05	.63	3.5
1949	5.8	4.2	19.2	.08	.03	.44	3.1
1950 3/	5.0	3.7	16.1	.06	.02	.32	2.5
1951 3/	4.6	3.7	12.2	.02	-	-	-

1/ Sixth Revision, International Lists of Causes of Death; see Mortality, Page 6, for explanation.
2/ Does not include admissions to V.A. and Psychopathic Hospitals.
3/ Estimated.

Sources: 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 DISEASES

All States require that syphilis cases coming to medical attention be reported to the State or local health officer. Gonorrhea is a reportable disease in all States except one, and the other venereal diseases are 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 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 case-finding effort are reflected in morbidity data just as much as changes in incidence and prevalence.

It is believed that the current downward trend in reported morbidity reflects real decreases in incidence and prevalence. As there become fewer cases, however, casefinding becomes increasingly difficult so that there is a distinct possibility that downward trends in incidence and prevalence are not as great as might appear from the study of reported case trends.

Reported cases of gonorrhea indicate the known volume of successful gonorrhea casefinding and may be used as a minimum estimate of incidence. Reporting of gonorrhea is not as accurate as that of syphilis.

Reported cases of venereal diseases are shown in Tables 5 through 9.

HEALTH DEPARTMENT CASE-FINDING ACTIVITIES

The correct interpretation of casefinding success depends upon a knowledge of the volume of case-finding effort. Table 10 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 on contact investigation indices indicates 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 5

CASES OF SYPHILIS AND GONORRHEA REPORTED TO THE PUBLIC HEALTH SERVICE BY STATE HEALTH DEPARTMENTS, AND RATES PER 100,000 POPULATION
Continental U. S.
1919 - 1952

Fiscal Year	SYPHILIS		GONORRHEA	
	Cases	Rates per 100,000	Cases	Rates per 100,000
1919	100,466	96.3	131,193	125.8
1920	142,869	135.1	172,387	163.0
1921	184,090	171.4	189,927	176.9
1922	171,824	157.6	152,959	140.3
1923	172,258	155.6	156,826	141.7
1924	194,936	173.5	161,676	143.9
1925	201,692	176.9	166,208	145.8
1926	205,595	177.7	164,808	142.4
1927	196,457	167.4	160,793	137.0
1928	185,437	155.8	147,219	123.7
1929	195,559	162.0	156,544	129.7
1930	213,309	174.5	155,875	127.5
1931	229,720	185.8	155,895	126.1
1932	242,128	194.5	154,051	123.8
1933	238,656	190.6	149,823	119.6
1934	231,129	183.4	153,542	121.8
1935	255,856	201.7	162,763	128.3
1936	267,717	209.6	163,465	128.0
1937	336,258	261.7	182,460	142.0
1938	480,140	371.2	198,439	153.4
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	467,641	367.8	300,585	236.4
1945	359,115	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	245,220	161.1

Note: Military cases excluded after 1940
Rates based on population estimates of the Bureau of the Census

TABLE 6

CASES OF VENEREAL DISEASES REPORTED TO THE PUBLIC HEALTH SERVICE
FISCAL YEARS 1941 - 1952
(Known Military Cases Are Excluded)

YEAR	SYPHILIS					GONORRHEA	OTHER VENEREAL DISEASES		
	Total Syphilis 1/	Primary and Secondary	Early Latent	Late and Late Latent	Congenital		Chancroid	Granuloma Inguinale	Lympho-Granuloma Venereum
	In States and Territories								
1941	487,720	68,605	109,224	203,733	17,960	195,194	3,397	640	1,383
1942	491,750	78,150	118,091	206,341	18,915	218,573	5,709	1,286	1,915
1943	586,772	84,603	151,184	255,871	17,933	280,345	8,523	1,752	2,611
1944	482,167	80,316	126,008	208,214	15,707	307,504	8,046	1,772	2,906
1945	370,949	78,649	105,514	145,932	14,730	295,881	5,657	1,880	2,705
1946	373,631	96,222	111,240	128,492	14,181	375,761	7,366	2,244	2,653
1947	382,095	107,716	111,514	124,274	14,115	409,776	9,356	2,413	2,740
1948	345,992	81,428	101,399	125,938	14,510	372,167	8,853	2,325	2,518
1949	296,551	54,919	87,994	123,890	15,667	342,863	7,363	2,618	2,182
1950	238,640	32,838	68,392	115,363	15,062	313,517	5,890	2,022	1,653
1951	208,137	18,709	55,734	110,864	14,638	278,898	4,769	1,645	1,341
1952 2/	176,462	12,447	40,646	105,389	10,426	253,571	3,969	1,089	1,237
	In Continental United States								
1941	485,560	68,231	109,018	202,984	17,600	193,468	3,384	639	1,381
1942	479,601	75,312	116,245	202,064	16,918	212,403	5,477	1,278	1,888
1943	575,593	82,204	149,390	251,958	16,164	275,070	8,354	1,748	2,593
1944	467,641	78,418	123,019	202,780	13,576	300,585	7,878	1,759	2,858
1945	359,115	77,007	101,719	142,188	12,339	287,181	5,515	1,857	2,631
1946	363,647	94,957	107,924	125,248	12,106	368,020	7,091	2,232	2,603
1947	372,963	106,539	107,767	121,980	12,271	400,639	9,039	2,403	2,688
1948	338,141	80,528	97,745	123,972	13,309	363,014	8,631	2,315	2,494
1949	288,736	54,248	84,331	121,931	14,295	331,661	7,218	2,611	2,170
1950	229,723	32,148	64,786	112,424	13,446	303,992	5,796	2,017	1,635
1951	198,640	18,211	52,309	107,133	12,836	270,459	4,707	1,637	1,332
1952 2/	168,734	11,991	38,365	101,920	9,240	245,220	3,837	1,069	1,235

1/ Includes "Stage of Syphilis Not Stated"

2/ Preliminary

TABLE 7

REPORTED SYPHILIS CASE RATES PER 100,000 POPULATION
FISCAL YEARS 1941 - 1952

Year	Total Including Not Stated	Primary and Secondary	Primary, Secondary, and Early Latent	Congenital	Late and Late Latent
			Continental U. S. Civilians		
1941	368.2	51.7	134.4	13.3	153.9
1942	363.4	57.1	145.1	12.8	153.1
1943	447.0	63.8	179.8	12.6	195.7
1944	367.8	61.7	158.4	10.7	159.5
1945	282.3	60.5	140.5	9.7	111.8
1946	271.7	70.9	151.6	9.0	93.6
1947	264.6	75.6	152.0	8.7	86.5
1948	234.7	55.9	123.8	9.2	86.1
1949	197.3	37.1	94.7	9.8	83.3
1950	154.2	21.6	65.1	9.0	75.5
1951	131.8	12.1	46.8	8.5	71.1
1952 2/	110.8	7.9	33.1	6.1	66.9
			Total Armed Forces 1/ and Continental U.S. Civilians		
1941	370.3	55.9	138.1	13.3	152.9
1942	367.9	66.5	153.1	12.6	150.6
1943	444.4	81.1	191.1	11.9	185.5
1944	373.1	90.4	179.7	9.9	147.3
1945	295.8	93.2	166.3	8.9	102.1
1946	300.8	109.8	186.5	8.6	89.0
1947	279.2	92.6	168.1	8.6	85.4
1948	242.9	65.8	133.0	9.1	85.2
1949	203.1	44.7	101.6	9.7	82.4
1950	157.3	26.0	69.1	8.9	74.7
1951	133.3	15.4	49.6	8.4	70.0
1952 2/	113.0	12.4	37.0	5.9	65.4

1/ Includes U.S. Armed Forces Overseas
2/ Preliminary

Source: Based on data provided by the various Armed Services and the Division of Venereal Disease. Populations used in computing rates from estimates of the Bureau of the Census.

TABLE 8

REPORTED VENEREAL DISEASE CASE RATES PER 100,000 POPULATION BY COLOR AND SEX
CONTINENTAL U.S. CIVILIANS
Fiscal Years 1948 - 1952

Disease, Stage and Year		TOTAL			WHITE			NON-WHITE		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
Total Syphilis (Includes Not Stated)	1948	234.7	231.1	238.3	98.8	110.3	87.6	1376.9	1257.8	1490.6
	1949	197.3	195.3	199.3	81.4	91.0	72.0	1177.7	1090.5	1260.2
	1950	154.2	151.5	156.8	62.9	69.4	56.5	917.4	846.7	984.4
	1951	131.8	135.4	128.3	52.5	60.4	45.0	790.2	766.9	812.0
	1952	110.8	114.4	107.4	45.9	52.4	39.5	646.4	631.7	659.9
Primary and Secondary Syphilis	1948	55.9	62.3	49.6	25.8	31.7	20.0	308.8	322.5	295.8
	1949	37.1	41.5	32.7	16.4	20.6	12.4	211.5	221.7	201.9
	1950	21.6	24.1	19.2	9.4	11.7	7.2	123.1	128.6	118.0
	1951	12.1	13.9	10.3	5.0	6.5	3.6	70.9	76.2	66.0
	1952	7.9	9.4	6.4	3.3	4.4	2.3	45.5	51.2	40.3
Early Latent Syphilis	1948	67.9	54.2	81.2	20.7	18.6	22.8	463.9	356.9	566.1
	1949	57.6	46.4	68.5	17.3	15.6	19.1	398.2	311.4	480.4
	1950	43.5	34.3	52.4	13.2	11.7	14.7	296.4	225.4	363.8
	1951	34.7	31.1	38.2	10.1	10.0	10.1	239.2	208.2	268.2
	1952	25.2	21.4	28.8	7.4	7.0	7.9	171.3	141.7	198.7
Late and Late Latent Syphilis	1948	86.1	89.2	83.0	38.7	44.8	32.8	483.7	466.7	499.9
	1949	83.3	87.6	79.1	38.3	44.5	32.2	464.2	458.5	469.7
	1950	75.5	79.7	71.3	34.6	40.2	29.1	417.1	414.4	419.7
	1951	71.1	76.7	65.7	31.5	37.5	25.7	400.0	406.3	394.2
	1952	66.9	73.3	60.9	30.1	36.1	24.3	370.5	383.4	358.6
Congenital Syphilis	1948	9.2	8.1	10.4	4.2	3.4	4.9	52.0	47.7	56.2
	1949	9.8	8.7	10.8	3.7	3.2	4.2	60.8	56.2	65.2
	1950	9.0	8.0	10.0	3.1	2.4	3.7	58.5	55.1	61.9
	1951	8.5	7.8	9.2	2.9	2.4	3.3	55.4	52.6	58.0
	1952	6.1	5.2	6.9	2.4	1.9	2.9	36.3	32.8	39.5
Gonorrhea	1948	251.9	357.2	149.5	96.0	129.8	62.9	1563.0	2290.0	868.9
	1949	226.7	323.8	132.3	77.9	105.7	50.9	1484.3	2196.7	810.6
	1950	204.0	292.7	117.9	59.2	78.9	40.0	1414.3	2103.2	760.6
	1951	179.5	260.9	101.3	47.3	65.7	29.5	1277.2	1903.5	689.9
	1952	161.1	226.3	99.4	41.0	55.8	27.0	1149.6	1648.1	688.8

Populations used to calculate rates are from estimates by the Bureau of the Census

TABLE 9

REPORTED VENEREAL DISEASE CASE RATES PER 100,000 POPULATION
Continental U. S. Civilians, By State
Calendar Year 1951

STATE	SYPHILIS Total	SYPHILIS All Early 1/	GONORRHEA	OTHER VENEREAL DISEASES
Alabama	136.08	55.43	105.31	6.98
Arizona	185.42	95.69	166.03	1.39
Arkansas	232.86	80.24	140.20	5.34
California	84.06	22.37	160.88	3.98
Colorado	49.40	17.92	70.31	.60
Connecticut	41.95	15.99	34.16	.59
Delaware	147.38	64.92	71.69	.62
District of Columbia	422.31	116.47	1513.88	48.64
Florida	326.93	148.37	434.75	25.85
Georgia	152.19	70.81	391.56	29.69
Idaho	48.98	14.12	58.83	2.04
Illinois	107.68	36.87	232.99	5.58
Indiana	76.35	25.28	53.40	.70
Iowa	65.51	21.42	25.00	.15
Kansas	119.61	35.80	62.80	.83
Kentucky	86.02	25.56	124.57	1.98
Louisiana	309.63	93.83	312.16	18.56
Maine	31.07	11.19	21.47	.34
Maryland	162.77	51.59	309.66	11.90
Massachusetts	42.18	10.58	29.37	.34
Michigan	100.98	28.33	130.53	3.33
Minnesota	19.16	4.08	20.50	.03
Mississippi	313.49	82.30	475.37	11.51
Missouri	129.09	45.97	109.89	2.35
Montana	28.94	11.99	23.63	0
Nebraska	55.66	14.16	44.78	.45
Nevada	197.59	39.76	100.00	3.01
New Hampshire	27.31	3.77	11.49	.38
New Jersey	81.98	27.61	72.62	.63
New Mexico	104.39	48.76	82.14	.44
New York	173.98	30.27	111.45	2.89
North Carolina	99.21	61.07	348.45	8.67
North Dakota	30.30	11.26	19.87	0
Ohio	136.58	45.13	101.35	1.45
Oklahoma	125.93	32.08	220.50	2.15
Oregon	24.63	8.06	46.03	1.61
Pennsylvania	52.20	22.23	82.15	.80
Rhode Island	63.10	8.34	23.86	.13
South Carolina	175.70	104.11	338.09	6.80
South Dakota	27.46	13.10	41.81	0
Tennessee	156.45	51.77	561.78	5.52
Texas	100.88	40.35	287.07	3.12
Utah	16.22	3.70	16.93	.28
Vermont	43.28	14.25	34.95	0
Virginia	161.06	70.90	282.40	6.76
Washington	25.35	6.70	76.87	4.95
West Virginia	131.29	44.58	128.08	.45
Wisconsin	53.24	12.66	23.84	.29
Wyoming	59.30	19.65	34.74	0
TOTAL CONTINENTAL U.S.	115.78	38.26	168.16	4.56

1/ Includes primary, secondary and early latent syphilis

Source: Cases - quarterly morbidity reports submitted to PHS
Population - estimates prepared by the Bureau of the Census

TABLE 10

HEALTH DEPARTMENT CASEFINDING ACTIVITIES
Fiscal Years 1948 - 1952

Clinic and Epidemiologic Data	1948	1949	1950	1951	1952 1/
Diagnostic examinations in public clinics	2,328,002	2,276,957	2,717,707	2,547,485	2,258,857
Percent of examinations in which one or more venereal diseases were found	21.0	20.3	15.7	14.7	14.9
Previously untreated syphilis cases found per 100 examined	6.7	5.7	3.9	3.4	3.1
Previously untreated primary-secondary syphilis cases found per 100 examined	1.9	1.3	.7	0.4	0.3
Previously untreated gonorrhea cases found per 100 examined	12.1	11.7	9.3	9.0	9.3
Number of contact investigations completed	408,054	381,464	341,495	314,356	291,253
Number of other suspect investigations completed	164,003	154,339	149,557	155,087	145,906
Contact investigation indices:					
Approximate number of contacts obtained from each previously untreated primary-secondary syphilis patient (contact index)	2.31	2.63	2.84	3.06	2.97
Approximate number of syphilis infections identified in the contacts at each previously untreated primary and secondary patient (epidemiologic index)	.71	.77	.74	.68	.66
Approximate number of syphilis infections brought to treatment in the contacts at each previously untreated primary and secondary patient (brought-to-treatment index)	.38	.43	.41	.38	.39
Approximate number of primary and secondary syphilis brought to treatment in the contacts of each previously untreated primary and secondary patient (lesion-to-lesion index)	.17	.20	.19	.18	.20

1/ Provisional

FACTS ABOUT CONGENITAL SYPHILIS

INCIDENCE

Because of inadequacy of case finding of congenital syphilis, many cases are not found early in life and thus the true incidence can not be determined. For trend purposes, the number of congenital syphilis cases reported under the age of one year might be taken as a rough measure of "minimum" incidence. Latest data submitted show the number of reported cases of congenital syphilis under age one to be 2.2 and 1.6 per 10,000 live births in the fiscal years 1951 and 1952 (based on estimate of live births by National Office of Vital Statistics).

PREVALENCE

The current estimated prevalence of congenital syphilis in the Continental United States, age 0-10 years is approximately 80,000.

REPORTED CASES

TABLE 11

REPORTED CASES OF CONGENITAL SYPHILIS, BY AGE

Age	Fiscal Year 1951		Fiscal Year 1952	
	Number	Percent	Number	Percent
0 - 1 Year	701	6.2	527	6.7
1 - 4 Years	817	7.2	405	5.1
5 - 9 Years	2,003	17.7	1,069	13.6
10 Years and over	7,787	68.9	5,863	74.6
Total, Known Age	11,308	100.0	7,864	100.0
Unknown Age	1,528		1,376	
Grand Total	12,836	-	9,240	-

INFANT MORTALITY DUE TO SYPHILIS - See Table 4.

PRENATAL LAW

In 1951 forty-two States had prenatal blood testing laws. Of the total live births occurring in Continental United States during both 1950 and 1951, 87 percent were in the States having laws. These States reported 78 percent of the congenital syphilis reported for the Continental United States in 1950 and 81 percent in 1951.

PENICILLIN IN THE TREATMENT OF SYPHILIS

EARLY SYPHILIS

Procaine penicillin in oil with 2% aluminum monostearate is both practicable and effective for out-patient therapy for early syphilis. A minimum of 2,400,000 units is recommended for primary syphilis; a minimum of 4,800,000 units for secondary syphilis.

A comparison of schedules utilizing varying amounts of procaine penicillin and aluminum monostearate in the treatment of secondary syphilis is presented in Tables 13a and 13b. Results are shown for the 12th and 24th month following treatment. Table 13b also includes percent satisfactory (negative STS or 4 Kahn units or less) for patients observed longer than 24 months.

CONGENITAL SYPHILIS

In congenital syphilis, the earlier penicillin therapy is instituted, the more satisfactory the results. Preliminary results, 15–18 months after treatment, are shown in Table 12 by child's age at time of treatment. All types and amounts of penicillin are included.

TABLE 12

Age	Number Treated	Number Observed	Percent Seronegative	Percent Seropositive	Percent Retreated
Under 3 months	158	34	93.4	0	6.6
3 - 5 months	237	68	87.8	7.0	5.2
6 - 11 months	172	54	65.6	30.0	4.5
12 - 24 months	241	50	33.5	59.4	7.1

TABLE 13a

TREATMENT OF SECONDARY SYPHILIS WITH PROCAINE PENICILLIN AND ALUMINUM MONOSTEARATE

Results at 12 Months After Treatment

Center or group of centers	Schedule of Therapy	Cases Observed	Cumulative percent retreated	Not re-treated			
				Seropositive		Seronegative	
				Number	Percent	Number	Percent
	2,400,000 units - 1,200,000 q 4 days	74	7.7	13	17.6	55	74.7
A	2,400,000 units - 1 session	144	8.1	25	17.3	108	74.8
	4,800,000 units - 1 session	99	5.8	11	11.1	82	83.2
	1,200,000 units - 1 injection	101	24.4	19	18.9	57	56.6
B	2,400,000 units - 1,200,000 q 7 days	113	10.6	31	27.4	70	62.0
	4,800,000 units - 1,200,000 q 7 days	126	8.0	29	23.0	87	69.1
	4,800,000 units - 2,400,000 q 7 days	56	5.0	14	25.1	39	69.9
C	9,600,000 units - 600,000 q 3-4 days	84	3.4	20	23.9	61	72.8
	Units per Kilogram of Body Weight						
	5,000 units or less	11	46.2	3	26.9	3	26.9
	10,000 units one	36	21.7	12	33.6	16	44.8
D	20,000 units injection	37	18.1	9	24.5	21	57.3
	40,000 units or	165	11.8	49	29.6	97	58.7
	80,000 units session	153	11.1	29	19.0	107	70.0
	300,000 units - 1 injection	29	26.5	10	35.0	11	38.5
E	1,800,000 units - 600,000 q 24 hrs.	23	14.8	-	-	20	85.2
	30,000 units/kg - 1 injection	203	10.3	49	24.2	133	65.6
F	3,600,000 units - 600,000 q 24 hrs.	76	6.4	16	21.1	55	72.6

TABLE 13b

TREATMENT OF SECONDARY SYPHILIS WITH PROCAINE PENICILLIN AND ALUMINUM MONOSTEARATE

Results at 24 Months After Treatment

Center or group of centers	Schedule of Therapy	Cases Observed	Cumulative percent retreated	Not re-treated				Percent Satisfactory* after 2 years observation
				Seropositive		Seronegative		
				Number	Percent	Number	Percent	
A	2,400,000 units - 1,200,000 q 4 days	28	10.6	1	3.6	24	85.8	89.4
	2,400,000 units - 1 session	90	11.4	3	3.3	77	85.4	88.8
	4,800,000 units - 1 session	15	5.8	-	-	14	94.3	-
B	1,200,000 units - 1 injection	55	27.5	5	9.0	35	63.3	72.4
	2,400,000 units - 1,200,000 q 7 days	46	19.0	4	8.8	33	72.2	76.2
	4,800,000 units - 1,200,000 q 7 days	43	12.5	6	13.8	32	73.8	87.6
C	4,800,000 units - 2,400,000 q 7 days	23	6.9	3	13.3	18	79.8	93.1
	9,600,000 units - 600,000 q 3-4 days	70	4.6	5	7.1	62	88.3	92.2
D	Units per Kilogram of Body Weight							
	5,000 units or less	11	46.2	3	26.9	3	26.9	26.9
	10,000 units one	25	36.4	4	15.9	12	47.7	47.7
	20,000 units injection	21	28.6	5	23.7	10	47.5	65.7
	40,000 units or	83	19.6	14	16.8	53	63.7	71.0
	80,000 units session	92	14.4	8	8.7	71	77.0	77.8
E	300,000 units - 1 injection	23	43.1	3	13.1	10	43.8	57.0
	1,800,000 units - 600,000 q 24 hrs.	19	14.8	-	-	16	85.2	85.2
F	30,000 units/kg - 1 injection	120	15.2	15	12.5	87	72.4	78.6
	3,600,000 units - 600,000 q 24 hrs.	18	6.4	1	5.5	16	88.2	93.7

* Negative or 4 Kahn units or less

SYPHILIS IN PREGNANCY

Penicillin is effective therapy for the prevention of congenital syphilis. In two studies, comprising 528 live births, approximately 98 percent of the children were nonsyphilitic (Table 14). The percentage varied slightly by stage of mother's syphilis at time of treatment during pregnancy.

TABLE 14

OUTCOME OF PREGNANCY BY STAGE OF SYPHILIS AT TIME OF MOTHER'S TREATMENT DURING PREGNANCY

Stage of disease at time of Mother's Treatment with Penicillin	Total Live Births		Nonsyphilitic		Syphilitic	
	Number	Percent	Number	Percent	Number	Percent
A. Aqueous Penicillin - 2,400,000 units or more						
Primary or Secondary	160	100.0	156	97.5	4	2.5
Early Latent	90	100.0	89	98.8	1	1.1
TOTAL	250	100.0	245	98.0	5	2.0
B. PAM - One Session - 30,000 - 80,000 u/kg						
Primary or Secondary	48	100.0	45	93.8	3	6.2
Early Latent	174	100.0	172	98.9	2	1.1
Late (Latent, CNS, Congenital)	56	100.0	56	100.0	0	0.0
TOTAL	278	100.0	273	98.2	5	1.8
Total A and B						
Primary or Secondary	208	100.0	201	96.6	7	3.4
Early Latent	264	100.0	261	98.9	3	1.1
Late (Latent, CNS, Congenital)	56	100.0	56	100.0	0	0.0
TOTAL	528	100.0	518	98.1	10	1.9

In the absence of relapse or reinfection, a woman treated with penicillin for syphilis will not require further treatment in the event of pregnancy. The two syphilitic children reported in Table 15 were born to mothers with an unsatisfactory course following treatment for secondary syphilis - one was reinfected, the other experienced a serologic relapse.

TABLE 15

OUTCOME OF PREGNANCY IN WOMEN TREATED FOR SYPHILIS PRIOR TO, BUT NOT DURING, PREGNANCY

	Total Live Births		Nonsyphilitic		Syphilitic	
	Number	Percent	Number	Percent	Number	Percent
Series A	154	100.0	153	99.4	1	0.6
Series B	229	100.0	228	99.6	1	0.4
TOTAL	383	100.0	381	99.5	2	0.5