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

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

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) < lasherg@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

From: Nancy Love <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

1351 Beal Avenue Ann Arbor, MI 48109 Voice: (734) 763-9664

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

<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: <u>517-284-4020</u> wellse3@michigan.gov

From: Matthew Seeger < 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: <u>517-284-4020</u> wellse3@michigan.gov

From: Matthew Seeger < 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[sM1]. 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 <u>some variation</u> in water quality based on location within the city. Water quality also varies with the season.
- Chlorine levelsin 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)

<lasherg@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) <lasherg@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

From: Durno, Mark < durno.mark@epa.gov>
Sent: Wednesday, January 11, 2017 11:24 AM

wellse3@michigan.gov

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

Cc: Nancy Love <nglove@umich.edu>; 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) <lasherg@michigan.gov>; Minicuci, Angela (DHHS)

< <u>MinicuciA@michigan.gov</u>>; LyonCallo, Sarah (DHHS) < <u>lyoncallos@michigan.gov</u>>; Marc Edwards

<edwardsm@vt.edu>; Kaplan, Robert kaplan, Robert kaplan.robert@epa.gov; Pamela Pugh kaplan.robe

feighnerb@michigan.gov; Beach, Michael J. (CDC/OID/NCEZID) <mjb3@cdc.gov>; McFadden, Jevon (DHHS-

Contractor) < 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] **Sent:** Wednesday, January 11, 2017 11:41 AM

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

Cc: Shawn McElmurry <s.mcelmurry@wayne.edu>; Marcus Zervos <MZERVOS1@hfhs.org>; Paul Kilgore

<paul.kilgore@wayne.edu>; Lasher, Geralyn (DHHS) <lasherg@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

<ppugh@cityofflint.com>; Feighner, Bryce (DEQ) <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", Pamela Pugh,

"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>

Cc: Shawn Patrick McElmurry <s.mcelmurry@wayne.edu>; Zervos, Marcus <MZERVOS1@hfhs.org>; Matt Seeger <matthew.seeger@wayne.edu>; Paul Evan Kilgore <paul.kilgore@wayne.edu>; Lasher, Geralyn (DHHS) <lasherg@michigan.gov">lasherg@michigan.gov; Minicuci, Angela (DHHS) <MinicuciA@michigan.gov; LyonCallo, Sarah (DHHS) <Marc Edwards edwardsm@vt.edu; Durno, Mark <durno.mark@epa.gov; Reach, Michael J. (CDC/OID/NCEZID) <mib3@cdc.gov; McFadden, Jevon (DHHS-Contractor) <McFaddenJ1@michigan.gov; Lasher, Geralyn (DHHS) <MinicuciA@michigan.gov; 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 alack 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

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; 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 Enteroccus 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>; Wells, Eden (DHHS <WellsE3@michigan.gov>

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

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 <<u>edwardsm@vt.edu</u>>
Sent: Wednesday, January 11, 2017 1:48 PM

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

Subject: Sorrry.

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' <<u>matthew.seeger@wayne.edu</u>>; 'Nancy Love' <<u>nglove@umich.edu</u>>; 'Wells, Eden (DHHS' <WellsE3@michigan.gov>

Cc: 'Shawn McElmurry' < s.mcelmurry@wayne.edu>; 'Marcus Zervos' < MZERVOS1@hfhs.org>; 'Paul Kilgore' < paul.kilgore@wayne.edu>; 'Lasher, Geralyn (DHHS)' < lasherg@michigan.gov>; 'minicucia@michigan.gov' < minicucia@michigan.gov>; 'LyonCallo, Sarah (DHHS)' < lyoncallos@michigan.gov>; 'Durno, Mark' < durno.mark@epa.gov>; 'kaplan.robert@epa.gov' < kaplan.robert@epa.gov' >; 'Pamela Pugh' < ppugh@cityofflint.com>; 'feighnerb@michigan.gov' < 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> wrote:

From: Kaplan, Robert <kaplan.robert@epa.gov>

Sent: Wednesday, January 11, 2017 1:25 PM **To:** Marc Edwards <edwardsm@vt.edu>

Subject: Re: IS THERE INDEED A NEW PRESS RELEASE ABOUT BACTERIA? CAN SOMEONE SEND IT TO ME?

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

Subject: Enterobacteriaceae and other bacteria in the Flint drinking water

Good afternoon Ms. Minicuci;

I would like to ask for some clearification 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, shilgellosis 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 commericals running on local television station by the <u>HelpforFlint.com</u> 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: Flag Status: Follow up 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.

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> wrote:

Water filters could increase bacteria in Flint water, researchers say