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MORBIDITY AND MORTALITY WEEKLY REPORT

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April-June 1980

Epidemiologic Notes and Reports

Contaminated Povidone-Iodine Solution — Northeastern United States

During September and October 1980, 7 hospitals in the northeastern United States notified the Centers for Disease Control (CDC) of clusters of blood cultures positive for *Pseudomonas cepacia*. Intensive investigations in 2 hospitals, 1 in New York and 1 in Boston, have revealed the cases to be pseudobacteremias caused by a contaminated iodophor preparation, Pharmadine.* The Food and Drug Administration (FDA) investigated the plant manufacturing this product, and the manufacturer, Sherwood Pharmaceutical Company, has voluntarily recalled the lots implicated in the investigations described below.

Investigation in a New York City hospital

In the period June 30-October 4, 17 blood cultures from 14 patients in a New York City hospital were reported positive for *Pseudomonas cepacia*. Clinical evaluation of the patients was not consistent with septicemia, although 4 patients with positive cultures were treated for presumed infection. Epidemiologic investigation by hospital personnel, the New York City Department of Health, and CDC showed that most of the cases occurred in September and early October and that all the positive cultures had come from patients on 2 of the hospital's 11 floors. Since blood cultures obtained from patients on other floors of the hospital were negative and all cultures were processed in the same manner in the laboratory, the investigation focused on the techniques and products used to obtain blood cultures.

A questionnaire survey conducted at this hospital implicated povidone-iodine as the likely source of contamination. Significant differences were found between the practices of house officers who had drawn blood specimens subsequently found to be positive for *P. cepacia* and of those who had obtained specimens determined to be negative. These differences involved the methods by which povidone-iodine solution was used for skin antisepsis before obtaining the cultures and for disinfection of the tops of blood-culture bottles before inoculating the blood specimens. House officers associated with positive cultures more frequently left the povidone-iodine solution on the skin during venipuncture and wiped the tops of the blood-culture bottles with the povidone-iodine solution; those who obtained specimens reported as negative for *P. cepacia* more frequently removed the solution with a sterile gauze pad or with an alcohol swab or did not attempt to disinfect the tops of the bottles. By October 29, CDC had informed the collaborating hospitals in New York and Boston that Pharmadine had been epidemiologically implicated.

*Use of trade names is for identification only and does not constitute endorsement by the Public Health Service, U.S. Department of Health and Human Services.

Povidone-Iodine Solution — Continued

The only povidone-iodine products used in the New York City hospital were a 10% solution and a surgical scrub, both with the Pharmadine trade name. On October 27, an attempt was made in the laboratory to simulate the house officers' techniques for blood drawing and culturing, using the solution to disinfect the skin and the tops of the blood-culture bottles; these indirect cultures of povidone-iodine were negative for *P. cepacia*. Millipore filtrates of the solution plated on sheep blood and MacConkey agars and direct inoculation of the solution into brain-heart-infusion broth (BHI) also yielded negative cultures. From October 17 to November 7, pint bottles of the solution were obtained from the hospital and sent to CDC for culture; cultures using direct inoculation of Pharmadine into BHI were reported as positive for *P. cepacia* on November 10 from both in-use and previously unopened bottles obtained throughout this 3-week period. On November 18, cultures of Pharmadine swabsticks obtained from a second New York hospital with *P. cepacia* pseudobacteremias also yielded growth of *P. cepacia*.

Investigation in a Boston hospital

In the period August 28-November 5, 16 patients in a Boston hospital had blood cultures positive for *P. cepacia*. This organism had not been isolated from blood cultures at this hospital during the preceding 2 years. Investigation by hospital personnel showed that the patients with positive blood cultures did not share similar hospital locations or subspecialty services. The cultures had been obtained by different personnel using a standard blood-culture technique that included preparation of the venipuncture site and the tops of the blood-culture bottles with povidone-iodine solution. All patients had elevated temperatures, and most had elevated leukocyte counts. Investigative measures included a search for a common source of the organism. Numerous cultures at the hospital of needles, syringes, various intravenous devices, intravenous solutions, blood-culture tubes, and multidose vials of heparin, xylocaine, and bacteriostatic saline were negative for *P. cepacia*. Povidone-iodine solution was cultured on blood agar plates and in blood broth in August but yielded no growth. Since the Pharmadine solution at this hospital was dispensed in the pharmacy from gallon containers into reusable glass bottles, cultures of the tap water, sink drains, distilled water, and the bottles were obtained; none was positive for *P. cepacia*. Since *P. cepacia* had been isolated using blood-culture bottles from 3 different manufacturers, neither the media nor the bottle tops seemed a likely source of contamination.

On October 31, blood cultures from 3 more patients at this hospital were positive for *P. cepacia*, and all 3 patient profiles strongly suggested pseudobacteremia. Subsequently, in-use bottles of Pharmadine were obtained from the floors where these patients were hospitalized. Laboratory simulation of the blood-culture technique in which this povidone-iodine was used to disinfect the tops of the blood-culture bottles resulted in isolation of *P. cepacia* on November 5; a variety of control cultures were all negative. Later cultures obtained by the same simulation technique using previously unopened bottles of Pharmadine also were positive for the same organism.

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Editorial Note: Pseudobacteremia has resulted from a variety of problems, ranging from contamination of quaternary ammonium compounds used for removing microbial agents

Povidone-Iodine Solution – Continued

from skin surfaces (1) to errors in technique during collection or processing of the specimens (2,3). Intrinsic contamination of iodophor solutions with bacteria has not been previously reported. These products are highly bactericidal (4) and are widely recommended for use for skin antiseptics before blood cultures are obtained or intravenous devices are inserted. In addition, iodophor products are used for a variety of other purposes, including cleansing of wounds and skin ulcers, treating vaginitis, and disinfecting skin before surgery. The iodophor preparation is generally not removed from the skin before invasive procedures but is left on to obtain a residual antimicrobial effect. Thus the potential exists for both pseudobacteremia and true clinical infection from an intrinsically contaminated iodophor product.

The FDA and CDC are investigating the source of this intrinsic contamination, its extent (in terms of products, lots, and distribution), and the factors permitting the survival of *P. cepacia* in these products. Pharmadine products are distributed primarily, though not exclusively, in the Northeast. To determine how widespread this problem is, hospitals that are obtaining unusual numbers of *P. cepacia* isolates are encouraged to notify their local or state health departments. Hospitals may also wish to remove from use existing supplies of povidone-iodine products manufactured by Sherwood Pharmaceutical Company. Povidone-iodine solutions manufactured by the company after November 15, 1980, with lot numbers with the prefix Y80305 or higher, have been subjected to revised manufacturing practices. These include millipore filtration of water supplies, using 0.22 micron filters. The company also has indicated that it will routinely culture all newly manufactured lots until the revised process has been proven to be effective, and that it will not release for distribution any lots failing sterility tests.

References

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3. Weinstein RA, Stamm WE. Pseudoepidemics in hospitals. *Lancet* 1977; 2:862-4.
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Current Trends

Fertility Among Hispanics, Anglos, and Blacks – Texas

In vital statistics reports, birth information for Hispanics is included in the category of "white," thus obscuring the fertility patterns of this ethnic group. In Texas, this is particularly important because 29% of all births to Texas residents occur among Hispanic women. Recently, CDC, in collaboration with the Texas Department of Health, studied the childbearing patterns of Texas residents, considering Hispanics* as a separate group (7). Included in this study was a comparison of the fertility rates from 1950 through 1977 for each of 3 racial/ethnic groups in Texas—Hispanics, Anglos,* and blacks. Out-of-wedlock fertility rates and the percent distribution of births by birth order were also determined for each racial/ethnic group.

*In this study, an Hispanic was defined as a person who is white with a Spanish surname; an Anglo was defined as a white person without a Spanish surname.

Fertility — Continued

Hispanic women in Texas had a higher overall fertility rate than both Anglo and black women in Texas from 1950 through 1977 (Figure 1). In general, from 1960 through 1977 the fertility difference between the 3 groups was constant. Except for a slight rise in 1970-1971, the fertility rates for each of the 3 groups has declined since 1960. In 1977, the Hispanic fertility rate was 135.5 per 1,000 women aged 15 to 44 compared to 62.8 for Anglos and 91.9 for blacks. This compares to a total U.S. fertility rate of 67.8 per 1,000 women aged 15-44 in 1977.

Hispanics had an out-of-wedlock fertility rate intermediate between blacks and Anglos. In 1977, the Hispanics' rate of births per 1,000 unmarried women aged 15 to 44 was 31.6 or 60% less than the rate among blacks (79.0) and 280% higher than the rate among Anglos (11.1). In 1977, Hispanic women had the highest proportion of births that were of birth order 4 or greater (21% of Hispanic births). However, this proportion declined among all 3 racial/ethnic groups from 1970 to 1977.

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Editorial Note: The patterns described here indicate higher fertility among Hispanics as compared to Anglos and blacks. This study is consistent with the findings of a household survey of 2,135 women of childbearing age, conducted by CDC in cooperation with state and local health departments in 1979 along the U.S. side of the U.S.-Mexico border (2). The mean number of children ever born to married survey respondents was sig-

(Continued on page 561)

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

[Cumulative totals include revised and delayed reports through previous weeks.]

DISEASE	46th WEEK ENDING		MEDIAN 1975-1979	CUMULATIVE, FIRST 46 WEEKS		
	November 15, 1980	November 17, 1979		November 15, 1980	November 17, 1979	MEDIAN 1975-1979
Aseptic meningitis	160	222	122	6,567	7,525	4,220
Brucellosis	3	3	2	160	154	196
Chickenpox	1,919	1,453	1,976	164,196	178,874	160,970
Diphtheria	—	—	1	4	59	76
Encephalitis: Primary (arthropod-borne & unspec.)	14	25	25	1,004	977	1,070
Post-infectious	4	3	5	192	214	214
Hepatitis, Viral: Type B	394	347	305	15,913	12,987	13,192
Type A	575	516	538	24,934	26,296	27,024
Type unspecified	249	189	182	10,490	9,173	7,449
Malaria	34	20	12	1,707	685	485
Measles (rubeola)	31	92	292	13,153	12,768	25,397
Meningococcal infections: Total	43	48	48	2,327	2,295	1,548
Civilian	42	48	48	2,315	2,275	1,537
Military	1	—	—	12	20	20
Mumps	75	263	429	7,828	12,424	18,733
Pertussis	28	23	26	1,482	1,212	1,432
Rubella (German measles)	29	52	103	3,511	11,165	15,584
Tetanus	—	1	1	65	63	69
Tuberculosis	468	541	541	24,284	24,318	26,633
Tularemia	3	2	1	193	175	125
Typhoid fever	6	18	7	455	467	372
Typhus fever, tick-borne (Rky. Mt. spotted)	4	5	5	1,113	1,005	1,005
Veneral diseases:						
Gonorrhea: Civilian	17,111	19,762	19,762	890,749	888,110	888,110
Military	179	388	549	23,949	24,420	24,420
Syphilis, primary & secondary: Civilian	576	492	465	24,116	22,090	21,347
Military	1	8	7	270	280	280
Rabies in animals	75	66	52	5,657	4,524	2,767

TABLE II. Notifiable diseases of low frequency, United States

	CUM. 1980			CUM. 1980	
	1	8		1	8
Anthrax	1		Poliomyelitis: Total		8
Botulism Ky. 1	57		Paralytic		6
Cholera	8		Psittacosis		95
Congenital rubella syndrome	46		Rabies in man		—
Leprosy III, 1, Tex. 1	195		Trichinosis Mass. 1, W. Va. 1		104
Leptospirosis Kans. 1, Fla. 1	68		Typhus fever, flea-borne (endemic, murine) Tex. 3		69
Plague	18				

All delayed reports and corrections will be included in the following week's cumulative totals.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending November 15, 1980, and November 17, 1979 (46th week)

REPORTING AREA	ASEPTIC MENINGITIS	BRUCELLOSIS	CHICKEN-POX	DIPHTHERIA		ENCEPHALITIS			HEPATITIS (VIRAL), BY TYPE			MALARIA	
						Primary		Post-infectious	B	A	Unspecified		
						1980	1979	1980	1980	1980	1980		
UNITED STATES	160	3	1,919	-	4	14	25	4	394	575	249	34	1,707
NEW ENGLAND	6	-	259	-	-	-	-	-	8	8	10	7	106
Maine	-	-	86	-	-	-	-	-	-	2	-	2	16
N.H.	-	-	13	-	-	-	-	-	-	2	-	-	7
Vt.	1	-	46	-	-	-	-	-	1	-	-	-	1
Mass.	3	-	66	-	-	-	-	-	2	1	5	1	55
R.I.	1	-	18	-	-	-	-	-	2	1	-	-	9
Conn.	1	-	30	-	-	-	-	-	3	2	5	4	18
MID. ATLANTIC	29	-	45	-	1	3	10	-	48	43	12	6	226
Upstate N.Y.	12	-	22	-	-	2	3	-	11	12	6	2	39
N.Y. City	8	-	10	-	1	-	-	-	10	10	-	2	63
N.J.	5	-	NN	-	-	1	-	-	27	21	6	-	56
Pa.	4	-	13	-	-	-	7	-	NA	NA	NA	2	68
E.N. CENTRAL	23	-	690	-	1	-	4	2	51	58	23	1	105
Ohio	18	-	7	-	-	-	3	-	12	7	8	-	18
Ind.	-	-	143	-	-	-	-	-	22	16	7	-	12
Ill.	4	-	97	-	-	-	1	-	5	17	4	1	41
Mich.	1	-	259	-	1	-	-	-	9	11	3	-	23
Wis.	-	-	184	-	-	-	-	2	3	7	1	-	11
W.N. CENTRAL	8	-	256	-	1	-	-	2	11	37	9	-	69
Minn.	-	-	-	-	-	-	-	1	5	5	1	-	25
Iowa	1	-	114	-	-	-	-	-	1	16	4	-	7
Mo.	2	-	12	-	1	-	-	-	2	8	2	-	13
N. Dak.	-	-	8	-	-	-	-	-	-	-	-	-	-
S. Dak.	-	-	39	-	-	-	-	-	1	-	-	-	4
Neb.	-	-	1	-	-	-	-	-	1	2	1	-	7
Kans.	5	-	82	-	-	-	-	1	1	6	1	-	13
S. ATLANTIC	17	-	127	-	-	-	-	-	97	84	33	6	180
Del.	-	-	2	-	-	-	-	-	17	-	1	-	-
Md.	-	-	-	-	-	-	-	-	15	14	11	3	32
D.C.	1	-	-	-	-	-	-	-	1	2	-	1	4
Va.	-	-	-	-	-	-	-	-	7	2	1	2	61
W. Va.	-	-	38	-	-	-	-	-	1	2	-	-	4
N.C.	8	-	NN	-	-	-	-	-	7	2	4	-	17
S.C.	-	-	2	-	-	-	-	-	5	4	1	-	10
Ge.	-	-	-	-	-	-	-	-	17	12	-	-	17
Fla.	8	-	85	-	-	-	-	-	27	46	15	-	35
E.S. CENTRAL	25	-	65	-	-	2	4	-	12	25	8	-	12
Ky.	16	-	47	-	-	-	1	-	1	4	1	-	3
Tenn.	8	-	NN	-	-	1	-	-	4	11	7	-	-
Ala.	1	-	9	-	-	1	1	-	3	2	-	-	7
Miss.	-	-	9	-	-	-	2	-	4	8	-	-	2
W.S. CENTRAL	15	2	143	-	-	4	-	-	23	109	54	1	144
Ark.	-	-	-	-	-	-	-	-	6	22	12	-	8
La.	2	-	NN	-	-	-	-	-	3	6	4	-	42
Okl.	1	1	-	-	-	1	-	-	2	9	-	-	12
Tex.	12	1	143	-	-	3	-	-	12	72	38	1	82
MOUNTAIN	4	-	196	-	-	-	1	-	8	30	21	-	88
Mont.	-	-	87	-	-	-	1	-	-	3	-	-	1
Idaho	1	-	-	-	-	-	-	-	-	3	-	-	1
Wyo.	1	-	-	-	-	-	-	-	1	1	-	-	2
Colo.	1	-	23	-	-	-	-	-	3	10	5	-	35
N. Mex.	-	-	-	-	-	-	-	-	2	6	8	-	6
Ariz.	-	-	NN	-	-	-	-	-	2	4	4	-	18
Utah	2	-	86	-	-	-	-	-	1	4	4	-	15
Nev.	-	-	-	-	-	-	-	-	1	2	4	-	10
PACIFIC	33	1	138	-	1	5	6	-	136	181	79	13	777
Wash.	-	-	123	-	1	-	-	-	3	12	5	-	49
Oreg.	-	-	-	-	-	1	-	-	12	11	1	-	45
Calif.	29	1	-	-	-	2	5	-	112	156	72	13	660
Alaska	-	-	8	-	-	1	-	-	-	-	-	-	6
Hawaii	4	-	7	-	-	1	-	-	9	2	1	-	17
Guam	NA	NA	NA	NA	-	NA	-	-	NA	NA	NA	NA	3
P.R.	4	-	36	-	-	-	-	-	3	6	11	-	3
V.I.	NA	NA	NA	NA	-	NA	-	-	NA	NA	NA	NA	-
Pac. Trust Terr.	NA	NA	NA	NA	-	NA	-	-	NA	NA	NA	NA	2

NN: Not notifiable.

NA: Not available.

All delayed reports and corrections will be included in the following week's cumulative totals.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending November 15, 1980, and November 17, 1979 (46th week)

REPORTING AREA	MEASLES (RUBEOLA)			MENINGOCOCCAL INFECTIONS TOTAL			MUMPS		PERTUSSIS	RUBELLA		TETANUS
	1980	CUM. 1980	CUM. 1979	1980	CUM. 1980	CUM. 1979	1980	CUM. 1980	1980	1980	CUM. 1980	CUM. 1980
UNITED STATES	31	13,153	12,768	43	2,327	2,295	75	7,828	28	29	3,511	65
NEW ENGLAND	-	672	291	5	132	130	6	590	3	-	209	3
Maine	-	33	18	-	6	7	2	300	-	-	68	1
N.H.	-	328	33	-	8	13	-	22	1	-	37	-
Vt.	-	226	119	-	14	7	-	12	-	-	3	-
Mass.	-	58	15	4	48	49	2	126	1	-	71	1
R.I.	-	2	102	1	10	9	1	31	1	-	9	1
Conn.	-	25	4	-	46	45	1	99	-	-	21	1
MID. ATLANTIC	5	3,812	1,558	5	405	363	11	879	3	1	563	8
Upstate N.Y.	2	704	659	1	122	124	4	142	2	-	216	3
N.Y. City	2	1,198	794	1	101	83	1	94	1	1	100	2
N.J.	1	829	58	3	86	93	4	121	-	-	101	3
Pa.	-	1,081	47	-	96	63	2	522	-	-	146	3
E.N. CENTRAL	-	2,448	3,339	3	267	260	21	2,934	8	6	839	5
Ohio	-	380	294	2	87	102	2	1,178	2	-	8	1
Ind.	-	93	224	-	41	45	1	137	1	4	358	1
Ill.	-	347	1,461	1	55	22	4	387	5	2	167	1
Mich.	-	250	840	-	68	72	9	883	-	-	129	1
Wis.	-	1,378	520	-	16	19	5	349	-	-	177	2
W.N. CENTRAL	-	1,321	1,802	3	103	73	1	302	1	-	200	4
Minn.	-	1,105	1,218	-	34	15	-	19	-	-	28	1
Iowa	-	-	16	2	13	13	-	51	-	-	9	1
Mo.	-	65	417	-	38	34	-	101	1	-	42	1
N. Dak.	-	1	21	-	2	1	-	4	-	-	2	-
S. Dak.	-	-	2	-	4	4	-	4	-	-	5	-
Nebr.	-	83	54	-	-	-	-	9	-	-	1	-
Kans.	-	67	74	1	10	6	1	114	-	-	113	1
S. ATLANTIC	-	1,965	2,040	8	546	561	14	1,064	2	3	348	11
Del.	-	3	1	-	2	5	-	40	-	-	1	-
Md.	-	83	16	2	51	57	-	340	-	-	71	1
D.C.	-	5	-	-	2	-	-	4	-	-	1	-
Va.	-	339	275	1	56	79	3	74	-	-	56	3
W. Va.	-	16	61	-	20	9	3	122	-	1	27	1
N.C.	-	130	114	1	95	86	-	94	-	-	46	1
S.C.	-	159	177	2	62	62	3	210	-	-	54	3
Ga.	-	826	533	2	103	82	1	11	2	-	-	-
Fla.	-	404	863	-	155	181	4	169	-	2	92	2
E.S. CENTRAL	-	334	219	3	197	163	2	879	-	1	87	6
Ky.	-	56	39	2	61	34	1	756	-	1	43	2
Tenn.	-	172	71	-	54	46	1	31	-	-	39	2
Ala.	-	22	85	-	52	38	-	29	-	-	3	2
Miss.	-	84	24	1	30	45	-	63	-	-	2	-
W.S. CENTRAL	4	978	930	7	252	332	6	288	4	6	144	18
Ark.	-	16	7	-	19	25	-	22	-	-	4	2
La.	-	12	256	1	91	118	-	68	-	1	13	5
Okla.	-	776	22	1	22	37	-	-	-	-	6	1
Tex.	4	174	645	5	120	152	6	198	4	5	121	10
MOUNTAIN	4	498	324	4	99	92	4	216	-	-	158	-
Mont.	-	2	56	-	3	11	2	60	-	-	45	-
Idaho	-	-	18	-	6	10	-	16	-	-	22	-
Wyo.	-	-	36	-	4	1	-	1	-	-	1	-
Calif.	-	24	68	1	24	7	2	61	-	-	12	-
N. Mex.	-	14	38	-	10	5	-	-	-	-	5	-
Ariz.	4	401	77	3	18	36	-	43	-	-	39	-
Utah	-	47	19	-	5	9	-	27	-	-	28	-
Nev.	-	10	12	-	29	13	-	9	-	-	6	-
PACIFIC	18	1,125	2,265	5	326	321	10	676	7	12	963	10
Wash.	-	177	1,139	-	59	54	2	142	3	2	88	-
Oreg.	-	-	66	2	53	26	2	88	-	3	65	-
Calif.	18	936	975	3	205	223	5	413	4	7	793	10
Alaska	-	6	17	-	9	6	1	13	-	-	12	-
Hawaii	-	6	68	-	-	10	-	20	-	-	5	-
Guam	NA	6	12	-	1	1	NA	10	NA	NA	2	-
P.R.	2	159	372	2	11	6	5	149	1	1	24	12
V.I.	NA	6	5	-	1	3	NA	2	NA	NA	-	-
Pac. Trust Terr.	NA	10	9	-	-	1	NA	21	NA	NA	1	-

NA: Not available.

All delayed reports and corrections will be included in the following week's cumulative totals.

TABLE III (Cont.'d). Cases of specified notifiable diseases, United States, weeks ending

November 15, 1980, and November 17, 1979 (46th week)

REPORTING AREA	TUBERCULOSIS		TULA- REMIA	TYPHOID FEVER		TYPHUS FEVER (Tick-borne) (RMSF)		VENEREAL DISEASES (Civilian)						RABIES (in Animals)
								GONORRHEA			SYPHILIS (Pri. & Sec.)			
	1980	CUM. 1980	CUM. 1980	1980	CUM. 1980	1980	CUM. 1980	1980	CUM. 1980	CUM. 1979	1980	CUM. 1980	CUM. 1979	CUM. 1980
UNITED STATES	468	24,284	193	6	455	4	1,113	17,111	890,749	888,110	576	24,116	22,090	5,657
NEW ENGLAND	9	673	6	1	12	-	14	609	22,633	21,779	12	466	431	55
Maine	3	49	-	-	1	-	-	48	1,300	1,530	-	6	10	24
N.H.	-	15	-	-	-	-	-	8	785	810	-	5	16	7
Vt.	-	24	-	-	-	-	-	6	497	561	-	6	2	-
Mass.	5	373	4	-	7	-	7	247	9,525	8,632	7	279	246	14
R.I.	-	64	1	-	1	-	2	26	1,445	1,769	2	31	18	1
Conn.	1	148	1	1	3	-	5	274	9,081	8,477	3	139	139	9
MID. ATLANTIC	71	3,902	3	1	84	-	48	2,268	100,260	97,080	83	3,296	3,332	69
Upstate N.Y.	27	756	1	-	14	-	14	345	18,070	16,976	-	283	244	37
N.Y. City	14	1,400	1	1	38	-	3	1,300	40,037	38,150	59	2,135	2,264	-
N.J.	6	854	1	-	19	-	19	164	17,927	17,598	8	394	438	13
Pa.	24	892	-	-	13	-	12	459	24,226	24,916	16	484	386	19
E.N. CENTRAL	46	3,464	1	1	48	-	30	2,479	137,739	139,061	92	2,474	2,783	854
Ohio	18	637	-	-	13	-	17	675	35,763	36,351	8	334	559	53
Ind.	5	382	-	-	-	-	2	47	14,623	11,414	5	175	188	49
Ill.	20	1,199	-	-	18	-	6	707	43,358	46,042	75	1,518	1,562	466
Mich.	3	1,031	1	-	11	-	3	534	31,303	32,434	2	358	401	15
Wis.	3	215	-	1	6	-	2	287	12,692	12,620	2	89	73	251
W.N. CENTRAL	35	891	29	1	28	-	54	855	42,941	43,867	2	319	282	1,835
Minn.	24	183	1	-	3	-	-	156	7,007	7,227	-	105	77	207
Iowa	1	80	1	-	2	-	3	110	4,520	5,220	-	23	29	416
Mo.	5	408	24	1	19	-	34	304	19,133	18,876	2	151	128	351
N. Dak.	1	46	-	-	1	-	-	19	595	777	-	4	2	213
S. Dak.	-	42	-	-	1	-	2	17	1,225	1,446	-	5	2	413
Nebr.	-	37	1	-	1	-	5	59	3,308	3,108	-	10	7	91
Kans.	4	95	2	-	1	-	10	190	7,153	7,213	-	21	37	144
S. ATLANTIC	102	5,339	10	-	43	2	695	4,534	223,939	214,413	112	5,788	5,215	459
Del.	-	67	-	-	1	-	2	66	3,168	3,506	-	19	27	1
Md.	15	654	2	-	3	1	74	435	23,766	26,438	4	398	330	32
D.C.	10	335	-	-	4	-	-	362	15,401	14,217	11	432	400	-
Va.	12	568	-	-	8	-	95	482	20,604	20,414	10	523	420	26
W. Va.	5	193	-	-	4	-	5	94	3,088	2,908	-	16	48	24
N.C.	20	957	3	-	5	-	314	979	34,090	31,149	4	428	395	20
S.C.	9	457	-	-	3	1	141	356	20,928	20,154	10	339	269	60
Ga.	12	722	5	-	-	-	57	771	43,718	40,284	34	1,646	1,452	230
Fla.	19	1,386	-	-	15	-	7	989	59,176	55,343	39	1,987	1,874	66
E.S. CENTRAL	45	2,237	10	-	12	-	113	1,400	72,573	75,751	34	1,984	1,465	318
Ky.	12	505	-	-	3	-	19	229	10,581	10,153	-	118	144	133
Tenn.	13	725	7	-	1	-	61	742	26,409	27,457	19	839	606	134
Ala.	20	592	1	-	3	-	17	240	21,475	22,258	3	436	266	51
Miss.	-	415	2	-	5	-	16	189	14,108	15,883	12	591	449	-
W.S. CENTRAL	52	2,750	89	-	72	2	138	1,883	112,303	113,989	140	4,863	4,034	1,209
Ark.	-	294	57	-	8	-	35	168	9,053	8,903	-	195	140	167
La.	5	505	-	-	2	-	3	295	20,177	20,395	36	1,200	1,026	15
Okla.	9	303	21	-	6	2	72	230	11,215	11,257	5	98	80	228
Tex.	38	1,648	11	-	56	-	28	1,190	71,858	73,434	99	3,370	2,788	879
MOUNTAIN	6	677	32	-	26	-	16	639	34,057	35,632	8	588	442	230
Mont.	-	30	9	-	1	-	3	NA	1,073	1,767	NA	5	8	55
Idaho	-	25	1	-	1	-	1	12	1,501	1,560	-	26	25	2
Wyo.	1	21	4	-	-	-	2	14	999	1,029	-	12	8	15
Colo.	-	113	8	-	7	-	5	162	9,261	9,576	3	155	93	54
N. Mex.	2	126	2	-	3	-	4	103	4,195	4,415	3	106	79	44
Ariz.	2	290	1	-	7	-	-	185	9,155	9,816	-	190	125	56
Utah	1	44	5	-	7	-	1	34	1,720	1,820	-	15	4	3
Nev.	-	28	2	-	-	-	-	129	6,153	5,649	2	79	100	1
PACIFIC	102	4,351	13	2	130	-	5	2,244	144,304	146,538	93	4,338	4,106	548
Wash.	10	372	-	-	3	-	-	NA	11,968	12,960	NA	189	191	-
Ore.	5	162	4	-	9	-	1	229	9,983	9,202	2	99	152	4
Calif.	87	3,675	8	2	116	-	4	1,888	115,910	117,082	90	3,904	3,652	497
Alaska	-	53	1	-	-	-	-	78	3,575	4,497	-	8	25	47
Hawaii	-	89	-	-	2	-	-	49	2,868	2,797	1	138	86	-
Guam	NA	52	-	NA	1	NA	-	NA	97	106	NA	5	-	-
P.R.	-	209	-	-	8	-	-	62	2,432	1,943	11	540	511	47
V.I.	NA	-	-	NA	-	NA	-	NA	108	142	NA	10	8	-
Pac. Trust Terr.	NA	35	-	NA	-	NA	-	NA	379	431	NA	-	1	-

NA: Not available.

All delayed reports and corrections will be included in the following week's cumulative totals.

TABLE IV. Deaths in 121 U.S. cities,* week ending
November 15, 1980 (46th week)

REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P & I** TOTAL	REPORTING AREA	ALL CAUSES, BY AGE (YEARS)					P & I** TOTAL
	ALL AGES	>65	45-64	25-44	<1			ALL AGES	>65	45-64	25-44	<1	
NEW ENGLAND	704	475	166	25	23	50	S. ATLANTIC	1,129	671	295	87	37	45
Boston, Mass.	186	118	43	10	8	17	Atlanta, Ga.	121	59	41	15	4	3
Bridgeport, Conn.	43	24	17	1	1	3	Baltimore, Md.	141	95	28	12	4	2
Cambridge, Mass.	20	15	5	—	—	5	Charlotte, N.C.	64	36	19	3	4	2
Fall River, Mass.	27	20	6	—	1	—	Jacksonville, Fla.	103	57	28	8	4	5
Hartford, Conn.	76	43	26	2	5	—	Miami, Fla.	81	30	32	10	1	2
Lowell, Mass.	38	25	8	3	—	3	Norfolk, Va.	50	26	18	3	2	3
Lynn, Mass.	29	24	4	—	—	—	Richmond, Va.	79	42	19	6	10	8
New Bedford, Mass.	24	21	3	—	—	—	Savannah, Ga.	27	17	4	3	—	3
Now Haven, Conn.	51	32	14	2	3	4	St. Petersburg, Fla.	81	67	10	2	2	3
Providence, R.I.	67	52	10	2	2	7	Tampa, Fla.	62	42	17	2	1	4
Somerville, Mass.	3	2	—	1	—	1	Washington, D.C.	276	174	64	21	9	9
Springfield, Mass.	40	28	8	1	2	5	Wilmington, Del.	44	26	15	2	—	1
Waterbury, Conn.	42	28	11	2	—	3							
Worcester, Mass.	58	43	11	1	1	3							
							E.S. CENTRAL	611	379	140	46	29	28
MID. ATLANTIC	2,624	1,695	613	144	70	87	Birmingham, Ala.	100	67	23	4	5	2
Albany, N.Y.	47	32	8	5	—	2	Chattanooga, Tenn.	53	29	12	5	4	3
Allentown, Pa.	19	19	—	—	—	—	Knoxville, Tenn.	47	36	7	2	2	1
Buffalo, N.Y.	89	55	22	8	1	2	Louisville, Ky.	94	61	25	4	1	7
Camden, N.J.	33	26	4	1	2	2	Memphis, Tenn.	118	68	31	11	1	4
Elizabeth, N.J.	27	18	7	1	1	1	Mobile, Ala.	71	37	14	8	10	4
Erie, Pa.†	52	33	16	1	—	2	Montgomery, Ala.	33	20	9	4	—	—
Jersey City, N.J.	65	43	7	10	1	2	Nashville, Tenn.	95	61	19	8	6	7
Newark, N.J.	63	27	15	14	5	3							
N.Y. City, N.Y.	1,390	900	320	89	39	41	W.S. CENTRAL	1,085	627	259	90	38	42
Paterson, N.J.	27	16	7	3	—	2	Austin, Tex.	29	20	7	—	—	—
Philadelphia, Pa.†	305	178	88	17	12	7	Baton Rouge, La.	19	12	5	1	1	1
Pittsburgh, Pa.†	57	35	19	2	—	1	Corpus Christi, Tex.	40	23	8	2	5	—
Reading, Pa.	36	26	8	—	—	2	Dallas, Tex.	196	111	48	19	6	4
Rochester, N.Y.	128	88	27	6	2	9	El Paso, Tex.	59	36	11	3	6	7
Schenectady, N.Y.	32	23	6	1	1	—	Fort Worth, Tex.	85	58	13	9	1	6
Scranton, Pa.†	34	28	4	1	—	2	Houston, Tex.	225	110	65	20	7	1
Syracuse, N.Y.	146	87	43	5	6	6	Little Rock, Ark.	49	34	11	2	—	4
Trenton, N.J.	37	29	8	—	—	1	New Orleans, La.	125	75	29	8	5	—
Utica, N.Y.	17	15	1	—	—	2	San Antonio, Tex.	142	76	36	18	4	5
Yonkers, N.Y.	20	17	3	—	—	—	Shreveport, La.	47	32	10	2	2	3
							Tulsa, Okla.	69	40	16	6	1	11
E.N. CENTRAL	2,243	1,413	520	145	100	64	MOUNTAIN	556	358	109	47	15	21
Akron, Ohio	63	45	11	4	2	—	Albuquerque, N. Mex.	52	33	11	4	2	—
Canton, Ohio	42	31	8	1	—	1	Colo. Springs, Colo.	39	26	7	3	—	3
Chicago, Ill.	526	301	136	41	24	6	Denver, Colo.	123	84	29	5	1	4
Cincinnati, Ohio	108	71	23	3	9	13	Las Vegas, Nev.	48	29	8	5	—	—
Cleveland, Ohio	173	94	50	14	12	2	Ogden, Utah	20	13	3	2	1	—
Columbus, Ohio	129	76	27	8	10	3	Phoenix, Ariz.	94	64	15	8	5	—
Dayton, Ohio	90	63	18	6	1	—	Pueblo, Colo.	22	17	5	—	—	—
Detroit, Mich.	261	154	62	29	9	6	Salt Lake City, Utah	56	31	11	8	2	5
Evansville, Ind.	24	20	4	1	—	—	Tucson, Ariz.	102	61	20	12	2	5
Fort Wayne, Ind.	36	26	7	1	2	3							
Gary, Ind.	21	16	4	1	—	1							
Grand Rapids, Mich.	64	49	11	1	2	1							
Indianapolis, Ind.	179	107	39	13	10	3	PACIFIC	1,446	905	330	108	49	59
Madison, Wis.	46	34	6	4	2	3	Berkeley, Calif.	10	8	1	1	—	—
Milwaukee, Wis.	136	90	37	3	6	1	Fresno, Calif.	74	49	15	4	2	3
Peoria, Ill.	53	32	16	2	3	4	Glendale, Calif.	11	7	4	—	—	—
Rockford, Ill.	44	32	7	4	1	6	Honolulu, Hawaii	54	32	9	7	1	3
South Bend, Ind.	61	47	8	3	2	2	Long Beach, Calif.	73	47	20	1	4	3
Toledo, Ohio	126	80	35	5	4	6	Los Angeles, Calif.	308	187	68	32	7	10
Youngstown, Ohio	59	45	11	1	1	1	Oakland, Calif.	53	32	14	1	3	2
							Pasadena, Calif.	20	17	2	1	—	—
							Portland, Ore.	117	86	22	3	5	7
W.N. CENTRAL	725	484	153	39	21	23	Sacramento, Calif.	72	40	16	8	5	2
Des Moines, Iowa	52	35	13	4	—	3	San Diego, Calif.	139	80	37	12	2	1
Duluth, Minn.	21	16	3	—	2	1	San Francisco, Calif.	139	78	38	11	4	1
Kansas City, Kans.	31	19	9	2	1	3	San Jose, Calif.	142	81	36	14	6	14
Kansas City, Mo.	130	86	29	5	2	6	Seattle, Wash.	116	76	23	9	6	2
Lincoln, Nebr.	24	16	4	3	—	3	Spokane, Wash.	71	51	15	2	3	6
Minneapolis, Minn.	104	80	8	6	7	1	Tacoma, Wash.	47	34	10	2	1	5
Omaha, Nebr.	87	58	19	3	1	2							
St. Louis, Mo.	177	114	42	11	6	—							
St. Paul, Minn.	58	38	15	2	1	—	TOTAL	11,123	7,007	2,585	751	382	419
Wichita, Kans.	41	22	11	3	1	4							

*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.

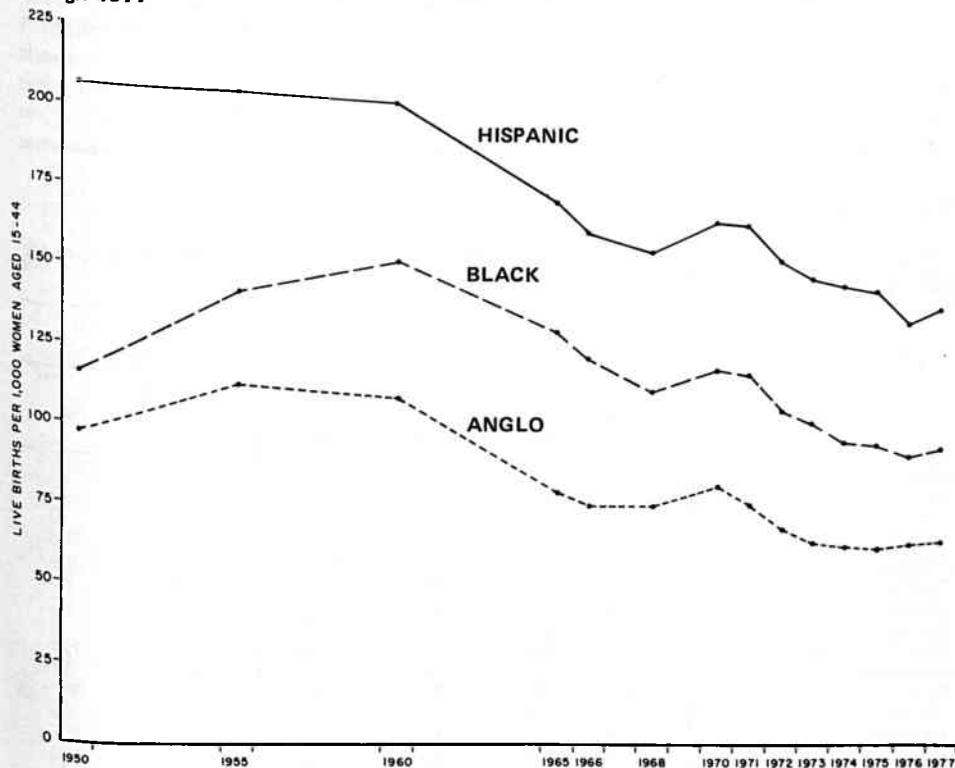
**Pneumonia and influenza

†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.

Fertility - Continued

nificantly higher among Hispanic† than Anglos‡ for each 5-year age group ages 20-44 ($p < .001$). Among respondents who had ever been pregnant, 11.0% of Anglos and 16.3% of Hispanics reported their last live birth as unwanted. Contraceptive use among married women was higher among Anglos than Hispanics (75.2% vs. 65.6%). Among married respondents not currently using contraception, a greater proportion of Hispanics than Anglos reported wanting to use contraception (44.1% vs. 34.6%).

FIGURE 1. General fertility rates,* by ethnic group, Texas, selected years from 1950 through 1977



*The number of live births per 1,000 women aged 15 to 44.

These 2 studies suggest that fertility is higher among Hispanics than Anglos, at least in part because Hispanics have proportionately more unwanted births. The current level of contraceptive use and the interest in use expressed by Hispanic survey respondents suggest that, given continuing access to family planning services, the decline in fertility among Hispanics will continue.

References

1. CDC. Texas fertility: childbearing patterns and trends, 1950-1977. Issued July 1980.
2. MMWR 1980;29:181-3.

†In this survey, Hispanics and Anglos are those who defined themselves as belonging to these ethnic categories.

▲A copy of the report from which these data were derived (7) is available on request from CDC, Attention: Family Planning Division, Bureau of Epidemiology, Atlanta, Georgia 30333.

Urban Rat Control — United States, April-June 1980

During the third quarter of fiscal year 1980, urban rat control programs identified 2,365 environmentally improved blocks (EIBs) (Table 1). This is the largest number of EIBs reported in a single quarter since fiscal year 1977. So far this year EIBs have been designated in 43 program communities. As of June 30, there were 33,388 cumulative EIBs and 11,257 blocks in maintenance. Approximately 6.8 million people lived in areas that were improved and rat free as a result of local program efforts.

Urban rat control grant funds are directed to neighborhoods with severe rat infestations and environmental deficiencies. As these adverse conditions abate, federal support is reduced and local resources are developed to sustain accomplishments. Grant funds then are redirected to other areas. During the third quarter this process enabled programs in Jersey City, Washington, D.C., Miami, Chicago, and Omaha to incorporate 1,056 new subtarget-area blocks into their existing project areas. Also, Puerto Rico added Guayama (216 target-area blocks) as a new program community.

Reported by Environmental Health Services Div, Bur of State Services, CDC.

TABLE 1. Status of target-area blocks in Urban Rat Control Programs, third quarter fiscal year 1980 (April 1 - June 30)

Program community	Target-area blocks				Environmentally improved blocks*	
	Total	In attack phase	In maintenance phase		New this quarter	Cumulative
			<12 months	≥12 months		
REGION I	671	461	133	77	0	1,065
Hartford	249	197	7	45	0	277
Boston	422	264	126	32	0	0
Previously funded programs						788
REGION II	3,925	1,388	1,036	1,262	212	3,975
Camden	254	133	65	56	0	97
Jersey City	350	27	37	169	0	93
Newark	220	66	141	13	0	0
New York City	1,534	597	383	554	0	727
Newburgh	5	5	0	0	20	81
Rochester	232	64	73	95	0	340
Yonkers	66	8	17	41	25	83
Aguadilla, P.R.	140	75	44	21	0	125
Arecibo, P.R.	136	32	52	52	24	179
Guayama, P.R.	216	69	25	0	0	0
Mayaguez, P.R.	199	139	39	21	13	193
Ponce, P.R.	249	94	59	96	40	253
San Juan, P.R.	324	79	101	144	90	231
Previously funded programs						1,573
REGION III	3,856	1,368	1,502	695	311	6,619
"War on Rats," D.C.	984	489	183	133	104	1,072
Baltimore	413	70	126	105	0	262
Chester	120	37	35	48	0	55
Harrisburg	367	45	185	137	0	0
N.E. Pa. V.C. Assn.†	311	79	232	0	117	1,159
Philadelphia	1,149	409	637	103	65	1,431
Pittsburgh	333	149	48	136	0	1,198
Norfolk	147	68	46	33	25	1,303
Portsmouth	32	22	10	0	0	61
Previously funded programs						78

Rat Control — Continued

TABLE 1.—Continued

Program community	Target-area blocks				Environmentally improved blocks*	
	Total	In attack phase	In maintenance phase		New this quarter	Cumulative
			<12 months	≥12 months		
REGION IV	4,744	1,525	1,650	473	587	6,109
Mobile	340	75	197	68	166	399
Tuscaloosa	344	109	89	0	0	0
Ft. Lauderdale	0	0	0	0	161	877
Miami	1,167	532	234	60	59	873
Pensacola	573	130	180	9	0	15
Tampa	0	0	0	0	40	983
Atlanta, Ga.†	478	298	180	0	0	0
DeKalb Co., Ga.	740	183	392	165	0	0
Lexington	317	30	133	0	0	0
Louisville	360	128	133	99	161	572
Memphis	425	40	112	72	0	392
Previously funded programs						1,998
REGION V	4,424	2,195	1,501	316	605	4,046
Chicago	493	356	25	11	7	7
Peoria	324	181	143	0	0	0
Gary	381	205	32	144	0	0
Indianapolis	156	2	154	0	153	261
Benton Harbor	190	82	63	45	0	0
Detroit	184	92	87	5	232	538
Highland Park	220	128	86	6	0	0
Saginaw	333	138	101	0	0	0
Washtenaw Co.-Ypsilanti	236	61	49	0	0	0
Wayne Co.-Ecorse	193	76	26	0	0	0
Akron	249	62	187	0	52	494
Barberton	92	7	85	0	27	85
Cincinnati	91	28	37	26	14	114
Cleveland	379	203	172	4	17	661
Columbus	359	194	99	66	90	206
Toledo	189	95	85	9	13	149
Youngstown	220	161	59	0	0	0
Milwaukee	135	124	11	0	0	0
Previously funded programs						1,531
REGION VI	1,832	620	593	513	262	6,082
Little Rock	403	233	50	14	0	0
Pine Bluff	318	157	68	93	0	90
New Orleans	463	122	185	156	45	2,862
Houston	648	108	290	250	217	1,872
Previously funded programs						1,258

(Continued on page 564)

The Morbidity and Mortality Weekly Report, circulation 91,840, is published by the Centers for Disease Control, Atlanta, Georgia. The data in this report are provisional, based on weekly telegraphs 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. Send reports to: Centers for Disease Control, Attn: Editor, Morbidity and Mortality Weekly Report, Atlanta, Georgia 30333.

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Rat Control — Continued

TABLE 1.—Continued

Program community	Target-area blocks				Environmentally improved blocks*	
	Total	In attack phase	In maintenance phase		New this quarter	Cumulative
			<12 months	≥12 months		
REGION VII	1,281	292	538	451	262	3,331
Kansas City, Kan.	173	0	119	54	115	1,068
Kansas City, Mo.	128	17	60	51	49	643
St. Louis	487	76	179	232	0	769
Omaha	493	199	180	114	98	455
Previously funded programs						396
REGION IX	809	292	443	74	126	1,331
Los Angeles	358	89	223	46	0	207
Oakland	247	149	87	11	31	219
San Bernardino	63	8	55	0	95	130
San Francisco	141	46	78	17	0	293
Previously funded programs						482
REGION X						830
Previously funded programs						830
TOTAL	21,542	8,141	7,396	3,861	2,365	33,388

*Contiguous blocks where maintenance has been achieved and sustained for a minimum of 12 months. These blocks are no longer part of the approved project target area.

†Northeastern Pennsylvania Vector Control Association. Serves Lackawanna and Luzerne counties and the cities of Nanticoke, Wilkes-Barre, and Hazleton.

‡Target-area blocks are confined to public housing projects.

Clarification, Vol 29, No. 33

p393 In the first paragraph of the story "Occupational Mercury Poisoning — Nicaragua," the statement is made that Lake Managua is the source of the city of Managua's water supply. In fact, Lake Managua is separate from the city water supply, although it provides fish for consumption by the population of the city.

Erratum, Vol. 29, No. 42

p506 In the article "Psittacosis — California," the last line of the last paragraph before the credits states that veterinarians diagnosed psittacosis (unconfirmed) in approximately 50 other birds. Actually, the diagnosis was made in several other birds, not 50.

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