

MORBIDITY AND MORTALITY WEEKLY REPORT

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Perspectives in Disease Prevention and Health Promotion

Dental Caries and Community Water Fluoridation Trends — United States

One of the 12 fluoridation and dental health objectives identified in the U.S. Public Health Service's Objectives for the Nation (1) states: **By 1990, the number of 9-year-old children who have had caries in their permanent teeth should be decreased to 60%** (40% would be caries-free). In 1971-1973, 71% of these children had caries in their permanent teeth. The National Caries Prevalence Survey, conducted by the National Institute of Dental Research (NIDR) in 1979-1980 (2), reported that 49% of these children have had decay in their permanent teeth, demonstrating this objective has been achieved. The survey also reported that 89% of 17-year-olds have had dental caries (2). Although 37% of children aged 5-17 years were caries-free, approximately 24% of children in the same age group have had five or more decayed, missing (due to caries), and/or filled permanent teeth (Figure 1).

When the NIDR survey is compared with an earlier, similar survey by the National Center

FIGURE 1. Percentage distribution of children aged 5-17 years, by DMFT* status — United States, 1979-1980



*Decayed, missing (due to caries), and/or filled permanent teeth.

Dental Caries - Continued

for Health Statistics, the prevalence of dental decay among school-aged children appears to have been significantly reduced since 1973 (Figure 2) (2,3). The availability of fluorides from a number of sources, including community and school water fluoridation, fluoride tablets and drops, fluoride rinses and dentifrices, and clinically applied fluorides, have contributed to the decline in dental caries. It is difficult to attribute this decline to one specific modality, and the effects are not arithmetically additive. However, the combination of systemic and topical fluorides has contributed greatly to improved oral health in the United States. In 1985, approximately 20,000 employed adults and 5,000 older adults at senior citizen centers will be surveyed as part of an NIDR National Survey of Adult Dental Health. Oral health status and data on treatment needs from this survey will be available in 1987.

Although community water fluoridation remains the most effective and practical means of preventing and controlling dental caries, nearly half the U.S. population still does not have access to optimally fluoridated water. The optimal amount of fluoride necessary to reduce the most dental decay, with the least amount of risk of dental fluorosis (discoloration of the enamel), is 0.7-1.2 mg/I (0.7-1.2 parts fluoride per 1 million parts water) (4). Fluoride occurs naturally in most waters but usually at less than optimal levels. Since it is assumed that people in warmer climates drink more water than people in colder climates, the optimal level is lowest in the southernmost part of the United States. Therefore, the optimal fluoride level is calculated based on the annual average of maximum daily air temperature (5).

Since the introduction in 1945 of the practice of adjusting fluoride levels in community water systems, the number of people with access to water with dentally significant levels of fluoride (0.7 parts per million [ppm] or higher) has increased steadily to an estimated 123 million in 1983—approximately 52.2% of the total U.S. population (*6*, 7). It is impractical to expect 100% coverage, because a portion of the population is not served by public water sup-





*Decayed, missing (due to caries), and/or filled permanent tooth surfaces.

[†]From the 1971-1973 National Center for Health Statistics (NCHS) Survey and the 1979-1980 National Institute of Dental Research (NIDR) Survey.

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Dental Caries - Continued

plies (approximately 6% in 1983) (6,8). However, in some of these water supplies, fluoride occurs naturally at optimal levels, and the number of people served by naturally fluoridated water has remained fairly constant at approximately 10.7 million (Figure 3) (6, 7). Excluding this portion, the estimated percent of the population on public water supplies receiving fluoridated water was 56.5% in 1983.

However, the number of people served by public water supplies is increasing (Figure 3). This trend can be explained by increased urbanization of the U.S. population. The population served by public water supplies varies from state to state and ranges from 29% in Oregon to 99% in Illinois and Maryland. The population served by public water supplies in Washington, D.C., is 100% (6,8).

Another national fluoridation and dental health objective for 1990 states: At least 95% of the population on community water systems should be receiving the benefits of optimally fluoridated water. Of the 60,000 public water supplies in the United States, only about 8,000 are fluoridated (6,8). Approximately 46,000 of these systems serve populations of under 1,000, and 150 systems serve populations of more than 100,000 (6,8). The public water systems of nine of the 50 largest cities in the United States are not fluoridated: Los Angeles, San Diego, and San Jose, California; Phoenix, and Tucson, Arizona; San Antonio, Texas; Portland, Oregon; Honolulu, Hawaii; and Newark, New Jersey (9). Past experience has shown that the length of time needed to implement fluoridation in a given community is not necessarily related to the size of the community but rather to other factors, such as how the decision to fluoridate is made (e.g., city council, referendum), and the effectiveness of public health education programs about the benefits of fluoridation.

The maintenance of the optimal level of fluoride is critical once a water system is fluoridated. It has been shown that the dental benefits from fluoridated water are significantly reduced if fluoride levels drop below the optimal concentration (10-12).

The results of the National Preventive Dentistry Demonstration Program conducted by The

FIGURE 3. Fluoridation growth, by population — United States, 1945-1984



Dental Caries - Continued

Robert Wood Johnson Foundation indicate that, "At an estimated cost of less than \$1 per child per year, fluoridation remains society's least expensive and most effective caries preventive measure" (13).

Reported by Dental Disease Prevention Activity, Center for Prevention Svcs, CDC.

References

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(Continued on page 85)

		6	oth Week Endin	9	Cumulati	ve, 6th Week E	nding
Dise	ease	Feb. 9,	Feb. 11,	Median	Feb. 9,	Feb. 11.	Median
		1985	1984	1980-1984	1985	1984	1980-1984
Acquired Immunodoficir	Sundanna (AIDC)	07	20		005	207	
Asentic meningitis	ancy Syndrome (AIDS)	57	39	N	005	566	510
Encenhalitis: Primary (a	rthropod borno	70	91	80	367	555	510
& unspec	s)	14	17	17	74	02	07
Post-infec	tious	14	11	12	14	52	57
Gonorrhea Civilian		14 214	16 120	17 406	80.276	07 140	112172
Military		14,314	10,129	17,400	1 612	37,140	2 1 9 4
Hepatitis: Type A		431	410	422	2 151	2,403	2 5 2 4
Type B		511	423	423	2,131	2,200	2,024
Non A No	on B	511	4/3	374	2,400	2,034	2,001
Unspecifi	ed	0.0	70	145	303	441	015
Legionellosis		12	14	145 N	447	441	N
Leprosy		12	14	5	10	45	26
Malaria			10	17	56	20	72
Measles: Total*		, A	46	25	27	199	188
Indigenous			45	35	21	100	100
Imported		2	45	N	22	56	N
Meningococcal infection	ns Total	۲ ۵	-	E 0	22	20	252
geeeeee	Civilian	50	60	00	203	325	240
	Military	50	00	00	203	325	345
Mumps		61	-	107	260	271	506
Pertussis		17	50	107	200	176	116
Rubella (German measle	as)		59	19	103	170	170
Syphilis (Primary & Sec.	ondary) Civilian	5 20	614	53	2 7 5 0	2 262	2 204
-,,,	Military	539	014	11	2,750	3,202	5,554
Toxic Shock syndrome		57	4	N	20	40	
Tuberculosis		270	410	452	1 700	1 0 7 7	2 206
Tularemia		370	419	455	1,780	1,5//	2,350
Typhoid fever			, i	1	13	22	26
Typhus fever tick-born	e (RMSF)	1 4	0	5	20	32	30
Rabies, animal		75	84	91	339	421	517

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

TABLE II. Notifiable diseases of low frequency, United States

	Cum. 1985		Cum 1985
Anthrax Botulism: Foodborne	-	Plague Poliomyelitis: Total	:
Infant (Tex. 1)	4	Paralytic	•
Other	-	Psittacosis (N. Mex. 2)	16
Brucellosis	4	Rabies, human	-
Cholera	-	Tetanus	3
Congenital rubella syndrome	-	Trichinosis	4
Diphtheria	-	Typhus fever, flea-borne (endemic, murine)	
Leptospirosis	5		l

*Two of the 4 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.

		Asentic	Encenhalitie					Hepatitis (Viral) by type						
Reporting Area	AIDS	Menin- gitis	Primary Post-in- fectious		Gono (Civi	rrhea lian)	A 1	B	NA,NB	Unspeci- fied	Legionel- losis	Leprosy		
	Cum 1985	1985	Cum. 1985	Cum. 1985	Cum. 1985	Cum. 1984	1985	1985	1985	1985	1985	Cum. 1985		
UNITED STATES	605	76	74	10	89,276	97,140	431	511	65	94	12	10		
NEW ENGLAND	17	2	2	-	2,548	3,156	4	43	3	14	-	-		
Maine N H	1	-	1	-	141 61	128 76	2	· -	-	-	-	-		
Vt Mass		-	-	-	29	43	-	-	1	14	-	-		
RI	1	-	-	-	228	187	-	1	-	-	-	-		
Conn	4	2	-	-	1,246	1,628	1	5	2	-	-	-		
MID ATLANTIC	241	10	2	-	13,017	11,855	27	89	1	9	4	1		
NY City	149	1	-	-	6,128	5,316	14	40	-	3		1		
N J Pa	32 16	2	-		1,783 3,675	1,687 2,991	3	14 27		2	4	-		
EN CENTRAL	45	-	25	2	10,070	12.094	21	= -	0	5	1			
Ohio	45	1	10	1	3,139	2,989	3	16	4	1	i	-		
ind III	2	1	6	-	1,130	1,861	3	13	1	1	-	:		
Mich	10	3	8	-	3,862	3,776	17	25	3	ż	-	-		
VVIS	4	-	1	1	456	1,405	-	-	-	-	-	-		
W N CENTRAL	10	-	3	-	4,979	4,452	10	10	2	2	1	-		
lowa	2	-	3	-	512	569	-	4	i	2	-	:		
Mo N Dak	4	-	-	-	2,184	1,969	1	3	-	-	1	-		
S Dak	-	-	-	-	104	147	8	2	-	-	-	-		
Nebr Kans	2	-	1	-	500 879	340 750	-	1	-	-	-	-		
S ATLANTIC	61	31	12	٨	18 437	24 606	32	99	14	11		-		
Del	1	-	1	-	412	428		-	1		-	-		
Md DC	8	3	3	-	2,523	3,370 1 747	2	11	-	4		-		
Va	6	14	1	3	1,959	2,481	5	17	2	1	-	-		
N C	7	3	7	-	280 3.620	283 3,955	2	3	3	1	-	-		
S C	1	-	-	-	2,622	2,253		4	3	1	-	-		
Fla	19	4 5	-	1	5,534	5,316	17	28	4	3	-	-		
ES CENTRAL	8	3	2	3	7,935	8,101	7	24	2	1	-	-		
Ky Teop	3	1	-	-	780	1,016	5	7	1	1	-	-		
Ala	4	i	i	3	2,490	2,600	-	2	-	-	-	-		
Miss	1	-	-	-	1,495	1,217	-	-	-	-	-	-		
W S CENTRAL	38	8	4	-	13,545	13,203	83	23	4	24	-	-		
La	1		-	-	3,084	3,159	3	3	-	-	-	-		
Okla Tex	27	- 8	3		1,411	1,508	17	4	1	4 20	-	-		
MOUNTAIN		Ū			7,740	0.015	50							
Mont	14	-	-	-	3,111 80	2,915	52	41	4		-			
Idaho	-	-	-	-	115	116	1	3	-	-	-	-		
Colo	4	-	2	-	880	739	5	7	1	8	-	-		
N Mex	2	-	-	-	377	369	11	10	- 2	1	-	-		
Utah	-	-	1		126	165	5	4	1		-	-		
Nev	2	-	-	-	500	527	8	7	-	1	-	-		
PACIFIC	171	16	21	1	12,931	14,868	185	124	27	17	6	9		
Oreg	4	-	-	-	832	949 77 3	30	14	2	ī	2	1		
Calif	160	10	20	1	10,746	12,614	137	98	18	16	4	7		
Hawa	-	4	-	-	214	221	-	-	-	-	-	1		
Guam	-	U	-	-	-	39	U	U	U	U	U			
PR	9	U	1	-	419	405	U	U	U	U.	U	-		
Pac Trust Terr	-	Ŭ	-	-		-	Ŭ	Ŭ	Ŭ	U	U	-		

TABLE III. Cases of specified notifiable diseases, United States, weeks ending February 9, 1985 and February 11, 1984 (6th Week)

N Not notifiable

U. Unavailable

	rebruary 5, 1965 and rebruary 11, 1984 (6th Week)														
Reporting Area	Malaria	Indig	Mea: enous	sles (Rut Impo	eola) rted *	Total	Menin- gococcal Infections	Mu	mps	1	Pertussis			Rubella	-
Reporting Area	Cum. 1985	1985	Cum 1985	1985	Cum. 1985	Cum. 1984	Cum. 1985	1985	Cum. 1985	1985	Cum. 1985	Cum. 1984	1985	Cum 1985	Cum 1984
UNITED STATES	56	2	5	2	22	188	283	61	260	17	103	176	5	21	44
NEW ENGLAND Maine N H	1	-	-	-	-	-	17 1	3	10 1	- -	1	3	-	2	1 1
Vt.	-	-	-	-	-	-	2	-	-		1	1		1	-
Mass. R I	1	-	-	-	· -	-	3	3	8	-	-	-	-	1	-
Conn.	-		-	-	-	-	5	-	1	-	-	1		-	
MID ATLANTIC Upstate N.Y.	8 2	-	-	:	1 1	-	28 10	22 14	53 40	2 1	18 5	7 5	-	5 1	-
N.J.	-	-	-	-		-	1	2	5	1	5	-	-	3	-
Pa.	3	-	-	-	-	-	9	6	8	-	8	2	-	-	
E.N. CENTRAL Ohio	4 1	-	1	-	-	125	59 21	16 5	75 36	:	19 8	37 5	4	4	5
III.	-	-	-	-	-	16	8	-	6	-	10	19	-	-	-
Mich. Wis.	3	-	- 1	-	-	109	21 4	5	18 1	-	1	5 4 4	4	4	3 1 1
W.N. CENTRAL Minn.	1	-	-	-	-	-	18 5	:	6	1	6 1	44 2	-	1	3
Mo.	1	-	-	-	-	-	10		1	1	- 2	3	-	-	-
N. Dak.	-	-	-	-	-	-	-	-	-	-	2				1
S. Dak. Nebr	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Kans.	-	-	-	-	-	-	-	-	2	-	:	2 36	:	1	2
S. ATLANTIC	8	-	1	1	2	-	52	4	21	5	16	24		1	3
Del. Md	- 1	-	-	īt		-	1		-	-	-	-	-	-	
D.C.	i	-	-	-	1	-	2			-	1	1	-	-	-
Va.	2	-	-	-	-	-	7	1	6	-	-	4		-	-
N.C.	1	-	-	-	-	-	3		6	-	:	2	-	-	-
S.C.	-	-	-	-	-	-	5		1	-	4	1	-	1	-
Ga. Fla.	2	-	1	-	-	-	8 10	- 1	2 4	2 3	3 8	36	-	-	1
E.S. CENTRAL	2	-			-	2	16		1	1	3	2			-
Ky.	-	-	-	-	-	-	2	-	-	i	ĭ	ī	-	i	-
Ala.	- 2	-	-	-	-	2	8	-	1	-	1	1	-	-	-
Miss.	-	-	-	-	-	-	1	-	-	-	-		-	-	-
W.S. CENTRAL	3		-	-	-	28	20	3	19	2	9	14	-	1	4
Ark. Ia	-	-	-	-	-	-		-	1	-	5	8	-	1	i
Okla.	-	-	-	-	-		3	Ň	N	2	4	2	-	-	-
Tex.	3	-	-	-	-	28	16	3	18	-	-	4	-	-	3
MOUNTAIN	-	-	-	-	8	19	18	2	27	1	4	29	-	-	3
Idaho	-	-	-	-			2		2		-	14	-	-	÷
Wyo.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
COIO. N. Mex	-	-	-	-	-	1	4	1	5	1	2	11	-	-	-
Ariz.	-	-	-		-	-	3	-	16	-	1	2	-		-
Utah Nev.	-		-		:	18	4	-	-	-	-	1	-	-	2
PACIFIC	20	2	-							-	-		-	-	-
Wash.	29	-	3	-		14	55	11	48	5	27	16	1	6	25
Oreg.	1	-	-		. :		5	N	Ň	-	4	4	-	-	-
Calit. Alaska	22	1	2	1'	10	10	43	9	39	4	19	6	1	6	24
Hawaii	1	1	1	-	i	2	-	2	6	:	2		-	-	1
Guam	-	υ		U	-	14	-	u	-	ш	-		п		•
P.R.	-	Ũ	15	Ū	-	-	8	ŭ	11	ŭ	1	-	Ŭ	2	1
v.i. Pac. Trust Terr	-	U	2	U 11	-	-	-	U.	1	U.	-	-	U	-	-
	_		-			-	-	U	-	U.	-	•	U	•	-

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending February 0, 1095 and February 44, 4004 (out)44 -1-1

For measles only, imported cases includes both out-of-state and international importations. [†]International

	Syphilis	(Civilian)	Toxic	The		Tula-	Typhoid	Typhus Fever	Rabies
Reporting Area	(Primary &	Secondary)	Snock Syndrome	luber		remia	Fever	(Tick-borne) (RMSF)	Animal
	1985	1984	1985	Cum 1985	Cum 1984	Cum. 1985	Cum. 1985	Cum. 1985	Cum. 1985
UNITED STATES	2,758	3,262	7	1,780	1,977	13	20	4+2	- 339
NEW ENGLAND	54	79	1	62	59	-	2	-	-
Maine	2	1	-	2	4	-	-	-	-
Vt	-	-	-	-	5	-	-	-	-
Mass	26	48	1	40	24	-	1		-
RI	20	40		40	10	-			-
Conn	25	26	-	14	16	-	1	-	-
MID ATLANTIC	376	414	1	418	388	-	5	-	63
Upstate N Y	16	37	-	44	58	-	3	-	10
N Y City	238	240	-	203	153	-	-	-	-
N J Pa	71	85	1	56	84	-	1	-	
	51	52	-	115	93	-	1	-	53
EN CENTRAL	144	182	1	222	251	-	1	1	5
Ind	12	31	-	40	64	-	-	1	1
III III III III III III III III III II	10	29	-	26	26	-	1	-	
Mich	32	29	1	102	95 53	-	-	-	
Wis	7	12	-	11	13	-	-	-	3
W N CENTRAL	30	57	1	36	51	4	2		64
Minn	14	12	i	6	8	-	2	-	7
lowa	-	4	-	12	9	-	-	-	18
Mo	9	33	-	11	20	3	-	-	5
		-	-	-	2	-	-	-	5
Nebr	1	- 2	-	2	1		-	-	25
Kans	5	5	-	3	5	-	-	-	4
S ATLANTIC	717	991		338	443	3	4	1	38
Del	4	-	-	3	6	-	-	-	-
Md	60	52	-	43	62	-	1	2	-
	35	31	-	18	9	-		-	-
Va W Va	38	55	-	11	31	-	1	-	12
NC	77	93	-	27	69		-	1	-
SČ	94	93	-	45	64	-		-	2
Ga	-	175	-	45	54	-	-	-	12
Fla	409	487	-	133	131	-	2	-	12
S CENTRAL	261	224	-	153	177	1	-	2 + 2	- 19
(y	9	10	-	31	40	-	-		2
Δla	109	52	-	40	57	1	-		16
Viss	82	86	-	16	11		-	1	-
									~
Ark CENTRAL	632	/51	1	151	147	1	-	-	61
_a	130	178	-	41	26	-	-	-	3
Okla	26	22	1	17	12	1	_	-	7
ſex	439	526	-	86	103	-	-	-	44
MOUNTAIN	103	70	1	25	31	3	-	-	42
Nont	-	-	-	2	1	-	-	-	15
dano	2	3	-	-	1	-	-	-	-
Colo	25	10	-	1	-	-	-	-	-
N Mex	7		_	4	9	1	-	-	1
Ariz	61	27	1	15	17	-	-	-	24
Jtah	1	3	-	-	2	2	-	-	-
Nev	4	18	-	3	1	-	-	-	-
ACIFIC	441	494	1	375	430	1	6	-	47
rvasn Dreg	10	21	1	.7	19	:	-	-	-
Calif	414	447	-	321	357	1	-	-	47
Alaska			-	18	8	-		-	
lawaii	8	13	-	17	29	-	-	-	-
Suam	-	-	U	-	-	-	-	-	-
R	105	126	U	16	27	-	1	-	1
A Trust Torr	-	2	U	-	-	-	-	-	-
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TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending February 9, 1985 and February 11, 1984 (6th Week)

U Unavailable

TABLE IV. Death in 121 U.S. cities,* week ending

February 9, 1985 (6th Week)

		All Caus	es, By A	ge (Year:	s)				All Causes, By Age (Years)						
Reporting Area	All Ages	≥65	45-64	25-44	1-24	<1	P&I** Total	Reporting Area	All Ages	≥65	45-64	25-44	1-24	<1	P&I** Total
NEW ENGLAND	818	583	170	31	16	18	99	S. ATLANTIC	1,215	801	234	85	41	49	54
Boston, Mass	223	142	54	12	7	8	20	Atlanta, Ga.	132	74	33	13	4	8	2
Bridgeport, Conn.	41	23	12	4	2	-	6	Baltimore, Md.	221	132	52	18	10	9	5
Fall River Mass	33	27	3	1	-	-	2	lacksonville Fla	115	45	19	2	4	3	10
Hartford, Conn.	41	28	11	i	-	1	5	Miami, Fla.	153	92	34	16	8	3	4
Lowell, Mass.	39	29	8	-	1	1	3	Norfolk, Va.	43	22	12	4	3	2	4
Lynn, Mass.	18	15	3	-	-	-	2	Richmond, Va.	91	61	13	8	-	9	3
New Bedford, Mass	\$ 25	23	2	:	-	-	2	Savannah, Ga.	25	18	3	1	1	2	1
Providence B1	107	29	22	4	2	1	16	St. Petersburg, Fla	146	121	18	4	2	1	9
Somerville, Mass	10	6	23	i	2	4	10	Washington D.C.	δ 90	45	13	8	-	3	5
Springfield, Mass.	66	51	10	3	-	2	4	Wilmington, Del.	s 50 51	37	10	3	i	-	4
Waterbury, Conn.	36	26	10	-	-	-	6	•	-			-			
Worcester, Mass.	105	83	15	4	2	1	23	E.S. CENTRAL	980	648	222	61	24	24	69
	2 707	1 05 1	662	104	50		101	Birmingham, Ala.	107	72	25	7	1	2	3
Albany NY	64	42	14	3	29	50	181	Knoxville Tenn	n. 79 114	5/	15	12	2	4	5
Allentown, Pa.	13	12	1	-	-	-		Louisville, Kv.	88	67	17	2		2	8
Buffalo, N.Y.	135	98	24	8	2	3	21	Memphis, Tenn	350	220	85	26	14	4	31
Camden, N.J.	45	34	7	2	1	1	1	Mobile, Ala	79	50	20	6	2	1	4
Elizabeth, N.J.	33	23	.8	2	-	-	3	Montgomery, Ala	36	21	11	1	1	2	4
Life, Fa.T	67	30	10	4	2	-	2	Nashville, Lenn	127	90	24	6	3	4	9
N.Y. City, N.Y.	1.559	1.067	310	123	33	26	106	W.S. CENTRAL	1 2 3 1	771	289	90	32	10	84
Newark, N.J.	75	43	15	13	2	2	6	Austin, Tex.	74	51	12	6	3	- 2	11
Paterson, N.J.	45	39	4	2	-	-	6	Baton Rouge, La	33	20	10	-	-	3	1
Philadelphia, Pa.†	122	74	29	7	2	10	7	Corpus Christi, Te	× 43	24	9	5	2	3	-
Pittsburgh, Pa.t Reading, Pa	35	37	22	2	1	1	2	Dallas, Tex	186	112	42	18	6	8	13
Rochester N Y	130	95	28	5	3	1	2	El aso, lex	105	49	16	2	3	-	6
Schenectady, N.Y.	24	20	- 3	1		-	1	Houston, Tex	160	74	44	20	8	14	9
Scranton, Pa.†	29	19	10	-	-	-	1	Little Rock, Ark	74	43	20	2	4	5	7
Syracuse, N.Y.	97	71	21	1	2	2	2	New Orleans, La	137	90	35	7	2	3	2
Irenton, N.J.	59	38	16	4	-	1	1	San Antonio, Tex	200	143	39	11	2	5	21
Yonkers, N.Y.	44	36	2 5	3	-	-	6	Tulsa, Okla	51 93	35 61	8 24	7	1	1	3
E.N. CENTRAL	2.451	1 761	399	141	62	87	123	MOUNTAIN	716	470	160	46	10	20	
Akron, Ohio	66	46	11	5	3	í	4	Albuquerque, N.M.	ex 124	79	24	12	2	29	- 55
Canton, Ohio	52	34	15	3	-	-	4	Colo Springs, Col	0 37	29	2	4	2	-	ĕ
Chicago, III §	555	460	11	28	16	39	17	Denver, Colo	126	81	24	10	4	7	8
Cincinnati, Unio	119	84	25	3	2	5	15	Las Vegas, Nev	86	47	27	5	1	6	7
Columbus Obio	130	132	43	13	4	4	6	Phoenix Ariz	30	21	7	1	1	÷	5
Davton, Ohio	168	113	42	4	5	5	2	Pueblo Colo	139	88	35		5	4	6
Detroit, Mich	297	177	67	31	10	12	9	Salt Lake City, Uta	h 46	24	13	4	2	2	2
Evansville, Ind	58	41	11	4	-	2	1	Tucson, Ariz	99	77	17	2	ĩ	2	8
Fort Wayne, Ind. §	60	57	-	1	1	1	2	DA OUTIO							
Gary, Ind. Grand Banide, Miel	19	13	4	1	1	-	-	PACIFIC Baskalaw Calif	2,275	1,733	312	118	47	62	193
Indianapolis Ind	185	118	42	- 0	<u>.</u>	-	4	Fresno Calif	23	1/	3	3	-	-	1
Madison, Wis.	36	24	8	š	1	<u>'</u>	7	Glendale, Calif. §	31	31	25		!	0	19
Milwaukee, Wis.	146	110	24	9	2	1	9	Honolulu, Hawaii	72	55	13	3	-	1	8
Peoria, III.	38	23	10	4	-	1	1	Long Beach, Calif.	133	97	22	5	5	4	10
Rockford, III.	52	41	6	3	1	1	12	Los Angeles, Calif.	§ 558	515	7	5	16	12	21
Toledo, Obio	97	43	12	3	1	2	5	Pasadena Calif	94	62	22	8	2	-	8
Youngstown, Ohio	64	50	12	2	-	-	4	Portland, Oreg	131	34 95	25	5	3	3	2
	040	cao	100	~	~~			Sacramento, Calif.	169	125	28	6	3	7	20
Des Moines Iowa	048 56	629	138	34	22	25	52	San Diego, Calif.	194	136	37	10	5	6	33
Duluth, Minn.	54	36	8	1	3	6	3	San Jose, Calif	215	160	33 40	12	23	7	35
Kansas City, Kans.	46	28	11	-	5	2	-	Seattle, Wash	147	99	28	15	4	í	33
Kansas City, Mo.	125	83	31	5	1	5	8	Spokane, Wash	45	31	9	ĩ	-	4	5
Lincoln, Nebr	40	35	5		:		2	Tacoma, Wash	96	72	14	8	-	2	6
Minneapolis, Minn	110	72	20	10	6	2	5	TOTAL	10t	1	0.400	000	<u></u>	000	
St Louis Mo	184	80	20	D R	3	3	13	IUIAL	13,241	9,247	∠,4 69	800	321	393	910
St. Paul, Minn.	89	70	15	3	î	<u>'</u>	1								
Wichita, Kans	39	31	6	1	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

the Because of changes in reporting methods in these 4 Pennsylvania cities, these numbers are partial counts for the current week. Com-plete 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.

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Cause of	Years of potential life lost before	Estima Septe	ted mortality ember 1984	Estimated number		
morbidity or mortality (Ninth Revision ICD, 1975)	age 65 by persons dying in 1983* [†]	Number• [§]	Annual Rate/100,000* [§]	of physician contacts September 1984 • ¶		
ALL CAUSES (TOTAL)	9,170,000	161,050	828.5	103,600,000		
Accidents and adverse effects (E800-E949)	2,219,000	8,090	41.6	5,700,000		
Malignant neoplasms (140-208)	1,808,000	37,050	190.6	1,200,000		
Diseases of heart (390-398, 402, 404-429)	1,559,000	58,260	299.7	5,000,000		
Suicides, homicides (E950-E978)	1,218,000	3,890	20.0	_		
Chronic liver disease and cirrhosis (571)	248,000	2,120	10.9	100,000		
Cerebrovascular diseases (430-438)	226,000	11,760	60.5	700,000		
Congenital anomalies (740-759)	134,000	1,280	6.6	400,000		
Chronic obstructive pulmonary diseases and allied conditions				4 000 000		
(490-496) Diabetes mellitus (250)	123,000	5,070	26.1 14.9	2,700,000		
Pneumonia and influenza (480-487)	106,000	3,770	19.4	500,000		
Prenatal care* Infant mortality* ^{††}		3,100	9.8 /1,000	3,100,000 live births		

TABLE V. Years of potential life lost, deaths, and death rates, by cause of death, and estimated number of physician contacts, by principal diagnosis, United States

*For details of calculation, see footnotes for Table V, MMWR 1985;34:2.

[†]Years of potential life lost for persons between 1 year and 65 years old at the time of death are derived from the number of deaths in each age category as reported by the National Center for Health Statistics, *Monthly Vital Statistics Report* (MVSR), Vol. 32, No. 13, September 21, 1984.

Stational Center for Health Statistics, Monthly Vital Statistics Report (MVSR), Vol. 33, No. 10, January 29, 1985, pp. 8-9.

⁴ IMS America National Disease and Therapeutic Index (NDTI), Monthly Report, September 1984, Section III.

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Dental Caries – Continued

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Current Trends

Tuberculosis – United States, 1984

In 1984, a provisional total of 21,701 tuberculosis cases was reported to CDC, a 9.0% decline from the 1983 final total of 23,846 cases. Similarly, in 1984 the provisional incidence rate was 9.2 cases per 100,000 population, a decline of 9.8% from the 1983 final rate of 10.2/10,000 (Figure 4).

Final mortality data recently released by the National Center for Health Statistics indicate that, in 1982, there were 1,807 tuberculosis deaths, a decline of 6.7% from the 1,937 deaths reported in 1981.

Reported by Div of Tuberculosis Control, Center for Prevention Svcs, CDC.

Editorial Note: From 1975 through 1978, the average annual decrease in the tuberculosis incidence rate was 6.3% (Figure 4). From 1978 through 1981, when there was a large influx of Southeast Asian refugees, the average annual decline was only 3.2%. A 7.6% decrease in 1982, a 7.3% decrease in 1983, and the provisional 9.8% decrease in 1984 indicate that the previous downward trend has resumed.

Three factors may have contributed to the decreased incidence of tuberculosis: (1) a decline in the number of indigenous tuberculosis cases; (2) a decline in the number of refugees

FIGURE 4. Reported tuberculosis rate - United States, 1975-1984*



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Tuberculosis – Continued

with tuberculosis arriving in the United States (since 1983, Indochinese refugees with tuberculosis have been completing supervised, directly observed chemotherapy in Southeast Asia before coming to the United States); and (3) an increase in the number of states using the new national individual case reporting system, which requires more accurate verification of cases before they are counted.

In 1980, the number of tuberculosis deaths declined by 1.4%, and in 1981, by 2.1%. The decline of 6.7% in 1982 is encouraging.

The decline in the tuberculosis incidence rate indicates continuing progress toward the 1990 national prevention objective of an annual reported incidence of eight cases per 100,000 population (Figure 4) (1). Intensification of tuberculosis control efforts using existing technology and program strategies (2,3) should be able to accelerate this downward trend. If new tools for tuberculosis control, which are more effective, more efficient, and easier to implement, can be developed, tuberculosis elimination in the United States can become a reality.

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Epidemiologic Notes and Reports

Update: Influenza Activity — United States

Influenza activity continued to increase throughout January and into February 1985. For the week ending February 9, 10 states (Alabama, Nebraska, New Hampshire, New Mexico, Oklahoma, Pennsylvania, South Dakota, Texas, Virginia, and Washington) and the District of Columbia reported widespread outbreaks of influenza-like illness, and 14 states reported regional outbreaks. Family physicians who report weekly to CDC noted an average of 11 cases of influenza-like illness for the week ending January 30, compared with the average of 6.6 cases at the beginning of January.

Of total deaths reported from 121 U.S. cities, the proportion associated with pneumonia and influenza (P&I) has increased from about 5% at the beginning of January to 6.9% for the week ending February 9. P&I deaths most recently exceeded 6% in 1980-1981, when many type A(H3N2) virus outbreaks occurred, and P&I deaths peaked at 6.9%.

A total of 491 type A(H3N2) isolates have been reported to CDC through the week ending February 1 from the network of WHO collaborating laboratories in the United States, compared with 44 isolates reported through December 28, 1984. Including recent reports from Indiana, Kansas, and Virginia, influenza type A(H3N2) isolates have been reported from 42 states this season. Type B isolates have been reported infrequently this season, accounting for only five of the 496 isolates reported by the collaborating laboratories.

Reported by E Balkovic, PhD, Veterans Administration Hospital, New Haven, Connecticut; F Hayden, MD, University of Virginia Hospital, Charlottesville; Participating physicians of the American Academy of Family Physicians; State and Territorial Epidemiologists; State Laboratory Directors; Other collaborating

Influenza – Continued

laboratories; Statistical Svcs Br, Div of Surveillance and Epidemiologic Studies, Epidemiology Program Office, Influenza Br, Div of Viral Diseases, Center for Infectious Diseases, CDC.

Editorial Note: The data from the indicators of influenza activity indicate that U.S. influenza outbreaks are now having a significant impact on illness and death. These indicators are statistical indices of actual numbers of cases and cannot be used to reliably extrapolate the numerical incidence of influenza.

Erratum: Vol. 34, No. 4

p. 49. In the article, "Prevalence of Cytomegalovirus Excretion from Children in Day-Care Centers—Alabama," the total mouth swabs for center A in Table 1 should be 14/61 (23%); for center B, the total percent should be 16%.

The Morbidity and Mortality Weekly Report is prepared by the Centers for Disease Control, Atlanta, Georgia, and available on a paid subscription basis from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, (202) 783-3238.

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.

Director, Centers for Disease Control James O. Mason, M.D., Dr.P.H. Director, Epidemiology Program Office Carl W. Tyler, Jr., M.D. Editor Michael B. Gregg, M.D. Assistant Editor Karen L. Foster, M.A.

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