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**From:** Wells, Eden (DHHS)

**Sent:** Monday, January 2, 2017 2:16 PM

**To:** Pamela L. Pugh; Mona Hanna-Attisha; Reynolds, Lawrence; [lrey52@gmail.com](mailto:lrey52@gmail.com); McFadden, Jevon (DHHS-Contractor); Valacak, Mark; Kirk Smith; Shawn McElmurray

**Cc:** Hiipakka, Scott (GOV)

**Subject:** IMPORTANT: Invitation to Participate on Health Panel, January 11th, 2017 Town Hall

Dear Colleagues,

Please forgive me, but I just realized today that I was point person to invite you all to join me on the Health Expert Panel at the January 11th Flint City Town Hall hosted by Mayor Weaver and the FLintCares Community Coalition Partner. My sincere apologies for the delay and short notice!

Many of you have already heard about this, but this Town Hall (agenda below and attached) will review the Water Quality and Health issues of the Flint Water Crisis, and will be bringing information directly from the Data Summit in Chicago on the 10th. This is a very important meeting, and I hope that you can join the Panel.

*Please respond if you can or cannot attend.* The Town Hall will be from 6-9 PM on January 11th at the UM-FLint Northbank Center. I have highlighted the areas below about which health colleagues can speak to regarding Health impacts and Resources, you may have others you would like to communicate as well.

Shawn, you would be on the First Panel- wanted to be sure you got this as well.

Again, my apologies for my crossed wires, and please let me know if you can make it, and if you have any questions or concerns,

Eden

Eden V. Wells, MD, MPH, FACPM  
Chief Medical Executive  
Michigan Department of Health and Human Services  
Lansing, MI  
Phone: 517-284-4020  
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**City of Flint Town Hall Meeting Agenda**  
**Location: UM-Flint Northbank Center**  
**January 11, 2017**

**Host:** Mayor Karen Weaver and supported by Flint Cares Community Coalition Partners

**Goals:**

1. Clearly communicate findings of recent water quality studies and provide opportunities for subject matter experts to discuss their interpretations of these findings
2. Provide attendees with up-to-date information on system recovery and optimization progress and next-steps
3. Discuss and communicate the implications of water quality findings – filter needs, bottle water needs, etc.
4. Discuss and communicate the health implications of the water quality findings
5. Provide attendees with up-to-date information on health services and available resources within the community

**Schedule:**

6:00 – 6:15 pm: Introductory Comments by Mayor Karen Weaver

6:15 – 6:55 pm: Discussions of Individual Data

6:15 – 6:25 pm: EPA Data

6:25 – 6:35 pm: MDEQ Data

6:35 – 6:45 pm: City of Flint Data

6:45 – 6:55 pm: VT Data

6:55 – 7:15 pm: Discussions of Filter Studies and Biological Assessments

7:15 – 8:00 pm: Facilitated Water Expert Panel Discussion: Lead, Water Quality, Optimization (audience questions on note cards)

1. State of system recovery
2. Is the water system meeting regulatory requirements?
3. Is the water appropriate for consumption?
4. Should water filters be used long term?
5. What next steps / continued steps should be taken?

8:00 – 8:30: Facilitated Health Expert Panel Discussion: Impact, Services, Resources (audience questions on note cards)

1. Medical impact today
2. Medical services being provided
3. Discussion of other available resources

8:30 – 8:45 pm: C.O.R.E Program Update

8:45 am – 9:00 pm: Question and Answer

Water Expert Panel Discussion

- Dr. M. Edwards
- George K – DEQ
- Bryce F- DEQ
- Mark Durno –EPA
- JoLisa M –City of Flint
- Shawn M – Wayne State

#### Health Expert Panel Discussion

- Dr. Eden Wells – MI DHHS
- Dr. L. Reynolds – GC Medical Society
- Kirk Smith – Greater Flint Health Coalition
- Dr. Pam Pugh –City of Flint
- Mark Valacak – Genesee County Health
- Dr. Mona Hanna-Attisha- Hurley Medical Center
- Dr. Jevon McFadden – CDC

**From:** Wells, Eden (DHHS) [<mailto:WellsE3@michigan.gov>]

**Sent:** Monday, January 2, 2017 2:24 PM

**To:** Pamela L. Pugh <[ppugh@cityofflint.com](mailto:ppugh@cityofflint.com)>; Mona Hanna-Attisha <[mhanna1@hurleymc.com](mailto:mhanna1@hurleymc.com)>; Reynolds, Lawrence <[LawrenceR2@mottchc.org](mailto:LawrenceR2@mottchc.org)>; [lrey52@gmail.com](mailto:lrey52@gmail.com); McFadden, Jevon (DHHS-Contractor) <[McFaddenJ1@michigan.gov](mailto:McFaddenJ1@michigan.gov)>; Valacak, Mark <[mvalacak@gchd.us](mailto:mvalacak@gchd.us)>; Kirk Smith <[ksmith@flint.org](mailto:ksmith@flint.org)>; Shawn McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>

**Cc:** Hiipakka, Scott (GOV) <[HiipakkaS@michigan.gov](mailto:HiipakkaS@michigan.gov)>

**Subject:** Re: IMPORTANT: Prep Conference Call for Health Panel, January 11th, 2017 Town Hall

Quick follow-up,

Rich Baird is hoping to get us all on a conference call to discuss the flow at some point later this week (Thursday or Friday). More to follow!

Shawn, your prep call may be at a different time...

Eden V. Wells, MD, MPH, FACPM  
 Chief Medical Executive  
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**From:** Shawn McElmurry [<mailto:s.mcelmurry@wayne.edu>]

**Sent:** Tuesday, January 03, 2017 12:59 PM

**To:** Wells, Eden (DHHS) <[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)>; Hiipakka, Scott (GOV) <[HiipakkaS@michigan.gov](mailto:HiipakkaS@michigan.gov)>

**Cc:** Pamela L. Pugh <[ppugh@cityofflint.com](mailto:ppugh@cityofflint.com)>; Mona Hanna-Attisha <[mhanna1@hurleymc.com](mailto:mhanna1@hurleymc.com)>; Reynolds, Lawrence <[LawrenceR2@mottchc.org](mailto:LawrenceR2@mottchc.org)>; [lrey52@gmail.com](mailto:lrey52@gmail.com); McFadden, Jevon (DHHS-

Contractor)<McFaddenJ1@michigan.gov>; Valacak, Mark <mvalacak@gchd.us>; Kirk Smith <ksmith@flint.org>; Paul Kilgore<paul.kilgore@wayne.edu>; Marcus Zervos <MZERVOS1@hfhs.org>; Matthew Seeger<matthew.seeger@wayne.edu>; Laura Sullivan <lsulliva@kettering.edu>; Nancy Love <nglove@umich.edu>; Susan Masten <masten@msu.edu>

**Subject:** RE: IMPORTANT: Prep Conference Call for Health Panel, January 11th, 2017 Town Hall

Hey Eden and Scott, thank you for the emails and Happy New Year! Unfortunately, I am not comfortable serving on this panel but will try to attend.

We presented our latest results from the FACHEP study and the NSF PoU study at an open meeting before the holidays. We do not have any new results to share. We are committed to working collaboratively with all partners to understand water quality and potential impacts to human health in Flint. As part of this commitment I and others from FACHEP are participating in the Jan. 10<sup>th</sup> data summit in Chicago. We will continue to communicate our results as they become available.

In the future, I would appreciate being asked if I was willing to participate in a panel discussion before Wayne State University is identified as participating.

Sincerely,  
Shawn McElmurry

**Subject:**RE: IMPORTANT: Prep Conference Call for Health Panel, January 11th, 2017 Town Hall

**Date:**Tue, 3 Jan 2017 20:09:10 +0000

**From:**Wells, Eden (DHHS) <WellsE3@michigan.gov>

**To:**Shawn McElmurry <s.mcelmurry@wayne.edu>, Hiipakka, Scott (GOV) <HiipakkaS@michigan.gov>

**CC:**Pamela L. Pugh <ppugh@cityofflint.com>, Mona Hanna-Attisha <mhanna1@hurleymc.com>, Reynolds, Lawrence <LawrenceR2@mottchc.org>, lrey52@gmail.com <lrey52@gmail.com>, McFadden, Jevon (DHHS-Contractor) <McFaddenJ1@michigan.gov>, Valacak, Mark <mvalacak@gchd.us>, Kirk Smith <ksmith@flint.org>, Paul Kilgore<paul.kilgore@wayne.edu>, Marcus Zervos <MZERVOS1@hfhs.org>, Matthew Seeger <matthew.seeger@wayne.edu>, Laura Sullivan <lsulliva@kettering.edu>, Nancy Love <nglove@umich.edu>, Susan Masten <masten@msu.edu>

Sorry Shawn,

I was asked to be sure to add you onto my email in case you had not gotten work prior. It is my understanding that anyone who is presenting in Chicago's Data Summit would be also included on the 11<sup>th</sup>.

E

**Eden V. Wells, MD, MPH, FACPM**  
Chief Medical Executive  
Michigan Department of Health and Human Services  
P.O Box 30195  
Lansing, MI 48909  
(517)-284-4998

**From:** Shawn McElmurry [<mailto:s.mcelmurry@wayne.edu>]

**Sent:** Thursday, January 5, 2017 12:39 PM  
**To:** Marc Edwards <[edwardsm@vt.edu](mailto:edwardsm@vt.edu)>  
**Cc:** Nancy Love <[nglove@umich.edu](mailto:nglove@umich.edu)>; Paul Kilgore <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>  
**Subject:** Quick phone call before Jan 10th meeting

Hey Marc, Happy New Year!

I'm interested in talking with you before the Jan. 10<sup>th</sup> meeting. I know right before the holiday's you reached out asking if I would be comfortable joining you in saying the water in **Flint was greatly improved**. I would like to share with you why I was hesitant to say this and continue to have questions. Could we talk sometime before Monday at noon? Weekend is ok too.

I'd like to keep this small but would like to have Paul and Nancy join me for the call.

Thanks,  
Shawn

Shawn P. McElmurry, Ph.D., P.E.  
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Wayne State University  
Dept. of Civil and Environmental Engineering  
2158 Engineering Building  
5050 Anthony Wayne Dr.  
Detroit, Michigan 48202  
Phone: 313-577-3876  
Fax: 313-577-3881

**From:** Marc Edwards [<mailto:edwardsm@vt.edu>]  
**Sent:** Thursday, January 05, 2017 12:55 PM  
**To:** Shawn McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>  
**Cc:** Nancy Love <[nglove@umich.edu](mailto:nglove@umich.edu)>; Paul Kilgore <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>  
**Subject:** RE: Quick phone call before Jan 10th meeting

Hi Shawn,

Yes, I was quite perplexed as to why your team would not be able to say, that it was unclear if water quality in Flint has improved since the switchover from Flint River to Detroit, enhanced disinfection, enhanced corrosion control, and improved distribution system monitoring and management.

In any case, when you did not respond, I just left you out of the equation/conversation.

I have 11 to 11:50, or 1-1:50 on Friday.  
I could also try a phone call as I go to DC on Friday from 3:30-4:30.  
I am in DC all weekend for a workshop and have no availability Monday either.

We could also potentially meet the evening before the workshop.  
I will arrive about 7:30 pm to the hotel in Chicago.

Marc

**From:** Shawn McElmurry [<mailto:s.mcelmurry@wayne.edu>]  
**Sent:** Thursday, January 5, 2017 11:58 AM

**To:** Marc Edwards <edwardsm@vt.edu>; Nancy Love <nglove@umich.edu>; Paul Kilgore <paul.kilgore@wayne.edu>  
**Subject:** RE: Quick phone call before Jan 10th meeting

Thanks Marc. I know my response caught you off guard....the preholiday crunch didn't leave me anytime to explain.

Let me see if Nancy and Paul can join for 1pm on Friday.

Thanks,  
Shawn

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On Fri, Jan 6, 2017 at 1:42 PM, Marc Edwards <edwardsm@vt.edu> wrote to Amy Pruden:

She is just gung ho that the regrowth is a serious drawback of filters-- any attempt to reason with her is pointless.

I asked her to consider speaking with you about regrowth.

She thought that Flint was the only place POU was significantly installed....hopefully, I corrected that, but I am not sure she even heard that to be honest.

Spewed about multi-barrier and compromised system, and I could not even get a word in edge wise about that.

Nancy at her worst.

Marc

**From:** Marc Edwards [<mailto:edwardsm@vt.edu>]  
**Sent:** Friday, January 6, 2017 6:02 PM  
**To:** Shawn McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>; [apruden@vt.edu](mailto:apruden@vt.edu)  
**Subject:**

Shawn,

POU end of faucet filters are very commonplace and many of them are carbon block.

The best estimate I have is that they are installed in about ¼ of US homes. They are sold in virtually every big box hardware store and wal-mart in the country. Have been for decades.

All of them have some effectiveness for cyst and microbial, the only question is whether they meet certification or not.

5 log increase in bacteria in such filters after stagnation regrowth are commonplace.

I can also tell you over the years, that it is not uncommon to get a million cfu/mL in parts of a system with low chlorine residual and a galvanized iron pipes.

No distribution system monitoring sites would ever use a site with a galvanized iron service for that very reason.

Was there any other specific references or insights

that you wanted? Marc

**From:** Shawn McElmurry [<mailto:s.mcelmurry@wayne.edu>]

**Sent:** Friday, January

6, 2017 8:51 PM **To:**

Marc Edwards

<[edwardsm@vt.edu](mailto:edwardsm@vt.edu)>

**Cc:** [apruden@vt.edu](mailto:apruden@vt.edu)

**Subject:** RE:

Hey Marc, thanks for the email follow up and taking the time earlier to discuss. I will read the attachment you sent along very closely. Thank you.

With regard to other references, I can't remember exactly but I thought you said something like all studies show no evidence of pathogens coming through PoU filters. I may have paraphrased this incorrectly. I also remember you suggesting that Enterobacter is the type of bacteria amplified and this isn't a health risk. I guess any references you can point me toward regarding these issues would be helpful to me.

Safe travels.

Thanks,  
Shawn

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Begin forwarded message:

**From:** Marc Edwards

<[edwardsm@vt.edu](mailto:edwardsm@vt.edu)>

**Date:** January 8, 2017 at 11:43:12 AM EST

**To:** 'Shawn McElmurry'

<[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>, "'Wells, Eden (DHHS)'"

<[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)>, "'Pruden-Bagchi, Amy'"

<[apruden@vt.edu](mailto:apruden@vt.edu)>, 'Mona'  
<[monahannaattisha@gmail.com](mailto:monahannaattisha@gmail.com)>, "Deltoral, Miguel"  
<[deltoral.miguel@epa.gov](mailto:deltoral.miguel@epa.gov)>, "Kaplan, Robert"  
<[kaplan.robert@epa.gov](mailto:kaplan.robert@epa.gov)>

**Subject: Your request for references about enterobacteria as "normal" part of regrowth**

Shawn,

What I said in the phone call, is that I am not aware of any credible research, that indicates microbial regrowth occurring on POU carbon filters will produce pathogens that pose a significant human health risk via ingestion.

After your teams presentation in Flint a few weeks back, I fielded about a dozen phone calls from Flint residents, who said they heard that your team has found health "issues" and "drawbacks" associated with use of the filters. That was also the message you repeated to me in our phone conversation Friday. You further stated that your team is preparing publications on the on the possible microbial health risks to residents, arising from using the lead filters, and is preparing guidance on how they can supposedly reduce those risks.

Central to your argument, is that your team is the first to ever look at enterobacteria in potable water, and your belief that finding these bacteria growing on filters represents a health risk that your team is obligated to publicize. In the call I said growth of such bacteria is not unusual in normal potable water systems, and below you requested that I provide you with some references.

Here is a representative paper in which we report normal microbial regrowth in several water distribution systems. While it was a side issue because we are focused on actual pathogens, if you look at SI (Table S7) you will see Gamma Proteobacteria (Enterobacteria is a member) are amongst the most abundant in the normal microbiome of premise plumbing from several systems. <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0141087>

Here is our paper on Gamma Proteobacteria regrowth in ultrapure water storage, which has filter sterilization as a final step. <http://pubs.rsc.org/en/Content/ArticleLanding/2015/EW/c5ew00134j#!divAbstract>

We have also tracked Enterobacteria re-growth in our hot and cold plumbing rigs in Blacksburg and elsewhere.

Here are two review papers discussing Gamma Proteobacteria as the dominant component of the normal microbiome regrowth in bottled water.

Leclerc, H., and M. S. Da Costa. 1998. Microbiology of natural mineral waters, p. 223-273. In D. A.

G. Senior and P. R. Ashurst (ed.), Technology of bottled water. Sheffield Academic Press, Ltd., Sheffield, England.

Leclerc, H., and A. Moreau. 2002. Microbiological safety of natural mineral water. FEMS

Microbiol. Rev. 26:207-222.

Here is the same, confirmed in a more recent U.S. molecular study for Desani and Aquafina bottled water. [http://scholar.colorado.edu/cgi/viewcontent.cgi?article=1866&context=honr\\_theses](http://scholar.colorado.edu/cgi/viewcontent.cgi?article=1866&context=honr_theses)

None of these researchers, felt that these data, merited publicly raising health "issues" about "drawbacks" associated with consumption of either potable or bottled water.

In the call you also speculated that there is a problem with fecal contamination in the Flint system, due to main breaks or other deficiencies, If the Flint water system is currently unusually fecal contaminated and compromised, as you speculated in our call Friday, then the Flint water is dangerous with or without the filters. If you actually discover fecal bacteria, the accepted response is to increase chlorine and/or issue boil water orders. Your public statements and materials imply the filters are amplifying the (speculated) problem with fecal pathogens, does not make sense to me.

Your public statements from a few weeks ago have already significantly impacted public perception regarding safety of filter use in Flint, and it is practically impossible at this point, for anyone to walk those statements back. If you keep making statements like those in our phone call Friday, I can guarantee that some Flint residents will stop using the lead filters completely. I would not be surprised if some people already have.

The residents also have received a message from your team, that you think the filter bacteria might be causing their rashes and respiratory problems. I reviewed your materials, and I do not see where you said that, so unless that is what you actually believe, maybe you can make it more clear in your public presentations, that the residents rashes and breathing problems have nothing to do with regrowth on the filters.

I am cc'ing Bob, Miguel, and the State folks on this, because after our call, I feel that this issue should be a priority discussion item for our data summit-- it will certainly be a key point at the town hall because the residents have now been primed by your team to voice your concerns. At a minimum, everyone should be made aware of exactly what your past and future public statements on this subject will be, so that they can be better prepared.

Marc

**From:** Shawn McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>

**Sent:** Sunday, January 8, 2017 5:10 PM

**To:** Marc Edwards <[edwardsm@vt.edu](mailto:edwardsm@vt.edu)>

**Cc:** 'Wells, Eden (DHHS)' <[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)>; 'Pruden-Bagchi, Amy' <[apruden@vt.edu](mailto:apruden@vt.edu)>; 'Mona' <[monahannaattisha@gmail.com](mailto:monahannaattisha@gmail.com)>; 'Deltoral, Miguel' <[deltoral.miguel@epa.gov](mailto:deltoral.miguel@epa.gov)>; 'Kaplan, Robert' <[kaplan.robert@epa.gov](mailto:kaplan.robert@epa.gov)>; Nancy Love <[nglove@umich.edu](mailto:nglove@umich.edu)>; Paul Kilgore <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>; Matthew Seeger <[matthew.seeger@wayne.edu](mailto:matthew.seeger@wayne.edu)>

**Subject:** RE: Your request for references about enterobacteria as "normal" part of regrowth

Thank you very much for your observations and insights. My recollection of our conversation is different and perhaps we were not clear. It appears as if we may have different interpretations of some of these complex questions. I look forward to meeting with you and others on Tuesday as we all work toward a better understanding of Flint water quality.

Shawn

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**From:** Wells, Eden (DHHS) [<mailto:WellsE3@michigan.gov>]  
**Sent:** Sunday, January 8, 2017 12:46 PM  
**To:** Shawn McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>; Nancy Love <[nglove@umich.edu](mailto:nglove@umich.edu)>; Paul Kilgore <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>; [mzervos1@hfhs.org](mailto:mzervos1@hfhs.org); Matthew Seeger <[matthew.seeger@wayne.edu](mailto:matthew.seeger@wayne.edu)>  
**Cc:** LyonCallo, Sarah (DHHS) <[lyoncallos@michigan.gov](mailto:lyoncallos@michigan.gov)>; McFadden, Jevon (DHHS- Contractor) <[McFaddenJ1@michigan.gov](mailto:McFaddenJ1@michigan.gov)>  
**Subject:** Fwd: Your request for references about enterobacteria as "normal" part of regrowth

FACHEP and UM Team,

Sharing with Sarah and Jevon as well as they were present on Friday.

These are precisely the concerns that I raised at our Friday morning meeting. Before statements are made regarding individual or public health implications there needs to be data showing that an environmental presence leads to disease. There was definitely a problem with communication at your town meeting that implicated somehow rashes and respiratory diseases were associated with filter bacteria- again, see slide 21.

Again I cannot say this enough, the Enterobacteriaceae family is very large, and most are not pathogens. However, if a pathogen is found, the causation of disease is another element of important clinical research that I think the engineers involved here are not addressing with these types of studies, making such public implications towards health risk of concern. Anecdotes are not acceptable.

I will be the very first one as a physician and as a public health practitioner to review any evidence that would implicate any risk for disease towards individuals or populations immediately. This is why I appreciate so much the meeting we had on Friday and the collegiality of your group, Shawn.

This is also a very personal issue for me, in addition to being a resident of Ann Arbor with some of the studies have been done. My brother lives in coastal Mississippi and he and his neighbors there must use filters for the very poor water quality they are receiving. He is also extremely immunosuppressed due to chemotherapy. However I have not change my recommendations for him other than to ensure that he is changing his filters regularly and using them per the manufacturers instructions. And due to the fact that he was a past smoker I've actually advised him about keeping his showerheads clean.

Eden

Sent from my iPhone, please excuse typos Eden V. Wells, MD, MPH, FACPM  
Chief Medical Executive  
Michigan Department of Health and Human Services

Tel: 517-335-8011

**From:** Wells, Eden (DHHS) [<mailto:WellsE3@michigan.gov>]  
**Sent:** Sunday, January 8, 2017 12:52 PM  
**To:** Marc Edwards <[edwardsm@vt.edu](mailto:edwardsm@vt.edu)>  
**Subject:** Fwd: Your request for references about enterobacteria as "normal" part of regrowth

Thank you, Marc. Closing the loop so you can see that I hope Nancy understands that we had the same discussion with Wayne State on Friday morning.

Sent from my iPhone, please excuse typos

Eden V. Wells, MD, MPH, FACPM  
Chief Medical Executive  
Michigan Department of Health and Human Services  
Tel: 517-335-8011

On Jan 8, 2017, at 6:24 PM, Shawn McElmurry  
<[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)> wrote:

Hey Eden, I appreciate your comments regarding Marc E's email and thank you very much for the meeting on Friday.

**We understand there is some confusion and likely misinterpretation that arose from our meeting on December 14.** We are not entirely clear about where exactly the misunderstanding about rashes and respiratory illness comes from. As we have discussed, we believe this is associated with resident's self-reports. You have referenced slide 21 multiple times and at our meeting on Friday Jevon offered to provide feedback on our presentation. We look forward to receiving Jevon's feedback as it will be very helpful. It is difficult for us to control the interpretation of results. We are working hard to communicate what we know and what we do not know. We look forward to working with you and others so that remaining questions are addressed. **We are sorry that there appears to be some misinterpretation of what was presented at our public meeting.**

I look forward to seeing you and others in Chicago on Tuesday.

Shawn

---

**From:** Wells, Eden (DHHS)  
[<mailto:WellsE3@michigan.gov>] **Sent:**  
Monday, January 9, 2017 6:46 AM  
**To:** Marc Edwards <[edwardsm@vt.edu](mailto:edwardsm@vt.edu)>; Beach, Michael J. (CDC/OID/NCEZID)  
<[mjb3@cdc.gov](mailto:mjb3@cdc.gov)>; McFadden, Jevon (DHHS-Contractor) <[McFaddenJ1@michigan.gov](mailto:McFaddenJ1@michigan.gov)>  
**Subject:** Fwd: Your request for references about enterobacteria as "normal" part of regrowth

Sent from my iPhone,

please excuse typos

Eden V. Wells, MD,

MPH, FACPM  
Chief Medical Executive  
Michigan Department of Health  
and Human Services Tel: 517-  
335-8011

On Jan 9, 2017, at 7:14 AM, Wells, Eden (DHHS) <[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)> wrote:

It is the placement of that information (slide 21) directly in relation to having reported the filter studies, without appropriate context, as I have said numerous times.

You may want to re-read the media articles and the quote from Dr. Z that came out of that event to understand how your information was perceived. I think that Dr. Edwards is also having the same concern in that the way that you are presenting your information is leading many of us, and the public, to perceive that you are make a direct implication of individual and health impacts due to your findings.

As mentioned, Jevon will forward other feedback.

Sent from my iPhone, please excuse typos Eden

V. Wells, MD, MPH, FACPM  
Chief Medical Executive  
Michigan Department of Health and Human Services Tel:  
517-335-8011

**From:** "Zervos, Marcus" <[MZERVOS1@hfhs.org](mailto:MZERVOS1@hfhs.org)>  
**Date:** January 9, 2017 at 8:00:34 AM EST  
**To:** "Wells, Eden (DHHS)" <[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)>  
**Cc:** Shawn McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>, "LyonCallo, Sarah (DHHS)" <[lyoncallos@michigan.gov](mailto:lyoncallos@michigan.gov)>, "McFadden, Jevon (DHHS-Contractor)" <[McFaddenJ1@michigan.gov](mailto:McFaddenJ1@michigan.gov)>, Matthew Seeger <[matthew.seeger@wayne.edu](mailto:matthew.seeger@wayne.edu)>, "Paul Kilgore" <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>, Nancy Love <[nglove@umich.edu](mailto:nglove@umich.edu)>  
**Subject:** RE: Your request for references about enterobacteria as "normal" part of regrowth

As stated in an earlier email we should not accept organisms like klebsiella and Enterobacter, and atypical mycobacteria and enterococcus in potable water amplified by filters as safe. The ability to cause infection is directly related to virulence of bacteria, and dose, and immune status of patients among other things. Enterococcus among other bacteria that nancy found are fecal indicators. As far as the health implications we need a formal study of the health of flint residents, that we have been asking for some time

**From:** Wells, Eden (DHHS) [<mailto:WellsE3@michigan.gov>]  
**Sent:** Monday, January 9, 2017 9:45 AM  
**To:** Marc Edwards <[edwardsm@vt.edu](mailto:edwardsm@vt.edu)>  
**Subject:** Fwd: Your request for references about enterobacteria as "normal" part of regrowth

Had they found more pathogens than in other studies?

Sent from my iPhone, please excuse typos

Eden V. Wells, MD, MPH, FACPM

**From:** Marc Edwards <[edwardsm@vt.edu](mailto:edwardsm@vt.edu)>  
**Sent:** Monday, January 9, 2017 12:24 PM  
**To:** 'Amy Pruden' <[apruden@vt.edu](mailto:apruden@vt.edu)>  
**Subject:** FW: Your request for references about enterobacteria as "normal" part of regrowth

They are not even backing down on the rash implication.....oh joy.

Chief Medical Executive

Michigan Department of Health and Human Services

Tel: 517-335-8011

From: Hiipakka, Scott (GOV) <[HiipakkaS@michigan.gov](mailto:HiipakkaS@michigan.gov)>  
Sent: Tuesday, January 10, 2017 2:45 PM  
To: Feighner, Bryce (DEQ) <[FEIGHNERB@michigan.gov](mailto:FEIGHNERB@michigan.gov)>; Krisztian, George (DEQ) <[krisztiang@michigan.gov](mailto:krisztiang@michigan.gov)>; Michael McDaniel <[mcdanielm@cooley.edu](mailto:mcdanielm@cooley.edu)>; [jmcday@cityofflint.com](mailto:jmcday@cityofflint.com);  
Mark Durno <[durno.mark@epa.gov](mailto:durno.mark@epa.gov)>; Shawn P MCElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>;  
[nglove@umich.edu](mailto:nglove@umich.edu); Wells, Eden (DHHS) <[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)>; [Laura.Carravallah@hc.msu.edu](mailto:Laura.Carravallah@hc.msu.edu);  
Kirk Smith <[ksmith@flint.org](mailto:ksmith@flint.org)>; Pamela Pugh <[ppugh@cityofflint.com](mailto:ppugh@cityofflint.com)>; [MHanna1@hurleymc.com](mailto:MHanna1@hurleymc.com);  
[mvalacak@gchd.us](mailto:mvalacak@gchd.us); Marc Edwards <[edwardsm@vt.edu](mailto:edwardsm@vt.edu)>  
Cc: Brown, Tiffany (DEQ) <[BrownT22@michigan.gov](mailto:BrownT22@michigan.gov)>; Papadopoulos, Matthew (GOV) <[PapadopoulosM@michigan.gov](mailto:PapadopoulosM@michigan.gov)>  
Subject: Flint Town Hall

Greetings Flint Town Hall Speakers/Panel Members,

Reaching out to all of you for final coordination in support of the Flint Water Town Hall. Friendly reminder for the water quality speakers only:  
please provide me an electronic version of your 10 minute presentation as soon as possible please.

For everyone (except Dr. Edwards), please plan on arriving not later than 4:30 so we can get you into the facility easily and do a final walk-through of the Town Hall events starting at 4:45. I'm expecting a line of people down the block so please bypass the line and make your way to the main entrance on the west side of the Northbank Center. Tell the individuals manning the doors that you are a speaker and they will let you in. If there's an issue, mention my name. Due to the mechanics of the evening and the layout of the room I'd like to ensure that each of you understand when you are heading up to the table on the stage (riser) vs. being behind the podium and then back in your seats on the main floor. The meeting at 4:45 will allow us to maximize the time and minimize delays to the audience and to the television audience. Immediately following the walk-through, you will be invited to meet with members of the media for pre-event interviews in the Park Place room. We will have a room on the 2nd floor for all speakers to assemble and relax prior prior to the Town Hall with refreshments.

**Dr. Edwards - Matt will coordinate how we link-up with you via Skype upon your landing at O'Hare.**

Of note for the medical panelists, Dr. McFadden is now unable to attend the Town Hall.

If you have any question or concerns, my cell phone is below. Please do not hesitate to contact me.

Scott Hiipakka  
Cell: 248.303.4618=

From: XXXXXXXXXX [mailto:XXXXXXX@hotmail.com]  
Sent: Monday, January 9, 2017 3:20 PM  
To: Marc Edwards <edwardsm@vt.edu>  
Subject: Re: That commercial is coming out of the governor's office.

I located my letter from the Wayne State research team. The name of the bacteria is the Enterobacteriaceae family DNA. The presence of this type of bacteria is what I am also concerned about.

**From:** Marc Edwards <[edwardsm@vt.edu](mailto:edwardsm@vt.edu)>

**Sent:** Tuesday, January 10, 2017 10:43 PM

**To:** 'Shawn McElmurry' <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>; 'Wells, Eden (DHHS)' <[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)>; 'Amy Pruden' <[apruden@vt.edu](mailto:apruden@vt.edu)>

**Subject:**

So after the Dec 14<sup>th</sup> lead filter bacteria presentation, I had lunch with Tony/wife and Melissa, and then a phone call, which apparently they secretly taped and then edited down to 20 second snippets.

<https://www.youtube.com/watch?v=FoKN45simAo>

Now I am getting death threats and trashed on facebook. I hope this gives your team some appreciation about why need to be acutely sensitive to the way scientific information is presented. This might also come up tomorrow at the town hall, because all of Flint is talking about it, and your data/statements are a key part of the bacteria issue that prompted this. Also, we now have a mountain to climb, given that we all think filters are important.

Marc

**From:** Drake Pertuit [<mailto:drakepertuit@gmail.com>]

**Sent:** Tuesday, January 10, 2017 1:25 PM

**To:** [edwardsm@vt.edu](mailto:edwardsm@vt.edu)

**Subject:** Flint Water Crisis: FESS UP

Instead of beating around the bush and creating a much larger burden on your conscience, why not just fess up??

Why not just admit publicly that the water is not safe to bathe in, that the hot water tanks have not been tested because the EPA knows how dangerous those levels are, that the treatment of the water has caused bacteria issues?

Sure, that would be a massive, hugely expensive infrastructure undertaking-- BUT THAT IS WHAT IS NEEDED.

Instead, you're perpetuating a belief in clean water which you know is poisoning children, lowering their IQs, and countless other horrendous affects. You're a scientist, you're not oblivious to this.

May God have mercy on your soul.

--

**Drake Pertuit**

*Project Manager*

**From:** Marc Edwards <[edwardsm@vt.edu](mailto:edwardsm@vt.edu)>  
**Sent:** Wednesday, January 11, 2017 6:25 AM  
**To:** 'Shawn McElmurry' <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>  
**Subject:**

Shawn,

I am now up to 300 death threats, and people are also emailing my wife, calling my house. The attached illustrates how you set this in motion.

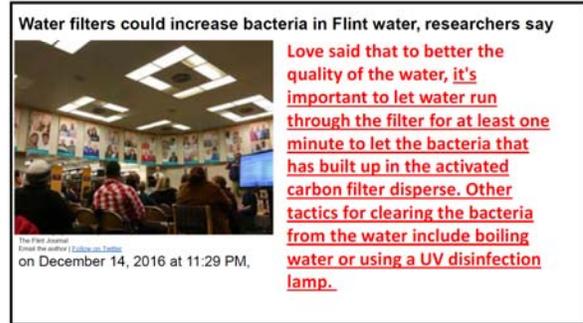
This is exactly what Amy/Sid tried to warn you about, and why I wanted to speak with you about your data, 5 days before you had your public meeting.

The results are exactly what anyone could have predicted, and maybe it is what you wanted all along.

Marc



1



2

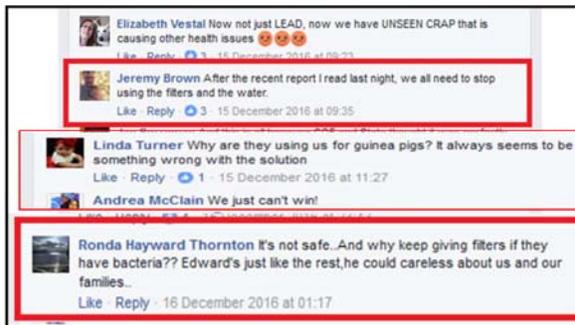
"It was nice to hear that things aren't all better...said Flint resident and water crisis activist Melissa Mays. ...I can only imagine what would happen if I were to try to drink this through the tap filters. It's telling me I'm making the right decision by drinking bottled water."

"Joyce Sanders of Flint, also attended the open house with her husband and two daughters."It was a confirmation of something I had suspected," Sanders said, referring to increased bacteria levels in the water....now I know that it's related to the filter and the cleansing process that the water goes through."

3

**McElmurry said it's important that Flint residents know "that there are people out there working to understand the concerns that residents have."**

4



5

From: XXXXXXXX [mailto:XXXXXX@hotmail.com]  
Sent: Monday, January 9, 2017 3:20 PM  
To: Marc Edwards <edwardsm@vt.edu>  
Subject: Re: That commercial is coming out of the governor's office.

I located my letter from the Wayne State research team. The name of the bacteria is the Enterobacteriaceae family DNA. The presence of this type of bacteria is what I am also concerned about.

6

**From:** Shawn McElmurry  
**To:** [Wells, Eden \(DHHS\)](#)  
**Cc:** [Matthew Seeger](#); [McFadden, Jevon \(DHHS-Contractor\)](#); [Lasher, Geralyn \(DHHS\)](#); [Minicuci, Angela \(DHHS\)](#); [LyonCallo, Sarah \(DHHS\)](#); [Nancy Love](#)  
**Subject:** RE: Talking points  
**Date:** Wednesday, January 11, 2017 11:17:52 AM  
**Attachments:** [guide\\_smallsystems\\_pou-poe\\_june6-2006.pdf](#)

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Eden, see attached. Hope it is helpful. We agree, flushing will decrease the filter life...hence why we are currently conducting studies to find out what the optimal recommendation would be.

Shawn

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**From:** Wells, Eden (DHHS) [mailto:WellsE3@michigan.gov]  
**Sent:** Wednesday, January 11, 2017 10:49 AM  
**To:** Nancy Love <nglove@umich.edu>  
**Cc:** Matthew Seeger <matthew.seeger@wayne.edu>; Shawn McElmurry <s.mcelmurry@wayne.edu>; McFadden, Jevon (DHHS-Contractor) <McFaddenJ1@michigan.gov>; Lasher, Geralyn (DHHS) <lasher@michigan.gov>; Minicuci, Angela (DHHS) <MinicuciA@michigan.gov>; LyonCallo, Sarah (DHHS) <lyoncallos@michigan.gov>  
**Subject:** Re: Talking points

I will work primarily from the CDC Waterborne Pathogens TP's, but I do feel offering safe options for those that are concerned is never bad, but they have to be evidence-based. Flushing may decrease risk of clogging...although decrease life of filter.

I would not support boiling water because that presumes a linkage to health that has not been established...

Eden V. Wells, MD, MPH, FACPM  
Chief Medical Executive

Michigan Department of Health and Human  
Services Lansing, MI

Phone: 517-284-4020

[wellse3@michigan.gov](mailto:wellse3@michigan.gov)

---

**From:** Nancy Love <[nglove@umich.edu](mailto:nglove@umich.edu)>

**Sent:** Wednesday, January 11, 2017 10:33

**AM To:** Wells, Eden (DHHS)

**Cc:** Matthew Seeger; Shawn McElmurry

**Subject:** Re: Talking points

Eden: We plan to talk about the flush study and show data to support  
30 seconds flush from our Detroit flush study. Here is the 2006  
document, page 5-

10. Frankly, reading the entire document is worthwhile.

**Nancy G. Love, Ph.D., P.E., BCEE**  
Borchardt and Glysson Collegiate Professor

Department of Civil and Environmental Engineering, University of Michigan  
Adjunct Professor, Addis Ababa University Institute of Biotechnology,  
Ethiopia

Fellow: Water Environment Federation; International Water Association;  
Association of Environmental Engineering and Science Professors

183 EWRE Building

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[nglove@umich.edu](mailto:nglove@umich.edu)

<http://envbiotech.engin.umich.edu>

\_Twitter: @Love\_H2O

**Attend the AEESP2017 Conference on Advancing Healthy  
Communities June 20-22, 2017, Ann Arbor Michigan**

**Abstracts due: January 9, 2017**

On Wed, Jan 11, 2017 at 10:27 AM, Wells, Eden (DHHS)

<[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)> wrote:

That was really for me, but is that documented somewhere? I cannot find that and need the source

Eden V. Wells, MD, MPH, FACPM

Chief Medical Executive

Michigan Department of Health and Human  
Services Lansing, MI

Phone: [517-284-4020](tel:517-284-4020)

[wellse3@michigan.gov](mailto:wellse3@michigan.gov)

---

**From:** Matthew Seeger <[matthew.seeger@wayne.edu](mailto:matthew.seeger@wayne.edu)>

**Sent:** Wednesday, January 11, 2017 10:26 AM

**To:** Wells, Eden (DHHS)

**Cc:** Shawn McElmurry; Nancy Love

**Subject:** Re: Talking points

I think we can certainly add that.

---

**From:** "Wells, Eden (DHHS)"

**Date:** Wednesday, January 11, 2017 at 10:25 AM

**To:** Matt Seeger

**Cc:** Shawn McElmurry, Nancy Love

**Subject:** Re: Talking points

Thank you,

Do you have the EPA recommendation about the 30 second flush? that is

probalby the option I will offer to folks if they have a concern.

Eden V. Wells, MD, MPH, FACPM

Chief Medical Executive

Michigan Department of Health and Human  
Services Lansing, MI

Phone: [517-284-4020](tel:517-284-4020)

[wellse3@michigan.gov](mailto:wellse3@michigan.gov)

---

**From:** Matthew Seeger <[matthew.seeger@wayne.edu](mailto:matthew.seeger@wayne.edu)>

**Sent:** Wednesday, January 11, 2017 10:22 AM

**To:** Wells, Eden (DHHS)

**Cc:** Shawn McElmurry; Nancy Love

**Subject:** Talking points

Hi Eden - Here are the basic message points we are working from. Shawn and Nancy may also say: "Individuals may choose to take addition steps such as boiling the water after it is filtered" This will be be offered more as an observation and not as a recommendation. Its a matter of personal choice based on the circumstances individuals face.

There is still some discussion around:

- Our studies of point of use filters are consistent with other investigations that show bacteria grow on the filters. POU filters increase bacterial counts in most homes, and change which bacteria are most abundant. We are evaluating whether the types and levels of these bacteria are cause for concern.

Please let me know if you have other questions.

Matt

- There has been significant improvement in the system and we have several ongoing questions.
- The water system has gone through significant changes We see some variation in water quality based on location within the city. Water quality also varies with the season.
- Chlorine levels in Flint have improved over the last year. There were some homes that had low levels when we sampled.
- The predominant strain of Legionella bacteria found in Flint homes is a strain that may not be detected by the standard rapid urine antigen detection diagnostic tests run by doctors yet may cause disease especially in those cases where people have additional risk factors.
- We have not associated the presence of Legionella in Flint homes with any cases of human disease. We have questions regarding some aspects of the public health surveillance.
- Our studies of point of use filters are consistent with other investigations that show bacteria grow on the filters. POU filters increase bacterial counts in most homes, and change which bacteria are most abundant. We are evaluating whether the types and levels of these bacteria are cause for concern.
- Since the chemical and bacterial loads change with temperature, data from additional seasons are required. Water monitoring needs to continue
- While we believe that in most homes the water has improved significantly, we have remaining questions that we are still trying to answer.
- Our investigations are ongoing and our results in some cases are incomplete. This is an emerging science context with a number of challenges and limitations.

FACHEP Talking points developed for Admiral Lurie

- Investigations of the Legionnaires outbreak and any possible association with the changes in the Flint waters system are ongoing.
- The Flint Area Community Health and Environmental Partnership, lead by researchers at Wayne State University, are sampling water in resident's home.
- Some 185 homes have been sampled and a small percentage, about 11%, have shown

some presence of one or more strain of the Legionella bacteria.

These are preliminary findings and when FACHEP does detect bacteria, residents and public health officials are notified and appropriate steps taken.

This includes cleaning and disinfecting faucets and shower heads, flushing water systems, and other maintenance of plumbing systems. FACHEP also conducts follow up testing in homes that have shown the presence of Legionella.

It is very important to remember that there are many (hundreds) of strains of Legionella bacteria and only a very few have been associated with human disease.

While the presence of any bacteria in treated municipal water is something we hope not to see, it is not uncommon to find bacterial in residential water systems and only in a very small number of cases are those bacteria associated with disease.

The FACHEP group is continuing its investigation and working with residents of Flint, Genesee County Health Department, CDC, EPA and MDHSS and as more information is available it will be provided

**From:** Wells, Eden (DHHS) <WellsE3@michigan.gov>

**Sent:** Wednesday, January 11, 2017 11:23 AM

**To:** Nancy Love <nglove@umich.edu>

**Cc:** Shawn Patrick McElmurry <s.mcelmurry@wayne.edu>; Marcus Zervos <MZERVOS1@hfhs.org>; Matt Seeger <matthew.seeger@wayne.edu>; Paul Evan Kilgore <paul.kilgore@wayne.edu>; Lasher, GERALYN (DHHS) <lasergh@michigan.gov>; Minicuci, Angela (DHHS) <MinicuciA@michigan.gov>; LyonCallo, Sarah (DHHS) <lyoncallos@michigan.gov>; Marc Edwards <edwardsm@vt.edu>; Durno, Mark <durno.mark@epa.gov>; kaplan.robert@epa.gov; Pamela Pugh <ppugh@cityofflint.com>; Feighner, Bryce (DEQ) <FEIGHNERB@michigan.gov>; Beach, Michael J. (CDC/OID/NCEZID) <mjb3@cdc.gov>; McFadden, Jevon (DHHS-Contractor) <McFaddenJ1@michigan.gov>; Lasher, GERALYN (DHHS) <lasergh@michigan.gov>; Minicuci, Angela (DHHS) <MinicuciA@michigan.gov>

**Subject:** Re: Response to comments on PoU

One note,

a Precautionary Principle should be used when something is unknown--in this case we have several decades of information, scientific data, not showing individual or public health affects. Talking points from WSU today state that further work is going to to ascertain if there are health concerns---so your stance is concerning as to a likely cause for unintentional(?) confusion.

Eden V. Wells, MD, MPH, FACPM  
Chief Medical Executive  
Michigan Department of Health and Human Services  
Lansing, MI  
Phone: 517-284-4020  
[wellse3@michigan.gov](mailto:wellse3@michigan.gov)

**From:** Durno, Mark <[durno.mark@epa.gov](mailto:durno.mark@epa.gov)>

**Sent:** Wednesday, January 11, 2017 11:24 AM

**To:** Wells, Eden (DHHS) <[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)>

**Cc:** Nancy Love <[nglove@umich.edu](mailto:nglove@umich.edu)>; Shawn Patrick McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>; Marcus Zervos <[MZERVOS1@hfhs.org](mailto:MZERVOS1@hfhs.org)>; Matt Seeger <[matthew.seeger@wayne.edu](mailto:matthew.seeger@wayne.edu)>; Paul Evan Kilgore <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Minicuci, Angela (DHHS) <[MinicuciA@michigan.gov](mailto:MinicuciA@michigan.gov)>; LyonCallo, Sarah (DHHS) <[lyoncallos@michigan.gov](mailto:lyoncallos@michigan.gov)>; Marc Edwards <[edwardsm@vt.edu](mailto:edwardsm@vt.edu)>; Kaplan, Robert <[kaplan.robert@epa.gov](mailto:kaplan.robert@epa.gov)>; Pamela Pugh <[ppugh@cityofflint.com](mailto:ppugh@cityofflint.com)>; [feighnerb@michigan.gov](mailto:feighnerb@michigan.gov); Beach, Michael J. (CDC/OID/NCEZID) <[mjb3@cdc.gov](mailto:mjb3@cdc.gov)>; McFadden, Jevon (DHHS-Contractor) <[McFaddenJ1@michigan.gov](mailto:McFaddenJ1@michigan.gov)>

**Subject:** Re: Response to comments on PoU

My hope is that this is put into proper context by letting the community know that bacteria is common in drinking water and further assessment is being done to better understand what's happening locally.

Sent from my iPhone

**From:** Matthew Seeger

[mailto:[matthew.seeger@wayne.edu](mailto:matthew.seeger@wayne.edu)] **Sent:**

Wednesday, January 11, 2017 11:41 AM

**To:** Wells, Eden (DHHS) <[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)>; Nancy Love <[nglove@umich.edu](mailto:nglove@umich.edu)>

**Cc:** Shawn McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>; Marcus Zervos <[MZERVOS1@hfhs.org](mailto:MZERVOS1@hfhs.org)>; Paul Kilgore <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Minicuci, Angela (DHHS) <[MinicuciA@michigan.gov](mailto:MinicuciA@michigan.gov)>; LyonCallo, Sarah (DHHS) <[lyoncallos@michigan.gov](mailto:lyoncallos@michigan.gov)>; Marc Edwards <[edwardsm@vt.edu](mailto:edwardsm@vt.edu)>; Durno, Mark <[durno.mark@epa.gov](mailto:durno.mark@epa.gov)>; [kaplan.robert@epa.gov](mailto:kaplan.robert@epa.gov); Pamela Pugh <[ppugh@cityofflint.com](mailto:ppugh@cityofflint.com)>; Feighner, Bryce (DEQ) <[FEIGHNERB@michigan.gov](mailto:FEIGHNERB@michigan.gov)>

**Subject:** Re: Response to comments on PoU

**While we do not have complete consensus, there are important areas of agreement and perhaps another approach is to emphasize those this evening.**

**The water is much improved.**

**Residents should continue to use filters.**

**There are ongoing questions we are still trying to answer.**

**We are working aggressively to learn all we can and insure that the health of residents is protected.**

**From:** Nancy Love

**Date:** Wednesday, January 11, 2017 at 11:54 AM **To:** "Wells, Eden (DHHS)"

**Cc:** Shawn McElmurry, Marcus Zervos, Matt Seeger, Paul Kilgore, "Lasher, Geralyn (DHHS)", Angela Minicuci, "LyonCallo, Sarah (DHHS)", Marc Edwards, "Durno, Mark", "[kaplan.robert@epa.gov](mailto:kaplan.robert@epa.gov)", Pamela Pugh,

"[feighnerb@michigan.gov](mailto:feighnerb@michigan.gov)"

**Subject:** Response to comments on PoU

Eden: Starting a new thread and bringing in others present in Chicago yesterday so they know our position and why, pertinent to the near universal agreement that we will all advise that PoU faucet-mounted filters continue to be used.

I know you missed our talk in Chicago where we talked more deeply about microbial families and genera present in filtered water and which taxa increase across filter, or just pass through from source water without being removed. The position that considers water boiling as an option for those who choose to use tap water is one that arises from information obtained in our NSF-sponsored filter study. If my family lived in Flint, it is what I would do and I cannot ethically suggest differently to the residents of Flint. We believe this position is most prudent until it is proven not necessary. My understanding is that the current recommendations already suggest that immune compromised individuals and those with additional risk factors are being advised by GCMS and others to use bottle water. Presenting this as an option for residents who are concerned may be a good way to proceed.

Running off to class - see you

in Flint. Nancy

**Nancy**

---

**From:** Wells, Eden (DHHS) [<mailto:WellsE3@michigan.gov>]

**Sent:** Wednesday, January 11, 2017 12:05 PM

**To:** Nancy Love <[nglove@umich.edu](mailto:nglove@umich.edu)>

**Cc:** Shawn Patrick McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>; Zervos, Marcus <[MZERVOS1@hfhs.org](mailto:MZERVOS1@hfhs.org)>; Matt Seeger <[matthew.seeger@wayne.edu](mailto:matthew.seeger@wayne.edu)>; Paul Evan Kilgore <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Minicuci, Angela (DHHS) <[MinicuciA@michigan.gov](mailto:MinicuciA@michigan.gov)>; LyonCallo, Sarah (DHHS) <[lyoncallos@michigan.gov](mailto:lyoncallos@michigan.gov)>; Marc Edwards <[edwardsm@vt.edu](mailto:edwardsm@vt.edu)>; Durno, Mark <[durno.mark@epa.gov](mailto:durno.mark@epa.gov)>; [kaplan.robert@epa.gov](mailto:kaplan.robert@epa.gov); Pamela Pugh <[ppugh@cityofflint.com](mailto:ppugh@cityofflint.com)>; Feighner, Bryce (DEQ) <[FEIGHNERB@michigan.gov](mailto:FEIGHNERB@michigan.gov)>; Beach, Michael J. (CDC/OID/NCEZID) <[mjb3@cdc.gov](mailto:mjb3@cdc.gov)>; McFadden, Jevon (DHHS-Contractor) <[McFaddenJ1@michigan.gov](mailto:McFaddenJ1@michigan.gov)>; Lasher, Geralyn (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Minicuci, Angela (DHHS) <[MinicuciA@michigan.gov](mailto:MinicuciA@michigan.gov)>

**Subject:** Re: Response to comments on PoU

The recommendation for boiling water from filters has not been recommended by GCMS that I know of, and the other reccs were due to concerns of LEAD or LEGIONELLA and done under a precautionary principle, as there is a lack of evidence.

All who were there in Chicago, please feel free to advise, but I as of now I will not be making any changes in any public health recommendations as there is no evidence to do so. If someone wants to ask how they can protect themselves, they can follow manufacturer instructions or purchase bottled water; further studies are being done regarding flushing, but such studies do not address linkages to health impacts.

**Dr. Eden V. Wells, MD, MPH, FACPM**

Chief Medical Executive

Michigan Department of Health and Human Services

Lansing, MI

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**From:** Wells, Eden (DHHS)

**Sent:** Wednesday, January 11, 2017 12:29 PM

**To:** Matthew Seeger; Nancy Love

**Cc:** Shawn McElmurry; Marcus Zervos; Paul Kilgore; Lasher, GERALYN (DHHS); Minicuci, Angela (DHHS); LyonCallo, Sarah (DHHS); Marc Edwards; Durno, Mark; [kaplan.robert@epa.gov](mailto:kaplan.robert@epa.gov); Pamela Pugh; Feighner, Bryce (DEQ)

**Subject:** Re: Response to comments on PoU

People use filters all over the country, and what science states that you can't find an Enterococcus on one of them too, is Dr. Love sure that you would not?

We think that there should be a high-level scientific review of how and why Dr. Love thinks her data shows Flint is different, and frankly that should have been done prior to all of this since before the December 14 meeting. If a collection of ID docs and water microbiologists that agree, or a peer-reviewed journal accepts such a premise which is supported by rigorous science...that would be a more productive conversation.

It is my understanding that in Chicago, no one got a chance to discuss or delve into this stance from UM.

Eden V. Wells, MD, MPH, FACPM

**From:** Matthew Seeger [<mailto:matthew.seeger@wayne.edu>]

**Sent:** Wednesday, January 11, 2017 12:20 PM

**To:** Nancy Love <[nglove@umich.edu](mailto:nglove@umich.edu)>; Wells, Eden (DHHS <[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)>

**Cc:** Shawn McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>; Marcus Zervos <[MZERVOS1@hfhs.org](mailto:MZERVOS1@hfhs.org)>; Paul Kilgore <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; [minicucia@michigan.gov](mailto:minicucia@michigan.gov); LyonCallo, Sarah (DHHS) <[lyoncallos@michigan.gov](mailto:lyoncallos@michigan.gov)>; Marc Edwards <[edwardsm@vt.edu](mailto:edwardsm@vt.edu)>; Durno, Mark <[durno.mark@epa.gov](mailto:durno.mark@epa.gov)>; [kaplan.robert@epa.gov](mailto:kaplan.robert@epa.gov); Pamela Pugh <[ppugh@cityofflint.com](mailto:ppugh@cityofflint.com)>; [feighnerb@michigan.gov](mailto:feighnerb@michigan.gov)

**Subject:** Re: Response to comments on PoU

Hi Eden: We have agreed that the language we use is that "Individuals may choose to boil water. . ." This is a choice that individuals may make based on their circumstances. We are not saying that we recommend boiling water.

Matt

Editors note: The following conciliatory email was sent immediately after FACHEP stated in writing they would publicly emphasize the water was improving (see email 11:41 am), after they were fully aware Edwards and his family were getting threats from their growing misinformation campaign. As we will see, within a few hours, FACHEP made their true intentions known, with still more inflammatory social media postings. We will also see they did not follow through on their written promise to emphasize improving water.

**From:** Marc Edwards <[edwardsm@vt.edu](mailto:edwardsm@vt.edu)>  
**Sent:** Wednesday, January 11, 2017 1:48 PM  
**To:** 'Shawn McElmurry' <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>  
**Subject:** Sorry.

Shawn

I am sorry I at all questioned your intentions in the last email.

I was very upset to learn that my family was being threatened via my home phone and wifes email, and I was wrong to say that to you.

Marc

**From:** Marc Edwards [<mailto:edwardsm@vt.edu>]  
**Sent:** Wednesday, January 11, 2017 2:16 PM  
**To:** 'Matthew Seeger' <[matthew.seeger@wayne.edu](mailto:matthew.seeger@wayne.edu)>; 'Nancy Love' <[nglove@umich.edu](mailto:nglove@umich.edu)>; 'Wells, Eden (DHHS)' <[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)>  
**Cc:** 'Shawn McElmurry' <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>; 'Marcus Zervos' <[MZERVOS1@hfhs.org](mailto:MZERVOS1@hfhs.org)>; 'Paul Kilgore' <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>; 'Lasher, GERALYN (DHHS)' <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; 'minicucia@michigan.gov' <[minicucia@michigan.gov](mailto:minicucia@michigan.gov)>; 'LyonCallo, Sarah (DHHS)' <[lyoncallos@michigan.gov](mailto:lyoncallos@michigan.gov)>; 'Durno, Mark' <[durno.mark@epa.gov](mailto:durno.mark@epa.gov)>; 'kaplan.robert@epa.gov' <[kaplan.robert@epa.gov](mailto:kaplan.robert@epa.gov)>; 'Pamela Pugh' <[ppugh@cityofflint.com](mailto:ppugh@cityofflint.com)>; 'feighnerb@michigan.gov' <[feighnerb@michigan.gov](mailto:feighnerb@michigan.gov)>  
**Subject:** RE: Response to comments on PoU

Just picking up the thread.

Point of clarification. Does your advice about boiling water apply only to filtered water in Flint, or to any water in Flint? I am catching up.

In other words, is your new advice directly tied to filters?

Thanks.

Marc

On Jan 11, 2017, at 1:21 PM, Marc Edwards <[edwardsm@vt.edu](mailto:edwardsm@vt.edu)> wrote:

---

**From:** Kaplan, Robert <[kaplan.robert@epa.gov](mailto:kaplan.robert@epa.gov)>  
**Sent:** Wednesday, January 11, 2017 1:25 PM  
**To:** Marc Edwards <[edwardsm@vt.edu](mailto:edwardsm@vt.edu)>  
**Subject:** Re: IS THERE INDEED A NEW PRESS RELEASE ABOUT BACTERIA? CAN SOMEONE SEND IT TO ME?

N

Marc,

I'm sitting here with EPA's press officer. We are aware of no press releases, from anyone.

I had a conversation today with Shawn M. They are not ready to come out with anything.

Are you available for a quick call? Bob

Robert Kaplan  
Acting Regional Administrator  
EPA Region 5  
Cell: 312-515-9827  
Office: 312-886-1499

<Editor Note: Flint Resident Email XXX'd out>

**From:** XXXXXXXX[mailto:XXXXXXX@hotmail.com]  
**Sent:** Wednesday, January 11, 2017 1:39 PM  
**To:** [minicucia@michigan.gov](mailto:minicucia@michigan.gov)  
**Subject:** Enterobacteriaceae and other bacteria in the Flint drinking water

Good afternoon Ms. Minicuci;

I would like to ask for some clarification of the bacteria problem in the Flint drinking water. Seeing the Press Release of today, January 11, 2017.

The city of Flint has a family of enterobacteriaceae bacteria, shigellosis and legionella present in the drinking water at various times of the past year or two. How can the Flint tap water be deemed as safe as bottled water?

This is according to the commercials running on local television station by the [HelpforFlint.com](http://HelpforFlint.com) website operating out of Governor Snyder's office. What is the MDHHS doing to solve this problem here in the city of Flint?

**From:** Durno, Mark  
**Sent:** Wednesday, January 11, 2017 2:20 PM  
**To:** Kaplan, Robert  
**Subject:** Re: Response to comments on PoU

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Sure thing

Sent from my iPhone

On Jan 11, 2017, at 2:10 PM, Kaplan, Robert <kaplan.robert@epa.gov> wrote:

Mark, let's you and I talk before you say anything about this issue on email or tonight. Bob

Robert Kaplan  
Acting Regional Administrator  
EPA Region 5  
Cell: 312-515-9827  
Office: 312-886-1499

On Jan 11, 2017, at 11:23 AM, Durno, Mark <durno.mark@epa.gov> wrote:

My hope is that this is put into proper context by letting the community know that bacteria is common in drinking water and further assessment is being done to better understand what's happening locally.

Sent from my iPhone

On Jan 11, 2017, at 11:05 AM, Wells, Eden (DHHS) <WellsE3@michigan.gov> wrote:

The recommendation for boiling water from filters has not been recommended by GCMS that I know of, and the other reccs were due to concerns of LEAD or LEGIONELLA and done under a precautionary principle, as there is alack of evidence.

Edwards response to legislators, who were hearing Love's rumors the POU filters were dangerous, and were worried about the health messaging in the community and lost trust.

**From:** Marc Edwards <edwardsm@vt.edu>  
**Sent:** Wednesday, January 11, 2017 3:03 PM  
**To:** 'Andy Leavitt' <leavitt.andrew@gmail.com>  
**Subject:** RE: This is where it started.

>>>How can I refute it? Dr. Love told us she will be saying "if it was my family, I would boil the water after filtering." You can't refute that.

If someone wants to shout "Fire" in a crowded theatre, it is irresponsible to try and block the door of those who will be trying to leave.

N

If she makes her statement, as she has said she will in an email today, stay away from the door. Let them leave.

Once a false alarm has been verified, a few people will come back..... But for many the movie is over. It is just human nature.

Marc

I can't believe this was written that long ago and I haven't seen it. Will you refute them publicly?

On Wed, Jan 11, 2017 at 8:51 AM Marc Edwards <[edwardsm@vt.edu](mailto:edwardsm@vt.edu)> wrote:

## **Water filters could increase bacteria in Flint water, researchers say**

**Shawn McElmurry**

**From:** Shawn McElmurry  
**Sent:** Thursday, January 12, 2017  
**To:** Matthew Seeger; Marcus Z... ul Kilgore  
**Subject:** Fwd: Laura Sullivan posting... eting  
**Attachments:** FB\_IMG\_1484193658548.jpg... ;53482.jpg

1 of 2

Shawn P. McElmurry, PhD, PE  
Associate Professor  
Wayne State University

----- Original message -----

**From:** Marc Edwards <edwardsm@vt.edu>  
**Date:** 1/12/17 1:30 AM (GMT-05:00)  
**To:** "'Wells, Eden (DHHS)" <WellsE3@michigan.gov>, "'Baird, Richard (GOV)" <bairdr@michigan.gov>, kaplan.robert@epa.gov  
**Cc:** Shawn McElmurry <s.mcelmurry@wayne.edu>, "'Deltoral, Miguel" <deltoral.miguel@epa.gov>  
**Subject:** Laura Sullivan posting before town hall meeting

Shawn

This is one of the most unprofessional posts by a professor that I have ever seen.

I am at a loss for words. But then again, it sure does explain a lot.

You cannot take something like this back. You cannot even apologize for something like this.

Marc

Editors Note: PUBLIC Facebook posting by  
FACHEP member Dr. Laura Sullivan.

**JAN 11, 2017**

[Laura Sullivan](#)

[January 11](#) ·

Dear friends,

Yesterday I attended a data summit, hosted by the US EPA. The purpose of the summit was to review Flint water and infrastructure data collected since the last summit in August. The meeting was closed to the public, and requests to provide live stream access were denied because, according to Mark Durno, EPA liaison to Flint, scientists had to be free to discuss their data.

I took copious notes and will post them later, but suffice it to say that there's nothing to suggest that the quality of water in Flint has improved consistently, there is evidence that lead levels are still spiking, and EPA/MDEQ data show that the amount of Chlorine (which is necessary to disinfect water) is still too low in some areas. Dr. Marc Edwards decided to use some of his presentation time to discredit the work of Wayne State, UM Ann Arbor, MSU, Kettering, and Henry Ford Hospital, suggesting that we have encouraged residents to discontinue using filters for lead. In fact, these experts from Michigan universities and hospitals continue to emphasize that the filters are necessary for removing lead. We note that in parts of the city where disinfection is inadequate, residents should flush water through their filters and in some cases boil water to remove bacteria that has been detected in the water, and bacteria that is growing in water filters.

I'd like to say that tonight's townhall, orchestrated to deliver a summary of yesterday's EPA meeting, has not been choreographed. But it has. I'd like to hope that Dr. Edwards won't use his platform to discredit someone he doesn't agree with, but he might. I'd like you, friends who know I've been in this fight for 2+ year, without any request for compensation or title, to listen to the sad, overwhelmed, frustrated voices of Flint residents tonight. I'm one of them. Who knows why the state and Marc Edwards seek to proclaim that Flint is in no worse a situation than other cities. Please know that they are wrong.

As Rachel Maddow says (someone who helped bring this problem to your attention)...

Watch this space.

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Comments



[Gina Luster](#) 👍👍👍👍👍👍

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· [Reply](#) ·

[3](#)

· [January 11 at 5:37pm](#)



[Bennett Collins](#) Can i share this?

[Like](#)

· [Reply](#) ·

[2](#)

· [January 11 at 5:49pm](#)



[Laura Sullivan](#) Yes, Bennett! Around the world!

[Like](#)

· [Reply](#) ·

[1](#)

· [January 11 at 6:11pm](#)



[David Uhl](#) Good luck. I hope it doesn't turn into better than/worse than other cities. The water quality either meets acceptable levels or it doesn't. If it doesn't, more work is needed.

[Like](#)

· [Reply](#) ·

[4](#)

· [January 11 at 5:52pm](#)



[William Hammond](#) Can you explain what the difference of opinion is between the experts?

I hear that the water still is not safe to use w/o filters. That a high percentage of tested homes are below the Federal standard. I don't see this information as contradictory.

[Like](#)

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[1](#)

· [January 11 at 6:15pm](#)



[Laura Sullivan](#) I don't understand your question, William. Do you mean the experts who were present tonight on the stage?

[Like](#)

· [Reply](#) · [January 12 at 12:16am](#)



[William Hammond](#) [Laura Sullivan](#) In your statement above you make it sound like there is disagreement between the experts, Dr. Edwards, & McElmurry & some others. So that's what I was asking about.

But now tonight, after the mtg. I'm not hearing this disagreement. (See my comment below). Am I missing something?

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[Laura Sullivan](#) Ah. Where disagreement exists is over (1) whether or not to say that lead is the only pathogen of concern, (2) whether or not the water distribution system (pipes) have reached equilibrium and is stable, and (3) whether or not Flint can be categorized as being like any other city with lead pipes.

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[Laura Sullivan](#) For (1): DEQ, EPA, CDC, and Dr. Edwards said yes. Drs. McElmurry, Love, and Caravallah said no. For (2), DEQ and Dr. Edwards way yes. Drs. Caravallah and McElmurray said no.

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· [Reply](#) · [January 12 at 12:41am](#) · [Edited](#)



[Laura Sullivan](#) For (3), some DEQ, some EPA, Dr Wells, and Dr. Edwards say yes. Some DEQ and some EPA say no, as do Drs. McElmurry and Love.

[Like](#)

· [Reply](#) · [January 12 at 12:46am](#)



[William Hammond](#) Thanks. I did not pick that up at tonight's mtg. It seemed like they were all pretty much in agreement.

[Like](#)

· [Reply](#) · [January 12 at 12:48am](#)



[Laura Sullivan](#) I get that. A townhall can't really be a format for critique and debate.

[Like](#)

· [Reply](#) ·

[1](#)

· [January 12 at 12:50am](#)

Shawn McElmurry

Thursday, January 12, 2017 10:05 AM

Zervos, Marcus; Nancy Love; Matthew Seeger;  
Paul Kilgore

RE: I guess these two postings explain why I am getting harassed. In black and white, to go along with what Flint residents are telling me about the conversations they have with your team.

Response to Marc Edwards regarding Laura Sullivan's Email.docx

Ok, turning to class work now. Attached is draft response: I really do worry that Marc is unstable. Comments and edits welcome.

Thanks, Shawn

From: Zervos, Marcus

[mailto:MZERVOS1@hfhs.org]

Sent: Thursday, January 12, 2017 9:46 AM

To: Nancy Love <nglove@umich.edu>; Shawn McElmurry <s.mcelmurry@wayne.edu>

Cc: Matthew Seeger

<matthew.seeger@wayne.edu>; Paul Kilgore <paul.kilgore@wayne.edu>

Subject: RE: I guess these two postings explain why I am getting harassed. In black and white, to go along with what Flint residents are telling me about the conversations they have with your team.

I suggest don't respond other than sorry he is getting death threats

From: Nancy Love (mailto:nglove@umich.edu)

Sent: Thursday, January 12, 2017 9:44 AM

To: Shawn McElmurry <s.mcelmurry@wayne.edu>

Cc: Matthew Seeger

<matthew.seeger@wayne.edu>; Paul Kilgore <paul.kilgore@wayne.edu>; Zervos, Marcus <MZERVOS1@hfhs.org>

<MZERVOS1@hfhs.org>

Subject: Re: I guess these two postings explain

why I am getting harassed. In black and white, to go along with what Flint residents are telling me about the conversations they have with your team.

Shawn - I would be careful about letting Marc bait a response out of us. I suggest that we talk about it as a team, AFTER you are done with your class today. In my view, it does not require a response in the next few hours.

Nancy

Nancy G. Love, Ph.D., P.E., SCEE  
Borchardt and Glysson Collegiate Professor  
Department of Civil and Environmental  
Engineering, University of Michigan Adjunct  
Professor, Addis Ababa University Institute of  
Biotechnology, Ethiopia  
Fellow: Water Environment Federation;  
International Water Association; Association of  
Environmental Engineering and Science  
Professors  
183 EWRE Building  
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Voice: (734) 763-9664  
nqlove@umich.edu  
<http://envbiotech.engin.umich.edu/> Twitter:  
@Love\_H20

Attend the AEESP2017 Conference on  
Advancing Healthy Communities June 20-22,  
2017, Ann Arbor Michigan  
Abstracts due: January 9, 2017

On Thu, Jan 12, 2017 at 7:59 AM, Shawn  
McElmurry <s.mcelmurry@wayne.edu> wrote:  
2 of 2. Obviously I need to address this quickly.  
Jumping in shower.

Shawn P. McElmurry, PhD, PE Associate  
Professor  
Wayne State University

**EDITORS NOTE: BELOW EMAIL WAS NEVER SENT. DRAFT FROM FOIA.**

**Marc, I'm not fully caught up with emails and will not be able to get to all of them today due to teaching duties. This has been a hard week for many of us and I have seen many from you over the last few days. I am sorry if you are receiving threats. Attempts to intimidate or threaten people is unacceptable. I encourage you to contact the police if you feel you have been threatened.**

**When I read some of your emails to me it seems as though you imply I am somehow responsible for problems you are having or conspiring to disparage you. I do not know how to respond to this other than to say this is not true.**

**As for what others have said, I cannot speak for them. If you take issue with comments made by Dr. Sullivan I encourage you to take this up with her. I cannot control what someone posts on their personal website or Facebook page. I had nothing to do with Dr. Sullivan's messages. I know this process has been stressful for everyone, including those of us that live outside of Flint. However, it is important to remember our experience pales in comparison to Dr. Sullivan and other Flint residents.**

**The challenges in Flint are enormous. Getting bogged down in personal attacks will only make things worse. Let's try to keep this professional.**

**I look forward to continuing to work with you. Respectfully,  
Shawn McElmurry**

**From:** Marc Edwards [mailto:edwardsm@vt.edu]

**Sent:** Saturday, January 14, 2017 7:01 PM

**To:** 'Lawrence Reynolds' <lrey52@gmail.com>; 'Laura Caravallah' <Laura.Carravallah@hc.msu.edu>

**Cc:** 'Nancy Love' <nglove@umich.edu>; 'Lasher, GERALYN (DHHS)' <lasergh@michigan.gov>; 'Kay Doerr'

<doerrkay@gmail.com>; 'Pamela Pugh' <ppugh@cityofflint.com>; 'Dr. Jed (Gerald) Natzke' <gdn2@aol.com>; 'Matt Seeger' <matthew.seeger@wayne.edu>; 'Beach, Michael J. (CDC/OID/NCEZID)' <mjb3@cdc.gov>;

'kaplan.robert@epa.gov' <kaplan.robert@epa.gov>; 'Durno, Mark' <durno.mark@epa.gov>; 'Lyon Callo, Sarah (DHHS)' <lyoncallos@michigan.gov>; 'Paul Evan Kilgore' <paul.kilgore@wayne.edu>; 'Wells, Eden (DHHS)'

<WellsE3@michigan.gov>; 'Feighner, Bryce (DEQ)' <FEIGHNERB@michigan.gov>; 'Minicuci, Angela (DHHS)'

<MinicuciA@michigan.gov>; 'Shawn Patrick McElmurry' <s.mcelmurry@wayne.edu>; 'Pete Levine' <plevine@gcms.org>;

'McFadden, Jevon (DHHS-Contractor)' <McFaddenJ1@michigan.gov>; 'Zervos, Marcus' <MZERVOS1@hfhs.org>

**Subject:** RE: Reminder: Prior NSF/WHO expert committee report on bacteria regrowth in POU

The recommendation for immunocompromised to use bottled water is CDC standard (below).

Also, a reminder that bottled water itself is not completely safe or risk free, and several outbreaks of disease associated with its use have been reported.

This is important to keep in mind when communicating risk affecting individual decisions. There is a perception amongst some it is risk free.

<https://www.cdc.gov/healthywater/drinking/bottled/>

All health risk with water is relative.

Marc

---

**From:** Marc Edwards [<mailto:edwardsm@vt.edu>]

**Sent:** Saturday, January 14, 2017 7:35 PM

**To:** 'Lawrence Reynolds' <[lrey52@gmail.com](mailto:lrey52@gmail.com)>; 'Laura Caravallah' <[Laura.Carravallah@hc.msu.edu](mailto:Laura.Carravallah@hc.msu.edu)>

**Cc:** 'Nancy Love' <[nglove@umich.edu](mailto:nglove@umich.edu)>; 'Lasher, GERALYN (DHHS)' <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; 'Kay Doerr'

<[doerrkay@gmail.com](mailto:doerrkay@gmail.com)>; 'Pamela Pugh' <[ppugh@cityofflint.com](mailto:ppugh@cityofflint.com)>; 'Dr. Jed (Gerald) Natzke' <[gdn2@aol.com](mailto:gdn2@aol.com)>; 'Matt

Seeger' <[matthew.seeger@wayne.edu](mailto:matthew.seeger@wayne.edu)>; 'Beach, Michael J. (CDC/OID/NCEZID)' <[mjb3@cdc.gov](mailto:mjb3@cdc.gov)>;

'kaplan.robert@epa.gov' <[kaplan.robert@epa.gov](mailto:kaplan.robert@epa.gov)>; 'Durno, Mark' <[durno.mark@epa.gov](mailto:durno.mark@epa.gov)>; 'LyonCallo, Sarah (DHHS)'

<[lyoncallos@michigan.gov](mailto:lyoncallos@michigan.gov)>; 'Paul Evan Kilgore' <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>; 'Wells, Eden (DHHS)'

<[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)>; 'Feighner, Bryce (DEQ)' <[FEIGHNERB@michigan.gov](mailto:FEIGHNERB@michigan.gov)>; 'Minicuci, Angela (DHHS)'

<[MinicuciA@michigan.gov](mailto:MinicuciA@michigan.gov)>; 'Shawn Patrick McElmurry' <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>; 'Pete Levine' <[plevine@gcms.org](mailto:plevine@gcms.org)>;

'McFadden, Jevon (DHHS-Contractor)' <[McFaddenJ1@michigan.gov](mailto:McFaddenJ1@michigan.gov)>; 'Zervos, Marcus' <[MZERVOS1@hfhs.org](mailto:MZERVOS1@hfhs.org)>

**Subject:** Reminder: Prior NSF/WHO expert committee report on bacteria regrowth in POU

WQRF cooperatively sponsored the NSF/World Health Organization (WHO) International Symposium on Heterotrophic Plate Count (HPC) Bacteria in Drinking Water Public Health Implications, convened in Geneva, Switzerland in April 2002. The WHO Expert Committee's resulting conclusions are that **"increases of HPC (microorganisms) (due to growth) in these (domestic water devices, including water softeners, carbon filters, etc.) therefore, do not indicate the existence of a health risk."** WQRF research continues to show that if the average consumer in the United States uses a point-of-use (POU) water treatment device at home on a weekly basis, they will ingest less than 2 percent of their total bacterial intake from the POU-treated water. The literature review also demonstrated that the same types of HPC bacteria are common in foods. Thus, extensive scientific evidence has objectively and consistently verified that HPC bacteria in POU- and POE-treated drinking water are not harmful.

<http://www.purificup.com/PDF/heterotrophic%20bacteria%20HPC2005.pdf>

Since that time there has been evidence that POE can cause certain problems, but not via ingestion. Specifically, POE can remove chlorine before premise plumbing. A legionella outbreak in Miami with chloramine disinfectant was caused by this. This is different to POU in two critical important ways.

- 1) The POE removes chlorine from the entire plumbing system, hot and cold water, allowing potentially harmful OPPPs pathogens to grow throughout the entire plumbing system as we warned here.  
[http://ascelibrary.org/doi/full/10.1061/\(ASCE\)0733-9372\(2008\)134%3A7\(521\)?src=recsys&](http://ascelibrary.org/doi/full/10.1061/(ASCE)0733-9372(2008)134%3A7(521)?src=recsys&)
- 2) OPPPs pathogens (like Legionella, NTM) cause harm by inhalation (mostly showers) and skin, eye, nose contact. The POE therefore can help create those risks because it affects shower water.

Since POU are designed to produce water for ingestion cooking or drinking, the danger from any OPPPs even if they grew, is greatly reduced. The volume of water "at risk" from low chlorine in POU is very very low, when compared to that from the massive volume of water in an entire plumbing system (which also suffers from long stagnation times and much warmer temperatures).

Marc

**From:** Shawn McElmurry [<mailto:s.mcelmurry@wayne.edu>]

**Sent:** Monday, January 16, 2017 3:57 PM

**To:** Marc Edwards <[edwardsm@vt.edu](mailto:edwardsm@vt.edu)>

**Cc:** 'Lasher, GERALYN (DHHS)' <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; 'Kay Doerr' <[doerrkay@gmail.com](mailto:doerrkay@gmail.com)>; 'Pamela Pugh' <[ppugh@cityofflint.com](mailto:ppugh@cityofflint.com)>; 'Dr. Jed (Gerald) Natzke' <[gdn2@aol.com](mailto:gdn2@aol.com)>; Matthew Seeger <[matthew.seeger@wayne.edu](mailto:matthew.seeger@wayne.edu)>; 'Beach, Michael J. (CDC/OID/NCEZID)' <[mjb3@cdc.gov](mailto:mjb3@cdc.gov)>; [kaplan.robert@epa.gov](mailto:kaplan.robert@epa.gov); 'Durno, Mark' <[durno.mark@epa.gov](mailto:durno.mark@epa.gov)>; 'LyonCallo, Sarah (DHHS)' <[lyoncallos@michigan.gov](mailto:lyoncallos@michigan.gov)>; Paul Kilgore <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>; Mona Hanna-Attisha <[MHanna1@hurleymc.com](mailto:MHanna1@hurleymc.com)>; 'Wells, Eden (DHHS)' <[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)>; 'Feighner, Bryce (DEQ)' <[FEIGHNERB@michigan.gov](mailto:FEIGHNERB@michigan.gov)>; 'Minicuci, Angela (DHHS)' <[MinicuciA@michigan.gov](mailto:MinicuciA@michigan.gov)>; 'Pete Levine' <[plevine@gcms.org](mailto:plevine@gcms.org)>; 'McFadden, Jevon (DHHS-Contractor)' <[McFaddenJ1@michigan.gov](mailto:McFaddenJ1@michigan.gov)>; 'Zervos, Marcus' <[MZERVOS1@hfhs.org](mailto:MZERVOS1@hfhs.org)>; 'Lawrence Reynolds' <[lrey52@gmail.com](mailto:lrey52@gmail.com)>; 'Laura Caravallah' <[Laura.Caravallah@hc.msu.edu](mailto:Laura.Caravallah@hc.msu.edu)>; 'Amy Pruden' <[apruden@vt.edu](mailto:apruden@vt.edu)>; 'Siddhartha Roy' <[sidroy@vt.edu](mailto:sidroy@vt.edu)>; Laura Sullivan <[lsulliva@kettering.edu](mailto:lsulliva@kettering.edu)>; 'Baird, Richard (GOV)' <[bairdr@michigan.gov](mailto:bairdr@michigan.gov)>; 'Deltoral, Miguel' <[deltoral.miguel@epa.gov](mailto:deltoral.miguel@epa.gov)>; Nancy Love <[nglove@umich.edu](mailto:nglove@umich.edu)>; Susan Masten <[masten@msu.edu](mailto:masten@msu.edu)>

**Subject:** Emails and presentations

Dear Marc:

I hope that your semester is off to a successful start.

I have reviewed many emails from you about our work to the extent that my time allows. I am also aware of instances when you have discussed our work in your public presentations and other correspondences. Our team is aware of much of the literature you have cited and we appreciate you bringing it back to our attention. We have also reviewed a number of other published works that provide additional insight.

We do not agree with all of your interpretations of the literature you have cited and some of your subsequent claims. While we may disagree on some issues, we are committed to being respectful and professional; this is vital to facilitating a productive conversation about the evolving conditions in Flint. A little over a week ago, Nancy and I attempted to have a scholarly and scientific discussion with you off-line when we initiated a phone conversation with you - we still believe a rigorous scientific discussion is the best approach. Trying to resolve differences about data and interpretation through emails addressed to a large group of individuals seems counterproductive to us.

With limited time, I cannot respond to all of your emails. Rather, we are focusing our energy on continuing to develop the science to address important questions related to water quality and human health in Flint.

Based on our understanding of our data at this time, we are unable to conclude that all water in Flint is safe. The water has improved substantially, as we all agree, but we still see inconsistencies in water quality and we have remaining questions that deserve attention and further work. We are using emerging scientific approaches that require time and attention to produce rigorously vetted results.

I hope we can continue to work together toward a better understanding of the conditions in Flint.

Best of luck with the semester ahead.

Sincerely,  
Shawn P. McElmurry

Shawn P. McElmurry, Ph.D., P.E.  
Associate Professor

Wayne State University  
Dept. of Civil and Environmental Engineering 2158  
Engineering Building  
5050 Anthony Wayne Dr.  
Detroit, Michigan 48202  
Phone: 313-577-3876  
Fax: 313-577-3881  
Skype: s.mcelmurry

[www.eng.wayne.edu/mcelmurry](http://www.eng.wayne.edu/mcelmurry)

**From:** Marc Edwards  
[mailto:edwardsm@vt.edu]

**Sent:** Monday, January 16, 2017 8:50 PM

**To:** 'Shawn McElmurry' <s.mcelmurry@wayne.edu>  
**Cc:** 'Lasher, Geralyn (DHHS)' <lasherg@michigan.gov>; 'Kay Doerr' <doerrkay@gmail.com>; 'Pamela Pugh' <ppugh@cityofflint.com>; 'Dr. Jed (Gerald) Natzke' <gdn2@aol.com>; 'Matthew Seeger' <matthew.seeger@wayne.edu>; 'Beach, Michael J. (CDC/OID/NCEZID)' <mjb3@cdc.gov>; 'kaplan.robert@epa.gov' <kaplan.robert@epa.gov>; 'Durno, Mark' <durno.mark@epa.gov>; 'LyonCallo, Sarah (DHHS)' <lyoncallos@michigan.gov>; 'Paul Kilgore' <paul.kilgore@wayne.edu>; 'Mona Hanna-Attisha' <MHanna1@hurleymc.com>; 'Wells, Eden (DHHS)' <WellsE3@michigan.gov>; 'Feighner, Bryce (DEQ)' <FEIGHNERB@michigan.gov>; 'Minicuci, Angela (DHHS)' <MinicuciA@michigan.gov>; 'Pete Levine' <plevine@gcms.org>; 'McFadden, Jevon (DHHS-Contractor)' <McFaddenJ1@michigan.gov>; 'Zervos, Marcus' <MZERVOS1@hfhs.org>; 'Lawrence Reynolds' <lrey52@gmail.com>; 'Laura Caravallah' <Laura.Carravallah@hc.msu.edu>; 'Amy Pruden' <apruden@vt.edu>; 'Siddhartha Roy' <sidroy@vt.edu>; 'Laura Sullivan' <lsulliva@kettering.edu>; 'Baird, Richard (GOV)' <bairdr@michigan.gov>; 'Deltoral, Miguel' <deltoral.miguel@epa.gov>; 'Nancy Love' <nglove@umich.edu>; 'Susan Masten' <masten@msu.edu>  
**Subject:** RE: Emails and

presentations Dear Shawn,

Let me understand your logic.

You are uncomfortable that I emailed scientific information, questions and data, to a list of professionals, who have been gathered to specifically resolve scientific problems on behalf of Flint residents, because ***“Trying to resolve differences about data and interpretation through emails addressed to a large group of individuals seems counterproductive to us.”***

But publicly posting a false narrative about ***“differences about data and interpretation”*** on facebook (see all attached and below), demonstrates that your team is ***“committed to being respectful and professional.”***

I also appreciate that ***“Based on our understanding of our data at this time, we are unable to conclude that all water in Flint is safe.”*** This is exactly what everyone on this email list has been saying for 16 months.

While we are at it, can we be more explicit about exactly who has been “bought” and “manipulated,” and who is

presently exerting “great pressure” to be untruthful about the situation in Flint? I really think we need to have this out now.

Marc

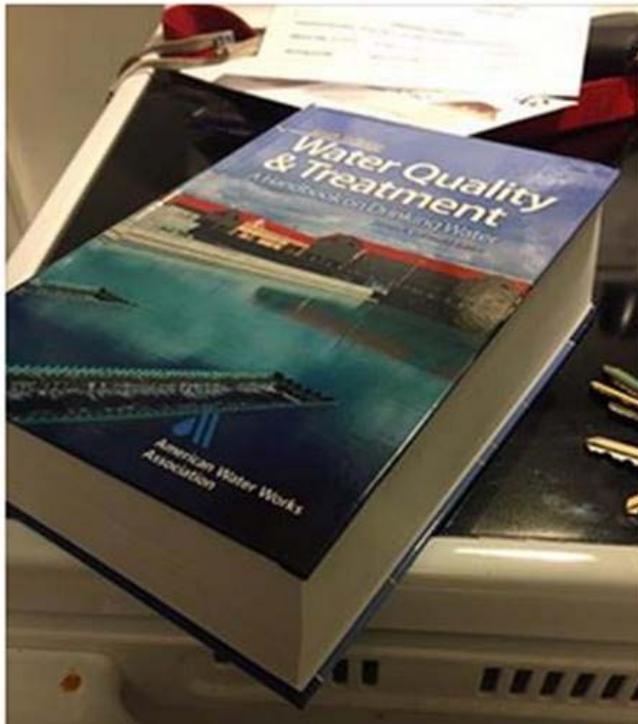


**Laura Sullivan**

3 hrs · 🌐

Shout out and big thanks to [Shawn McElmurry](#) and the amazing team he has gathered to study the effects of corroded pipes and water age on Chlorine levels, and the effect that all of this has on the safety of our drinking water. I'm so relieved to work with someone who isn't afraid to tell the truth, in spite of great pressures not to. Shawn, [Ben Pauli](#), Paul, Nancy, Susan, and so many other talented faculty from Wayne State, UofM, MSU, Henry Ford Hospital, and Kettering demonstrate that we can't be manipulated and we can't be bought.

Thanks to Shawn, I have a fresh copy of a HUGE textbook on water treatment. He says he's sorry I need to have this book on my desk. I say that one day I'll use it to press flowers.



**From:** Amy Pruden <apruden@vt.edu>  
**Sent:** Monday, January 16, 2017 3:07 PM  
**To:** Marc Edwards <edwardsm@vt.edu>  
**Subject:** Fwd: Emails and presentations

Translation:

1.) Actually- we didn't read any of those papers and we have no clue what we are doing, but will try to save face here and act like we do.

2.) We would like to deflect any criticism being put our way by making an unsubstantiatable claim that you were unfriendly towards us on the phone and did not listen to our end of the story, even though you tried to reach out to us for months before this and we were the ones ignoring you.

3.) Finally, let's find common ground: the water still is not perfect everywhere (nobody ever said that it is)- but we'll make it sound like that's what you've been trying to tell people. And yes, we still don't understand that this has nothing to do with the filters....

4.) It's counterproductive to send group emails-- I thought I'd let you know with a group email...

SOME Emails from Flint Residents

**From:** [XXXXXXXXXXXX@hotmail.com]  
**Sent:** Monday, January 9, 2017 3:20 PM  
**To:** Marc Edwards <edwardsm@vt.edu>  
**Subject:** Re: That commercial is coming out of the governor's office.

I located my letter from the Wayne State research team. The name of the bacteria is the Enterobacteriaceae family DNA. The presence of this type of bacteria is what I am also concerned about.

**From:** Marc Edwards <edwardsm@vt.edu>  
**Sent:** Monday, January 9, 2017 2:47 PM  
**To:** <XXXX@hotmail.com>  
**Subject:** RE: That commercial is coming out of the governor's office.

Hi XXXXX, Finding that bacteria is not abnormal in a water system. We have analyzed for it in other systems. We always find it. Marc

N

**From:** Marc Edwards <[edwardsm@vt.edu](mailto:edwardsm@vt.edu)>  
**Sent:** Thursday, January 12, 2017 2:52 PM  
**To:** XXXXXX  
**Subject:** RE: Flint Town Hall January 11, 2017

Hi XXXXXX,

None of the agencies are leaving town anytime soon. As per my website, there are still years of work to do on infrastructure, which has important public health links, and all kinds of implications.

If you can get me the video, that would be great.

No one buys me off. The fact of the matter is that EPA and the other feds, and the city and state have all been doing their best. I know they get criticized, but I have been involved in other crisis, and I call it like I see it.

XXXXX

Feel free to forward this to anyone you wish.

Best Regards,

Marc

**From:** [[XXXX@hotmail.com](mailto:XXXX@hotmail.com)]  
**Sent:** Thursday, January 12, 2017 2:10 PM  
**To:** Marc Edwards <[edwardsm@vt.edu](mailto:edwardsm@vt.edu)>  
**Subject:** Flint Town Hall January 11, 2017

Thank you.

I have the commercial recorded on my DVR and I hate that, because I don't have the ability to save it to another format and upload it YouTube.

I didn't get all that I wanted from your video appearance. We had some protesters in the audience, so I couldn't hear at times. I will try to find a YouTube video or somewhere to listen to the town hall again and hear your video segment. I made it to the Northbank town hall site. I do know some people (One being Tony Pallindino Jr. who did a segment with The Young Turks) think you have been compromised by working with the state and receiving money from the Mott Foundation. I personally know your research and travel isn't free and you have to have funding to do your work. It's good that the state is providing that funding. Had they not screwed up in the first place the MDEQ and the MDHHS could be trusted. I can probably say that the science will be done correctly by you and the Wayne State research group. The state, in particular the MDEQ and the MDHHS, in my opinion are the last people I would trust.

I did have one question and I didn't write it for the panel. I will send that question to one of the

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state departments or George Krisztian. My question is what happens when a person drops out of the testing?

Is that person or house replaced with a similar demographic representative sample?

Is there documentation to the reason that household dropped out?

What were the results of the person who discontinued participation found in the reporting?

I have to look at the report results to see if I can find that answer on my own, unless you have the answer.

My fear was that last night's town hall was going to be the announcement that everything with the water was going to be determined safe. That wasn't the case.

I just washed some glasses and I have to rinse those glasses with bottled water to eliminate the smell I was getting when I use my drinking glasses. My problems are minor compared to some other people. It's still a decline in my quality of life though.

Anyways, thanks for everything.

All the best for you and your team

XXXXX

**From:** Marc Edwards [<mailto:edwardsm@vt.edu>]

**Sent:** Friday, January 13, 2017 8:44 AM

**To:** '<[XXXXXX@hotmail.com](mailto:XXXXXX@hotmail.com)>

**Subject:** REsponse

Hi XXXX,

As I said to you at the dinner, I have answered every question posed to me by Flint residents. It takes a lot of time, but I was with you all at the beginning, and I will try to make it to the end with you.

For the record, neither I or CDC or EPA, has ever disagreed with the Wayne State data. In fact, their results are exactly what we have long known. There is no new knowledge, in their data, that allows us to make a better judgement about the safety of filtered water for drinking. Not just in Flint, but in the rest of about 25% of U.S. homes that use these same filters.

As for your friend on facebook posting, while I hate to discuss my qualifications (and only do so here because it is relevant) I am widely acknowledged to have originated this field of research, and was amongst the first to help discover the health problems in building plumbing systems. In the process I have personally sampled hundreds of cities and thousands of homes across the country, and my team has collectively done ten times as much. Likewise, the other experts involved in this from EPA and CDC also have decades of experience in water analysis in homes, and also have published extensively in the peer reviewed literature. They have also read most of it.

N

The only concern I have with what the Wayne State team approach, is that when they first presented it, they did not tell people clearly that there was nothing abnormal in the data at all. They only had data from one other system (Ann Arbor), and that is a chloramine system, which is just completely different from chlorine. Not better, not worse, but different.

At the EPA data summit meeting, all I did, was to answer the question you and residents had directly posed to me about the Enterobacteriaceae. I presented data from our 2015 peer reviewed paper that showed this was present at high levels in 5 other normal drinking water systems we sampled, and the scientists from CDC and EPA agreed with me. Dr. Sullivan eventually left the meeting, and therefore she was not even in the room when the Wayne State team did their presentation and the scientists further discussed this data. Perhaps because of that, she incorrectly stated in her facebook that I thought lead was the only concern in Flint (for goodness sake our team exposed the legionella problem and we talk about it all the time). She also missed time when we did our summary discussion of the meeting. Hence, why she feels qualified to give a record about who agreed with what, given that she was not even in the room during those important discussions, is a complete mystery to me.

At one point Shawn did ask some questions about prior research, and those were answered by me and EPA/CDC, but as far as I know, he was just asking to learn and exchange insights.

I hope that this helps.

Marc

**From:** [XXXXXXX@hotmail.com]

**Sent:** Friday, January 13, 2017 3:56 AM

**To:** Marc Edwards <edwardsm@vt.edu>

**Subject:** I seen the video of your part in the Flint Water Town Hall

Good morning Dr. Edwards;

I just found a YouTube video of your part in the panel discussion. I had a Facebook friend and a person I have met on several occassion said that you knocked the Wayne State research teams findings. I didn't get that. I thought that I missed something. No, your part was as accurate, reported and published for what is probably peer review. I appreciate your work and knowing that I have gotten questions answered from you that I haven't gotten a response back from the state of Michigan.

I'm going to send a e-mail to George Krisztian to thank him for the work in the CORE program. The thing is the program is a little late. Last week a group came to my home and asked that if my filter was installed and did I know where to get replacement water filters and such. This is a year after the disaster was announced. Plus, this happens after the lawsuit to have the city and or state provide delivery of those things to people who have disabilities or seniors. How did they survive up to this point?

Did the state really do enough?

I don't think it did,

Anyways, this is the link to the YouTube video.

<https://youtu.be/ekOGWp6-9FQ>

I'm sitting in the crowd in the fifth row on the left hand side with the Michigan colors skull hat. It's a blue and yellow hat with a gray jacket. There is a lady on my right side Katy Doer.

Thank you Dr. Edwards!

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**From:** Marc Edwards <[edwardsm@vt.edu](mailto:edwardsm@vt.edu)>  
**Sent:** Friday, January 20, 2017 12:09 AM  
**To:** XXXX  
**Subject:** RE: Enterobacteriaceae and other bacteria in Flint

Very impressive.

**From:** [\[XX@hotmail.com\]](mailto:XX@hotmail.com)  
**Sent:** Friday, January 20, 2017 12:07 AM  
**Subject:** Fw: Enterobacteriaceae and other bacteria in Flint

Good morning:

I sent the communications director of the DHHS a question about the enterobacteriaceae in the Flint drinking water and I got this response back. I didn't expect it. I'm happy to receive it though.

XXXXXXX

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**From:** Wells, Eden (DHHS) <[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)>  
**Sent:** Thursday, January 19, 2017 3:47 PM  
**To:** [XXXXXXXX@hotmail.com](mailto:XXXXXXXX@hotmail.com)  
**Cc:** Minicuci, Angela (DHHS)  
**Subject:** Enterobacteriaceae and other bacteria in Flint

Dear Mr. XXXXXX,

I apologize for the delay in response; there have been many meetings in the last week beginning with the Chicago Data Summit and the Flint Town Hall on January 10 and 11.

N

First- I do not think any of the scientists in Chicago, at the Flint Town Hall or subsequent meetings have stated that the Flint tap water is as safe as bottled water. In fact, filters will be recommended for quite some time as there will be a lot of line replacement and digging in the City which disturbs the pipes and allows the flicking off of particles from the pipes lining into the drinking water. SO, keep using filters!

Regarding the bacteria issue:

All municipal water systems and bottled water (with the exception of distilled or sterile bottled water) contain amounts of bacteria and other microbial contaminants. Adequate chlorination inhibits the growth of most bacteria, including potentially pathogenic ones. Even so, it is widely recognized that even with adequate chlorination, small amounts of some opportunistic pathogens, such as legionella, will likely remain, and can grow when they enter plumbing systems with stagnation and water temperatures conducive to bacterial growth. There are a number of studies ongoing to assess for potential contaminants in the Flint municipal water supply. Publically-released reports documenting detection of legionella in approximately 12% of homes are consistent with findings from other water systems outside of Flint and across the country. Scientists still have much to learn about the potential for human effects of these findings, but in general, single residential homes are not considered to be high risk settings for legionella amplification and aerosolization (breathing of tiny particles) leading to human infections. MDHHS worked with the Genesee County Health Department and CDC to identify high risk buildings in Flint and to provide education to building managers on how to effectively minimize legionella growth in their plumbing systems.

Publically-related reports about detection of bacteria from the Enterobacteriaceae family in Flint from WSU and UM have also noted that there have been no detections of live enteric pathogens such as Shigella or E. coli related to Flint water or filter use. Enterobacteriaceae is a very large and diverse family of bacteria, and decades of research have not shown that the growth of Enterobacteriaceae and other bacterial on point-of-use filters is linked to any human health effects. Only a small proportion of these bacteria are known human pathogens (including Shigella and E.coli). We are looking forward to the UM final findings as to how to maximize the healthy use of filters.

Preliminary findings from an investigation of a shigellosis outbreak in Genesee and Saginaw Counties by CDC waterborne disease experts have identified person-to-person transmission as the primary mechanism through which the outbreak has been spread throughout Genesee County, as well as throughout several other neighboring counties, not the use of filters or drinking water. CDC investigators have noted that the patterns of transmission are classic for shigellosis outbreaks and are not consistent with transmission occurring via the municipal water supply. They presented their findings at a Flint Community Meeting last month, and you can find information about their report on

the FLintCares website. Further, the reports by all of the scientists including Wayne State and UM from the Data Summits are at [epa.gov/flintwater](http://epa.gov/flintwater) and you can see their presentations and data there.

I hope that this helps with your questions, and let me know if there is any way I can be of any more assistance,

Eden

Eden V. Wells, MD, MPH, FACPM

Chief Medical Executive

Michigan Department of Health and Human Services

P.O Box 30195

Lansing, MI 48909

(517)-284-4998

**From:** [XX@hotmail.com]

**Sent:** Wednesday, January 11, 2017 1:39 PM

**To:** Minicuci, Angela (DHHS) <[MinicuciA@michigan.gov](mailto:MinicuciA@michigan.gov)>

**Subject:** Enterobacteriaceae and other bacteria in the Flint drinking water

Good afternoon Ms. Minicuci;

I would like to ask for some clarification of the bacteria problem in the Flint drinking water. Seeing the Press Release of today, January 11, 2017.

The city of Flint has a family of enterobacteriaceae bacteria, shigellosis and legionella present in the drinking water at various times of the past year or two. How can the Flint tap water be deemed as safe as bottled water?

This is according to the commercials running on local television station by the HelpforFlint.com website operating out of Governor Snyder's office. What is the MDHHS doing to solve this problem here in the city of Flint?

xxxxxThank you;