


TO: HONORABLE MAYOR AND BOARD OF DIRECTORS

FROM: BRUCE T. MOORE, CITY MANAGER 

SUBJECT: FLUORIDATION IN THE CITY OF LITTLE ROCK DRINKING WATER

DATE: JANUARY 20, 2006

The request was made at the January 10, 2006, Board of Director Meeting for staff to request an update from Central Arkansas Water regarding the amount of fluoridation in the drinking water and to provide any reports that may be available regarding possible side effects.

Attached for your review are the following documents related to the fluoridation of the drinking water:

- Resolution from the Little Rock City Council, September 11, 1950
- Memorandum from Mr. Les Jackson, Little Rock Municipal Water Works, February 11, 1958
- House Bill 2627, 2005 Regular Session, 85th General Assembly
- Testimony before the Joint Interior Committee on Health, Welfare, and Labor, Arkansas State Legislature by Dr. Williams R. Mass, Director , Division of Oral Health for the National Center of Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention
- U.S. Surgeon General Statement of Community Water Fluoridation.
- Article from the *Arkansas Democrat-Gazette* 'State to Study Fluoride in Water'
- Letter from the American Dental Association to dispel misinformation from those who oppose one of the country's greatest public health achievements
- Article from the Center for Disease Control, 'Ten Great Public Health Achievements – United States, 1900 – 1999'
- Testimony by Mr. Kip Duchon, P.E., National Fluoridation Engineer, Division of Oral Health for the National Center of Chronic Disease Prevention and Health Promotion, Centers for Disease Control and

Prevention "Engineering Considerations Related to Community Water Fluoridation"

- Testimony of Dr. Lynn Mouden, Director of Oral Health, Arkansas Department of Health, who is available to address the Board of Directors to answer any further questions.

If additional information is needed, please advise.

R E S O L U T I O N
NO. 1893.

A RESOLUTION APPROVING THE INTRODUCTION OF FLUORIDE ION INTO THE LITTLE ROCK WATER SUPPLY BY THE BOARD OF WATER WORKS COMMISSIONERS OF THE CITY OF LITTLE ROCK, ARKANSAS:

WHEREAS, the application of fluoride ion to a water supply to reduce dental caries has been approved by the Little Rock City Health Department, the State Health Department, the Pulaski County Medical Society, and the Central District Dental Society, and;

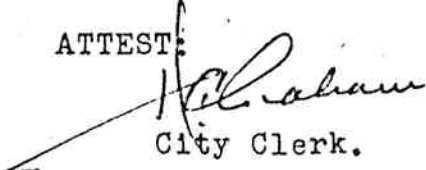
WHEREAS, it is the consensus of opinion among technicians and health authorities that a maximum concentration of one and one-half ($1\frac{1}{2}$) parts per million of fluoride ion is permissible;-

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Little Rock, Arkansas, that the application of fluoride ion up to one and one-half ($1\frac{1}{2}$) parts per million concentration after treatment to the Little Rock water supply be approved.


BE IT FURTHER RESOLVED, that a copy of this Resolution be sent to the Board of Water Works Commissioners of the Little Rock Municipal Water Works.

ADOPTED: September 11, 1950.

ATTEST:


City Clerk.

APPROVED:


Mayor.

February 11, 1958

MEMORANDUM

RE: FLUORIDATION

21 ppm
The application of fluorides in the Little Rock Water Supply was started on March 22, 1951.

Little Rock followed the following policy and procedure recommended by the American Water Works Association --

IN COMMUNITIES WHERE A STRONG PUBLIC DEMAND HAS DEVELOPED AND THE PROCEDURE HAS THE FULL APPROVAL OF THE LOCAL MEDICAL AND DENTAL SOCIETIES, THE LOCAL AND STATE HEALTH AUTHORITIES, AND OTHERS RESPONSIBLE FOR THE COMMUNAL HEALTH, WATER DEPARTMENTS OR COMPANIES MAY PROPERLY PARTICIPATE IN A PROGRAM OF FLUORIDATION OF PUBLIC WATER SUPPLIES.

Before Resolution No. 1893, adopted September 11, 1950, was passed by the City Council, endorsements approving fluoridation were received from the Little Rock City Health Department; the State Health Department; the Pulaski County Medical Society; the Central District Dental Society; local Medical Association and others.

COST -- For the year 1957, the cost of the application was \$7,959.55, or about .04¢ per capita, per year.

Since fluoridation of public water supplies has been practiced, it has been endorsed by the following associations:

American Academy of Pediatrics
American Association for the Advancement of Science
American Cancer Society
American College of Dentists
American Dental Association
American Hospital Association
American Medical Association
American Nurses Association
American Pharmaceutical Association
American Public Health Association
American Public Welfare Association
American School Health Association
American Society of Dentistry for Children
American Water Works Association
College of American Pathologists
Commission on Chronic Illness

Conference of State Sanitary Engineers
Industrial Medical Association
Inter-Association Committee on Health
National Institute of Municipal Law Officers
National Research Council
State and Territorial Health Officers Association
American Federation of Labor and Congress of Industrial
Organizations (A.F.L.-C.I.O.)
American Legion
Child Study Association of America
Joint Committee on Health Problems of the American Medical
Association and the National Education Association
National Congress of Parents and Teachers
United States Junior Chamber of Commerce
Heads of Departments of Preventive Medicine at 68 accredited
medical colleges

In following the policy recommended by the American Water Works Association, the Board and Management of the water utility have followed the wishes of the interested agencies and if the City Board of Directors and City Manager want to discontinue the treatment, I feel that the Board would comply with your wishes.

Due to the widespread acceptance of fluoridation as standard water treatment, my personal feeling is that it would be a step backward to discontinue the treatment for a minority group.

A handwritten signature in cursive script, appearing to read "J. C. Johnson". The signature is written in dark ink and is located in the lower right quadrant of the page.

Stricken language would be deleted from and underlined language would be added to the law as it existed prior to this session of the General Assembly.

1 State of Arkansas
2 85th General Assembly
3 Regular Session, 2005
4

As Engrossed: H3/11/05
A Bill

HOUSE BILL 2627

5 By: Representatives Roebuck, Bradford, Borhauer, Dickinson, Flowers, Goss, Hardwick, Hardy, J.
6 Johnson, Mahony, McDaniel, S. Prater, Ragland, Reep, Willis, Wood
7

8
9 **For An Act To Be Entitled**

10 AN ACT TO REQUIRE CERTAIN PUBLIC WATER SUPPLIES
11 TO MAINTAIN A LEVEL OF FLUORIDE TO PREVENT TOOTH
12 DECAY; AND FOR OTHER PURPOSES.
13

14 **Subtitle**

15 AN ACT TO REQUIRE CERTAIN PUBLIC WATER
16 SUPPLIES TO MAINTAIN A LEVEL OF FLUORIDE
17 TO PREVENT TOOTH DECAY.
18
19

Dr. Lynn Mouden
66d-2595
Director of Oral Health

20 BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF ARKANSAS:
21

22 SECTION 1. Arkansas Code Title 20, Chapter 7, Subchapter 1 is amended
23 to add an additional section to read as follows:

24 20-7-136. Statewide fluoridation program.

25 (a) The General Assembly find that promotion of the public health of
26 Arkansas residents of all ages by protection and maintenance of dental health
27 through the fluoridation of drinking water is a paramount issue of statewide
28 concern.

29 (b) It is the intent of the General Assembly to:

30 (1) Preempt local government regulations, ordinances, and
31 initiatives that prohibit or restrict the fluoridation of drinking water by
32 water systems serving five thousand (5,000) or more persons; and

33 (2) Decrease the burden that the Arkansas Medicaid and ARKids
34 First Programs place upon the state's limited funds.

35 (c) For the purpose of promoting public health through prevention of
36 tooth decay, whenever the fluoride content of water supplies serving five



1 thousand (5,000) or more persons, including consecutive supplies, provides
2 less than seven-tenths of a milligram per liter (0.7 mg/l) of fluoride, the
3 person, firm, corporation, or municipality having jurisdiction over a water
4 supply whether publicly or privately owned or operated shall control the
5 quantities of fluoride in the water so as to maintain a fluoride content
6 prescribed by the Department of Health.

7 (d) The department shall promulgate rules relating to the fluoridation
8 of water supplies that shall include, but not be limited to:

9 (1)(A) The minimum and maximum permissible concentrations of
10 fluoride to be maintained by a water supply.

11 (B) The minimum permissible concentration of fluoride
12 shall not be less than seven-tenths of a milligram per liter (0.7 mg/l).

13 (C) The maximum permissible concentration of fluoride
14 shall not be greater than 1.2 milligrams per liter (1.2 mg/l); and

15 (2) The requirements and procedures for maintaining proper
16 concentrations of fluoride, including any necessary equipment, testing,
17 recordkeeping, and reporting.

18 (e)(1) A water supply required to fluoridate under this section is not
19 required to comply with the requirements of this section until funds
20 sufficient to pay capital start-up costs for fluoridation equipment for the
21 system have become available from any source other than ratepayers,
22 shareholders, local taxpayers, or bondholders of the public water supply.

23 (2) A registered civil engineer recognized or employed by the
24 department who is familiar with the design, construction, operation, and
25 maintenance of fluoridation systems shall determine for the department
26 whether the capital start-up costs claimed under subdivision (e)(1) of this
27 section are reasonable.

28
29 */s/ Roebuck, et al*
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Bill Status: HB2627**Sponsor: Roebuck**

AN ACT TO REQUIRE CERTAIN PUBLIC WATER SUPPLIES TO MAINTAIN A LEVEL OF FLUORIDE TO PREVENT TOOTH DECAY.

- House - Jun 3 2005 12:26:31 - Died in Senate Committee at Sine Die adjournment.
- Senate - Apr 1 2005 1:47:05 - Read first time, rules suspended, read second time, referred to Senate Committee on Public Health, Welfare and Labor
- Senate - Apr 1 2005 1:46:55 - Received from the House.
- Senate - Mar 14 2005 7:36:45 - Read first time, rules suspended, read second time, referred to Senate Committee on Public Health, Welfare and Labor
- Senate - Mar 14 2005 7:36:34 - Received from the House.
- House - Mar 14 2005 3:55:20 - CLINCHER MOTION ADOPTED
- House - Mar 14 2005 3:51:17 - Read the third time and passed and ordered transmitted to the Senate. - **House Vote!**
- House - Mar 11 2005 10:56:00 - REPORTED CORRECTLY ENGROSSED
- House - Mar 11 2005 8:15:29 - Amendment No. 1 read and adopted and the bill ordered engrossed.
- House - Mar 11 2005 8:15:13 - Placed on second reading for the purpose of amendment.
- House - Mar 10 2005 2:14:38 - Returned by the Committee with the recommendation that it do pass as amended 1
- House - Mar 7 2005 3:08:34 - Read the first time, rules suspended, read the second time and referred to the Committee on PUBLIC HEALTH, WELFARE AND LABOR COMMITTEE-HOUSE
- House - Mar 7 2005 8:25:39 - Filed

Amendments - [House Amend.1](#)

Senate Amend. 1

Previous versions of HB2627

Currently not scheduled on any agenda

Currently not scheduled on either House or Senate Calendar

- Main Page -

This information on this page is developed and maintained by the Arkansas Bureau of Legislative Research, Information Systems Dept.

Testimony before the
Joint Interim Committee on Health, Welfare and Labor
Arkansas State Legislature
Little Rock, Arkansas

“Community Water Fluoridation and Dental Health in the United States”

Statement of
William R Maas, D.D.S., M.P.H.
Director, Division of Oral Health
National Center for Chronic Disease Prevention and Health Promotion
Centers for Disease Control and Prevention

For Release on Delivery Expected at 2:00 pm, Thursday, September 2, 2004

I am Dr. Bill Maas, and I am Director of the Division of Oral Health at the Centers for Disease Control and Prevention (CDC). Within the U.S. Department of Health and Human Services, the CDC is recognized as the lead federal agency for protecting the health and safety of people, which it accomplishes by providing credible information to enhance health decisions and promoting health through strong partnerships. CDC serves as the national focus for developing and applying disease prevention and control, for environmental health, and for health promotion and education activities designed to improve the health of the people of the United States.

CDC has recognized the Fluoridation of Drinking Water to Prevent Dental Caries as one of 10 great public health achievements of the 20th century. Fluoridation of community drinking water is a major factor responsible for the decline in tooth decay during the past 50 years. Although other fluoride-containing products are available, water fluoridation remains the most equitable and cost-effective method of delivering fluoride to all members of most communities, regardless of age, educational attainment, or income level.

Our understanding of community water fluoridation is based upon over 60 years of research. CDC's endorsement is based upon assessment of that science base by many independent committees of experts, as well as review of the findings of individual studies, and research conducted by our own scientists. It is this body of evidence, more than the findings of any single study, that affirms that community water fluoridation prevents tooth decay, is safe, reaches people from all walks of life throughout the lifespan, and is very cost-effective.

U.S. Surgeon General Richard Carmona has recently joined many previous Surgeons General in issuing a personal statement endorsing fluoridation. It is in your briefing materials. Your state dental director, Dr. Lynn Mouden, presided over a national meeting in 2003 at which Surgeon General Carmona provided leadership by releasing A National Call to Action to Promote Oral Health. In that Call he challenged all sectors of society to work together to replicate what works, so that we can promote oral health widely and effectively. Community water fluoridation is one of those interventions that works. Furthermore, the Surgeon General has affirmed that it is the responsibility of community leaders, whether their venue is at the state level or closer to home, to provide leadership for efforts to expand the reach of effective measures.

Community water fluoridation is effective in reducing tooth decay. This has been affirmed over the years by dozens of expert committees and task forces, in the U.S. and elsewhere, which have independently reviewed the scientific literature. Their well-documented reports are available for reference. Each year the standards for review of the evidence are higher. Recently, a non-Federal Task Force on Community Preventive Services was convened by the Department of Health and Human Services to provide leadership in the evaluation of community, population, and health care system strategies to address a variety of public health and health promotion topics. After a critical and thorough review of the scientific evidence regarding effectiveness, the Task Force strongly recommended community water fluoridation for prevention and control of tooth decay. Similar comprehensive reviews have been conducted recently in the United Kingdom and in Ireland, and they have reached the same conclusions regarding fluoridation's effectiveness.

Community water fluoridation is safe. The safety of fluoride in drinking water at the levels recommended for prevention of tooth decay has been affirmed by the National Research Council, an affiliate of the National Academy of Science. Because fluoride sometimes occurs naturally in water at levels many times higher than recommended for the prevention of tooth decay, the Environmental Protection Agency (EPA) asked the National Research Council (NRC) to provide a thorough review the health effects of these higher levels in drinking water to advise the EPA regarding the maximum level to be permitted. A review was conducted in 1993, and a periodic reassessment of this issue, considering new information since the previous report, is currently being conducted by the NRC. If any new recommendations arise from this current study, they are likely to focus on health effects of fluoride when it occurs naturally at levels many times higher

than recommended. The safety of community water fluoridation at recommended levels is not seriously challenged.

Community water fluoridation is cost effective. CDC scientists estimate that for most cities considering the initiation of water fluoridation, the community will save about \$38 in averted dental treatment costs for every \$1 invested in fluoridation. How many other public or private investments under consideration in Arkansas are expected to yield that kind of return? Another study by CDC scientists was undertaken in one of Arkansas's neighbors, Louisiana. A study of Medicaid costs for preschool children found that children in non-fluoridated parishes had Medicaid dental care costs twice as high, on average, as children living in fluoridated parishes, and the severity of their decay required children from non-fluoridated parishes to be hospitalized for dental treatment three times as often as the other children. Community water fluoridation is an investment that returns savings of both private and public dental care expenses.

Community water fluoridation is not just for children. Modern science has advanced our understanding of how fluoride works to prevent and control caries. While incorporation of fluoride into the developing teeth of young children has been shown to prevent tooth decay independently, fluoride's ability to work topically, on the surface of the tooth, is what provides its predominant effects and results in its effectiveness throughout the lifespan. CDC scientists recently reviewed a number of studies of the rate of new tooth decay in older adults and determined that the decay rate in older adults is greater, much greater, than the rate for children. With each new cohort of older adults retaining more natural teeth than the generations before them, fluoridation's benefits across the lifespan become increasingly important.

It has been noted that the use of fluoride toothpaste, rinses, and professional applied fluoride products is now widespread in the U.S., and it is reasonable to ask whether fluoridation is effective under these modern circumstances. CDC scientists have analyzed data from the last national study that collected data to address this issue, and have confirmed fluoridation's effectiveness. Our modern lifestyle also leads us to consume many meals outside of the home, and provides convenient foods and beverages that were processed in other cities, the majority of which provide fluoridated water. This has resulted in a diffusion effect, or halo effect, in which fluoridation provides benefits not only to those drinking water from their household tap, but also to others who, while they may not have fluoride in their drinking water, nevertheless receive partial benefits by eating foods and drinking beverages processed elsewhere with fluoridated

water. Consequently, fluoridated communities in Arkansas provide benefits not only to their own residents, but to others in Arkansas as well.

If fluoride is available from all of these sources, are people getting too much? No, not from their diet or drinking water. For people living in fluoridated communities, total fluoride intake has remained quite constant over a couple of generations. Fluoride intake in non-fluoridated communities has risen, due to the diffusion effect of processed foods and beverages noted earlier, but it still remains lower than occurs in fluoridated communities. We do not believe that anyone is getting too much fluoride from the use of optimally fluoridated drinking water. However, we do have evidence that some young children are using fluoride toothpaste inappropriately, without adequate supervision, and are swallowing too much. Also, some young children are receiving fluoride supplements in addition to fluoride in drinking water, perhaps because their parent or physician or dentist has inaccurate information about the fluoride content of their drinking water source. In these conditions, cosmetic blemishes on the developing permanent teeth can occur. This condition, called enamel fluorosis, occurs in about one quarter of U.S. children. In most cases the blemishes are so mild as to be neither a cosmetic or functional problem. Moderate and severe forms, which occur in less than 2% of children, can be a cosmetic problem, but they are as likely to occur in low fluoride communities as in those that are fluoridated. To keep this from becoming a larger problem, CDC has encouraged more careful use of fluoride toothpaste. We recommend that health professionals reinforce to parents the importance of following the instructions found on the tube for careful supervision of toothpaste use by young children.

After these hearings are concluded, and as people begin to consider the various policy options available to promote oral health, you will hear from opponents of fluoridation. I want you to know that we have heard all of the arguments before. The opponents of fluoridation are very skilled in using words that are alarming. They are masters of communication, with the goal of planting doubts in your mind, not improving public understanding. The responsibility at CDC, like your health department and health profession associations, is to be a trustworthy source of information of how to improve health. We take that trust very seriously, and stand ready to be a continued resource to you in this state, in your efforts to improve the oral health of your citizens.

Thank you. I will be happy to take any questions that you may have.



July 28, 2004

SURGEON GENERAL STATEMENT ON COMMUNITY WATER FLUORIDATION


As noted in *Oral Health in America: A Report of the Surgeon General*, community water fluoridation continues to be the most cost-effective, equitable and safe means to provide protection from tooth decay in a community. Scientific studies have found that people living in communities with fluoridated water have fewer cavities than those living where the water is not fluoridated. For more than 50 years, small amounts of fluoride have been added to drinking water supplies in the United States where naturally-occurring fluoride levels are too low to protect teeth from decay. Over 8,000 communities are currently adjusting the fluoride in their community's water to a level that can protect the oral health of their citizens.

Over 170 million people, or 67 percent of the United States population served by public water supplies, drink water with optimal fluoride levels for preventing decay. Of the 50 largest cities in the country, 43 are fluoridated. Although water fluoridation reaches some residents in every state, unfortunately, only 24 states are providing these benefits to 75% or more of their residents.

A significant advantage of water fluoridation is that all residents of a community can enjoy its protective benefit—at home, work, school or play— simply by drinking fluoridated water or beverages and foods prepared with it. A person's income level or ability to receive routine dental care is not a barrier to receiving fluoridation's health benefits. Water fluoridation is a powerful strategy in our efforts to eliminate differences in health among people and is consistent with my emphasis on the importance of prevention.

The U.S. Centers for Disease Control and Prevention has recognized the fluoridation of drinking water as one of ten great public health achievements of the twentieth century. Water fluoridation has helped improve the quality of life in the United States by reducing pain and suffering related to tooth decay, time lost from school and work, and money spent to restore, remove, or replace decayed teeth. An economic analysis has determined that in most communities, every \$1 invested in fluoridation saves \$38 or more in treatment costs. Fluoridation is the single most effective public health measure to prevent tooth decay and improve oral health over a lifetime, for both children and adults.

While we can be pleased with what has already been accomplished, it is clear that there is much yet to be done. Policymakers, community leaders, private industry, health professionals, the media, and the public should affirm that oral health is essential to general health and well being and *take action* to make ourselves, our families, and our communities healthier. I join previous Surgeons General in acknowledging the continuing public health role for community water fluoridation in enhancing the oral health of all Americans.


Richard H. Carmona, M.D., M.P.H., F.A.C.S.
VADM, USPHS
United States Surgeon General

State to study fluoride in water

Health officials, foes are at odds

BY NELL SMITH

ARKANSAS DEMOCRAT-GAZETTE

Public health officials want to strengthen Arkansans' smiles by fluoridating the state's water, but opponents who believe fluoride is dangerous promise to fight them tooth and nail.

Rep. Tommy Roebuck, D-Arkadelphia, is considering introducing legislation to require all Arkansas communities to fluoridate their water. About 62 percent of Arkansans on public water systems now receive fluoridated water, according to the Arkansas Department of Health.

Roebuck and public health officials say fluoridated water helps prevent tooth decay.

Water fluoridation can reduce tooth decay in baby teeth by up to 60 percent and up to 35 percent in adult teeth, according to the state Health Department.

"It's just a tremendous health preventive program. We know it prevents decay," Roebuck said. "Being a dentist, I've seen the results of it in my patients."

Opponents of the plan contend that fluoride, which comes from the natural element fluorine, has been linked to a number of health problems and hasn't proved particularly effective in preventing tooth decay. Why should the state require that a substance they consider potentially dangerous be included in their water system, they ask.

"Our take on it is if you want fluoride, go to the dentist and get fluoride. That's your choice," said Sherry Johnston, of Waldron, president of the Arkansas Health Freedom Coalition, an organization

that advocates natural and alternative medicine. "But once it's put in the water supply, you remove that choice."

Both sides point to studies that support their case.

One 1990 study cited by fluoridation opponents indicates that children with lifelong exposure to water fluoridation had 2.79 areas of tooth decay on average compared with 3.39 areas of decay in children in nonfluoridated areas.

"Well, so much for the idea that fluoride prevents cavities. ... That's the difference of six-tenths of a tooth surface," said J. William Hirzy, senior vice president of the National Treasury Employees Union, Chapter 280, in Washington, D.C. The union represents professional employees at the Environmental Protection Agency headquarters.

Hirzy flew to Little Rock earlier this month to testify against state-mandated fluoridation at a Public Health, Welfare and Labor Committee meeting.

Fluoride, he said, has been linked to weakened bone, cancer, brain structure damage, kidney damage, hyperactivity and thyroid problems.

"It certainly flies in the face of sound environmental practice to be exposing millions of people deliberately to chemicals that have not had any long-term toxic[ity] studies done, but that's exactly what fluoridation does," Hirzy said.

A fluoridation proponent, Dr. Lynn Mouden, director of the Health Department's Office of Oral Health, said people who oppose fluoridation "pick and choose" the studies they use to back their arguments. Instead, extensive research supports the prevailing view that fluoridated water strengthens teeth and is harmless to the body.

"Not only do we have literally thousands of studies proving that fluoridation is safe, effective and economical," Mouden said, "but now we've got almost 60 years of practice proving the same thing."

The U.S. Centers for Disease Control and Prevention recognizes the fluoridation of drink-

The Health Department uses a federal grant program to help communities pay for the equipment, training and technical assistance, which cost about \$6,000 to \$30,000, Mouden estimates.

ing water as one of the 10 great public health achievements of the 20th century, Dr. William Maas, director of the Division of Oral Health at the CDC, told Arkansas legislators in September. He testified on the benefits of fluoridation to the Public Health, Welfare and Labor Committee.

The effectiveness of community water fluoridation "has been affirmed over the years by dozens of expert committees and task forces, in the U.S. and elsewhere, which have independently reviewed the scientific literature," Maas said.

Oral health advocates say statewide fluoridation could have a significant impact in a state where more than 29 percent of adults age 65 and older have lost all their teeth and 61 percent of children under age 9 have tooth decay, according to the Health Department.

Those aren't convincing arguments for Crystal Harvey, a Hot Springs cosmetologist, who for the last 15 years has fought to keep the community's water fluoride-free.

"My children's teeth, they can all fall out," she said. "I would rather them have dentures than have the possibility of something going wrong [with their health] when they're older and never even knowing what caused it."

Fluoridation proponents say the cost savings in dental care are worth the price for the water system. A lifetime of fluoridation

— about 50 cents per person annually — costs less than one dental filling, proponents say.

Arkansas' Medicaid program spent about \$30 million in fiscal year 2004 in on dental services for children. The state's program doesn't pay for adult dental services.

Roy Jeffus, director of the state's division of medical services, said the Medicaid program considers anything that offers free preventive care beneficial. However, he stopped short of saying that fluoridation would create great savings for Medicaid.

"I couldn't tell you that it's a sure bet that we're going to see a reduction in expenditures," Jeffus said, "because I would agree that there are other factors besides just putting fluoride in water that can contribute to good dental health."

Many Arkansas communities have voluntarily fluoridated, including Little Rock, which has

MONDAY, DECEMBER 27, 2004

Arkansas Democrat Gazette

been fluoridated since the early 1950s. Monticello voters decided to fluoridate in November, and Perryville's city council unanimously voted to fluoridate within the last six months.

But other communities, like Eureka Springs and Hot Springs, have vigorously resisted fluoridation.

Startup expenses for communities that want to fluoridate are minimal. The Health Department uses a federal grant program to help communities pay for the equipment, training and technical assistance, which cost about \$6,000 to \$30,000, Mouden estimates.

If Roebuck introduces statewide legislation, he said, it may include a provision requiring fluoridation only of communities above an established size or with more than a set number of water system hookups.

Roebuck understands that those who oppose fluoridation are passionate about the issue and prepared to fight it. He believes fluoridating the state's drinking water would be an important public health measure, but, he notes, there's much to be worked out even before a bill can be filed.

"It's a long way, I promise you, a long way ... from being a bill or from being a law right now," he said.

Fluoridated water in Arkansas

About 62 percent of Arkansans on public water systems receive fluoridated water. Below are the community water systems by county that receive the optimum level of fluoride either through natural fluoridation or through added fluoride, according to the Arkansas Department of Health.

Arkansas	Fordyce	Lincoln	Pope
Stuttgart	Desha	Garrett Bridge	Russellville
DeWitt	Dumas	Lonoke	Atkins
Ashley	Brew	Cabot	Prairie
Portland	Monticello	Bayou 2	Des Arc
Crossett	Faulkner	Lonoke	Pulaski
Wilmot	Conway	Carlisle	Jacksonville
Baxter	Vilonia	England	Maumelle
Midway	Garland	Madison	Little Rock
Mountain	Mountain Pine	St. Paul	Randolph
Home	Grant	Mississippi	Pocahontas
Big Flat	Sheridan	Eaker	Saline
Benton	S. Sheridan/ Little Creek	Yarbro	Saline Co.
Bentonville	Greene	Manila	Shannon
Rogers	Paragould	Blytheville	Hills
Beaver Water District	Hempstead	Osceola	East End
Bradley	Hope	Wilson	Bryant
Warren	Bois D'Arc	Monroe	Benton
Chicot	Hot Spring	Brinkley	Searcy
Lake Village	Kimsey West	Clarendon	Morning Star
Eudora	Malvern	Nevada	Sebastian
Indian Switch	Howard	Prescott	South
Clark	Dierks	Newton	Sebastian Co.
Arkadelphia	Nashville	Mt. Sherman	St. Francis
Clay	Mineral Springs	E. Newton City	Forrest City
Piggott	Independence	Mockingbird Hill	Stone
Cleburne	Batesville	Ouachita	Fifty-Six
Heber Springs	Jackson	Highway 24/40 Association	Union
Cleveland	Newport	Camden	Bates-Lapile
Highway 15	Jefferson	Wire Road Association	Van Buren
Conway	United Water (Pine Bluff)	Frenchport	Clinton
Morrilton	Johnson	Perry	Washington
Conway Co.	Clarksville	Perryville	Springdale
Craighead	Lafayette	Phillips	Fayetteville
Jonesboro	Bradley	Marvell	White
Lake City	Lawrence	Helena	Bald Knob
Crittenden	Walnut Ridge	W. Helena	Searcy
W. Memphis	Hoxie	Polk	Beebe
Cross	Lee	Trumann	Woodruff
Wynne	Marianna	Marked Tree	Augusta
Dallas			McCrary
Sparkman			Cotton Plant

NOTE: Some communities not listed buy fluoridated water from these systems.



American Dental Association
www.ada.org

September 20, 2005

Mr. Benjamin Grumbles
Assistant Administrator for Water
Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
4101M
Washington, D.C. 20460

Dear Mr. Grumbles:

We write to dispel misinformation being cited recently by a small number of individuals who oppose one of this country's greatest public health achievements--community water fluoridation. It is disturbing to see antifluoridationists hiding behind false science and half truths. The most recent attack on fluoridation ignores an entire body of established scientific studies and literature and has centered on a single, unpublished, non-peer reviewed student thesis suggesting a potential link between fluoridation and a rare form of cancer.¹ Claims about cancer have been made since the beginning of water fluoridation--all of which have ultimately been rejected by the scientific community.²⁻¹⁸

The ADA cautions the U.S. Environmental Protection Agency (EPA) against drawing conclusions based on a lone student researcher's single unpublished study. Indeed, in the 14 pages available, the student notes that there are important limitations to her study and recommends, not the discontinuation of water fluoridation, but additional studies. If and when that study is published, it would still stand alone amidst an overwhelming mass of generally accepted science.

For the reasons set forth below, we ask the EPA to publicly disavow the position on fluoridation being taken by some local unions representing some EPA employees. The press statements by these "EPA" unions serve to confuse the public on actual EPA policy.

Background

The ADA, an Illinois not-for-profit corporation founded in 1859, represents over 70% of this country's active, licensed dentists. The ADA's stated objective, as set forth in its Constitution, is to "encourage the improvement of the health of the public and to promote the art and science of dentistry." The ADA endorses fluoridation of community water supplies as safe and effective for preventing tooth decay, and has done so since 1950. On behalf of our more than 125,000 active, licensed members, we offer this letter to help provide perspective about recent claims made by a vocal, beyond-the-mainstream faction

opposed to fluoridation, so the country does not put this exemplary public measure at needless risk.

The Centers for Disease Control and Prevention has proclaimed community water fluoridation as one of 10 great public health achievements of the 20th century.^{19,20} Currently more than two-thirds of the United States population on public water supplies enjoys the benefits of fluoridation.²¹ Water fluoridation benefits everyone, especially those individuals at the greatest risk of dental disease, those without access to regular dental care.

For many of our nation's poorest citizens, community water fluoridation provides the best, and perhaps only, regular source of fluoride. Optimally fluoridated water is accessible to the entire community regardless of socioeconomic status, educational attainment or other social variables. Individuals do not need to change their behavior to obtain the benefits of fluoridation. Simply by drinking water, people can benefit from fluoridation's cavity protection whether they are at home, work or school. More than fifty one million school hours are lost per year in this country due to dental-related illness.²² Imagine how many more school hours (and work days, to say nothing of days free from oral pain) would be lost if this country did not have the benefits of water fluoridation.

The Science

The overwhelming weight of credible, peer reviewed, scientific evidence, supported by over 60 years of experience, continues to establish that fluoridation is safe and effective as set forth more fully in the ADA's publication *Fluoridation Facts* (2005 Edition), a copy of which is enclosed.

The effectiveness of water fluoridation has been documented in scientific literature for over 60 years.²³⁻²⁷ Numerous studies have been published making fluoridation one of the most widely studied public health measures in history. Studies prove water fluoridation continues to be effective in reducing tooth decay by 20-40%, even in an era with widespread availability of fluoride from other sources, such as fluoride toothpaste.²⁶

The possibility of any adverse health effects from continuous low-level consumption of fluoride has been and continues to be extensively studied. Of the hundreds of credible scientific studies on fluoridation, none has shown health problems associated with the consumption of optimally fluoridated water.²⁸⁻³¹

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The So-Called Controversy

Despite this overwhelming body of scientific knowledge, fluoridation continues to be challenged by factions that lie way outside of the mainstream. Those who oppose fluoridation are often relentless in expressing their views. Unfortunately, repetition—even repetition of the same, tired misinformation—can have the effect of misleading the public and even policy makers. Repeating unfounded beliefs over and over can play on fears and opens the door for questionable decision-making. Context and truth telling—the whole truth, and nothing but the truth—become critical.

The most recent attack has centered on a single, unpublished, non-peer reviewed student thesis suggesting a potential link between fluoridation and a rare form of cancer. As noted above, claims about cancer have been made since the beginning of water fluoridation, all of which have ultimately been rejected by the scientific community. A summary of these studies is included as Citations 2-18 to this letter.

The ADA cautions the EPA against drawing conclusions based on a lone student researcher's single unpublished study. Indeed, in the 14 pages available, the student herself notes that there are important limitations to her study and recommends, not the discontinuation of water fluoridation, but additional studies. For example, she notes that the study may not accurately reflect the actual amount of fluoride consumed by study subjects. She also notes that fluoride may not be the causative agent of the cancer. Instead, the student suggests there may be another factor in drinking water, such as radium, that may be associated with an increased risk of bone cancer.

In addition, an entire body of well-established research can never be discarded on the basis of a single article. Are there limitations to that article? Have the conclusions withstood the test of peer review and subsequent analyses? Are there important data gaps? These, and other questions, must always be addressed. In this case, however, not only have none of these questions been answered (or even yet asked), but the entire article on which the antifuoridationists rely has not even been made available in its entirety to the public or research community. Clearly, no reasonable data or justification has been offered to support the claims and requests of the antifuoridationists.

The (Unfortunate) Politics

On one side of the ledger is the overwhelming scientific evidence and the opinion of the ADA, AMA, CDC, NIDCR, U.S. Surgeon General and WHO that fluoridation is both safe and effective. Their statements are enclosed. On the other side, there is a single, unpublished student paper that draws no definitive conclusions and indeed is careful to point out its significant limitations. Nevertheless, the vocal minority opposing

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fluoridation has seized upon this lone thesis as a basis to loudly shout "cancer" at every turn. This misguided reliance on a single thesis in the face of an entire body of expert literature has surfaced in at least three key venues, in the ways described below, any of which could undermine this premiere oral health measure:

- National Toxicology Program at the National Institutes of Health. Based on this single study, opponents have asked that fluoridation in tap water be listed as a carcinogen.
- National Research Council. Opponents have sent information about the study to the NRC panel conducting a routine review of the toxicology of fluoride in drinking water as requested by the EPA as part of its ongoing review of all water contaminants--presumably hoping that the panel will recommend a significant decrease in the Maximum Contaminant Level (MCL) for fluoride based on this one study.
- Environmental Protection Agency. Led by a longstanding anti-fluoridation member of the local EPA union in Washington D.C., 11 local EPA unions across the country have signed a letter calling for Congress to impose a moratorium on water fluoridation pending further investigation. They have also asked EPA to issue an advanced notice of proposed rule-making setting the MCL Goal for fluoride at zero, based on EPA's policy for likely or known carcinogens.

The key point here is that each of these requests is premised on the same lack of sound data. For the sake of public health nationwide, we ask your help in keeping the above processes on course in accordance with generally accepted science. We ask the EPA to publicly disavow the position on fluoridation being taken by some local unions representing some EPA employees. The press statements by these "EPA" unions serve to confuse the public on actual EPA policy.

Sincerely,



Jerome K. Bowman
Assistant General Counsel
Division of Legal Affairs

JBB:JSM:jaf
Enclosures

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CDC

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MMWR*Weekly*

April 02, 1999 / 48(12);241-243

Ten Great Public Health Achievements -- United States, 1900-1999

During the 20th century, the health and life expectancy of persons residing in the United States improved dramatically. Since 1900, the average lifespan of persons in the United States has lengthened by greater than 30 years; 25 years of this gain are attributable to advances in public health (1). To highlight these advances, MMWR will profile 10 public health achievements (see box) in a series of reports published through December 1999.

Many notable public health achievements have occurred during the 1900s, and other accomplishments could have been selected for the list. The choices for topics for this list were based on the opportunity for prevention and the impact on death, illness, and disability in the United States and are not ranked by order of importance.

The first report in this series focuses on vaccination, which has resulted in the eradication of smallpox; elimination of poliomyelitis in the Americas; and control of measles, rubella, tetanus, diphtheria, *Haemophilus influenzae* type b, and other infectious diseases in the United States and other parts of the world.

Ten Great Public Health Achievements -- United States, 1900-1999

- Vaccination
- Motor-vehicle safety
- Safer workplaces
- Control of infectious diseases
- Decline in deaths from coronary heart disease and stroke
- Safer and healthier foods
- Healthier mothers and babies
- Family planning
- Fluoridation of drinking water
- Recognition of tobacco use as a health hazard

Future reports that will appear in MMWR throughout the remainder of 1999 will focus on nine other achievements:

- Improvements in motor-vehicle safety have resulted from engineering efforts to make both vehicles and highways safer and from successful efforts to change personal behavior (e.g., increased use of safety belts, child safety seats, and motorcycle helmets and decreased drinking and driving). These efforts have contributed to large reductions in motor-vehicle-related deaths (2).
- Work-related health problems, such as coal workers' pneumoconiosis (black lung), and silicosis -- common at the beginning of the century -- have come under better control. Severe injuries and deaths related to mining, manufacturing, construction, and transportation also have decreased; since 1980, safer workplaces have resulted in a reduction of approximately 40% in the rate of fatal occupational injuries (3).
- Control of infectious diseases has resulted from clean water and improved sanitation. Infections such as typhoid and cholera transmitted by contaminated water, a major cause of illness and death early in the 20th century, have been reduced dramatically by improved sanitation. In addition, the discovery of antimicrobial therapy has been critical to successful public health efforts to control infections such as tuberculosis and sexually transmitted diseases (STDs).
- Decline in deaths from coronary heart disease and stroke have resulted from risk-factor modification, such as smoking cessation and blood pressure control coupled with improved access to early detection and better treatment. Since 1972, death rates for coronary heart disease have decreased 51% (4).
- Since 1900, safer and healthier foods have resulted from decreases in microbial contamination and increases in nutritional content. Identifying essential micronutrients and establishing food-fortification programs have almost eliminated major nutritional deficiency diseases such as rickets, goiter, and pellagra in the United States.
- Healthier mothers and babies have resulted from better hygiene and nutrition, availability of antibiotics, greater access to health care, and technologic advances in maternal and neonatal medicine. Since 1900, infant mortality has decreased 90%, and maternal mortality has decreased 99%.
- Access to family planning and contraceptive services has altered social and economic roles of women. Family planning has provided health benefits such as smaller family size and longer interval between the birth of children; increased opportunities for preconceptional counseling and screening; fewer infant, child, and maternal deaths; and the use of barrier contraceptives to prevent pregnancy and transmission of human immunodeficiency virus and other STDs.
- Fluoridation of drinking water began in 1945 and in 1999 reaches an estimated 144 million persons in the United States. Fluoridation safely and inexpensively benefits both children and adults by effectively preventing tooth decay, regardless of socioeconomic status or access to care. Fluoridation has played an important role in the reductions in tooth decay (40%-70% in children) and of tooth loss in adults (40%-60%) (5).
- Recognition of tobacco use as a health hazard and subsequent public health anti-smoking campaigns have resulted in changes in social norms to prevent initiation of tobacco use,

“Engineering Considerations Related to Community Water Fluoridation”

Presented to

The Joint Interim Committee on Public Health, Welfare, and Labor

Thursday, September 2, 2004

Little Rock, Arkansas

Presented by

Kip Duchon, P.E.

National Fluoridation Engineer, Division of Oral Health

National Center for Chronic Disease Prevention and Health Promotion

Centers for Disease Control and Prevention

Good Afternoon, I am Kip Duchon, a registered Professional Environmental Engineer with the Centers for Disease Control and Prevention in Atlanta charged with the responsibility of Fluoridation Engineering on the national level. I have been asked to discuss engineering considerations, the safety of the fluoride products, and CDC's support to Community Water Fluoridation programs.

The addition of fluoride to drinking water uses standard water industry equipment and materials. It does not present unusual complexity or require operator capability over other standard water treatment processes. Tanks, pipes, and pumps are all made from common materials in use at a typical water treatment facility. A common installation will include a storage tank for bulk storage, a metering pump to deliver a precise amount of fluoride to the finished water, and safety features such as fluoride level monitoring systems. A good engineering practice is to secure all additives at a water treatment facility, so typically there will be separate storage of fluoride in a designated room.

Like their counterparts in many other states, the Arkansas Department of Health, Division of Engineering is the primary agency responsible for review of modifications and improvements to water systems, and all facility construction or improvements are reviewed to ensure the highest quality and standards. Because we have almost 60 years of water fluoridation experience, there is considerable guidance on good engineering practices related to design, construction, operation, and maintenance of water fluoridation systems. The best reference is published by the American Water Works Association and is known as *Manual of Practice No. 4, Water Fluoridation, Principals and Practices*, with the updated fifth edition recently published in February of this year. This document, and other industry guidance documents, ensures that engineers and water plant facility operators have the best information available to ensure good facilities for water fluoridation.

Community water system's use one of three fluoride products to achieve optimal fluoride levels: Sodium fluoride, Sodium fluorosilicate, and Fluorosilicic acid (FSA), which is also known as

Engineering Considerations Related to Community Water Fluoridation

For Presentation September 2, 2004

Hydrofluorosilicic acid. FSA has been used for water fluoridation since the early 1950s, and is currently the predominant additive used for water fluoridation. Since the early 1980s, all fluoride additives used in the U.S. have been derived from the FSA produced as a co-product in the manufacture of the phosphate fertilizer. This process provides a high purity of FSA at a reasonable cost.

You may hear charges that the fluoridation additives are a way to dispose of industrial waste. Nothing can be further from the truth. Fertilizer manufacturing processes apatite rock, a calcium mineral, to produce a phosphate-rich slurry which is ultimately dried to form fertilizer pellets. Hydrogen fluoride gas and silicon tetrafluoride are captured from this slurry and then condensed to FSA. The process adsorbers are not pollution scrubbers as has been alleged by some people, but are only placed to capture this valuable product. FSA is then either transported to water treatment plants, or is further processed to derive dry fluoride products.

The question of toxicity, purity, and risk to humans from the addition of fluoride to drinking water sometimes arises. To ensure the public safety, all additives used at a water treatment facility must meet strict quality standards. Almost all of the over 40 water treatment additives that are routinely used at many water plants are toxic to humans in their concentrated form: chlorine gas used for disinfection is a good example. Because of the high standards and capabilities of professional associations of the water industry, the Federal Environmental Protection Agency (EPA) no longer directly regulates additives to drinking water. The Federal Food and Drug Administration (FDA) does not regulate additives to drinking water since their regulatory purview concerns only food, drug, or cosmetic related products. To ensure the public's protection, all additives used in drinking water treatment are subject to a system of standards, testing, and certifications by the American Water Works Association and the NSF International. Both of these entities are not-for-profit, nongovernmental organizations. The American Water Works Association sets minimum requirements for a product's design, installation, performance, and manufacturing, while NSF International standards 60 and 61 ensure the purity of drinking water additives or products. NSF International Standards 60 and 61 were developed by a consortium of associations, *including American Water Works Association and the American National Standards Institute (ANSI), the Association of State Drinking Water Administrators, and the Conference of State Health and Environmental Managers*. This consortium prepared Standards 60 and 61 in response to a request by the EPA for a basis to establish minimum requirements for the control of adverse effects from products added to water for its treatment, thereby ensuring the public's protection.

The health effects of fluoride have been extensively studied over the past 60 years. At the levels used for community water fluoridation, it has been found to be safe and effective in reducing tooth decay. Since fluoride sometimes occurs naturally at much higher levels, the EPA has conservatively established a Maximum Contaminant Level for fluoride of 4.0 milligrams per liter.

Engineering Considerations Related to Community Water Fluoridation

For Presentation September 2, 2004

In Arkansas, fluoridated water systems maintain a level of 0.7-1.2 mg/l, which is well below the regulated maximum levels. To put this in perspective, a milligram per liter is also referred as one part per million, which is about the same as 15 feet is to the distance from New York City to Los Angeles.

In my job, I answer many questions by news reporters, and something I hear a lot is the wish by those reporters that they learned more in high school or college chemistry to better prepare them for my answers. So here is a short chemistry lecture. The claim is sometimes made that no health studies exist on the silicofluoride additives used in water fluoridation. At the pH, temperature, and very low fluoride concentration used in water fluoridation, the additives achieve virtually complete dissolution and ionic disassociation. In other words, they separate into fluoride and other product ions, for example, sodium, hydrogen, or silica. Consequently, the health effects studies for sodium fluoride in drinking water since the fluoride ions are chemically identical, are directly applicable and sufficient.

Part of my job with the CDC is supporting the various state fluoridation programs. The State of Arkansas has been a leader in managing its the community water fluoridation program. An important element of this program is the full participation in the CDC Water Fluoridation Reporting System, also known as its acronym WAFRS. This CDC program, developed in response to requests by the state programs, is an important tool in managing water fluoridation within a state. WAFRS assists in tracking fluoridation within a state, what is happening at each facility in terms of quality assurance, and verification, and allows the state program to analyze the collected data to identify communities that need additional assistance to maintain and achieve the most benefit to public health. The State of Arkansas has been a leader in its use of WAFRS.

With almost 60 years of history, water fluoridation has been proven to be a simple and straightforward process that is efficient and effective; uses standard equipment and materials; and is well within the capability of water facility operators to operate and maintain. The additives must meet high standards for quality and safety. Community Water Fluoridation, in the U.S. as a whole, and in Arkansas in particular, has a long and proud history of success in providing improved oral health outcomes.

Thank you, I will be glad to take any questions that you may have.



Arkansas Department of Health and Human Services



Division of Health Paul K. Halverson, DrPH, Director

P.O. Box 1437, Slot H-39

Little Rock, AR 72203-1437

501-661-2400

TDD: 1-800-234-4399

Office of Oral Health

Lynn Douglas Mouden, DDS, MPH, Director

501-661-2595

www.aroralhealth.com

January 2006

Dear Concerned Citizen:

Thank you for expressing interest for maintaining the water fluoride level for Central Arkansas Water. As I'm sure you know, water fluoridation is the safest, most effective, and most economical way to prevent dental cavities in a community.

The enclosed information will help acquaint you with the process of fluoridation. The booklet "Fluoridation Facts" from the American Dental Association gives detailed information on many different facets of community water fluoridation. The document also lists the many organizations around the world that endorse fluoridation. The Arkansas Department of Health and Human Services, the Arkansas State Dental Association and the local dental society also enthusiastically endorse community water fluoridation.

The brochure from the US Centers for Disease Control (CDC) provides background on community water fluoridation. The reprint of Dr. Stephen Barrett's article will give you some feel for the type of mis-information that opponents of fluoridation try to use.

The Arkansas Department of Health and Human Services, through the Office of Oral Health, is here to assist you with this important dental health program. If you have any questions, do not hesitate to call. We appreciate your help and will do all we can to maintain optimum oral health for Little Rock, North Little Rock and the surrounding communities CWA serves. Feel free to contact me any time if you have questions.

Sincerely,

Lynn Douglas Mouden, DDS, MPH
Director, Office of Oral Health
501-661-2595; fax: 501-661-2055
E-mail: Lmouden@healthyarkansas.com

Please visit our website at www.aroralhealth.com

enclosures



Arkansas Department of Health and Human Services



Division of Health Paul K. Halverson, DrPH, Director

P.O. Box 1437, Slot H-41

Little Rock, AR 72203-1437

501-661-2400

TDD: 1-800-234-4399

Office of Oral Health

Lynn Douglas Mouden, DDS, MPH, Director

501-661-2595

www.aroralhealth.com

Central Arkansas Water – Pulaski County

Water Analysis - All natural water supplies contain some fluoride. Current information shows that the water sources for Central Arkansas Water have a natural fluoride level of approximately 0.1 ppm, below the optimum level for cavity prevention of 0.9 ppm. Little Rock and the surrounding communities that now comprise Central Arkansas Water have been adjusting the level of fluoride in the drinking water since the 1950's for the prevention of tooth decay.

Community Investment -- The annual cost of fluoride is approximately **50 cents** per person per year on average, or about **4 cents** per person per month, and a lifetime of fluoridation costs less than one dental filling. According to extensive data from the Centers for Disease Control and Prevention (CDC), **every dollar spent on fluoridation prevents thirty-eight dollars in dental treatment.**

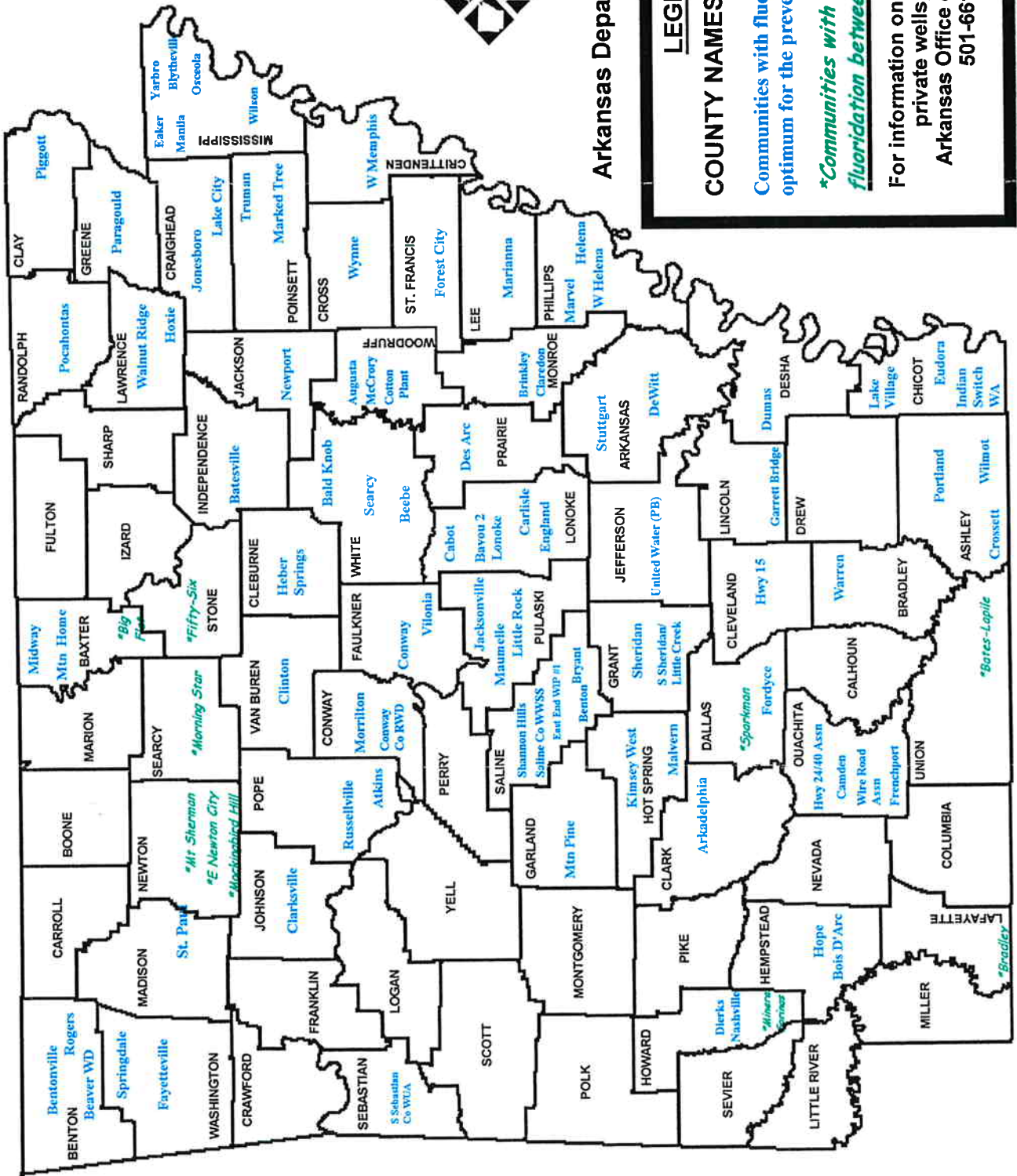
Naturally-fluoridated supplies in Arkansas (those naturally containing optimum levels of fluoride):

Bates-Lapille
Big Flat
Bradley
E. Newton City
Mineral Springs
Mockingbird Hill
Morning Star
Mount Sherman

Currently 78 Arkansas water supplies adjust the level of fluoride in their water. These agencies provide fluoridated water for their customers and for customers in more than 100 water supplies that purchase finished water. Fluoridation provides positive health benefits for more than 1.7 million Arkansans, and more than 170 million Americans, daily.

Arkansas' Fluoridated Community Water Systems

"Keeping Your Hometown (Smiles) Healthy"



Arkansas Department of Health

LEGEND

COUNTY NAMES

Communities with fluoride adjusted to the optimum for the prevention of dental decay

**Communities with natural fluoridation between 0.6 - 1.2 ppm*

For information on fluoride testing of private wells, contact the Arkansas Office of Oral Health at 501-661-2595

ARKANSAS' FLUORIDATED COMMUNITY WATER SUPPLIES

7/1/00 - ARKANSAS OFFICE OF ORAL HEALTH

4815 W. Markham Street, Slot 41; Little Rock, AR 72205; 501-661-2595

Legend: *Naturally Fluoridated; Fluoride adjusted to optimum. Purchasing systems indented

ARKANSAS	CLEVELAND	HEMPSTEAD	LEE	OUACHITA	SALINE	WHITE
Dewitt	Hwy 15	Hope	Marlanna	Hwy 42/4 Assn	Benton	Bald Knob
Stuttgart	CONWAY	HOT SPRING	Lee Co	PHILLIPS	Salern	Bald Knob N WA
Grand Prairie W/D	Conway Co RWD	Maivern	Garrett Grove	Helena	Southwest	Beebe
ASHLEY	Morrison	Hot Spring Co	Moro	Long Lake	Tull	Searcy
Crossett	Merifree	Hwy 9 RWA		Marvell	West Bauxite	West Bauxite
Portland	Oppelo	Magnet-		West Helena	Benton SVC CTR	Bryant (Little Rock)
Morrise	Plumerville	Butterfield		(Dumas)	POINSETT	East End W/P #1
Wilnot	CRAIGHEAD	N Maivern RWA	LOGAN	Marked Tree	N Ohio WA	Saline Co WWSS
BAXTER	Jonesboro	Perla	Paris	Trumann	Trumann	Shannon Hills
Big Flat	Lake City	Kimsey West	Carbon City	Trumann Rural	POPE	(Little Rock)
Mountain Home	CRITTENDEN	Dierks	E. Logan	Atkins	Pottsville	SEARCY
Lakeview-	West Memphis	*Mineral Springs	(partial)	Gray Rock	SW Atkins	*Morning Star
Midway	Lakeshore Estates	Nashville	Morrison Bluff	Greasy Valley	N Carbon City	*SDM
North East	CROSS	INDEPENDENCE	Batesville	Morrison Bluff	London	SEBASTIAN
Benton	Wynne	Bethesda	Pleaffter	Cent Logan PFB	Russellville	S Sebastian Co WUA
Beaver W/D	DALLAS	Rock Moore	Rock Moore	LONOKE	Russellville W/D #2	STONE
Bentonville	Fordyce			Bayou 2 (Jacksnville)	Tri-County	*Fifty-Six
Bella Vista	*Sparkman			Cabot	Water	UNION
Centerton	Dumas			Hwy 319	W Crowe Mtn	*Bates-Lapile
Old Bella Vista	Pendleton-			Carlisle	PRAIRIE	VAN BUREN
Rogers	Pea Ridge			England	Des Arc	Clinton
Benton Co # 1	McGhee			Furrow (Jacksnville)	PULASKI	Bee Branch
*Gravette	W/KMM Rural			Lonoke	Jacksnville	Burnt Ridge
Oak Hills SID	Mitchellville			MADISON	Little Rock AF3	Darnascus
BRADLEY				*St. Paul	Little Rock	Denard
Warren				Biytreville	North Little Rock	Van Buren Co
Bradley Co	DREW			NE Mississippi Co	Brushy Island	WASHINGTON
	Monticello			Dell	N. Pulaski Co WA	Fayetteville
CHICOT	Bower			MISSISSIPPI	Vilonia (partial)	(Beaver W/D)
Eudora	Eron			Clarksville	MAURIELLE SID	Elkins
Indian Switch WA	Green Hills-			Coal Hill	Manila	Farmingtion
Readland-	Brks Chapel			E. Johnson Co	Osceola	Greenland
Grand Lake	Lacey Ladelle			Wirtwks	Driver-Grinder	Mount Olive
Lake Village	Mt Zion			Horsehead	Eaker AFB	St. Paul
Airport Road	FAULKNER			Knowville	Wilson	West Fork
Chicot Junction	Conway			Lamar	Marie	Springdale
Lake Chicot	Vilonia (Jacksnville)			Ludwig	Yarbo	(Beaver W/D)
CLARK	GARLAND			Spadr-a-Goose Cmp	MONROE	Cave Springs
Arkadelphia	Mtn. Pine			LAFALETTE	Brinkley	Nthrn Hills MHP
Caddis Valley	GRANT			*Bradley	E Monroe Co	Tontown
Country Water	Sheridan-			*Walnut Hill	United Water	Oak Glen MHP
Gum Springs	Little Creek			LAWRENCE	Claredon	
CLEBURNE	Paragould			Hoxie	NEWTON	
Heber Springs				Walnut Ridge	*E Newton City	
Mountain Top				Lawrence Co RWD	*Mockingbird Hill	
Tumbling Shoals				(Pocahontas)	*Mt. Sherman	

DON'T LET THE POISONMONGERS SCARE YOU

by Stephen Barrett, MD

In hundreds of American communities citizens have voted against healthier teeth.

Why?

They were confused -- by poisonmongers.

These alarmists in our society are using confusion and a scare vocabulary as weapons against fluoridation. They are cheating all of us, but especially our children.

The benefits of fluoridation are supported by 10,000 scientific studies which prove the poisonmongers wrong.

What do the poisonmongers say?

Instead of telling you that fluoride is found naturally in all water, they call it a "pollutant." Instead of telling you that fluoride is a nutrient essential to life, they call it a "poison." Instead of the big truth, that fluoridation has never harmed anyone, they tell the big lie and say it causes hundreds of ailments.

In proper concentration, fluoride prevents two out of three cavities. But instead of telling you what does happen, the poisonmongers tell you what could happen -- *in their imagination*. They say, "Wait and see," without telling you that scientists have studied fluoridation for more than 70 years.

As far back as 1882 a British physician suggested that high tooth decay rates in London might be due to a lack of fluoride in the diet. In 1908, a Colorado dentist named Frederick McKay reported that something in the drinking water of certain communities helped lessen tooth decay. That "something," Dr. McKay learned in 1931, was fluoride.

Spurred on by this discovery, U.S. Public Health Service dental scientists found that a concentration of one part fluoride to one million part of

water would strengthen teeth while they were forming. Many communities had this concentration naturally in their water supply. By 1945 engineers could adjust the concentration of those which had too little. In that year, studies of controlled fluoridation began. As the evidence built up, thousands of communities acted to obtain its benefits. Today, more than 100 million American drink fluoridated water.

But 100 million other Americans receive public water supplies which are not fluoridated -- thanks largely to the efforts of poisonmongers. Any community which considers fluoridation will be flooded with scare propaganda.

The nation's most active fluoridation critic is John Yiamouyiannis, Ph.D. A biochemist by background, he holds the title of science director of the National Health Federation. Though its name may sound impressive, NHF support the gamut of quackery and opposes such proven health measures as small-pox and polio vaccination. Ten of its leaders have been in legal difficulties for selling "health" products with false or misleading claims. Four of them have received prison sentences for such activity.

On June 1, 1974, Yiamouyiannis was hired by NHF to "break the back" of fluoridation promotion. Since that time, he has barnstormed the country with a series of reports which claim that fluoridation causes cancer. The reports are based upon actual government statistics -- *which he misrepresents*. When scientists at the prestigious National Cancer Institute compared cancer rates in fluoridated and non-fluoridated cities, they found no link between fluoridation and cancer.

Undaunted, NHF accused the National Cancer Institute of covering up the truth.

Curiously, the National Health Federation itself once funded a scientific study of fluoridation. In 1972, it paid \$16,000 to the Center for Science in the Public Interest, a group led by former associates of Ralph Nader. While it was under way, NHF proudly announced that the study would "put the fluoride controversy in proper perspective." When the study came out favorable to fluoridation, however, NHF suddenly became silent about it.

Fluoridation prevents two out of three cavities. It has never harmed anyone. It is endorsed by the American Dental Association, The American Medical Association, the U.S. Public Health Service and almost every other major health organization in this country.

If you live in a fluoridated community, consider yourself lucky. If you do not, *don't let the poisonmongers scare you*.

Fluoridation is a modern health miracle.

Dr. Barrett, a practicing psychiatrist, is co-editor of "the Health Robbers -- How To Protect Your Money and Your Life." As chairman of the board of directors of the Lehigh Valley Committee Against Health Fraud, Inc., since 1970, he has become the nation's most vigorous opponent of health quackery. He is a member of the committee on quackery of the Pennsylvania Medical Society and has been a member of the committee on health fraud of the Pennsylvania Health Council.