

Fluoridation

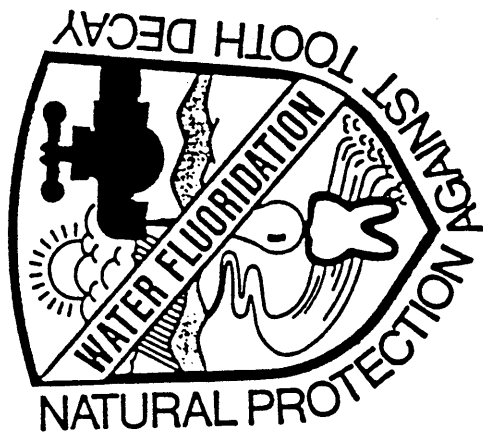
Census

1988 - Summary

CDC

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES/Public Health Service/Centers for Disease Control





FLUORIDATION CENSUS 1988 - SUMMARY

FEBRUARY 1990

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES
Public Health Service
Centers for Disease Control
Center for Prevention Services
Dental Disease Prevention Activity
Atlanta, Georgia 30333

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INTRODUCTION

The adjustment of the fluoride content of community water supplies to an optimal level to prevent tooth decay began on January 25, 1945, in Grand Rapids, Michigan. At the present time, over 124 million citizens in more than 7,800 communities throughout the Nation are receiving the benefits of optimally adjusted fluoridated water. An additional 9 million people in 1,846 communities are using water with naturally occurring fluoride at levels of 0.7 parts per million or higher. Therefore, 43 years after the first water system was fluoridated, more than 53 percent of the Nation's population has access to water with a dentally significant concentration of fluoride.

Adjusted fluoridation is the conscious maintenance of the optimal fluoride concentration in the water supply for preventing dental caries. The optimal concentration may be accomplished by adding fluoride chemicals to fluoride deficient water; by blending two or more sources of water naturally containing fluoride to achieve the optimal concentration; or partial defluoridation, that is, removing naturally occurring excessive fluorides to obtain the recommended level. Water systems are considered to have dentally significant natural fluoridation if they contain 0.7 parts per million (ppm) or more of naturally occurring fluoride. Water systems and communities with optimally adjusted fluoride and naturally occurring fluoride in water are listed in this publication. Adjusted water systems are fluoridated at the optimal level according to the average maximum daily air temperature in the community. (Recommended concentrations, according to National Interim Primary Drinking Water Regulations, 1975, are shown on Table A.) Although the term natural fluoridation has no particular scientific or official connotation, it has been used in this publication for the sake of simplification.

TABLE A

RECOMMENDED OPTIMAL FLUORIDE LEVEL

Annual Average of ; Maximum Daily Air Temperatures ¹ (°F) ;	Recommended Fluoride ; (ppm) ;	Recommended Control Range ; Below ; Above ;	20% ; Low ;	20% ; High ;
40.0 - 53.7 ;	1.2 ;	1.1 - 1.7 ;	4.3 ;	6.5 ;
53.8 - 58.3 ;	1.1 ;	1.0 - 1.6 ;	4.0 ;	6.0 ;
58.4 - 63.8 ;	1.0 ;	0.9 - 1.5 ;	3.6 ;	5.4 ;
63.9 - 70.6 ;	0.9 ;	0.8 - 1.4 ;	3.3 ;	4.9 ;
70.7 - 79.2 ;	0.8 ;	0.7 - 1.3 ;	2.9 ;	4.3 ;
79.3 - 90.5 ;	0.7 ;	0.6 - 1.2 ;	2.6 ;	3.8 ;

¹Based on temperature data obtained for a minimum of five years.
²Based on 4.5 times the optimum fluoride level for communities.

Source: Centers for Disease Control, Center for Prevention Services,
 Dental Disease Prevention Activity.

METHODOLOGY

A computer printout of the fluoridation status for each State as it was collected for the 1985 Fluoridation Census was forwarded to every State health department as a guide to updating information for the Fluoridation Census 1988 Summary. They were requested to update, change, and verify the information presented and to include new fluoridation installations while deleting those that were inappropriate. A request was made to update the population figures to reflect 1988 census estimates. This information was then submitted for the Fluoridation Census 1988. States were asked to report each fluoridated water system and the communities each system served; the status of fluoridation, adjusted, consecutive, or natural; the system from which water was purchased, if consecutive; the population receiving fluoridated water; the date on which fluoridation started; and the chemical used for fluoridation, if adjusted.

The updated information was returned to CDC where a master file was created to incorporate the new format and to reflect changes made in the previous data provided by State health officials. The States were informed that unless they made specific changes in their State's printout, the data on the existing printout would be used in the publication of the Fluoridation Census 1988 Summary. In essence, this publication is a report of the Status of Fluoridation made by the States, and the data herewith reported has been provided by the individual States.

Previous Status Reports were:

Fluoridation Census, 1967, Division of Dental Health, National Institutes of Health, U.S. Department of Health, Education, and Welfare. U.S. Government Printing Office Publication #1968 O-310-023.

Fluoridation Census, 1969, Division of Dental Health, National Institutes of Health, U.S. Department of Health, Education, and Welfare. Natural Fluoride Content of Community Water Supplies, Division of Dental Health, NIH, DHEW. U.S. Government Printing Office Publication #1970 O-380-791.

Fluoridation Census, 1975, Dental Disease Prevention Activity, Bureau of State Services, Center for Disease Control, Public Health Service, U.S. Department of Health, Education, and Welfare. U.S. Government Printing Office Publication # 1977 - 740-116/3782, Region No. 4.

Fluoridation Census, 1980, Dental Disease Prevention Activity, Bureau of State Services, Centers for Disease Control, Public Health Service, U.S. Department of Health and Human Services. U.S. Government Printing Office Publication #1984 - 751-641, Region No. 4.

Fluoridation Census, 1985, Dental Disease Prevention Activity, Bureau of State Services, Centers for Disease Control, Public Health Service, U.S. Department of Health and Human Services. U.S. Government Printing Office Publication # 1988 - 535-439.



SUMMARY OF FLUORIDATION STATISTICS

TABLE 1
POPULATION AND PERCENT SERVED WITH ADJUSTED AND NATURAL FLUORIDATED
WATER BY REGION AND STATE AS OF DECEMBER 31, 1988

	TOTAL POPULATION*	POPULATION SERVED BY PUBLIC WATER SUPPLY**	POPULATION SERVED FLUORIDATED WATER	% PUBLIC WATER SUPPLY POPULATION DRINKING FLUORIDATED WATER	RANK
UNITED STATES	249,008,500	218,924,000	132,422,064	60.5	
REGION I	12,962,000	11,494,000	8,583,688	74.7	
CONNECTICUT	3,233,000	2,727,000	2,365,309	86.7	13
MAINE	1,205,000	819,000	394,440	48.7	38
MASSACHUSETTS	5,889,000	5,865,000	4,734,293	80.7	18
NEW HAMPSHIRE	1,085,000	698,000	147,367	21.1	46
RHODE ISLAND	993,000	963,000	712,551	74.0	21
VERMONT	557,000	422,000	229,728	54.4	34
REGION II	28,918,500	28,476,000	15,336,744	53.9	
NEW JERSEY	7,721,000	7,721,000	1,170,047	15.2	49
NEW YORK	17,909,000	16,723,000	11,645,385	69.6	23
PUERTO RICO+	3,288,500	4,032,000	2,521,312	62.5	30
REGION III	25,794,000	21,563,000	14,709,133	68.2	
DELAWARE	660,000	625,000	440,531	70.5	22
DISTRICT OF COLUMBIA	617,000	617,000	617,000	100.0	1
MARYLAND	4,625,000	3,591,000	3,438,289	95.7	6
PENNSYLVANIA	12,001,000	10,138,000	5,298,856	52.3	35
VIRGINIA	6,015,000	4,913,000	3,763,427	76.6	20
WEST VIRGINIA	1,876,000	1,679,000	1,151,030	68.6	26
REGION IV	43,890,000	36,952,000	24,745,781	67.0	
ALABAMA	4,012,000	3,767,000	2,425,520	64.4	28
FLORIDA	12,335,000	11,638,000	5,400,288	46.4	39
GEORGIA	6,342,000	4,907,000	4,691,511	95.6	7
KENTUCKY	3,727,000	2,967,000	2,469,850	83.2	16
MISSISSIPPI	2,620,000	2,376,000	1,170,212	49.3	36
NORTH CAROLINA	6,489,000	4,540,000	3,045,571	67.1	27
SOUTH CAROLINA	3,470,000	2,761,000	2,423,325	87.8	12
TENNESSEE	4,895,000	3,996,000	3,119,504	78.1	19

*Based on 1988 Bureau of Census estimates

**Federal Reporting Data System PWS service populations exceeded the Bureau of Census estimates for DC, HI, NV, NJ, UT, and TX.

+ Data for these States based on PWS service populations

TABLE 1 (CONTINUED)
 POPULATION AND PERCENT SERVED WITH ADJUSTED AND NATURAL FLUORIDATED
 WATER BY REGION AND STATE AS OF DECEMBER 31, 1988

	TOTAL POPULATION*	POPULATION SERVED BY PUBLIC WATER SUPPLY*	POPULATION SERVED FLUORIDATED WATER	% PUBLIC WATER SUPPLY POPULATION DRINKING FLUORIDATED WATER	RANK
UNITED STATES	249,008,500	218,924,000	132,422,064	60.5	
REGION V	46,427,000	37,303,000	34,188,107	91.6	
ILLINOIS	11,614,000	10,504,000	10,504,000	100.0	1
INDIANA	5,556,000	3,761,000	3,642,857	96.9	3
MICHIGAN	9,240,000	6,835,000	6,213,483	90.9	9
MINNESOTA	4,307,000	3,686,000	2,998,922	81.4	17
OHIO	10,855,000	9,215,000	7,901,092	85.7	14
WISCONSIN	4,855,000	2,302,000	2,927,753	88.7	10
REGION VI	28,393,000	26,862,000	15,549,806	57.9	
ARKANSAS	2,395,000	2,003,000	1,191,817	59.5	31
LOUISIANA+	4,408,000	4,061,000	1,978,703	48.7	37
NEW MEXICO	1,507,000	1,244,000	788,087	63.4	29
OKLAHOMA	3,242,000	2,713,000	1,576,681	58.1	33
TEXAS	16,841,000	16,841,000	10,014,518	59.5	31
REGION VII	12,072,000	10,362,000	6,823,720	65.9	
IOWA	2,834,000	2,311,000	1,976,631	85.5	15
KANSAS	2,495,000	2,472,000	991,123	40.1	41
MISSOURI	5,141,000	4,473,000	3,097,162	69.2	24
NEBRASKA	1,602,000	1,106,000	758,804	68.6	25

*Based on 1988 Bureau of Census estimates

**Federal Reporting Data System PWS service populations exceeded the Bureau of Census estimates for DC, HI, NV, NJ, UT, and TX.

+ Data for these States based on Fluoridation Census 1985 data.

TABLE 1 (CONTINUED)
 POPULATION AND PERCENT SERVED WITH ADJUSTED AND NATURAL FLUORIDATED
 WATER BY REGION AND STATE AS OF DECEMBER 31, 1988

	TOTAL POPULATION*	POPULATION SERVED BY PUBLIC WATER SUPPLY**	POPULATION SERVED FLUORIDATED WATER	% PUBLIC WATER SUPPLY POPULATION DRINKING FLUORIDATED WATER	RANK
UNITED STATES	249,008,500	218,924,000	132,422,064	60.5	
REGION VIII	7,655,000	6,997,000	4,359,137	62.3	
COLORADO	3,301,000	3,270,000	3,009,423	92.0	8
MONTANA+	805,000	579,000	164,090	28.3	44
NORTH DAKOTA	667,000	513,000	496,045	96.7	4
SOUTH DAKOTA	713,000	552,000	532,532	96.5	5
UTAH	1,690,000	1,690,000	30,730	1.8	52
WYOMING	479,000	393,000	126,317	32.1	43
REGION IX	33,955,000	31,679,000	4,920,605	15.5	
ARIZONA	3,489,000	3,093,000	613,646	19.8	47
CALIFORNIA+	28,314,000	26,643,000	4,140,978	15.7	48
HAWAII	1,098,000	1,098,000	142,570	13.0	50
NEVADA	1,054,000	1,054,000	23,411	2.2	51
REGION X	8,942,000	7,042,000	2,620,895	37.2	
ALASKA	524,000	361,000	318,591	88.3	11
IDAHO+	1,003,000	709,000	234,207	33.0	42
OREGON	2,767,000	2,125,000	505,995	23.8	45
WASHINGTON	4,648,000	3,847,000	1,562,102	40.6	40

*Based on 1988 Bureau of Census estimates

**Federal Reporting Data System PMS service populations exceeded the Bureau of Census estimates for DC, HI, NV, NJ, UT, and TX.

+ Data for these States based on Fluoridation Census 1985 data.

TABLE II
 NUMBER OF PUBLIC WATER SYSTEMS, COMMUNITIES, AND POPULATIONS USING
 ADJUSTED AND NATURAL FLUORIDATION BY REGION AS OF DECEMBER 31, 1988

	ADJUSTED		POPULATION	NATURAL		
	SYSTEMS*	COMMUNITIES		SYSTEMS*	COMMUNITIES	
UNITED STATES	8874	7867	124,153,775	3389	1847	8,812,234
REGION I	247	337	8,571,461	71	3	12,227
CONNECTICUT	37	88	2,364,279	4	1	1,030
MAINE	61	89	394,440	0	0	0
MASSACHUSETTS	68	100	4,733,896	3	0	397
NEW HAMPSHIRE	11	9	136,567	64	2	10,800
RHODE ISLAND	13	21	712,551	0	0	0
VERMONT	57	30	229,728	0	0	0
REGION II	685	676	15,221,683	17	22	115,061
NEW JERSEY	28	66	1,056,302	15	20	113,745
NEW YORK	618	568	11,644,069	2	2	1316
PUERTO RICO	39	42	2,521,312	0	0	0
REGION III	499	898	14,709,008	267	87	267,125
DELAWARE	9	11	433,800	5	3	6,731
DISTRICT OF COLUMBIA	1	1	884,000	0	0	0
MARYLAND	100	97	3,389,676	54	34	48,613
PENNSYLVANIA	140	494	5,298,856	0	0	0
VIRGINIA	121	158	3,551,646	208	50	211,781
WEST VIRGINIA	128	137	1,151,030	0	0	0
REGION IV	1,693	1,284	23,384,815	253	86	1,382,315
ALABAMA	233	165	2,374,083	25	18	51,437
FLORIDA	76	111	4,581,277	23	26	819,001
GEORGIA	284	252	4,675,471	5	4	16,040
KENTUCKY	316	225	2,491,199	0	0	0
MISSISSIPPI	193	113	1,092,121	35	11	77,091
NORTH CAROLINA	232	141	2,937,490	31	25	108,081
SOUTH CAROLINA	170	42	2,112,670	134	2	310,655
TENNESSEE	189	235	3,119,504	0	0	0

*Note: System refers to fluoridating systems plus consecutive systems.

TABLE II (CONTINUED)
 NUMBER OF PUBLIC WATER SYSTEMS, COMMUNITIES, AND POPULATIONS USING
 ADJUSTED AND NATURAL FLUORIDATION BY REGION AS OF DECEMBER 31, 1988

	ADJUSTED		POPULATION	NATURAL		
	SYSTEMS*	COMMUNITIES		SYSTEMS*	COMMUNITIES	
UNITED STATES	8874	7867	124,153,775	3389	1847	8,812,234
REGION V	3,452	2,789	33,247,240	881	532	1,516,815
ILLINOIS	1,341	976	10,350,632	210	148	729,316
INDIANA	419	298	3,396,417	92	78	246,440
MICHIGAN	351	240	6,090,702	94	52	122,781
MINNESOTA	653	641	2,994,810	14	12	4,112
OHIO	368	371	7,663,469	319	118	237,623
WISCONSIN	320	263	2,751,210	152	124	176,543
REGION VI	673	473	12,400,534	783	402	3,150,772
ARKANSAS	168	113	1,180,462	13	7	12,855
LOUISIANA	51	73	1,744,824	95	33	233,879
NEW MEXICO	50	18	542,474	86	41	245,613
OKLAHOMA	158	93	1,467,529	55	36	109,152
TEXAS	246	176	7,465,245	534	285	2,549,273
REGION VII	654	693	6,177,997	399	331	645,723
IOWA	295	303	1,670,339	216	174	306,292
KANSAS	108	128	836,690	84	77	154,433
MISSOURI	203	208	2,932,091	84	65	165,071
NEBRASKA	48	54	738,877	15	15	19,927

*Note: System refers to fluoridating systems plus consecutive systems.

TABLE II (CONTINUED)
 NUMBER OF PUBLIC WATER SYSTEMS, COMMUNITIES, AND POPULATIONS USING
 ADJUSTED AND NATURAL FLUORIDATION BY REGION AS OF DECEMBER 31, 1988

	ADJUSTED		POPULATION	NATURAL		
	SYSTEMS*	COMMUNITIES		SYSTEMS*	COMMUNITIES	
UNITED STATES	8874	7867	124,153,775	3389	1847	8,812,234
REGION VIII	519	409	3,617,696	522	270	1,004,037
COLORADO	141	55	2,462,844	288	105	809,175
MONTANA	25	9	60,375	64	28	103,715
NORTH DAKOTA	121	132	470,650	75	61	25,395
SOUTH DAKOTA	215	201	494,508	65	57	38,024
UTAH	9	3	24,490	18	8	6,240
WYOMING	8	9	104,829	12	11	21,488
REGION IX	141	94	4,489,360	121	48	431,245
ARIZONA	66	6	203,983	104	44	409,663
CALIFORNIA	55	82	4,140,878	1	0	100
HAWAII	10	3	142,570	0	0	0
NEVADA	10	3	1,929	16	4	21,482
REGION X	311	214	2,333,981	75	66	286,914
ALASKA	190	135	318,591	0	0	0
IDAHO	8	4	48,842	40	34	185,365
OREGON	32	27	464,295	20	20	41,700
WASHINGTON	81	48	1,502,253	15	12	59,849

*Note: System refers to fluoridating systems plus consecutive systems.

TABLE III
 SCHOOL POPULATION AND NUMBER OF SCHOOLS USING ADJUSTED
 AND NATURAL FLUORIDATION BY REGION AND STATE AS OF DECEMBER 31, 1988

	ADJUSTED*		NATURAL*	
	POPULATION	NUMBER OF SCHOOLS	POPULATION	NUMBER OF SCHOOLS
UNITED STATES	121,223	360	8,824	12
REGION I	5,324	20	0	0
VERMONT	5,324	20	0	0
REGION III	3,020	5	0	0
VIRGINIA	3,020	5	0	0
REGION IV	68,453	203	0	0
KENTUCKY	29,989	99	0	0
NORTH CAROLINA	38,014	103	0	0
SOUTH CAROLINA	450	1	0	0
REGION V	42,362	124	6,719	2
INDIANA	35,101	81	0	0
WISCONSIN	7,261	43	6,719	2
REGION VI	1,410	2	1,045	6
NEW MEXICO	1,410	2	1,045	6
REGION VII	0	0	400	1
MISSOURI	0	0	400	1
REGION IX	170	1	660	3
ARIZONA	170	1	660	3
REGION X	484	5	0	0
ALASKA	484	5	0	0

*Schools are fluoridated at 4.5 times the recommended optimal levels for communities.
 Note: schools include all American Indian and Alaskan Native Reservation Schools

TABLE IV
 POPULATION, NUMBER OF AMERICAN INDIAN AND ALASKAN NATIVE
 RESERVATIONS USING ADJUSTED AND NATURAL FLUORIDATION, BY REGION AND STATE AS OF
 DECEMBER 31, 1988

	ADJUSTED		NATURAL	
	POPULATION	NUMBER OF SYSTEMS	POPULATION	NUMBER OF SYSTEMS
UNITED STATES	192,504	332	16,517	55
REGION I	1,225	1	0	0
MAINE	1,225	1	0	0
REGION IV	4,139	8	0	1
MISSISSIPPI	2,378	3	0	0
NORTH CAROLINA	1,761	5	0	1
REGION V	8,137	11	0	0
WISCONSIN	8,137	11	0	0
REGION VI	29,035	26	8,978	30
NEW MEXICO	28,495	24	8,978	30
OKLAHOMA	540	2	0	0
REGION VII	2,800	2	0	0
NEBRASKA	2,800	2	0	0
REGION VIII	36,203	69	762	5
MONTANA	8,955	15	362	3
NORTH DAKOTA	12,188	13	0	0
SOUTH DAKOTA	12,998	35	0	0
UTAH	989	5	400	2
WYOMING	1,073	1	0	0
REGION IX	58,962	74	6,777	19
ARIZONA	56,813	63	6,070	15
CALIFORNIA	245	2	100	1
NEVADA	1,904	9	607	3
REGION X	52,003	141	0	0
ALASKA	50,428	140	0	0
OREGON	1,575	1	0	0

TABLE IV (CONTINUED)
 POPULATION, NUMBER OF AMERICAN INDIAN AND ALASKAN NATIVE
 RESERVATIONS USING ADJUSTED AND NATURAL FLUORIDATION, BY REGION AND STATE AS OF
 DECEMBER 31, 1988
 SCHOOLS*

	ADJUSTED		NATURAL	
	POPULATION	NUMBER OF SYSTEMS	POPULATION	NUMBER OF SCHOOLS
UNITED STATES	2,064	8	8,824	12
REGION V	0	0	6,719	2
WISCONSIN	0	0	6,719	2
REGION VI	1,410	2	1,045	6
NEW MEXICO	1,410	2	1,045	6
REGION VII	0	0	400	1
MISSOURI	0	0	400	1
REGION IX	170	1	660	3
ARIZONA	170	1	660	3
REGION X	484	5	0	0
ALASKA	484	5	0	0

*Schools are fluoridated at 4.5 times the recommended optimal levels for communities.

TABLE V
 RESIDENT POPULATION, NUMBER OF MILITARY INSTALLATIONS USING
 ADJUSTED AND NATURAL FLUORIDATION, BY REGION AND STATE, AS OF DECEMBER 31, 1988

	ADJUSTED		NATURAL	
	RESIDENT POPULATION	INSTALLATIONS	RESIDENT POPULATION	INSTALLATIONS
UNITED STATES	1,803,543	129	53,284	20
REGION I	23,325	8	0	0
MAINE	10,300	4	0	0
MASSACHUSETTS	13,000	3	0	0
NEW HAMPSHIRE	25	1	0	0
REGION II	45,552	6	0	0
NEW JERSEY	35,952	3	0	0
NEW YORK	9,600	3	0	0
REGION III	522,617	12	2,027	2
DELAWARE	8,900	2	0	0
MARYLAND	52,003	7	2,027	2
VIRGINIA	461,714	3	0	0
REGION IV	543,309	39	10,790	4
ALABAMA	11,133	2	0	0
FLORIDA	122,127	14	2144	2
GEORGIA	86,200	6	0	0
KENTUCKY	50,000	1	0	0
MISSISSIPPI	32,497	3	0	0
NORTH CAROLINA	135,640	4	5,470	1
SOUTH CAROLINA	44,593	6	3,176	1
TENNESSEE	61,119	3	0	0
REGION V	118,895	9	1,525	2
ILLINOIS	97,695	5	25	1
INDIANA	1,500	1	0	0
MICHIGAN	19,700	3	0	0
OHIO	0	0	1,500	1

Changes do not reflect systems discontinuing fluoridation, rather the closing and consolidating of military bases.

TABLE V (CONTINUED)
 RESIDENT POPULATION, NUMBER OF MILITARY INSTALLATIONS USING
 ADJUSTED AND NATURAL FLUORIDATION, BY REGION AND STATE, AS OF DECEMBER 31, 1988

	ADJUSTED		NATURAL	
	RESIDENT POPULATION	INSTALLATIONS	RESIDENT POPULATION	INSTALLATIONS
UNITED STATES	1,803,543	129	53,284	20
REGION VI	181,969	22	6,630	3
ARKANSAS	14,170	2	0	0
LOUISIANA	22,100	3	1,700	1
OKLAHOMA	16,224	5	0	0
TEXAS	129,475	12	4,930	2
REGION VII	48,087	5	4,000	1
KANSAS	16,800	3	0	0
MISSOURI	22,500	1	4,000	1
NEBRASKA	8,787	1	0	0
REGION VIII	77,967	5	7,602	2
MONTANA	3,000	1	7,602	2
NORTH DAKOTA	65,686	2	0	0
SOUTH DAKOTA	5,000	1	0	0
UTAH	4,281	1	0	0
REGION IX	142,570	10	20,710	6
ARIZONA	0	0	19,200	5
HAWAII	142,570	10	0	0
NEVADA	0	0	1,510	1
REGION X	99,252	13	0	0
ALASKA	35,543	9	0	0
IDAHO	6,000	1	0	0
WASHINGTON	57,709	3	0	0

Changes do not reflect systems discontinuing fluoridation, rather the closing and consolidating of military bases.

TABLE VI

NUMBER OF PUBLIC WATER SUPPLY SYSTEMS AND POPULATION SERVED BY EACH
OF THE MAJOR CHEMICALS BY REGION AS OF DECEMBER 31, 1988

	HYDROFLUOSILICIC ACID		SODIUM SILICOFLUORIDE		SODIUM FLUORIDE	
	POPULATION	#SYSTEMS	POPULATION	#SYSTEMS	POPULATION	#SYSTEMS
UNITED STATES	69,090,692	4,653	33,679,408	1,329	10,500,735	2,121
REGION I	6,079,391	99	1,577,332	25	867,413	117
CONNECTICUT	1,665,539	23	559,500	5	136,740	8
MAINE	217,724	33	72,500	2	81,940	24
MASSACHUSETTS	3,908,786	22	270,980	5	532,881	40
NEW HAMPSHIRE	87,242	4	0	0	48,025	5
RHODE ISLAND	88,199	1	624,352	12	0	0
VERMONT	111,901	16	50,000	1	67,827	40
REGION II	4,277,502	537	7,997,836	64	2,755,872	79
NEW JERSEY	645,005	18	317,600	3	80,697	6
NEW YORK	3,632,497	519	7,680,236	61	153,863	34
PUERTO RICO	0	0	0	0	2,521,312	39
REGION III	10,729,843	224	1,013,871	86	1,511,103	167
DELAWARE	0	0	140,000	1	46,000	5
DISTRICT OF COLUMBIA	884,000	1	0	0	0	0
MARYLAND	3,217,143	71	130,353	7	38,950	13
PENNSYLVANIA	4,370,025	81	513,269	28	245,742	23
VIRGINIA	1,751,329	48	898,017	34	886,959	37
WEST VIRGINIA	507,346	23	350,232	16	293,452	89
REGION IV	11,078,253	553	6,995,109	281	2,244,777	500
ALABAMA	2,318,679	223	53,547	8	0	0
FLORIDA	1,878,883	45	2,435,033	10	9,834	3
GEORGIA	2,746,515	118	911,189	43	947,767	122
KENTUCKY	0	0	0	0	0	0
MISSISSIPPI	20,665	7	371,140	10	700,938	175
NORTH CAROLINA	1,717,969	72	717,759	10	256,347	130
SOUTH CAROLINA	972,802	58	932,729	86	206,839	25
TENNESSEE	1,422,740	30	1,573,712	114	123,052	45

Note: Chemical used was not indicated for all systems, so these data are not consistent with other summary tables.

TABLE VI (CONTINUED)
 NUMBER OF PUBLIC WATER SUPPLY SYSTEMS AND POPULATION SERVED BY EACH
 OF THE MAJOR CHEMICALS BY REGION AS OF DECEMBER 31, 1988

	HYDROFLUOSILICIC ACID		SODIUM SILICOFLUORIDE		SODIUM FLUORIDE	
	POPULATION	#SYSTEMS	POPULATION	#SYSTEMS	POPULATION	#SYSTEMS
UNITED STATES	69,090,692	4,653	33,679,408	1,329	10,500,735	2,121
REGION V	22,751,431	2,318	6,132,544	264	1,285,997	641
ILLINOIS	9,298,252	997	629,024	84	423,356	260
INDIANA	1,429,411	106	1,278,595	43	686,890	268
MICHIGAN	2,466,819	113	523,671	10	27,285	6
MINNESOTA	2,680,550	602	253,599	19	58,275	28
OHIO	4,732,863	260	2,876,911	82	53,695	26
WISCONSIN	2,143,536	240	570,744	26	36,496	53
REGION VI	7,905,778	318	3,838,728	252	642,748	102
ARKANSAS	679,598	71	493,350	91	7,514	6
LOUISIANA	1,747,024	52	0	0	0	0
NEW MEXICO	397,000	3	4,500	1	138,724	45
OKLAHOMA	178,503	29	1,071,569	108	217,457	21
TEXAS	4,903,653	163	2,269,309	52	278,783	30
REGION VII	4,724,721	380	1,325,930	146	314,641	123
IOWA	1,281,814	264	370,044	22	18,481	9
KANSAS	380,390	31	624,961	72	30,273	4
MISSOURI	2,371,099	47	299,184	48	261,808	108
NEBRASKA	691,418	38	31,741	4	4,079	2

Note: Chemical used was not indicated for all systems, so these data are not consistent with other summary tables.

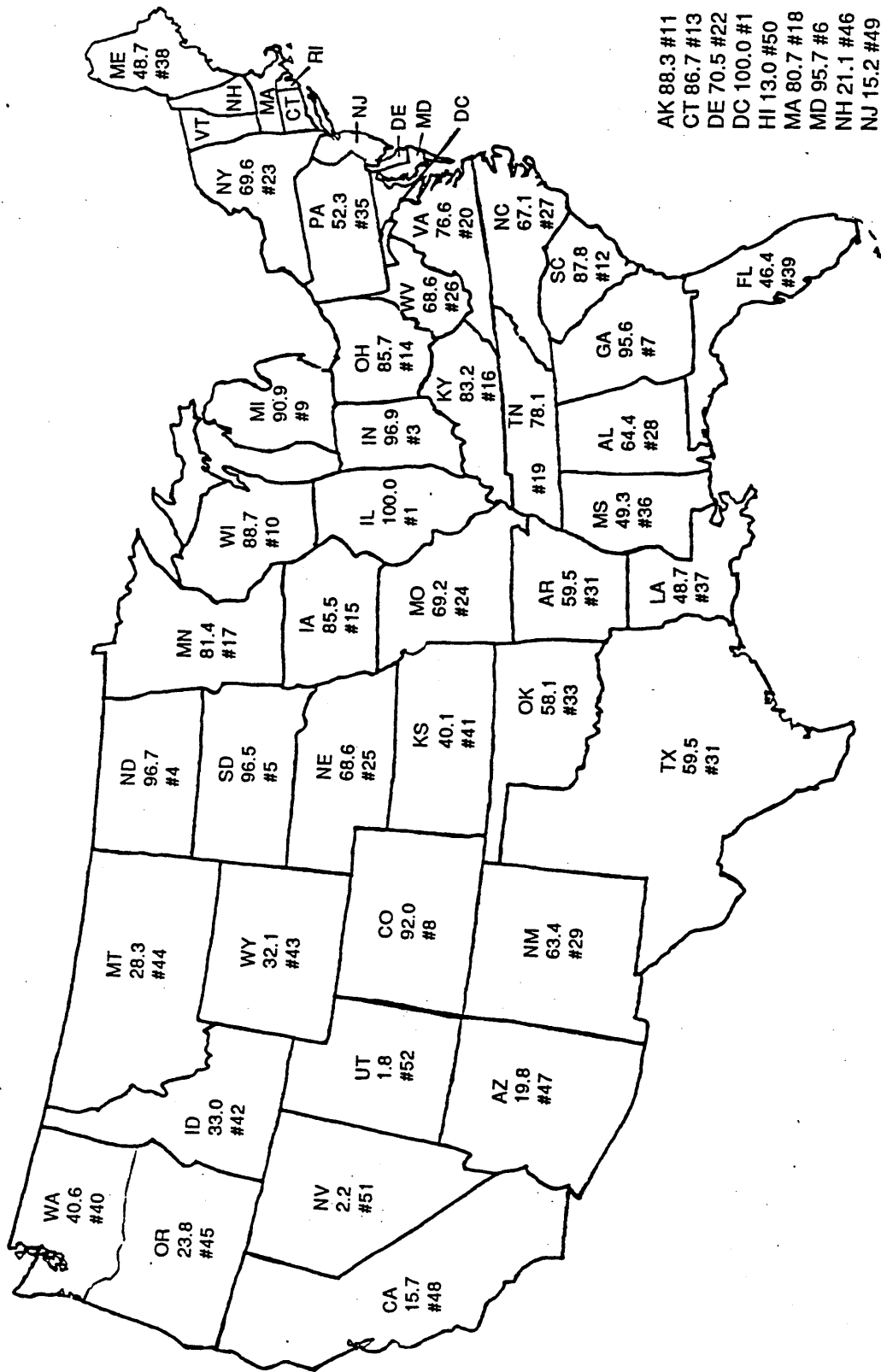
TABLE VI (CONTINUED)
 NUMBER OF PUBLIC WATER SUPPLY SYSTEMS AND POPULATION SERVED BY EACH
 OF THE MAJOR CHEMICALS BY REGION AS OF DECEMBER 31, 1988

	HYDROFLUOSILICIC ACID		SODIUM SILICOFLUORIDE		SODIUM FLUORIDE	
	POPULATION	#SYSTEMS	POPULATION	#SYSTEMS	POPULATION	#SYSTEMS
UNITED STATES	69,090,692	4,653	33,679,408	1,329	10,500,735	2,121
REGION VIII	421,045	180	2,903,442	160	275,379	155
COLORADO	86,243	3	2,281,425	112	87,214	23
MONTANA	0	0	40,100	4	19,760	19
NORTH DAKOTA	112,502	62	302,026	17	56,122	42
SOUTH DAKOTA	207,749	112	172,086	20	106,380	66
UTAH	3,004	2	15,596	1	4,830	4
WYOMING	11,547	1	92,209	6	1,073	1
REGION IX	12,973	2	135,000	1	184,452	87
ARIZONA	12,000	1	135,000	1	56,983	64
CALIFORNIA	973	1	0	0	4,070	6
HAWAII	0	0	0	0	121,470	7
NEVADA	0	0	0	0	1,929	10
REGION X	1,099,755	42	741,616	50	418,623	150
ALASKA	0	0	0	0	257,639	125
IDAHO	0	0	48,092	6	0	0
OREGON	20,000	1	429,870	26	14,425	5
WASHINGTON	1,079,755	41	263,654	18	146,559	20

Note: Chemical used was not indicated for all systems, so these data are not consistent with other summary tables.

Chart 1

PERCENT OF PUBLIC WATER SUPPLY POPULATION USING FLUORIDATED WATER AND STATE RANKING



- AK 88.3 #11
- CT 86.7 #13
- DE 70.5 #22
- DC 100.0 #1
- HI 13.0 #50
- MA 80.7 #18
- MD 95.7 #6
- NH 21.1 #46
- NJ 15.2 #49
- PR 62.6 #30
- RI 74.0 #21
- VT 54.4 #34

Please note that some pages of the original document are missing.