

To: Durango City Council
From: Durango Utilities Commission
Date: May 21, 2016
Subject: Community Water Fluoridation

emails

History

As a result of studies performed in the 1940's and 1950's, U. S. Public Health recommended that municipalities consider adding or subtracting fluoride to their water supplies to an optimal level to help prevent dental caries. Community water fluoridation has been a controversial issue since its inception in the 1950's.

The city of Durango began fluoridating its water supply in 1956 at the completion of the College Mesa Water Treatment Plant. In 2005, nine registered voters failed to obtain enough signatures to place an initiative on the ballot to compel the city to cease fluoridation. In 2008-2009, a request to cease fluoridating city water was investigated by the then Water Commission. The Commission unanimously approved the continuation of water fluoridation in the City of Durango.

Process

At the request of Council Liaison Dick White, the Utilities Commission agreed to explore citizens' interest to cease fluoridating the City of Durango treated water supply.

The Commission held several meetings wherein the main topic of discussion was community water fluoridation. The November 2015 meeting provided a forum for the anti fluoridation advocates to provide information as to why fluoridation should be discontinued. This discussion was lead by James Forleo, DC and included a video prepared by the Fluoride Action Network. The January 2016 meeting provided a forum for local and state Public Health officials and the dental profession to provide information as to why fluoridation should be continued. This discussion was lead by Liane Jollon, RN, San Juan Basin Public Health and written materials were distributed that championed community water fluoridation.

The March 2016 meeting introduced three new members of the Commission. John Ballew provided a summary of the investigation he completed and the pros and cons as he saw them. In order to bring the new members up to speed, Mr. Ballew provided a list of many articles and websites that he had explored, pro, anti and neutral. The list was shared with pro and anti advocates as well.

Discussion amongst Commission members occurred at the April 2016 meeting and concluded at the May 2016 meeting.

Conclusion

The Commission did not reach consensus on a recommendation to Council. The following are the Commissioner's individual summary statements of their position on this issue:

Kara Hellige: - *Against*

The benefits of water fluoridation is highly documented in scientific publications. Fluoridating city water provides benefits to the community by decreasing dental cavities which in turn affects overall health both mentally and physically. I don't think that the question regarding whether the City should fluoridate its water comes down to the benefits of water fluoridation but rather the City's role for the community. The City Utilities Department commits to providing safe, clean drinking water that meets federal Safe Drinking Water standards. This does not commit the City to provide public health benefits through drinking water. If the City determines that it is in their best interest to provide health benefits, then where does the City stop with these services? Should the City consider fortifying the water with additional vitamins and minerals or even implement laws to require immunizations. Since the City's mission does not extend into health care and the City is continuously struggling to provide a budget for maintenance and operations, I would recommend that we remove fluoridation from our operation procedures and use the money saved in areas that do insure that the city is meeting its mission of providing safe, clean drinking water.

Domi Frideger (Youth Engagement Program Liaison): *non voting member*

The issue of fluoridation is one very complicated to navigate through. It seems to me that both sides have compelling arguments with varying degrees of truth. From what I have heard and researched, fluoridation is an issue that needs to be looked at on a very case by case basis. If the community in consideration was of a very high average socioeconomic level, fluoridation would be unnecessary because dental hygiene ceases to be as big of a problem. Conversely, a community with a large portion of impoverished people (under the poverty line) or even a small amount of impoverished people (25%) should fluoridate water at the recommended governmental level in order to maximize good for the entire population.

The science overwhelmingly backs up the value of fluoride in water, showing its undeniable effectiveness in minimizing dental health issues. There is also very little evidence pointing to adverse health effects of fluoride for the majority of the population. On the whole, fluoride offers more good than harm.

I do not give this recommendation without reservation however. The case against fluoride has its validity, specifically in regards to the danger of fluorosis, fluoride through diet and the instances of horses being poisoned by fluoride. These studies however do not provide enough conclusive peer reviewed evidence to make the anti fluoride argument viable. I would like to recommend that the City of Durango continue to stay abreast of any new and credible data that may come available in the future and use their best judgement when that day comes.

All in all, my recommendation is to re-fluoridate Durango's water supply due to a Bentham style of Utilitarian reasoning. The benefits of fluoridation for the whole of the community outweigh by far the harm, and this recommendation is backed up by far more credible science than the anti-fluoride argument.

Paul Oneil:

The reasons that I chose to vote against continuing Fluoridation in the City of Durango water supply

the safety of fluoride rely on a cherry-picking of data, a misunderstanding- deliberate or accidental- of what concentration means, and scare tactics using words like "toxic." In fact, the toxicity of every substance depends on its concentration and the manner and duration of exposure. The City's current added fluoride is at a level that is believed safe and beneficial according to the best available data. If new credible data emerged that indicated it should be reduced, we would be obligated to do so. No such data have emerged.

It does not follow, however, that simply because it is safe to add fluoride to the water supply, the City may do so. Opponents of fluoride have claimed that the City needs individual consent from water customers to add fluoride to the water supply. To evaluate this claim, let us remember that the City adds and subtracts many things from our water supply before it reaches our taps, all without individual consent. As an analogy, imagine that a resident of the City came forward with an argument that bacteria present in nature are beneficial to gastrointestinal health, but that chlorine and other sanitizing chemicals are harmful to humans. This citizen suggests that she has not given individual consent for the City to remove bacteria and add sanitizing chemicals. Would this commission be on solid ground to cease water treatment for bacteria to accommodate this person?

The answer is obvious. We would not. In so doing, we would expose our entire citizenry to bacterial infection. The City has the obligation, as the operator of the water system and the guardian of the citizens' health, to provide the highest quality water- not merely the purest, rid of even beneficial minerals- but the healthiest water that benefits its paying customers. We rely on the City's elected Council to provide us with the healthiest water supply that it can, along with safe streets, a well-planned built environment and a wastewater system that keeps us healthy. All of these missions require that we yield some small amount of individual consent through the process of electing our leaders to make certain decisions on behalf of all of us. In this case, that decision must include the continuation of community water fluoridation at the appropriate concentration. It is my recommendation that the City Council adopt that decision in order to promote the healthiest oral health outcomes that are part of keeping this city great.

Colton Andersen: *Against*

After reviewing the data and articles that were presented to the utilities commission, I did not find any overwhelming evidence that linked fluoride to poor community health problems. Much of the data linking fluoride to adverse health effects was tied to much higher fluoride levels than what is currently being added to our city water. I have a problem with the arguments that try and blame fluoridated water for any and every health issue. These seem to be used as a scare tactic to work people up emotionally. The fact is, once you dig into these arguments, they aren't founded on any solid evidence. I have also spoken with a few health professionals (a local dentist and a local PA) who have seen firsthand the benefits of fluoridated water when it comes to community oral health. Both stated that non-fluoridated communities have a noticeably higher rate of dental caries. Personally, I question that other factors may be contributing to those higher numbers including diet and demographic differences. To me, and what I have heard from others, the real question is how will this decision affect the lower socio-economic group within our community. If you remove fluoride from the water, individuals in this group might not have the means to access fluoride on their own, leaving them to be most affected by that decision. On the flip side, they may also be unable to afford alternative water sources leaving them only with access only to fluoridated water.

The main premise of the fluoride issue that I question is the ethical role of the local government when it comes to administering, without individual consent, a substance that is strictly for a medical purpose.

- With the amount of fluoride in toothpaste and mouthwash as long as people brush their teeth they should be getting an adequate supply of fluoride. I feel that fluoride is a Band-Aid that is covering up people's poor dental hygiene habits and poor diets.
- Adding fluoride to the municipal supply is wasting over 99% of the fluoride added to the water system. Water use per capita in Colorado is 121 gpd with most people drinking less than a gallon per day.
- I feel that it is easier for people to add fluoride if they want to their drinking water than it is for people to remove it if they don't want it. (add several drops to a gallon water jug put it in the refrigerator vs. a reverse osmosis filtration system.)
- I don't agree with forcing a population to take fluoride, whether its classified as a medication, or a supplement. I don't feel it should be forced upon a population.
- Similar to flu vaccines, I think they are effective and I try to get one every year but I don't want to see them become mandatory for everyone. I think fluoride is effective at preventing cavities, however to force everyone to take fluoride for a 25%-40% reduction in cavities seems like a lot of effort and outcry for such a small reduction. (If without fluoride in my water I get 10 cavities in my life and with fluoride I get 6 cavities in my life doesn't seem like a great enough benefit to require everyone to drink fluoride.)
- I feel that fluoride is a holdover from a previous generation. I think that will all medications/supplements, the benefit has to be worth the side-effects and while I don't think there are serious side effects with the low dose of fluoride, I don't think the benefits are worth the risk to everyone. There is the potential for at risk individuals to be more susceptible to fluoride exposure and for a small benefit to mass dose the water supply seems like an easy solution but not necessarily the right solution when it can easily be added to drinking water and not all of the City's water.

Brian Devine - *For*

To begin with, I want to thank the many passionate members of the Southwest Colorado community- from both within and outside of the City- who have lent their voices to the discussion of community water fluoridation. The foundation of a successful democratic society is the participation of people from all walks of life in our decision-making processes. The City has provided a forum for dentists and medical doctors to comment on even terms with those with no particular expertise but a dedication to their cause. This commission shares a lack of experience in medical issues- we are engineers, scientists, and policy experts volunteering our time to make our City as good as it can be. Regardless of today's outcome, there will be people who are dissatisfied and will no doubt go before City Council to argue their case again. This is only a good thing, and I encourage everyone to remember we are volunteers doing our best to understand the issue before us.

As I have explored the arguments and the facts surrounding community water fluoridation, I have come to the conclusion that there are actually two issues before us. The first is a question of fact: is fluoride, in the proposed concentration, safe for human consumption, and does it promote healthy outcomes? The second is a question of philosophy: if it is safe in the proposed concentration, does this commission have the right to add it to the community's water supply despite the wishes of some that it not happen? These are separate questions, and one is easier to answer than the other.

In fact, there is little doubt that fluoride in the proposed concentration IS safe for human consumption, and supports better oral health. The proposed concentration is verified as safe by every major scientific and medical organization in the United States that has taken a position on the issue. Arguments against

Regardless of the health benefits, is it really within the role of our local government? I would have to say, that personally, I would err on the side of not fluoridating our water for this reason. If you look at tobacco use, arguably many more health risks are associated with it, but it is still up to individual choice. Diet and exercise are the same way. You can't force someone to walk a mile and eat a salad instead of playing video games and eating a cheese burger. Both of these things combined cause many more serious community health problems than a few extra cavities would, but they are still left to individual choice. I feel like community oral health should be dealt with similarly to the tobacco or diet and exercise issues, and that is through community education. I would rather see the money spent on fluoridating our water used for oral health education in our schools and within our community instead. We could sponsor dental education days at our schools once or twice a year that are strictly aimed at teaching kids proper dental hygiene. I'm sure local dentists would be willing to donate their time to perform brief oral checkups on children and talk with them about proper oral care. We could most likely get sponsors for providing tooth brushes, toothpaste, and dental floss to all the children in our schools. Proper community oral care would not only reduce the cavity rate, but also reduce gum disease and gingivitis cases within our area. Better oral health would most definitely lead to a healthier community. I just wonder if we could do something better in our community than just blindly putting an additive in our water. In my opinion, better education might be more work, but it would be the right thing to do and lead to better long term outcomes by improving life-long oral hygiene rather than a passive contemporary benefit that ends when the child/adult leaves the community.

Again, just to reiterate, this is my personal opinion and I do believe it is important that the City Council study this issue closely before making a decision. There are many passionate individuals within our community that stand on both sides of this issue who should be heard out and have their arguments taken into consideration. Thank you for taking the time to read and consider my opinion on this issue.

John Ballew - *For*

During our discussion in March I provided an overview of my investigation of the arguments for and against community water fluoridation. I tried to present a balance review of both the pro side and the anti side. It was difficult. I was very disillusioned that a rational discussion of the scientific merits, or lack thereof, of water fluoridation has devolved into a propaganda war invoking an emotional response to accusations, innuendo and spurious information.

The pro side is defending a position established 70 plus years ago, supported by many studies, some of which do not meet today's stringent research standards, and feels that the issue of efficacy is settled. The anti side cherry picks more recent research results, uses accusations and innuendo and infers threats to health and individual freedom.

There is so much misinformation that it is difficult to come to a reasonable conclusion on the truth of the matter. The pro side says the science is settled which I would say is disconcerting. Science can be settled from a practical sense but it is always open to advancement or change. That's why it is science and not dogma or unproven claims. Promotion of and continued attention to emerging research is an important part of the scientific process. However, the anti side has not produced peer-reviewed research that invalidates the efficacy of water fluoridation for caries prevention and continues to attack the practice without substantiated reasons.

In my review of the matter including the actual studies behind the claims, I have found that the weight of science is in favor of water fluoridation. I still have not seen any study results that show long term negative effects of community water fluoridation at optimum concentrations other than mild fluorosis.

It should be noted that the city's water sources contain fluoride from natural sources. If the city discontinues adding fluoride to an optimal level to reduce dental caries, all users of city water will still be ingesting fluoridated water, just not optimized for dental benefit.

Until such time that peer reviewed objective scientific studies provide conclusive evidence that there is harm from optimum levels of fluoride in drinking water, I recommend that the city continue adjusting the amount of fluoride in its treated water supply to that for optimum dental health and support Public Health in its mission to protect and improve the health of families and communities.

Given the difference of opinion of the Commissioners, it is the recommendation of the Utilities Commission that Council schedule a study session to hear firsthand the varying viewpoints before they make their determination as to whether or not to discontinue fluoridating Durango's water supply.

Respectfully submitted,

John Ballew, Chair

xc: Ron LeBlanc, City Manager
Steve Salka, Utilities Director
Mary Beth Miles, Assistant to the City Manager
Utilities Commission Members