

Long-abandoned pipes meant for construction. The path leads to Hurley Medical Center in the background.

The Flint Water Crisis and Community Water Fluoridation: A LESSON IN COMMUNICATION

Not only was Flint's water compromised during the Flint Water Crisis, but area dentists had to work hard to refute unsubstantiated claims that adding fluoride to the community water supply increased the level of lead in the water.

In late 2015, Flint residents were finally successful in getting state and local officials to pay attention to their complaints about their city's water service.

Flint residents were understandably devastated and outraged that their complaints had been ignored and dismissed for so long. Their trust was broken. Consequently, everything and anything associated with their water supply was now subject to scrutiny and suspicion. And despite having been served without issue by Detroit's fluoridated water

system for decades, questions arose about fluoridation. Rumors that fluoride increased lead uptake needed to be debunked. Residents who were drinking bottled water needed encouragement to use fluoride toothpaste.

It became evident that oral health stakeholders needed to come forward to provide reassurance and factual, trustworthy information to patients. It was up to the oral health community to ensure that those affected by this terrible crisis also understood the need, value, and safety of fluoride.



The Flint Water Crisis:

Communicating with the Public

By Traci J. Dantzler, DDS

The impact of the Flint Water Crisis resonated far beyond the local, state, and federal government. The protests of the Flint residents would ultimately gain global attention.¹ But the lack of trust and fear of the unknown became huge barriers to conveying health information to those afflicted by the crisis.

As a local dentist with established community relationships, I was called upon to educate the community on the safety and efficacy of community water fluoridation, as well as the importance of oral health and its impact on overall health. My first television interview was with Dr. Ray Gist, a former MDA and ADA president, on the ABC TV-12 news segment called “Newsmakers.”² We discussed oral health and its connection to overall health. We focused on the potential impact the Flint Water Crisis could have on the residents of Flint, since the entire community relied solely upon bottled water for consumption and tooth-brushing. We explained the importance of community water fluoridation and its direct correlation to a substantial decrease in the incidence of dental caries in those communities.

My public campaign message focused on developing and maintaining good oral hygiene, establishing a dental home, receiving regular dental checkups, and telling patients about the expanded availability of dental Medicaid coverage.³ These are topics that I regularly discussed with my own patients. The subject of fluoride, however, was at the top of my list because the lack of fluoride in the bottled water supply created a critical oral health concern. In addition to recommending using fluoride toothpaste and mouth rinses, I advised the community to consider additional fluoride treatments as recommended by

their dentists. School programs administered by Mott Children’s Health Center and the Michigan Department of Health and Human Services provided fluoride mouth rinses and fluoride varnish for school age children. I made sure that my patients, as well as the general public, were aware of these resources.

When speaking to the public about oral health, I recommend keeping your language simple. As a dentist, it may be natural for us to use dental terminology like “amalgam,” “composite,” or “prophylaxis.” However, we are much more relatable when we use terms that people can clearly understand, like “fillings,” “cleanings,” and “exams.” I will never forget the first time I appeared in a commercial for a local community-based organization. The CEO brought a camera crew from one of the local television stations to our office. I was relatively confident because I was well-versed in oral health topics, but when the cameras started filming, the cameramen were directed to stop every few seconds. They told me to talk to the general public the same way I do with my patients, in a relatable way using terms they would understand. It was the best advice I could have received, and opened the door to many future opportunities to share my message.

I also found that using personal stories, or examples, helps people to relate to both the speaker and the message. When talking about the benefits of fluoride, the elderly population is a great resource. They often share stories of family members who lost all their teeth at an early age because they didn’t have access to community water fluoridation. Our veteran colleagues also possess a wealth of knowledge and wisdom on the topic of fluoride, due to decades of personal experience. Many can recall

the days when dental caries was rampant in their patient population before community water fluoridation was available. They were able to witness, firsthand, the dramatic decrease in dental caries after fluoride was introduced in their municipal water. Sharing these personal experiences can have a great impact.

Earlier this year, I served as a keynote speaker at the Central Michigan Oral Health Summit at Mott Community College in Flint. The topic of my speech was, “The Flint Water Crisis and its Impact on the Oral Health of the Flint Community.” The audience was comprised of residents of the Flint community, dental and medical professionals, and members of various community-based organizations. It was a great opportunity to share information, as well as receive feedback from the audience. It is important for our community to be heard, to feel that they have a voice, and to know that we are here to listen to their concerns and provide all the assistance we can. After giving a brief overview of the Flint Water Crisis and how it came about, I discussed the importance of community water fluoridation and alternative sources of fluoride.

I also discussed my observations of the patients in our practice. While it is impossible to know the precise extent to which the lack of fluoride in the municipal water supply contributed to the incidence of dental caries in our practice, there was, in fact, an increase in tooth decay during that time — particularly among children and the elderly. I asked the residents of Flint to raise their hands if they were still using bottled water for consumption, cooking, and brushing their teeth. Everyone who identified as a Flint resident raised their hand. Even though Flint was reconnected with Detroit Water and Sewerage in October of 2015,⁴ their faith in their elected officials was diminished irreparably, and fear dictated their actions.

In addition to lacking the necessary fluoride needed on a daily basis, there’s concern among many that brushing teeth with bottled water could carry other health risks. Bottled water may contain bisphenol A, or BPA, a known carcinogen found in polycarbonate plastics and epoxy resins. According to an article published by the Mayo Clinic,⁵ some research has shown that BPA can leech into food and beverages that are stored in plastic containers. Although the U.S. Food and Drug Administration claims that the BPA found in low levels in cer-

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tain foods and beverages is safe,⁶ there are precautions that people should take, including using BPA-free products whenever possible.

As dental professionals, we are in a unique position. We may be the only people in some of our patient’s lives in whom they trust to share oral health information. We hope as their dental care providers we have established a caring relationship with our patients based on quality care, empathy, and trust. Someone once said, “People don’t care how much you know until they know how much you care.” This could not be any more true than in the dentist/patient relationship.

Throughout the years, my patients have shared with me the impact that the Flint Water Crisis had on their lives. More times than I can recount,

we started our appointments with heartfelt talks, followed by tears. Many were frustrated by the fact that they wanted to uproot their families and move away, but they were unable to sell their homes in the midst of the crisis. Others experienced health issues or financial difficulties that made the water crisis even more traumatic for them and their families. There was a sense of hopelessness and helplessness that permeated the city. Although they were presenting to my office with particular dental concerns, their oral health was often not their number-one priority. I was there to listen, first. This allowed me to ultimately relate to each individual on his or her level of understanding and need. When that trust was developed, I was able to educate my patients on oral health issues and partner with them to develop and maintain a healthy mouth.

Promoting fluoridation and oral health in the community is an ongoing task, and there are many effective ways to reach out. We must first know our audience, then we can construct our message accordingly. Opportunities to share our message include health fairs, classroom presentations, dental office tours, donating toothbrushes and other dental supplies to your local food banks, speaking with local and state legislators, being available to speak with local media, and more. The best outreach depends on your individual community events, opportunities, and stakeholders. Also, partnering with schools, other local health professionals, churches, and dental team members is not only a great way to convey your message on a broader scale, but it allows you to receive feedback and advice from a diverse group that will ultimately prove to be mutually beneficial. When people feel that they not only have a voice, but they can partner with us to be a part of the solution, then we can affect great change.



The Flint Water Crisis:

Connecting with Community Leaders

By Raymond Gist, DDS

Just 0.7 milligrams of fluoride equals a liter of caries-free smiles! This is my version of the message that health professionals in dentistry and beyond have been delivering to policy makers and the global public for 75 years!

We are educators and advocates. We are committed to the highest of ethical standards in the dental profession, and believe that our status as trusted health professionals clarifies that we place the greater good of our patients, and our communities ahead of personal interests. Our mission — the goals we strive to achieve as health professionals — involves protecting and advancing the public's oral health, as well as promoting understanding and goodwill throughout the dental community. As dentists and as human beings, we are united in the ideal of service.

Although our message has been widely received throughout America, allowing many Americans to have access to fluoridated water and the best dental care in the world, tens of millions of residents in America and beyond still do not have this privilege, owing to such factors as poverty, geography, lack of education and health literacy, and language or cultural barriers.

In addition, health care professionals have received resistance from some factions in many communities, including local and state governmental agencies, which hamper our attempts to break down these barriers.

Our efforts were compounded when the Flint Water Crisis emerged. Flint's residents, including children, were forced to use bottled water without the benefit of fluoride, resulting in an increase in the incidence of tooth decay. And as this problem continues to fester, it has been

noted that "American children who do not drink fluoridated tap water are much more likely to have tooth decay. However, the study confirms that those who drink tap water are more likely to have elevated levels of lead in their blood."⁷

As health care professionals struggled to find pathways to raise awareness and provide safe avenues for delivering fluoride in some form to these residents, the MDA developed factual resources specific to the situation to help dental offices ensure their own water sources were safe. Resources were also provided to help communicate with patients the steps the offices took to ensure safe water in the office, to educate patients on community water fluoridation, and to educate patients on the need for topical fluoride while they were unable to drink fluoridated tap water.

These resources were developed based on the ADA's *Fluoridation Facts*.⁷ In addition, removing lead pipes and neutralizing harmful actions taken by some governmental authorities became a primary focus.

Unfortunately, while these solutions were being pursued, some anti-fluoridation activists chose to latch on to the opportunity they saw to rally against fluoridation and play on fear and a lack of awareness. One of the claims used by anti-fluoridation activists was that fluoride increases lead uptake. False! The MDA and ADA worked together with the CDC to develop a fact-based statement on this claim. In fact, there is no credible evidence that fluoride has any correlation to lead uptake.^{8,9} The "research" making these claims is faulty. But fortunately, reviewing common-sense facts with patients often provides reassurance that there is no need to be fearful.

(Continued)

The ADA and MDA are well-aware that anti-fluoridation groups have appealed to civil rights leaders to join their cause to discontinue community water fluoridation throughout America. They have claimed that because African-Americans suffer disproportionately from kidney disease and diabetes that fluoridated water unfairly and negatively impacts their communities. But the best available scientific evidence indicates that individuals with chronic kidney disease or diabetes can consume optimally fluoridated water without negative health consequences.⁸ In fact, good oral health, provided in part by fluoridation, can help individuals with these conditions have fewer overall health issues.¹⁰

Furthermore, in 2008, following a review of the available science, the National Kidney Foundation released a paper¹¹ on fluoride intake and kidney disease. In that paper, it states that there is no consistent evidence that the retention of fluoride in people with advanced stages of chronic kidney disease who consume optimally fluoridated drinking water results in any negative health consequences. Compared to other nutrient intakes, fluoride is a secondary concern. Any potential risk is likely greatest in areas with naturally high water fluoride levels.

Education, advocacy needed

These types of facts are available, but not accessed or easily understood by many residents in Michigan. This accentuates the need to bring education and advocacy to the forefront by health care professionals to identify and recommend solutions as often and as determined as necessary.

Michigan is full of unique and diverse communities, and as Flint and similar communities continue to identify public health issues such as water safety and quality, it remains important to ensure that professionals with

both health ties and influence in the community possess the fact-based resources they need to thoroughly answer questions that arise.

Testimony offered

In 2017, as the Genesee County Drain Commission prepared to connect to the Karegnondi Water Authority's new pipeline to Lake Huron to replace the more expensive services provided by Detroit, the county commission considered not fluoridating.¹² And as the primary spokesperson representing dentistry in Genesee County, I along with several dentists offered public testimony addressing policymakers, anti-fluoridationists, and community members who supported fluoridation.

In doing so, I made nine key points:

1. Fluoridation is cost-effective, saving as much as \$38 per dental treatment for each \$1 spent in providing this benefit.⁸ Genesee County had already invested in the equipment and supplies for its new water plant to continue providing this benefit to its residents.

2. Because it is so beneficial, the United States has a national goal for 80% of Americans to have water with enough fluoride to prevent tooth decay, by the year 2020.¹³

3. The health professionals here and those throughout the county can attest to the differences they see in the dental health of residents who are served by fluoridated water, and those who are not.

4. Some of us remember the days before fluoridation was implemented, when it was almost an expectation that patients would lose all of their teeth by the time they were in their 30s. But children growing up today are far less likely than their grandparents were to experience the rampant tooth decay that caused this type of loss.¹⁴

5. Not continuing to provide community fluoridation would jeopardize that positive trend.

6. Fluoridation is equitable. It has, in fact, been endorsed by numerous United States surgeons general¹⁵ and more than 100 leading health organizations, including the Centers for Disease Control and Prevention (which named it one of the top 10 great health achievements of the 20th century), the American Medical Association, the World Health Organization, and the American Dental Association for its health benefits in preventing dental decay.

7. Fluoridated water is available to all residents served by their community water supply, regardless of age, race, income or disability. It is similar to adding Vitamin D to milk to prevent rickets, adding iodine to salt to reduce the incidence of goiters, or fortifying cereals and bread with folic acid to improve the health of the public.

8. As decision-makers, you will likely hear and read claims about fluoride being poisonous, corrosive to pipes, causing an increase in lead absorption, and more. But health care professionals know that the facts speak for themselves. Here in Genesee County, residents have received this benefit without issue for more than 50 years through the water it has received from Detroit.

9. Fluoridation is safe. It is true that water operators must be properly trained in the handling of the chemical version of fluoride used to treat the water, and special equipment must be used due to the concentrated form when it is delivered. But again, the facts speak for themselves. The water operators have been experienced in handling this issue since the fluoridation of water was initiated in our community in 1965. Fluoride is added to the water in specific, very low concentrations, and daily testing is done to ensure that proper levels are maintained as recommended by federal authorities.

I also told them:

"Ladies and gentlemen, it is incum-

bent upon the many health professionals in Genesee County, including those sitting in this room, to effectively raise awareness among all communities in the county that the most effective approach to addressing mouth disease is to prevent it, and that the most effective mechanism to prevent it is fluoridation.

"I encourage you to consider the sources of the information you receive on this issue. You have been apprised of facts regarding safety, and benefits of fluoridation of community water supplies, with support from over 100 leading health care organizations. As a life-long local resident and local experienced professional, I encourage the Drain Commission to support the ongoing efforts of the concerned health professionals throughout Genesee County by approving the proposed Fluoridation Ordinance for Public Water Supply, for water systems served by the Genesee County Agency Division of Water and Waste. Thank you for this consideration, and the opportunity to provide the facts on community fluoridation."

This testimony was crucial in encouraging the positive vote to continue this public health benefit that residents had always received under Detroit water. It was also important to have a spokesperson and a diverse group of speakers sup-

porting fluoridation — speakers who were representative of voters in the district being served. Importantly, this resonates more strongly with local decision-makers than having individual dentists, and/or staff from state agencies or associations who are not necessarily tied to the local community.

Health care professionals need to continue to rally support for fluoride in the water supply. The scientific evidence supporting fluoride is overwhelming, and we need the confidence and understanding of every governmental body that has a stake in, and a concern for the overall health of the citizens in America.

This is especially true of policy makers. We need to continue to speak to them with loud, determined, voices in favor of citizens in need of preventive care. Otherwise, we may miss an opportunity to effect lasting, positive change. On a related note, term limits in Michigan and other states mean that support for our political action committees and legislative committees in the tripartite will always be essential to our membership. Please support them all. ●

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