

V D F A C T S H E E T

INCIDENCE - The number of new cases occurring in a stated area during a specific time period, usually one year.

TABLE I
SYPHILIS MINIMUM ANNUAL INCIDENCE ESTIMATES
1936 - 1948

Year	Method of Calculation	Civilians & Armed Forces			Continental US Civilians		
		Total	Acquired	Con-genital	Total	Acquired	Con-genital
1936-37	Survey (1)	---	---	---	---	259,000	---
1940-41	Survey (1)	---	---	---	---	173,000	---
1941	Morbidity Reports (2)	202,000	184,000	18,000	195,000	177,000	18,000
1942	"	225,000	206,000	17,000	209,000	192,000	17,000
1943	"	273,000	260,000	16,000	247,000	231,000	16,000
1944	"	258,000	245,000	14,000	215,000	201,000	14,000
1945	"	246,000	234,000	12,000	190,000	178,000	12,000
1946	"	265,000	251,000	12,000	214,000	202,000	12,000
1947	"	252,000	240,000	12,000	226,000	214,000	12,000
1948 (est)	"	---	---	---	197,000	185,000	12,000

Gonorrhea incidence is estimated as approximately five times the syphilis incidence.

PREVALENCE - The total number of cases of a disease existing in a stated area at any point of time.

1. In the first two million selectees examined, the prevalence rate for syphilis based on serologic testing was 45.5 per 1,000 men tested, the rate for white males was 17.4 per 1,000; for non-white males 252.3 per 1,000. (3)

2. In the age group 20-25 years the prevalence rate among non-white males was 19 times greater than among white males. In the 30-35 year age group the prevalence rate among non-white males was only 9 times greater than among white males (see following table): (5)

PREVALENCE (continued)

TABLE II

SYPHILIS DETECTED IN SELECTIVE SERVICE EXAMINATIONS

Age Group	Prevalence Rate per 1000 tested		
	White	Non-white	Total
21-25	10.1	191.2	30.1
26-30	20.2	233.7	54.4
31-35	37.7	357.2	85.2
Total	17.4	252.3	43.3

3. The prevalence of syphilis among examined sexual contacts of persons known to have primary-secondary syphilis is approximately 51 percent for whites and 37 percent for non-whites. (4)

4. It is estimated that about 5 million persons in the United States have syphilis (all stages--primary, secondary, early latent, latent, late, congenital). (5)

MORBIDITY

TABLE III

DIAGNOSED CASES OF VENEREAL DISEASES REPORTED FOR THE FIRST TIME
FISCAL YEARS 1941-48
(known military cases are excluded)

Year	Syphilis					Gonor- rhea	Other Venereal Disease		
	Primary and sec- ondary	Early latent	Late and late latent	Congen- ital	Not stated		Chan- croid 1/	Granu- loma in- guinale	Lympho- granu- loma vener- eum
In States and Territories									
1941									
1942	63,319	108,864	201,933	17,352	85,352	193,032	3,278	648	1,347
1943	72,556	118,300	206,472	18,921	62,159	218,554	5,649	1,276	1,915
1944	84,629	150,705	256,903	17,942	65,915	280,923	8,502	1,750	2,408
1945	80,516	125,379	208,850	15,707	42,493	307,504	8,029	1,771	2,905
1946	78,649	104,930	146,473	14,730	23,335	293,694	5,625	1,869	2,699
1947	96,222	110,552	129,600	14,131	20,767	372,594	7,333	2,216	2,643
1948	107,772	111,499	124,531	14,127	24,476	409,793	9,356	2,413	2,740
1948 2/	87,000	103,000	123,000	12,000	25,000	397,000	9,700	2,200	2,400
In continental United States									
1941									
1942	67,958	103,353	201,190	17,592	82,443	191,306	3,235	647	1,345
1943	75,704	116,433	202,216	16,924	60,938	212,384	5,426	1,271	1,888
1944	82,230	142,909	252,995	16,173	64,611	275,648	8,535	1,746	2,391
1945	78,418	122,590	203,396	13,576	40,419	300,585	7,361	1,758	2,357
1946	77,007	101,133	142,731	12,339	23,103	234,994	5,481	1,843	2,625
1947	94,957	107,336	125,336	12,103	20,685	334,353	7,058	2,204	2,593
1948	106,594	107,753	122,257	12,234	24,406	400,659	9,039	2,403	2,688
1948 2/	86,000	99,000	121,000	12,000	25,000	338,000	9,400	2,200	2,400

1/ Includes some unspecified "other venereal diseases."

2/ Estimate based on 6 months data.

Source: (2)

TABLE IV

TREND OF SYPHILIS MORBIDITY REPORTING, U. S. CIVILIAN AND ARMED FORCES
1941 - 1947

Fiscal Year	Est. Pop. in Thousands ^{1/}	Reported Cases					Rate per 1,000 Population				
		Total In-cluding Not Stated	Primary or Secondary	All Early Syphilis (Pri-Sec-E.L.)	Congen-ital	Late and Latent	Total In-cluding Not Stated	Primary or Secondary	All Early Syphilis (Pri-Sec-E.L.)	Con-geni-tal	Late Latent
Continental U. S. Civilians											
1941	131,897	477,841	67,958	176,616	17,592	201,190	3.623	.515	1.339	.133	1.525
1942	131,943	472,245	75,704	192,137	16,924	202,216	3.579	.574	1.456	.128	1.533
1943	128,728	564,918	82,230	231,139	16,173	252,995	4.388	.639	1.796	.126	1.965
1944	127,028	458,199	78,418	200,808	13,576	203,396	3.607	.617	1.581	.107	1.601
1945	127,037	356,315	77,007	178,142	12,339	142,731	2.805	.606	1.402	.097	1.124
1946	133,543	360,918	94,957	202,293	12,106	125,836	2.703	.711	1.515	.091	0.942
1947	140,974	373,296	106,504	214,340	12,284	122,257	2.648	.756	1.520	.087	0.867
Total Civilian and Armed Forces											
1941	132,638	484,647	74,764	183,422	17,592	201,190	3.654	.564	1.383	.133	1.517
1942	133,953	486,386	80,845	206,278	16,924	202,216	3.631	.671	1.540	.126	1.510
1943	135,646	594,021	111,333	260,242	16,173	252,995	4.379	.821	1.919	.119	1.865
1944	137,368	501,947	122,166	244,556	13,576	203,396	3.654	.889	1.780	.099	1.481
1945	138,923	411,840	132,532	233,667	12,339	142,731	2.965	.954	1.682	.089	1.027
1946	140,387	409,531	143,570	250,906	12,106	125,836	2.917	1.023	1.787	.086	0.896
1947	142,673	399,067	132,365	240,120	12,284	122,257	2.797	.928	1.683	.086	0.857

^{1/} As of January 1 (mid-point of fiscal year).

Source: (6)

TABLE V

CASES REPORTED UNDER TREATMENT FOR THE FIRST TIME- U.S. AND TERRITORIES

Fiscal Year 1947

Source	Color & Sex	Syphilis					Gonorrhea	Chancroid	Granuloma Inguinale	Lymphogranuloma
		Pri- & Sec.	Early Latent	Late & Late Latent	Congenital	Not Stated				
Private Physicians	White <u>1</u> / Male	10,596	5,914	17,215	891	6,137	37,705	313	63	37
	Female	7,984	7,424	14,920	1,700	3,643	12,777	52	10	18
	Non-White Male	6,451	6,564	10,905	372	3,088	23,299	173	169	112
	Female	7,678	12,476	14,677	575	4,462	10,549	36	82	49
	TOTAL	32,709	32,378	57,726	3,538	17,330	84,330	574	324	216
Clinics, Hospitals, or other Institutions	White <u>1</u> / Male	17,964	9,971	14,506	2,014	1,231	65,025	1,741	67	190
	Female	11,023	11,752	9,614	2,689	921	42,152	253	33	36
	Non-White Male	25,182	22,055	21,032	2,627	2,323	146,654	5,627	1,149	1,757
	Female	20,894	35,343	21,673	3,259	2,671	71,632	1,161	840	541
	TOTAL	75,063	79,121	66,825	10,589	7,146	325,463	8,782	2,089	2,524
GRAND TOTAL		107,772	111,499	124,551	14,127	24,476	409,793	9,356	2,413	2,740

1/ Includes unknown color.

Source: (2)

TABLE VI

Year	Syphilis Mortality rates per 100,000 population	Infant Mortality Rates due to syphilis per 1,000 live births	Admission rates to mental hospitals due to syphilis per 100,000 population
	Source: (7) (8)	Source: (9) (10)	Source: (11)
1933	15.1	.79	-
1934	15.9	.74	-
1935	15.4	.70	7.0
1936	16.2	.73	7.1
1937	16.1	.69	7.1
1938	15.9	.65	7.2
1939	15.0	.57	7.3
1940	14.4	.53	6.4
1941	13.3	.41	6.5
1942	12.2	.30	6.4
1943	12.1	.25	6.0
1944	11.5	.27	5.8
1945	10.7	.25	5.7
1946	9.3	.16	5.0
1947	8.7	-	-

MORTALITY AND INSANITY (continued)

TABLE VII

NUMBER OF DEATHS REPORTED AND NUMBER OF MENTAL HOSPITAL
ADMISSIONS REPORTED DUE TO SYPHILIS, 1945

Source: (10) (11)

	Total Deaths			Infant Deaths	Mental Hospital Admissions
	Total	White	Non-white		
Syphilis-All Forms	14,062	8,892	5,170	684	7,575
Paresis	4,374				3,495
Tabes Dorsalis	507				
Aortic Aneurysm	2,904				
All other forms	6,277				1,080

MISCELLANEOUS FACTS - 71% of previously untreated primary and secondary cases

diagnosed by clinics are referred to in-patient facilities for treatment, about 50% of primary and secondary cases reported by all sources are given in-patient treatment. (2) (12)

- About 2/3 of the primary and secondary cases diagnosed by clinics, volunteered for diagnostic observation. About 25% of the primary and secondary cases diagnosed by clinics are brought to treatment because of contact investigation. (13)

- About 30% of the persons given diagnostic observation for venereal disease by clinics are found to be infected with one or more diseases. (2)

- An average of 2.1 contacts per patient is obtained from diagnosed primary and secondary cases by Health Departments. (14)

- Contact investigation brings to treatment about 17 new early lesion cases per 100 early lesion cases diagnosed. (14)

PENICILLIN IN THE TREATMENT OF SYPHILIS - Early Syphilis - Only 30 percent of patients with early syphilis admitted to clinics for routine therapy received the minimum protective regimen of 30 arsenical injections together with heavy metals. (15)

Under present penicillin schedules for in-patients (ranging in duration from 4 to 14 days), 99 percent complete treatment. (16)

PENICILLIN IN THE TREATMENT OF SYPHILIS (continued)

TABLE VIII

COMPARATIVE EFFECTIVENESS OF PENICILLIN SCHEDULES
IN THE TREATMENT OF SECONDARY SYPHILIS

Schedule of Penicillin Therapy	Results 12-15 months posttreatment			
	Total cases observed	Cumulative percent re-treated	Percent sero-positive	Percent sero-negative
1,200,000 units of penicillin plus 5 arsenoxide and 3 bismuth (9 days)	1,237	15	29	57
4,800,000 units penicillin in oil-beeswax (9 days)	285	15	16	69
1,200,000 units of penicillin plus 320 m.g. arsenoxide (9 days)	462	17	15	68
2,400,000 units of penicillin (4 & 8 days)	517	20	17	65
1,200,000 units of penicillin (4 & 8 days)	609	24	15	61

Source: (17)

TABLE IX

COMPARATIVE TOXICITY OF PENICILLIN ALONE AND PENICILLIN
COMBINED WITH ARSENOXIDE

Treatment for Syphilis (all diagnoses)	Total Cases Reported	Severe Reactions per 1,000	Deaths
Penicillin alone	43,734	5.5	0
Penicillin plus arsenoxide	110,544	13.8	16

Source: (17)

PENICILLIN IN THE TREATMENT OF SYPHILIS (continued)

Congenital Syphilis - There is a significantly greater percentage of patients with satisfactory progress among children treated at less than 6 months of age than among children treated at 6 months to two years of age or children treated at two years of age or over.

TABLE X

Age of Child at Time of Treatment	Satisfactory Progress	Unsatisfactory Progress
	6 to 18 Months Posttreatment	6 to 18 Months Posttreatment
Less than 6 months	98.7 percent	4.5 percent
6 months - 1 year 11 months	75.0 percent	25.0 percent
2 years and over	61.4 percent	30.3 percent

Source: (18)

Syphilis in Pregnancy - Penicillin therapy among pregnant syphilitic women is very effective in preventing congenital syphilis.

Penicillin therapy administered as late as the third trimester is more than seven times as effective as weekly injections of arsenicals and heavy metal started after the fifth month of pregnancy; more effective than routine injections of 10 or more arsphenamine and 10 or more heavy metal started before the fifth month.

TABLE XI

OUTCOME OF PREGNANCY BY GESTATION PERIOD
AT TIME OF MOTHER'S TREATMENT

Duration of Pregnancy at Time of Mother's Treatment with Penicillin	Percent of Total Live Births		
	Congenital Syphilis	Non-Syphilitic	Indeterminate
Conception occurred after treatment	1.1	69.3	29.5
First trimester	3.3	80.0	16.7
Second Trimester	2.9	74.3	22.9
Third Trimester	3.5	78.9	17.5

Source: (18)

PENICILLIN IN THE TREATMENT OF GONORRHEA

TREATMENT SCHEDULE	PERCENT CURE*	SOURCE
200,000 units - Single injection - Calcium Penicillin in peanut oil and 4.8% beeswax	92	(18)
200,000 units - 3 injections in 2 hrs. - Sodium Penicillin aqueous (50,000 - 50,000 - 100,000)	94	(19)
200,000 units - 4 injections in 3 hrs. - Sodium Penicillin aqueous (40,000 - 40,000 - 40,000 - 80,000)	96	(19)
200,000 units - 3 injections in 2 hrs. - Crystalline G Penicillin aqueous (50,000 - 50,000 - 100,000)		(20)
Given by intramuscular needle injection	97.9	
Hypodermic Administration	97.5	

*Clinically and bacteriologically free of infection, i.e., without signs or symptoms and with three or more cultures - all negative - during the observation period.

References Cited

- (1) N. Y. State J. of Med.; Oct. 1, 1943; Vol. 45, No. 19, pp. 1825-1829.
- (2) Tabulated by the Program Evaluation Section, VD Division, based on USPHS Form 8958-B and/or 8954-A.
- (3) J.A.M.A. Dec. 26, 1942; Vol. 120, pp. 1569-1572.
- (4) Unpublished data, Epidemiologic Studies Section, Venereal Disease Division.
- (5) Unpublished estimate Venereal Disease Division.
- (6) J. of Ven. Dis. Inform., Nov. 1947, p. 265.
- (7) Census Bureau: Population Releases; Mortality Statistics of the U.S. 1933-1936; Vital Statistics of the U.S. 1937-1944.
- (8) National Office of Vital Statistics: Current Mortality Analysis; Vol. 4, No. 13; Vol. 5, No. 12.
- (9) Census Bureau: Birth, Stillbirth and Infant Mortality Statistics 1933-1936; Vital Statistics of the U.S. 1937-1944.
- (10) National Office of Vital Statistics: Vital Statistics of the U.S. 1945.
- (11) Census Bureau: Population Releases; Patients in Mental Institutions, 1935-1944. Current Pop. Reports, Mental Institutions Series, p.85, No. 14
- (12) Supplement to monthly mimeographed report "Admissions to Rapid Treatment Centers and other In-Patient Care Facilities" July 1947, VD Division.
- (13) Statistical Letter, VD Division, Jan.-March 1947.
- (14) Statistical Letter, VD Division, July-Sept. 1947.
- (15) J. of Ven. Dis. Inform., August 1945, p.171.
- (16) Form VD 3 - Summarization unpublished.
- (17) J. of Ven. Dis. Inform., April 1948, pp. 103-106.
- (18) Unpublished data Medical Statistics Section, Venereal Disease Division.
- (19) J. of Ven. Dis. Inform., May 1945, pp. 98-103.
- (20) J. of Ven. Dis. Inform., Sept. 1946, pp. 225-228.
- (21) J. of Ven. Dis. Inform., March 1948, pp. 61-63.