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MORBIDITY AND MORTALITY WEEKLY REPORT

Current Trends

Oral Contraceptive Use and the Risk of Breast Cancer in Young Women

In March 1983, preliminary results were published by CDC and the National Institute of Child Health and Human Development from the Cancer and Steroid Hormone Study. This is a case-control study of breast, endometrial, and ovarian cancer in relation to oral contraceptive (OC) use. The preliminary findings suggested that there is no association between OC use and breast cancer (*1*). Since then, two studies of breast cancer have been published, one suggesting that women who use so-called "high-progestogen"* combination-type OCs before 25 years of age have an increased risk of developing breast cancer before age 37 (*2*); the other, that women who use OCs before their first term birth have an increased risk of developing breast cancer before age 45 (*3*). CDC has further analyzed the Cancer and Steroid Hormone Study data to look at these two specific issues.

Table 1 reports the relative risk of breast cancer by duration of use of high-progestogen, combination-type OCs before age 25. No significant association was found between the use of high-progestogen OCs before age 25 and the development of breast cancer before age 37. Similar results were obtained by using as the reference group women who had never used OCs and by restricting the analysis to those women still nulliparous at age 25. Adjustment for known risk factors for breast cancer did not appreciably alter the results.

*See footnote to Table 1.

TABLE 1. Risk of breast cancer and use of high-progestogen* oral contraceptives before age 25 for women under age 37: Cancer and Steroid Hormone Study

High-progestogen OC use (mos.)	Cases	Controls	Odds ratio†
0	465	561	1.0 (REF)
1-24	134	162	1.0 (0.9, 1.8)
25-48	92	102	1.1 (0.9, 2.0)
49-72	27	41	0.8 (0.6, 1.7)
73+	10	14	0.9 (0.4, 2.5)

*Includes Ovulen, Demulen, Ovral, Enovid 10, Norinyl 10, Ortho-Novum 10, Lo/Ovral, Enovid 5, Norlestrin 2.5 (*2*). (Use of trade names is for identification only and does not imply endorsement by the Public Health Service or the U.S. Department of Health and Human Services.)

†Crude odds ratios with 95% confidence limits in parentheses.

Oral Contraceptive Use — Continued

Table 2 shows the relative risk of breast cancer before age 45 in women who used any OCs before their first full-term pregnancy; only parous women are included. Women who did not use OCs before their first full-term pregnancy constituted the reference group. No significant association was found between use of OCs before first term birth and subsequent development of breast cancer by age 45. Inclusion of nulliparous women and their OC use in this table did not substantially alter the risk estimates.

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Editorial Note: Different studies have reported conflicting results concerning the risk of breast cancer for young women using OCs (*1-11*). It is possible that methodologic differences between the studies account for the differences. The Cancer and Steroid Hormone Study data show that (1) use of "high-progestogen" OCs before age 25 does not increase a woman's risk of developing breast cancer before age 37, and (2) use of OCs before first full-term pregnancy does not increase a woman's risk of developing breast cancer before age 45. The Cancer and Steroid Hormone Study is a population-based case-control study. Results were presented in 1983 (*1*) from the first 10 months of data collected. The data presented here are from the complete 29-month data file.

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TABLE 2. Risk of breast cancer and use of oral contraceptives before first full-term pregnancy for women* under age 45: Cancer and Steroid Hormone Study

OC use (mos.)	Cases	Controls	Odds ratio†
None	1,060	1,069	1.0 (REF)
1-12	149	142	0.9 (0.7, 1.1)
13-48	258	236	0.9 (0.7, 1.3)
49+	97	95	0.7 (0.5, 1.0)

*Restricted to parous women.

†Odds ratios with 95% confidence limits in parentheses adjusted for age at first birth, family history of breast cancer, history of benign breast disease, age at menarche, and menopausal status.

International Notes

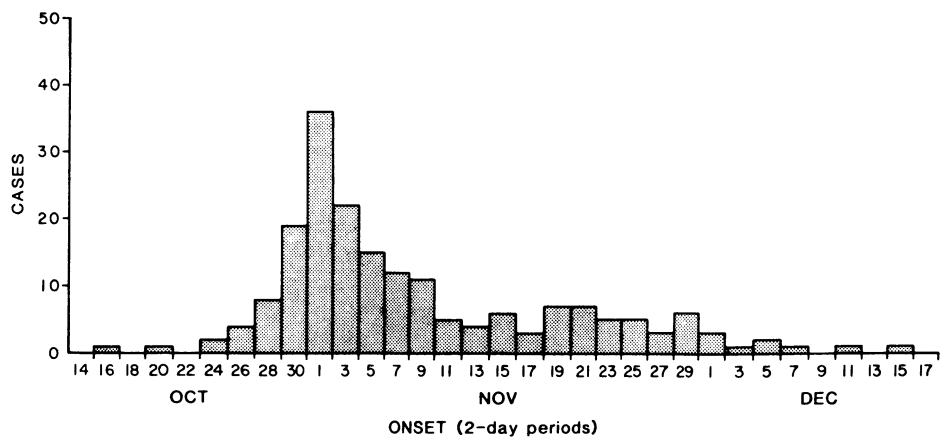
Q Fever Outbreak — Switzerland

On November 18, 1983, the Microbiology and Infectious Diseases Division of the Valais Central Laboratory (VCL) notified the Valais Health Department of an outbreak of Q fever in Bagnes, Switzerland. From October 15 to December 15, more than 300 persons with acute illness characterized by high fever, chills, general malaise, headache, and arthralgias were seen by a physician in Bagnes County (population approximately 4,700). To date, a total of 191 clinical cases of acute Q fever (Figure 1) have been serologically confirmed at the VCL by a fourfold or greater rise in Q fever complement fixation phase II antibody titer or by a 1:20 or greater *Coxiella burnetii*-specific immunoglobulin M (IgM) titer using an indirect immunofluorescence test on a single serum specimen. Fifty-one specimens with positive titers were sent to the Rocky Mountain Laboratory, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Hamilton, Montana, and all were confirmed. Serum samples from 2,962 well persons from Bagnes were taken during December 1983 for the detection of *C. burnetii* specific-IgM antibodies; 224 specimens (8%) demonstrated titers of 1:20 or greater, indicating asymptomatic infection.

Patients with symptomatic infections ranged in age from 8 years to 82 years (median 35 years); 10 were children under 15 years of age. One hundred thirteen patients (59%) were male. To date, no deaths have been attributed to acute Q fever. Twelve patients were hospitalized with severe bronchopneumonia; two of these also had myopericarditis, and one had granulomatous hepatitis. After November 20, doxycycline was prescribed for most patients for a period of 14 days and generally resulted in subjective symptomatic improvement.

The movement of sheep flocks has been implicated in the dissemination of the infection. Sheep flocks remained on mountain pastures from June to October 9, 1983, after which they returned to the villages. Higher attack rates occurred among persons living close to the roads on which the sheep traveled. Serum specimens were obtained from 432 sheep distributed in 12 flocks; 166 had *C. burnetii* antibodies, mainly from six of the 12 flocks. Increased fetal

FIGURE 1. Q fever cases, by date of onset — Bagnes, Switzerland, October 15, 1983-December 15, 1983



Q Fever – Continued

mortality was also noted in infected flocks. On December 3, the Veterinary Department decided to isolate, vaccinate, and shear the sheep, destroy the wool, and disinfect the sheep pens.

To date, milk samples from 12 dairy herds have been evaluated for the presence of antibodies against *C. burnetii*. One sample was positive. Isolation of the organism was not attempted.

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Editorial Note: Q fever is a zoonosis caused by *C. burnetii*, a rickettsial organism that is enzootic in a large variety of domestic and wild animals. Domestic ungulates, such as sheep, cattle, and goats, the usual reservoir for man, shed the organism in their feces, milk, urine, and especially their birth products. Humans acquire the infection from inhaling the dessication-resistant rickettsiae in aerosols and dusts, which can remain infectious for months or years (*1*). Since the disease was first reported in Australia in 1937, sporadic outbreaks and epidemics have been reported from more than 50 countries on five continents, usually occurring in areas where domestic ungulates are raised or animal products are processed (*2*). Although not a nationally reportable disease, Q fever in humans has been reported from 31 states in the United

(Continued on page 361)

TABLE I. Summary—cases specified notifiable diseases, United States

Disease	25th Week Ending			Cumulative, 25th Week Ending		
	June 23, 1984	June 25, 1983	Median 1979-1983	June 23, 1984	June 25, 1983	Median 1979-1983
Acquired Immunodeficiency Syndrome (AIDS)	82	N	N	1,862	N	N
Aseptic meningitis	110	181	143	1,956	2,257	1,940
Encephalitis: Primary (arthropod-borne & unspec.)	21	24	21	395	440	393
Post-infectious	5	2	4	47	52	52
Gonorrhea: Civilian	15,472	16,162	19,358	381,173	422,342	452,235
Military	287	371	379	9,587	11,479	13,050
Hepatitis: Type A	392	333	422	9,942	10,377	12,221
Type B	474	460	418	11,824	11,127	9,485
Non A, Non B	63	69	N	1,743	1,620	N
Unspecified	109	147	181	2,840	3,495	4,797
Legionellosis	9	11	N	266	335	N
Leprosy	3	5	1	109	126	90
Malaria	17	12	19	356	331	441
Measles: Total*	56	79	79	1,635	1,036	2,194
Indigenous	52	77	N	1,469	863	N
Imported	4	2	N	166	173	N
Meningococcal infections: Total	50	49	50	1,553	1,633	1,633
Civilian	50	49	49	1,549	1,617	1,617
Military	-	-	1	4	16	11
Mumps	68	50	114	1,857	2,041	3,824
Pertussis	28	53	27	938	881	529
Rubella (German measles)	14	17	46	415	653	1,608
Syphilis (Primary & Secondary): Civilian	499	611	611	13,229	15,552	14,384
Military	8	12	5	167	218	181
Toxic Shock syndrome	8	13	N	196	233	N
Tuberculosis	450	499	506	10,081	10,803	12,646
Tularemia	3	13	10	64	107	83
Typhoid fever	8	14	11	146	165	186
Typhus fever, tick-borne (RMSF)	45	83	48	238	305	325
Rabies, animal	76	153	153	2,412	3,206	3,206

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1984		Cum. 1984
Anthrax	1	Plague (Ariz. 1)	11
Botulism: Foodborne	6	Poliomyelitis: Total	2
Infant	44	Paralytic (La. 1)	2
Other	3	Psittacosis (Upstate N.Y. 1, Minn. 1, Iowa 1, W.Va. 1)	39
Brucellosis	44	Rabies, human	-
Cholera	-	Tetanus (Fla. 1)	20
Congenital rubella syndrome	3	Trichinosis (Mass. 1, Upstate N.Y. 1)	38
Diphtheria	-	Typhus fever, flea-borne (endemic, murine)	7
Leptospirosis	8		

*Three of the 56 reported cases for this week were imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending June 23, 1984 and June 25, 1983 (25th Week)

Reporting Area	AIDS	Aseptic Meningitis	Encephalitis		Gonorrhea (Civilian)		Hepatitis (Viral), by type				Legionellosis	Leprosy
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1984	1984	Cum. 1984	Cum. 1984	Cum. 1984	Cum. 1983	1984	1984	1984	1984	1984	Cum. 1984
UNITED STATES	1,862	110	395	47	381,173	422,342	392	474	63	109	9	109
NEW ENGLAND	64	3	25	1	11,015	10,351	4	14	3	13	1	5
Maine	-	-	-	-	434	549	-	2	1	-	-	-
N.H.	1	-	4	-	299	310	-	2	-	-	-	-
Vt.	-	-	2	-	182	197	-	-	-	-	-	-
Mass.	35	2	12	-	4,322	4,491	2	5	-	12	1	4
R.I.	4	-	-	-	721	578	-	-	-	-	-	1
Conn.	24	1	7	1	5,057	4,226	2	5	2	1	-	-
MID ATLANTIC	855	19	53	5	52,296	53,940	44	82	5	8	3	16
Upstate N.Y.	81	1	18	4	7,778	8,265	10	12	1	2	-	2
N.Y. City	615	3	3	-	22,261	22,294	8	21	-	1	1	14
N.J.	122	9	18	-	8,614	10,137	14	35	4	5	2	-
Pa.	37	6	14	1	13,643	13,244	12	14	-	-	-	-
E.N. CENTRAL	89	11	84	12	51,550	60,495	22	33	6	10	-	6
Ohio	13	3	32	5	13,599	16,018	7	11	1	1	-	2
Ind.	14	1	15	-	5,729	6,555	3	6	-	4	-	-
Ill.	45	-	11	6	11,383	17,161	2	2	1	2	-	2
Mich.	11	7	21	-	14,875	15,663	9	14	4	3	-	2
Wis.	6	-	5	1	5,964	5,098	1	-	-	-	-	-
W.N. CENTRAL	17	1	12	-	18,111	19,704	18	10	2	3	1	1
Minn.	4	-	3	-	2,601	2,777	1	2	1	-	-	-
Iowa	1	-	6	-	2,055	2,163	-	-	-	2	-	1
Mo.	9	-	1	-	8,662	9,611	1	4	1	-	-	-
N. Dak.	-	-	-	-	181	187	-	-	-	-	-	-
S. Dak.	-	-	-	-	477	546	3	-	-	-	-	-
Nebr.	1	1	1	-	1,224	1,188	5	1	-	1	1	-
Kans.	2	-	1	-	2,911	3,232	8	3	-	-	-	-
S. ATLANTIC	252	24	78	11	96,897	108,408	34	106	14	15	1	5
Del.	3	-	1	-	1,724	1,926	-	4	-	-	1	-
Md.	19	5	19	-	10,877	13,762	-	16	3	-	-	-
D.C.	37	-	-	-	7,060	7,385	-	1	-	-	-	1
Va.	16	-	19	5	9,089	9,248	1	-	-	1	-	3
W. Va.	4	-	4	-	1,175	1,133	-	1	-	-	-	-
N.C.	5	-	16	5	15,508	15,946	3	4	1	2	-	-
S.C.	4	-	2	-	9,172	10,163	5	38	-	2	-	-
Ga.	20	1	2	-	18,791	23,200	3	20	1	3	-	-
Fla.	144	18	15	1	23,501	25,645	22	22	9	7	-	1
E.S. CENTRAL	14	9	19	5	32,125	35,377	6	35	4	1	-	-
Ky.	7	1	2	-	4,038	4,205	3	5	2	-	-	-
Tenn.	3	-	5	-	13,443	14,432	-	21	1	1	-	-
Ala.	3	8	11	5	10,609	10,849	2	3	1	-	-	-
Miss.	1	-	1	-	4,035	5,891	1	6	-	-	-	-
W.S. CENTRAL	98	23	29	3	52,093	59,032	44	28	3	35	2	7
Ark.	-	-	-	2	4,391	4,603	-	-	-	-	-	-
La.	18	-	4	-	11,983	10,316	1	3	-	1	-	-
Okla.	4	3	7	1	5,647	6,968	4	6	1	-	2	-
Tex.	76	20	18	-	30,072	37,145	39	19	2	34	-	7
MOUNTAIN	24	7	14	4	12,277	13,063	48	29	2	8	1	7
Mont.	-	-	-	-	536	562	4	-	-	-	-	-
Idaho	-	-	-	-	592	583	1	-	-	-	1	-
Wyo.	1	1	-	-	365	342	1	2	-	-	-	-
Colo.	15	4	7	-	3,527	3,695	15	11	1	2	-	-
N. Mex.	-	-	-	-	1,366	1,583	6	-	-	-	-	-
Ariz.	6	1	3	1	3,339	3,653	11	13	1	3	-	5
Utah	1	1	4	3	606	633	9	1	-	3	-	1
Nev.	1	-	-	-	1,946	2,012	1	2	-	-	-	1
PACIFIC	449	13	81	6	54,809	61,972	172	137	24	16	-	62
Wash.	24	1	3	-	3,681	4,597	10	8	6	-	-	3
Oreg.	3	-	-	-	3,233	3,137	18	9	5	-	-	1
Calif.	418	11	76	6	45,648	51,438	144	114	11	15	-	43
Alaska	-	-	-	-	1,334	1,526	-	3	2	-	-	-
Hawaii	4	1	2	-	913	1,274	-	3	-	1	-	15
Guam	-	U	-	-	89	88	U	U	U	U	U	-
P.R.	26	2	-	1	1,647	1,480	3	3	-	2	-	-
V.I.	-	-	-	-	198	138	-	-	-	-	-	-
Pac. Trust Terr.	-	U	-	-	-	-	U	U	U	U	U	-

N: Not notifiable U: Unavailable

TABLE III. (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending June 23, 1984 and June 25, 1983 (25th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported *		Total									
	Cum. 1984	1984	Cum. 1984	1984	Cum. 1984	Cum. 1983	Cum. 1984	1984	Cum. 1984	1984	Cum. 1984	Cum. 1983	1984	Cum. 1984	Cum. 1983
UNITED STATES	356	52	1,469	4	166	1,036	1,553	68	1,857	28	938	881	14	415	653
NEW ENGLAND	26	-	82	-	8	14	97	-	56	-	15	31	1	30	8
Maine	-	-	-	-	-	-	1	-	16	-	-	2	-	1	-
N.H.	-	-	33	-	3	3	6	-	11	-	2	6	-	-	2
Vt.	2	-	2	-	2	-	22	-	3	-	11	4	-	-	3
Mass.	15	-	37	-	-	3	33	-	13	-	1	16	1	29	3
R.I.	3	-	-	-	-	-	9	-	4	-	1	3	-	-	-
Conn.	6	-	10	-	3	8	26	-	9	-	-	-	-	-	-
MID ATLANTIC	61	-	70	-	21	71	254	2	218	3	70	229	5	130	120
Upstate N.Y.	18	-	16	-	7	6	93	2	48	3	48	68	1	96	18
N.Y. City	13	-	51	-	7	35	37	-	12	-	3	32	4	31	85
N.J.	16	-	3	-	3	27	56	-	123	-	4	14	-	2	3
Pa.	14	-	-	-	4	3	68	-	35	-	15	115	-	1	14
E.N. CENTRAL	26	28	536	1	67	560	244	48	770	8	261	221	2	60	100
Ohio	6	-	1	1†	6	78	85	43	388	-	47	69	-	2	1
Ind.	-	-	2	-	1	354	35	-	33	8	176	16	-	2	20
Ill.	6	-	159	-	1	123	49	5	151	-	15	100	-	31	43
Mich.	5	28	367	-	54	5	47	-	151	-	12	11	2	18	14
Wis.	9	-	7	-	5	-	28	-	47	-	11	25	-	7	22
W.N. CENTRAL	12	1	2	-	2	1	103	1	77	1	76	55	1	27	30
Minn.	2	-	-	-	2	1	20	1	3	1	8	20	1	2	6
Iowa	1	-	-	-	-	-	18	-	17	-	3	5	-	-	-
Mo.	6	1	2	-	-	-	29	-	7	-	12	11	-	-	-
N. Dak.	1	-	-	-	-	-	1	-	1	-	-	1	-	3	-
S. Dak.	-	-	-	-	-	-	6	-	-	-	3	2	-	-	-
Nebr.	1	-	-	-	-	-	8	-	3	-	2	-	-	-	-
Kans.	1	-	-	-	-	-	21	-	46	-	48	16	-	22	24
S. ATLANTIC	65	-	10	-	17	176	343	3	130	6	65	124	-	20	72
Del.	3	-	-	-	-	-	3	-	2	-	-	2	-	-	-
Md.	16	-	4	-	5	4	27	-	26	1	4	17	-	1	1
D.C.	1	-	-	-	5	-	4	-	-	-	-	-	-	-	-
Va.	15	-	1	-	1	22	40	1	12	2	9	39	-	-	1
W. Va.	1	-	-	-	-	-	5	-	27	-	7	4	-	-	-
N.C.	5	-	-	-	-	-	48	-	14	-	17	9	-	-	8
S.C.	1	-	-	-	-	4	34	1	2	-	1	8	-	-	-
Ga.	6	-	-	-	-	8	70	1	17	1	3	27	-	2	10
Fla.	17	-	5	-	6	138	112	-	30	2	24	18	-	17	52
E.S. CENTRAL	3	-	1	-	2	6	60	1	36	-	5	7	-	7	10
Ky.	-	-	1	-	-	1	4	-	8	-	1	2	-	3	9
Tenn.	-	-	-	-	2	-	21	1	12	-	2	2	-	-	-
Ala.	3	-	-	-	-	5	24	-	5	-	-	1	-	1	1
Miss.	-	-	-	-	-	-	11	-	11	-	2	2	-	3	-
W.S. CENTRAL	32	-	332	-	14	70	173	3	102	-	226	98	-	13	85
Ark.	-	-	-	-	-	10	25	-	4	-	11	5	-	3	-
La.	5	-	-	-	-	25	35	-	-	-	3	2	-	-	9
Okla.	3	-	6	-	-	1	23	N	N	-	201	70	-	-	-
Tex.	24	-	326	-	14	34	90	3	98	-	11	21	-	10	76
MOUNTAIN	12	-	79	-	10	3	56	2	191	1	68	79	1	11	21
Mont.	1	-	-	-	-	-	1	1	4	-	17	1	-	-	2
Idaho	2	-	-	-	-	-	6	-	8	-	2	2	-	1	8
Wyo.	-	-	-	-	-	-	2	-	1	-	3	4	-	2	1
Colo.	1	-	-	-	-	2	19	1	13	-	25	50	-	2	-
N. Mex.	-	-	56	-	8	-	7	N	N	-	5	6	-	-	-
Ariz.	6	-	-	-	-	1	14	-	159	-	9	9	-	-	4
Utah	2	-	23	-	2	-	4	-	5	1	5	7	1	6	5
Nev.	-	-	-	-	-	-	3	-	1	-	2	-	-	-	1
PACIFIC	119	23	357	3	25	135	223	8	277	9	152	37	4	117	207
Wash.	3	-	89	-	-	4	29	3	30	7	25	4	-	1	6
Oreg.	6	-	-	-	-	7	35	N	N	-	9	5	-	-	12
Calif.	107	1	235	3†§	22	123	150	3	231	2	52	28	3	113	189
Alaska	-	-	-	-	-	-	8	-	4	-	-	-	1	1	-
Hawaii	3	22	33	-	3	1	1	2	12	-	66	-	-	2	-
Guam	-	U	83	U	2	2	1	U	5	U	-	-	U	1	-
P.R.	2	-	-	-	-	81	3	1	86	-	-	8	-	5	3
V.I.	-	-	-	-	-	5	-	-	3	-	-	-	-	-	1
Pac. Trust Terr.	-	U	-	U	-	-	-	U	-	U	-	-	U	-	-

*For measles only, imported cases includes both out-of-state and international importations.

N: Not notifiable U: Unavailable †International §Out-of-state

TABLE III. (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending June 23, 1984 and June 25, 1983 (25th Week)

Reporting Area	Syphilis (Civilian) (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1984	Cum. 1983	1984	Cum. 1984	Cum. 1983	Cum. 1984	Cum. 1984	Cum. 1984	Cum. 1984
UNITED STATES	13,229	15,552	8	10,081	10,803	64	146	238+ 43	2,412
NEW ENGLAND	271	332	-	278	297	2	7	1	15
Maine	2	9	-	13	18	-	-	-	9
N.H.	5	11	-	21	23	-	-	-	-
Vt.	1	1	-	3	2	-	-	-	-
Mass.	159	203	-	146	159	2	5	1	5
R.I.	8	13	-	25	25	-	-	-	-
Conn.	96	95	-	70	70	-	2	-	1
MID ATLANTIC	1,814	1,965	2	1,838	1,915	-	20	2	145
Upstate N.Y.	123	158	-	301	307	-	9	1	11
N.Y. City	1,132	1,154	-	752	802	-	4	1	-
N.J.	339	383	2	398	407	-	3	-	4
Pa.	220	270	-	387	399	-	4	-	130
E.N. CENTRAL	595	881	4	1,356	1,355	-	19	11	101
Ohio	121	225	1	265	223	-	3	10	9
Ind.	66	73	-	138	119	-	2	-	11
Ill.	177	444	-	565	587	-	8	-	43
Mich.	192	101	3	306	351	-	2	1	10
Wis.	39	38	-	82	75	-	4	-	28
W.N. CENTRAL	208	189	-	296	357	18	5	21	380
Minn.	60	80	-	52	74	-	2	-	36
Iowa	10	7	-	34	35	-	-	-	75
Mo.	106	65	-	138	186	16	2	3	35
N. Dak.	4	1	-	8	3	-	-	-	75
S. Dak.	2	8	-	9	22	2	-	2	94
Nebr.	10	11	-	16	9	-	-	1	28
Kans.	16	17	-	39	28	-	1	15	37
S. ATLANTIC	3,912	4,089	-	2,131	2,108	3	16	99	729
Del.	13	18	-	29	17	-	-	-	1
Md.	255	265	-	251	162	-	-	8	428
D.C.	146	174	-	81	81	-	6	-	-
Va.	209	285	-	217	208	-	4	11	126
W. Va.	10	15	-	71	74	-	-	4	18
N.C.	392	376	-	312	284	1	1	33	10
S.C.	362	257	-	246	190	-	1	32	20
Ga.	676	775	-	282	390	2	1	10	78
Fla.	1,849	1,924	-	642	702	-	3	1	48
E.S. CENTRAL	852	1,065	-	924	1,037	-	5	20	123
Ky.	52	61	-	215	265	-	2	2	29
Tenn.	244	305	-	292	311	-	2	10	55
Ala.	287	432	-	284	259	-	1	5	39
Miss.	269	267	-	133	202	-	-	3	-
W.S. CENTRAL	3,160	4,079	-	1,110	1,331	24	8	79	529
Ark.	89	101	-	116	143	18	-	9	56
La.	592	846	-	152	224	3	1	1	23
Okla.	87	112	-	115	126	3	1	53	62
Tex.	2,392	3,020	-	727	838	-	6	16	388
MOUNTAIN	320	342	1	262	303	13	9	3	97
Mont.	2	5	-	13	22	-	1	3	56
Idaho	14	6	-	15	14	3	-	-	-
Wyo.	3	6	-	-	7	-	-	-	-
Colo.	70	74	-	25	33	4	2	-	8
N. Mex.	41	111	-	50	59	1	2	-	9
Ariz.	128	81	-	125	130	2	3	-	21
Utah	10	11	-	18	23	2	-	-	-
Nev.	52	48	1	16	15	1	1	-	3
PACIFIC	2,097	2,610	1	1,886	2,100	4	57	2	293
Wash.	60	95	-	97	105	-	1	-	1
Oreg.	67	49	-	77	86	2	1	1	1
Calif.	1,930	2,424	1	1,580	1,747	2	51	-	285
Alaska	3	7	-	28	33	-	1	1	6
Hawaii	37	35	-	104	129	-	3	-	-
Guam	-	-	U	5	4	-	-	-	-
P.R.	418	499	-	205	242	-	3	-	29
V.I.	7	9	-	2	1	-	-	-	-
Pac. Trust Terr.	-	-	U	-	-	-	-	-	-

U: Unavailable

TABLE IV. Deaths in 121 U.S. cities,* week ending June 23, 1984 (25th Week Ending)

Reporting Area	All Causes, By Age (Years)						P&I** Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	696	462	174	32	12	16	50
Boston, Mass.	174	105	45	12	6	6	12
Bridgeport, Conn.	55	33	16	3	-	3	4
Cambridge, Mass.	28	17	7	4	-	-	3
Fall River, Mass.	23	17	6	-	-	-	2
Hartford, Conn.	63	38	20	3	-	2	2
Lowell, Mass.	30	22	5	-	3	-	-
Lynn, Mass.	21	13	7	1	-	-	-
New Bedford, Mass.	28	19	7	2	-	-	2
New Haven, Conn.	51	37	10	1	1	2	2
Providence, R.I.	77	54	20	-	1	2	3
Somerville, Mass.	10	7	3	-	-	-	-
Springfield, Mass.	53	40	9	3	-	1	6
Waterbury, Conn.	24	19	5	-	-	-	5
Worcester, Mass.	59	41	14	3	1	-	9
MID. ATLANTIC	2,694	1,798	612	171	56	57	120
Albany, N.Y.	58	39	11	1	2	5	1
Allentown, Pa.	20	16	3	1	-	-	-
Buffalo, N.Y.	119	81	28	6	2	2	9
Camden, N.J.	43	27	10	3	-	3	-
Elizabeth, N.J.	21	15	6	-	-	-	4
Erie, Pa.†	51	33	14	-	2	2	5
Jersey City, N.J.	54	31	13	6	2	2	2
N.Y. City, N.Y.	1,430	953	300	117	33	27	56
Newark, N.J.	62	34	19	4	2	3	1
Paterson, N.J.	25	16	5	3	-	1	1
Philadelphia, Pa.†	354	230	98	16	6	4	18
Pittsburgh, Pa.†	67	46	19	-	2	-	-
Reading, Pa.	35	30	5	-	-	-	3
Rochester, N.Y.	113	79	23	6	1	4	9
Schenectady, N.Y.	30	23	4	1	-	2	-
Scranton, Pa.†	25	15	9	-	1	-	2
Syracuse, N.Y.	93	62	27	2	1	1	5
Trenton, N.J.	45	29	12	2	1	1	1
Utica, N.Y.	16	12	3	-	1	-	1
Yonkers, N.Y.	33	27	3	3	-	-	2
E.N. CENTRAL	2,178	1,541	377	118	71	64	72
Akron, Ohio	55	41	10	1	2	1	-
Canton, Ohio	45	31	7	3	2	2	1
Chicago, Ill §	486	436	6	10	11	16	9
Cincinnati, Ohio	167	115	36	9	4	3	16
Cleveland, Ohio	153	98	40	10	3	2	1
Columbus, Ohio	131	74	37	11	5	4	3
Dayton, Ohio	99	65	23	2	2	7	2
Detroit, Mich.	242	147	56	23	6	10	6
Evansville, Ind.	42	30	8	2	2	-	-
Fort Wayne, Ind.	52	34	8	2	4	4	4
Gary, Ind.	18	11	5	1	1	-	-
Grand Rapids, Mich.	64	43	6	8	6	1	4
Indianapolis, Ind.	175	104	40	16	11	4	2
Madison, Wis.	24	15	6	3	-	-	1
Milwaukee, Wis.	137	100	27	7	-	3	8
Peoria, Ill.	35	25	7	-	-	3	4
Rockford, Ill.	33	19	8	1	3	2	3
South Bend, Ind.	50	32	13	3	2	-	2
Toledo, Ohio	108	77	27	2	-	2	6
Youngstown, Ohio	62	44	7	4	7	-	-
W.N. CENTRAL	740	489	167	46	17	19	29
Des Moines, Iowa	77	51	19	2	1	2	5
Duluth, Minn.	17	11	5	-	-	1	-
Kansas City, Kans.	42	26	12	4	-	-	2
Kansas City, Mo.	127	87	26	9	1	4	5
Lincoln, Nebr.	29	18	8	2	1	-	-
Minneapolis, Minn.	81	59	12	6	3	1	3
Omaha, Nebr.	99	53	32	12	-	2	5
St. Louis, Mo.	153	104	31	7	5	6	6
St. Paul, Minn.	72	55	12	2	3	-	-
Wichita, Kans.	43	25	10	2	3	3	3
S. ATLANTIC	1,398	832	372	108	44	42	56
Atlanta, Ga.	145	91	35	10	4	5	4
Baltimore, Md.	298	187	74	23	10	4	7
Charlotte, N.C.	73	40	25	2	1	5	5
Jacksonville, Fla.	87	53	24	5	4	1	8
Miami, Fla.	106	58	36	8	3	1	1
Norfolk, Va.	58	39	12	4	-	3	3
Richmond, Va.	80	49	21	5	3	2	3
Savannah, Ga.	42	26	12	3	-	1	4
St. Petersburg, Fla.	107	85	12	3	5	2	7
Tampa, Fla.	80	41	20	11	7	1	5
Washington, D.C.	268	140	81	27	6	14	4
Wilmington, Del.	54	23	20	7	1	3	5
E.S. CENTRAL	726	475	166	41	25	19	38
Birmingham, Ala.	123	82	26	7	4	4	2
Chattanooga, Tenn.	54	38	12	2	2	-	5
Knoxville, Tenn.	82	53	20	5	2	2	8
Louisville, Ky.	105	72	24	3	3	3	9
Memphis, Tenn.	150	99	38	8	4	1	7
Mobile, Ala.	66	50	8	5	3	-	4
Montgomery, Ala.	44	23	10	2	2	7	-
Nashville, Tenn.	102	58	28	9	5	2	3
W.S. CENTRAL	1,285	728	321	115	64	57	41
Austin, Tex.	47	25	14	4	4	-	3
Baton Rouge, La.	37	24	11	-	1	1	-
Corpus Christi, Tex.	35	29	4	1	-	1	1
Dallas, Tex.	190	107	45	20	8	10	3
El Paso, Tex.	52	38	10	4	-	-	2
Fort Worth, Tex.	72	42	19	5	3	3	5
Houston, Tex.	317	147	88	41	21	20	3
Little Rock, Ark.	107	61	20	12	3	11	8
New Orleans, La.	163	93	43	10	11	6	-
San Antonio, Tex.	143	83	35	13	7	5	9
Shreveport, La.	43	25	14	2	2	-	-
Tulsa, Okla.	79	54	18	3	4	-	7
MOUNTAIN	648	388	147	49	34	30	30
Albuquerque, N.Mex.	79	41	18	11	6	3	3
Colo. Springs, Colo.	32	21	7	1	2	1	5
Denver, Colo.	135	81	29	8	2	15	5
Las Vegas, Nev.	72	44	16	5	5	2	4
Ogden, Utah	27	11	10	4	1	1	3
Phoenix, Ariz.	145	86	29	13	12	5	2
Pueblo, Colo.	25	17	7	-	1	-	2
Salt Lake City, Utah	41	25	9	3	3	1	1
Tucson, Ariz.	92	62	22	4	2	2	5
PACIFIC	1,854	1,199	410	128	66	49	93
Berkeley, Calif.	9	8	1	-	-	-	1
Fresno, Calif.	74	42	18	2	10	2	7
Glendale, Calif.	22	16	5	-	1	-	-
Honolulu, Hawaii	63	38	14	7	3	1	1
Long Beach, Calif.	84	58	16	3	-	7	3
Los Angeles, Calif.	486	292	120	54	14	5	18
Oakland, Calif.	80	46	26	-	2	6	4
Pasadena, Calif.	42	31	5	2	1	3	3
Portland, Oreg.	122	85	21	6	6	4	6
Sacramento, Calif.	130	88	27	5	8	1	11
San Diego, Calif.	145	95	29	15	3	3	9
San Francisco, Calif.	174	117	34	17	2	4	3
San Jose, Calif.	139	96	31	3	3	6	10
Seattle, Wash.	147	96	29	10	6	6	7
Spokane, Wash.	60	44	14	1	1	-	3
Tacoma, Wash.	77	47	20	3	6	1	7
TOTAL	12,219††	7,912	2,746	808	389	353	529

* Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

** Pneumonia and influenza

† Because of changes in reporting methods in these 4 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

†† Total includes unknown ages.

§ Data not available. Figures are estimates based on average of past 4 weeks.

Q Fever — Continued

States. (*3*). Most recently, four outbreaks have been reported among researchers and staff in urban research facilities using sheep as research animals (*4*).

It is of particular interest that this large outbreak in Switzerland occurred in the fall months. Most outbreaks in rural communities occur during the spring lambing season when the normally asymptomatic infected ewe can shed as many as one billion organisms per gram of placenta. In this instance, animals apparently shed the organism for many months after the lambing season. It has been suggested that an unusually dry summer and autumn may have encouraged the formation and propagation of infectious dusts and aerosols, especially along the route of sheep movement.

The clinical illness was similar to that reported in previous outbreaks. The infection is often asymptomatic or mistaken for an acute viral illness. After an incubation period of 2-3 weeks, Q fever usually presents with fever, headache, and myalgias. Although often said to be a pulmonary disease, the frequency of clinical pneumonitis is highly variable (*5*). Occasionally, the illness may be prolonged with severe pneumonitis and hepatic involvement. Tetracycline and chloramphenicol are effective in shortening the course of illness. Although the acute disease is usually self-limited, Q fever endocarditis may occasionally develop 3-20 years following the acute infection and is often fatal (*6*).

Because of the nonspecific clinical presentation, outbreaks of Q fever undoubtedly go unrecognized. A knowledge of the disease epidemiology and a high index of suspicion are necessary for diagnosis. Both immunofluorescent and complement fixation tests are available that are highly specific for the diagnosis of Q fever (*7*). Initial evaluations of experimental Q fever vaccines for humans and animals are encouraging (*8*). CDC is interested in receiving reports of Q fever outbreaks and cases, which should first be reported to local and state health departments.

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Current Trends

Gonorrhea — United States, 1983

In 1983, the number of gonorrhea cases reported to CDC fell to 900,435, a 6.3% decrease from the 960,633 cases reported in 1982. Gonorrhea rates also declined to 387.6 per 100,000 population, down 7.3% from 1982. This continues a trend that began in 1975 (Figure 1). Between 1975 and 1983, reported gonorrhea rates remained highest in the south-

Gonorrhea — Continued

eastern United States but followed the national trend of decline. Rates in the mid-Atlantic region generally declined more slowly than those in other reporting regions. While the greater proportion of reported cases came from the public sector, both the public and private sectors shared in the decline.

From 1982 to 1983, rates decreased by 9.5% for males and 4.0% for females (Table 3). Even with declining morbidity, persons 20-24 years old continued to account for 35%-40%, and persons 15-19 years old, for nearly 25%, of all reported cases of gonorrhea each year. Rates for 20- to 24-year-old males and females were highest up to 1982. By 1982, rates for 15- to 19-year-old females exceeded those for 20- to 24-year-old females.

Between 1976 and 1982, the annual number of reported cases of penicillinase-producing *Neisseria gonorrhoeae* (PPNG) increased from 98 cases to 4,457 cases, then decreased to 3,720 cases in 1983. Of all PPNG cases reported since 1976, 59.0% have been from three geographic areas: California (21.5%), Florida (20.4%), and New York City (17.1%).

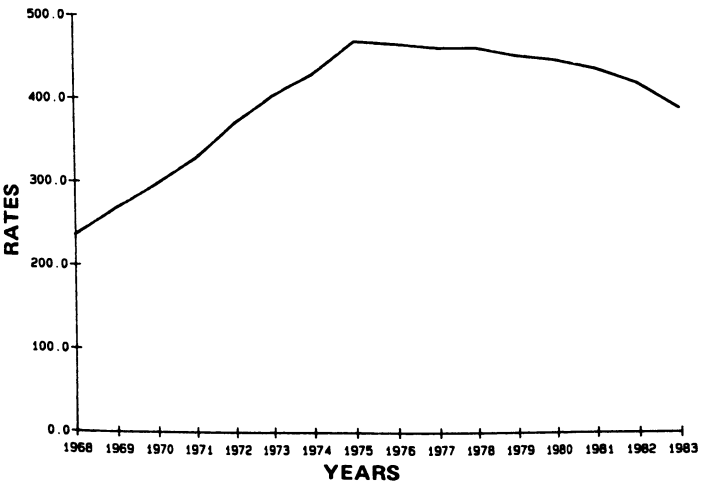
In early 1983, an outbreak of nonpenicillinase-producing (chromosomally mediated) resistant *N. gonorrhoeae* occurred in North Carolina (*1*). Since that outbreak, this strain has been reported with increasing frequency from 16 other states (*2*).

Reported by Sexually Transmitted Diseases Laboratory Program, Center for Infectious Diseases, Div of Sexually Transmitted Diseases, Center for Prevention Svcs, CDC.

Editorial Note: Between 1960 and 1975, the number of gonorrhea cases reported in the United States increased substantially. The largest increases occurred among persons 15-24 years of age, partly because of the post-World War II "baby boom," which created a larger population in this age group. Since 1975, both the public and private sectors have reported a decline in gonorrhea cases. This decline may have been influenced by one or more of the following: more focused control activities; changes in surveillance and reporting resulting in better case identification and earlier treatment; or changes in biologic properties of the organism or in biologic and behavioral host factors.

Morbidity declined among both males and females but more slowly for females. This trend is disturbing, especially for younger females, because of the potential for more severe immediate and chronic sequelae, such as pelvic inflammatory disease and infertility (*3*).

FIGURE 2. Gonorrhea incidence rates, per 100,000 population — United States, 1968-1983



Gonorrhea – Continued

The slower decline in morbidity among females may be due to less effective control measures to decrease transmission to females than to males, variations in surveillance and reporting between males and females, or differences between males and females in care-seeking behavior. Because more than half of all gonorrhea cases are reported from public clinics, and because males account for more than half of public clinic attendance (*2,4*), decreases in male morbidity may be more accurately represented, while cases among females may be underreported or undetected by the existing surveillance system. Additionally, if females seek care from sources other than public clinics, cases may not enter the reporting system.

Gonococcal antibiotic resistance has assumed increasing importance for national and local control programs. Although PPNG declined in 1983, nonpenicillinase-producing resistant *N. gonorrhoeae* (chromosomally mediated) has been observed with increasing frequency. While a larger proportion of PPNG has been linked to domestic transmission, foreign importation continues to contribute significantly to PPNG morbidity in the United States (*5*). In contrast, other resistant *N. gonorrhoeae* has been largely associated with endemic transmission (*2*), with importation infrequently documented for these cases.

Reporting of all gonorrhea cases from both public and private sectors is encouraged. Additional emphasis should be placed on examining trends and reporting patterns, especially for teenagers and females. These activities should be supported by testing all gonococcal isolates for β-lactamase (penicillinase) production. Screening of all β-lactamase-negative treatment failure isolates for penicillin susceptibility is recommended to identify other resistant organisms (*1*). CDC guidelines provide treatment recommendations for both penicillin-susceptible and -resistant cases of *N. gonorrhoeae* (*6*).

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TABLE 3. Selected gonorrhea incidence rates per 100,000 population, by age group, sex, and year — United States, 1982 and 1983

Year and age group	Males	Females
1982		
15-19	980	1,425
20-24	2,107	1,356
25-29	1,365	567
All ages	518	324
1983		
15-19	888	1,344
20-24	1,908	1,303
25-29	1,236	555
All ages	469	311

Notice to Readers

Correction of Error Regarding Malaria Treatment in *Disease-A-Month*

In the March 1984 issue of *Disease-A-Month,* an article entitled, "Tropical Diseases of North America," appeared. In Table 5, "Malaria Prophylaxis and Therapy" on page 39, a potentially serious error of dosage appeared—the pediatric dose of primaquine phosphate was printed in error as 5 mg/kg/day x 14 days. This is 10 times the correct dose, which is 0.5 mg/kg/day (or 0.3 mg/kg/day of primaquine base) x 14 days. Since primaquine has a relatively low therapeutic index, the stated dose could lead to significant toxicity, and this correction should be noted. The stated maximum dose ("not to exceed 26.3 mg/day") is correct.

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The data in this report are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday.

The editor welcomes accounts of interesting cases, outbreaks, environmental hazards, or other public health problems of current interest to health officials. Such reports and any other matters pertaining to editorial or other textual considerations should be addressed to: ATTN: Editor, *Morbidity and Mortality Weekly Report,* Centers for Disease Control, Atlanta, Georgia 30333.

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