

**From:** Matthew Seeger  
**Sent:** Thursday, October 06, 2016 12:25 PM  
**To:** MZERVOS1@hfhs.org  
**Cc:** Shawn Patrick McElmurry; Paul Evan Kilgore  
**Subject:** Fwd: Message Points- Please response ASAP  
**Attachments:** DRAFT Talking Points for FACHEP Sampling Release.docx; ATT00001.htm

This is what I need feedback on ASAP.

Matt

Matthew W. Seeger, Ph.D.  
Professor and Dean  
College of Fine, Performing & Communication Arts  
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Web: <http://www.cfpca.wayne.edu/>  
Please reply to: [Matthew.Seeger@wayne.edu](mailto:Matthew.Seeger@wayne.edu)

Sent from my iPhone

Begin forwarded message:

**From:** Matthew Wayne Seeger <[aa4331@wayne.edu](mailto:aa4331@wayne.edu)>  
**Date:** October 6, 2016 at 10:58:17 AM EDT  
**To:** Nancy Love <[nglove@umich.edu](mailto:nglove@umich.edu)>, Paul Evan Kilgore <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>, Shawn Patrick McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>, Laura Sullivan <[dr.laura2@gmail.com](mailto:dr.laura2@gmail.com)>, Marcus Zervos <[MZERVOS1@hfhs.org](mailto:MZERVOS1@hfhs.org)>  
**Subject:** Message Points- Please response ASAP

Hi Everyone,

I wanted to give our group a first crack at these points. Feedback welcome. I tried to break these up so people can say yes or no to individual points.

Please review. I'm actually at a conference and so I'm really doing this on the fly.

Once we have agreement, I'll send this out to the larger group.

I wish I could have recorded that call –

Matt

Draft points for messaging: Shigella follow up release

Ongoing investigations of the Shigella outbreak in Flint Michigan are occurring on multiple levels.

No source has been identified for the outbreak at this time.

There is no evidence at this time that the Shigella outbreak is caused by poor hygiene or lack of hand washing by the people of Flint.

There is no evidence at this time the Shigella outbreak is caused by the Flint water system.

Shigella is a bacteria that causes Shigellosis an infectious disease that causes diarrhea, fever, and stomach cramps starting a day or two after people have been exposed. Most people recover from Shigellosis in 5 to 7 days. Outbreaks are most often associated with food and made be spread by poor hygiene. The CDC recommends that the spread of Shigella can be controlled by frequent and careful hand washing with soap and water.

Coordinated investigations of the Flint outbreak by MDHSS, GCPH, GCMS and other public health partners are using several methods.

Detailed information is being collected from Flint residents who have contracted Shigella about what food they have eaten, where they have been and who they have been in contact with.

Case-control methods are being used to compare people who have contracted Shigella to people who are not sick. These studies are can help identify factors that may contribute to the outbreak.

Environmental tests are being conducted at the homes of people in Flint who have contracted Shigella.

Information about these and other investigations will be disseminated as soon as it is available.

Shigella outbreaks occur with some frequency in Michigan and throughout the country.

Proper food preparation, practicing good sanitation in kitchens and good hand washing is important to controlling an outbreak.

Residents who may be concerned about the presence of bacterial in their water, such as those with infants or those with immune compromised health, may choose to use bottled water for cooking and hand washing or they may choose to boil their water after it has been filtered.

Boiling the water after it has been filtered creates an additional layer of protection for water systems.

For more information visit CDC, MDHHS, GCHD

**From:** Michael, Gretchen (OS/ASPR/COO) <Gretchen.Michael@hhs.gov>

**Sent:** Friday, October 7, 2016 3:37 PM

**To:** Wells, Eden (DHHS) <WellsE3@michigan.gov>; Shawn Patrick McElmurry <s.mcelmurry@wayne.edu>; Nancy Love <nglove@umich.edu>; Susan Masten <masten@egr.msu.edu>;

Terese Olson <tmolson@umich.edu>; Paul Evan Kilgore <paul.kilgore@wayne.edu>; Marcus Zervos <MZERVOS1@hfhs.org>; Matthew Seeger <matthew.seeger@wayne.edu>; Lawrence Reynolds <lrey52@gmail.com>; Adler, Ari (GOV) <adlera@mi.gov>; Lasher, Geralyn (DHHS) <lasergh@michigan.gov>; Minicuci, Angela (DHHS) <MinicuciA@michigan.gov>; Eisner, Jennifer (DHHS) <EisnerJ@michigan.gov>; Suzanne Cupal <sucpal@gchd.us>; Jim Henry <jhenry@gchd.us>; mvalacak@gchd.us; Baird, Richard (GOV) <bairdr@mi.gov>; LyonCallo, Sarah (DHHS) <lyoncallos@michigan.gov>; Lyon, Nick (DHHS) <LyonN2@michigan.gov>; Creagh, Keith (DNR) <creaghk@michigan.gov>; Laura Sullivan <lsulliva@kettering.edu>; Laura Carravallah <Laura.Carravallah@hc.msu.edu>; Pete Levine <plevine@gcms.org>; McFadden, Jevon (DHHS-Contractor) <McFaddenJ1@michigan.gov>; Reynolds, Lawrence <LawrenceR2@mottchc.org>; ksmith@flint.org; Karwowski, Mateusz P. (CDC/ONDIEH/NCEH) <ydh4@cdc.gov>; Hill, Vincent (CDC/OID/NCEZID) <veh2@cdc.gov>; Yoder, Jonathan S. (CDC/OID/NCEZID) <jey9@cdc.gov>; Beach, Michael J. (CDC/OID/NCEZID) <mjb3@cdc.gov>; Urbanregeneration LLC <pamela@urbanregenerationllc.com>; Reyes, Katherine (Infectious Disease) <kreyes1@hfhs.org>; Vreibel, Nancy (DHHS) <VreibelN@michigan.gov>; Moran, Susan (DHHS) <MoranS@michigan.gov>  
**Cc:** Richards, Denise (DHHS) <richardsd@michigan.gov>; Rockefeller, Cheryl (DHHS) <RockefellerC@michigan.gov>; Jones, Kamara (OS/ASPA) <Kamara.Jones@hhs.gov>; Falk, Kathleen (OS/IEA) <Kathleen.Falk@hhs.gov>; Kane, Elleen (OS/ASPR/COO) <Elleen.Kane@hhs.gov>; O'Connor, John (CDC/OID/NCEZID) <jpo2@cdc.gov>

**Subject:** RE: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

All –

Per our conversation yesterday, attached are draft TP's that were developed by CDC.

This is not intended to be distributed beyond this group, rather, it is a starting point for discussion among this group early next week. Please review these and we can all get on a call next week to discuss next steps.

Have a nice weekend.

Regards,  
Gretchen

**Gretchen Michael, JD**

Director of Communications  
Office of the Assistant Secretary for Preparedness and Response  
U.S. Department of Health and Human Services

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

**Sent:** Thursday, October 06, 2016 6:54 PM

**To:** Shawn Patrick McElmurry; Nancy Love; Susan Masten; Terese Olson; Paul Evan Kilgore; Marcus Zervos; Matthew Seeger; Lawrence Reynolds; Adler, Ari (GOV); Michael, Gretchen (OS/ASPR/COO); Lasher, Geralyn (DHHS); Minicuci, Angela (DHHS); Eisner, Jennifer (DHHS); Suzanne Cupal; Jim Henry; [mvalacak@gchd.us](mailto:mvalacak@gchd.us); Baird, Richard (GOV); LyonCallo, Sarah (DHHS); Lyon, Nick (DHHS); Creagh, Keith (DNR); Laura Sullivan; Laura Carravallah; Pete Levine; McFadden, Jevon (DHHS-Contractor); Reynolds, Lawrence; [ksmith@flint.org](mailto:ksmith@flint.org); Karwowski, Mateusz P. (CDC/ONDIEH/NCEH); Hill, Vincent (CDC/OID/NCEZID); Yoder, Jonathan S. (CDC/OID/NCEZID); Beach, Michael J. (CDC/OID/NCEZID); Urbanregeneration LLC; Reyes, Katherine (Infectious Disease); Vreibel, Nancy (DHHS); Moran, Susan (DHHS)

**Cc:** Richards, Denise (DHHS); Rockefeller, Cheryl (DHHS)

**Subject:** Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Dear Colleagues,

I cannot thank you enough for being ready to participate on a 4:30-6 PM call with a 30-45 minute notice, all on behalf of Flint citizens. You are all amazing.

Dr. Seeger had forward initial bullet points from our discussion this morning- please provide edits to Gretchen Michael by 11 AM tomorrow. If you did not receive, let me know.

**We have promised another call, likely next week,** to discuss further studies that may be needed, desired. The urgent risk communication issue has priority for the next 24-48 hours.



As further studies about Shigella are not directly related to the WSU/UM studies being done, we can arrange a conference line, and set up a time here from MDHHS; of course all on this email are welcome.

I have tried to put all that I know who were on the calls today onto this one email. If I have inadvertently missed anyone, please forward, and also let me know,

Again, thank you all, particularly to our CDC colleagues who literally dropped everything to spend the afternoon and early evening with all of us in addressing these issues.

Eden

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

**Sent:** Thursday, October 6, 2016 3:41 PM

**To:** Nancy Love; Susan Masten; Terese Olson; Paul Evan Kilgore; Marcus Zervos; Matthew Seeger; Lawrence Reynolds

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

**Subject:** 4:30pm conference call with CDC to discuss shigella investigation

Just got off the phone with Eden (cc'd), we are going to go ahead with 4:30pm conference call with CDC regarding the shigella investigation. They would like to discuss possible public health implications of PoU filter study. I realize many of you will not be able to join as this is very last minute. Sorry.

Same call in number as this morning. Feel free to disseminate to others that joined us earlier today.

Thursday, Oct. 6<sup>th</sup> (TODAY) 4:30-5:00pm

Dial-in Number: (641) 715-3580

Access Code: 299749

Shawn

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## What We Know

### Outbreak

- County, state, and federal officials are continuing to work together to investigate the current shigellosis outbreak in Genesee and Saginaw counties, Michigan.

- As of October 7, 2016, 130 cases of shigellosis have been reported in Genesee and Saginaw counties since March 1, 2016.
- No source has been identified for the outbreak at this time, but the characteristics of the outbreak are similar to other shigellosis outbreaks caused by person-to-person transmission within a community. This is the most common route of transmission for shigellosis outbreaks in the United States.
  - *Shigella* germs are present in the stools of infected persons while they have diarrhea and for up to a week or two after the diarrhea has gone away.
  - Transmission of *Shigella* germs occurs when people put something in their mouths or swallow something that has come into contact with stool of a person infected with *Shigella*.
- Shigellosis is very contagious. The best thing people can do to keep from getting sick from *Shigella* bacteria and other infectious diseases is to wash their hands with soap and water, particularly after using the bathroom, after changing diapers, and before handling food.
  - The public water in Genesee and Saginaw counties is safe to use for regular handwashing, according to the results of EPA's ongoing water quality testing.
    - If soap and water are not available, use an alcohol-based hand sanitizer that contains at least 60% alcohol. This type of hand sanitizer will kill *Shigella* bacteria but does not kill all types of germs and will not work well if hands are visibly greasy or dirty.
    - CDC recommends washing hands with soap and water as soon as possible after using hand sanitizer.
    - Other hand-hygiene products, such as baby wipes, do not completely remove germs and are not recommended for cleaning hands.
- Symptoms of *Shigella* infection can include diarrhea that is sometimes bloody, stomach cramps, and fever.
- Symptoms generally resolve within 5 to 7 days without treatment.
- CDC recommends that people who believe they have shigellosis see their health care provider.

October 7, 2016

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Commented [YKM(1)]: We are in the process of confirming the case counts in Saginaw county since November 2015.

Commented [OJ(2R1)]: Update to show 130 cases March 1

## Filter Study

- Wayne State University and the University of Michigan are collaborating on a study of the lead point-of-use tap filters in Flint to develop better guidance on how often they should be replaced.
- As part of this study, researchers have been testing the water and filters in people's homes in Flint for traces of bacterial DNA. As expected, the researchers have found traces of bacterial DNA as they would in other communities.
- At this time, researchers have not found any evidence of *Shigella* bacteria in the water or on the filters.
- Testing results have shown pieces of DNA from other bacterial families on the filters. The researchers are continuing testing but have not found evidence of bacteria that would cause illness. This testing does not indicate if the bacteria are alive.
- The water filter study is ongoing, and results will be released to the public once the study is complete.

## What We Don't Know/What We'd Like to Know

- While the source of this outbreak has not been identified, some surveys of residents in the area suggest that people have changed their hygiene habits, possibly due to concerns about the water.
- County, state, and federal officials are planning to conduct a study that will compare people who have gotten sick with shigellosis to people who are not sick. This study will help identify factors that could be contributing to the outbreak.
  - As part of the study, researchers may be collecting information from Genesee and Saginaw county residents about foods they have eaten, places they have traveled, hygiene behaviors, water use, diaper changing in the home or interaction with childcare facilities, and other behaviors and factors known to cause transmission of shigellosis within a community.
  - Results of the study will be shared with the public once complete.
- Currently, there is no evidence that suggests that the shigellosis outbreak is being caused by contamination of the public water system in Flint but we will continue to investigate all possible routes for spreading the bacteria.
  - The EPA continues to monitor the quality of the water system in Flint.
  - The levels of chlorine found in the distribution system are known to kill *Shigella* bacteria.
  - People who may be concerned about the presence of *Shigella* or any other bacteria in their water, such as families with infants or those who are immunocompromised, may choose to use bottled water for cooking and drinking.

**Commented [YKM(3)]:** CDC does not recommend conducting environmental testing unless results of the epidemiologic investigation indicate a need for such tests; therefore, we have not mentioned environmental testing these TPs

October 7, 2016

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

**Sent:** Friday, October 7, 2016 4:45 PM

**To:** Laura Carravallah <Laura.Carravallah@hc.msu.edu>; Zervos, Marcus <MZERVOS1@hfhs.org>

**Cc:** Michael, Gretchen (OS/ASPR/COO) <Gretchen.Michael@hhs.gov>; Wells, Eden (DHHS) <WellsE3@michigan.gov>; Shawn Patrick McElmurry <s.mcelmurry@wayne.edu>; Nancy Love <nglove@umich.edu>; Susan Masten <masten@egr.msu.edu>; Terese Olson <tmolson@umich.edu>; Paul Evan Kilgore <paul.kilgore@wayne.edu>; Lawrence Reynolds <lrey52@gmail.com>; Adler, Ari (GOV) <adlera@mi.gov>; Lasher, GERALYN (DHHS) <lasherg@michigan.gov>; Minicuci, Angela (DHHS) <MinicuciA@michigan.gov>; Eisner, Jennifer (DHHS) <EisnerJ@michigan.gov>; Suzanne Cupal <sucpal@gchd.us>; Jim Henry <jhenry@gchd.us>; mvalacak@gchd.us; Baird, Richard (GOV) <bairdr@mi.gov>; LyonCallo, Sarah (DHHS) <lyoncallos@michigan.gov>; Lyon, Nick (DHHS) <LyonN2@michigan.gov>; Creagh, Keith (DNR) <creaghk@michigan.gov>; Laura Sullivan <lsulliva@kettering.edu>; Pete Levine <plevine@gcms.org>; McFadden, Jevon (DHHS-Contractor)

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**Subject:** Re: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Hi everyone -

This is of course a difficult problem, and these message points are helpful in carrying the conversation forward. I have some concerns about the general approach which seems somewhat overly reassuring and I would make a couple of general observations.

1). It is likely that the public has already made an association between the water and the outbreak. This is actually a very logical association given what the community has experienced. I believe it is important to acknowledge that perception. Simply saying the perception is wrong will not be effective, particularly given the history of misinformation.

2). Unless there is data to support the claim, I would avoid the statement " While the source of this outbreak has not been identified, some surveys of residents in the area suggest that people have changed their hygiene habits, possibly due to concerns about the water." Although this is a plausible hypothesis, it certainly can be perceived as offensive to a community that already believes it has been badly mistreated and misrepresented.

3). I think some reordering of the information may address more salient issues earlier and result in a message that is more effective.

4). Finally, I would emphasize the importance of moving quickly in getting a message out.

Thanks

Matt Seeger

**From:** Laura Carravallah

**Date:** Friday, October 7, 2016 at 4:25 PM

**To:** "Zervos, Marcus"

**Cc:** "Michael, Gretchen (OS/ASPR/COO)", "Wells, Eden (DHHS)", Shawn Patrick McElmurry, Nancy Love, Susan Masten, Terese Olson, Paul Evan Kilgore, Matt Seeger, Lawrence Reynolds, "Adler, Ari (GOV)", "Lasher, GERALYN (DHHS)", Angela Minicuci, "Eisner, Jennifer (DHHS)", Suzanne Cupal, Jim Henry, "[mvalacak@gchd.us](mailto:mvalacak@gchd.us)", "Baird, Richard (GOV)", "LyonCallo, Sarah (DHHS)", "Lyon, Nick (DHHS)", "Creagh, Keith (DNR)", Laura Sullivan, Pete Levine, "McFadden, Jevon (DHHS-Contractor)", "Reynolds, Lawrence", "[ksmith@flint.org](mailto:ksmith@flint.org)", "Karwowski, Mateusz P. (CDC/ONDIEH/NCEH)", "Hill, Vincent (CDC/OID/NCEZID)", "Yoder, Jonathan S. (CDC/OID/NCEZID)", "Beach, Michael J. (CDC/OID/NCEZID)", Urbanregeneration LLC, "Reyes, Katherine (Infectious Disease)", "Vreibel, Nancy (DHHS)", "Moran, Susan (DHHS)", "Richards, Denise (DHHS)", "Rockefeller, Cheryl (DHHS)", "Jones, Kamara (OS/ASPA)", "Falk, Kathleen (OS/IEA)", "Kane, Elleen (OS/ASPR/COO)", "O'Connor, John (CDC/OID/NCEZID)", "Mucha, John"

**Subject:** Re: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

I think it would be very helpful if all of us can see the investigation to date. This would help to settle a lot of issues, I believe.

For me, this would mean seeing the questionnaire used and the data collected, as well as the conclusions.

We are fortunate to have a lot of brainpower on this list and I hope we can use that for the benefit of our collective community.


Laura Carravallah, MD, FAAP, FACP

Genesee County Board of Health

Genesee County Medical Society Board of Directors

(speaking for myself on both accounts)

On Oct 7, 2016, at 4:09 PM, Zervos, Marcus <[MZERVOS1@hfhs.org](mailto:MZERVOS1@hfhs.org)> wrote:

 All, I will go on record at least personally to say that I don't agree with parts of this, in particular, the statement, "the characteristics of the outbreak are similar to other shigellosis outbreaks caused by person-to-person transmission within a community", you may have other information that I haven't seen, but at least with the information I have seen, and the investigation that was done, I don't see how this conclusion can be reached, secondly, I think more definitive recommendations should be made to prevent illness as we have expressed earlier, I am not forwarding others than to copy our legal office, Mark

Marcus Zervos, MD

Division Head, Infectious Disease

Henry Ford Health System

Professor of Medicine



**From:** Zervos, Marcus [mailto:MZERVOS1@hfhs.org]

**Sent:** Friday, October 07, 2016 5:51 PM

**To:** Matthew Seeger <matthew.seeger@wayne.edu>; Laura Carravallah <Laura.Carravallah@hc.msu.edu>

**Cc:** Michael, Gretchen (OS/ASPR/COO) <Gretchen.Michael@hhs.gov>; Wells, Eden (DHHS) <WellsE3@michigan.gov>; Shawn Patrick McElmurry <s.mcelmurry@wayne.edu>; Nancy Love <nglove@umich.edu>; Susan Masten <masten@egr.msu.edu>; Terese Olson <tmolson@umich.edu>; Paul Evan Kilgore <paul.kilgore@wayne.edu>; Lawrence Reynolds <1rey52@gmail.com>; Adler, Ari (GOV)

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**Subject:** RE: Follow-up from 4:30 PM Call, Shigella and Filtration Call, Local/State/Federal Partners  
Sorry couldn't be on the call and to be clear, my comment, is that I have not seen any data to suggest person to person transmission of shigella, so I don't know how that statement can be made, for example, as far as I know there was not a detailed history of food intake, and where people were during the incubation period, were there water breaks or issues leading to the homes of patients, was a case control study done, were water and filters in the home of patients cultured, were strain analysis done, and how did this tie in to the epidemiologic investigation. Further, the results of the filter studies that were presented were overly minimized, and filters are not intended for their current use in relation to bacteria. The information I do have suggests these issues were not addressed, as stated before, maybe there are data that exists that I am not aware of, agree with Matt Seeger comments below



**From:** Paul Evan Kilgore  
**Sent:** Saturday, October 08, 2016 11:01 AM  
**To:** Matthew Seeger  
**Subject:** Fw: Tutorial about architecture of PoU filter

**From:** Nancy Love <nglove@umich.edu>  
**Sent:** Saturday, October 8, 2016 9:39:11 AM  
**To:** Shawn Patrick McElmurry; Paul Evan Kilgore; Marcus Zervos; Laura Sullivan; Benjamin Pauli  
**Subject:** Tutorial about architecture of PoU filter

All- given CDC apparent misunderstanding about how PoU filters function, Terri's and my team will initiate a set of slides to share by Monday about how PoU filters work, especially with regard to microbiology, and will show how growth occurs. Seems the CDC and others will benefit from such a tutorial.

**Nancy G. Love, Ph.D., P.E., BCEE**

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**From:** Nancy Love <nglove@umich.edu>  
**Sent:** Sunday, October 09, 2016 11:00 PM  
**To:** Nicole Moore; Laura Lessnau  
**Cc:** Rick Fitzgerald; Matthew Seeger  
**Subject:** Fwd: PoU Filter Study Release

Nicole: This is the final version and has been sent as courtesy to the state, county and city of Flint. Please coordinate with Matt as to release of the press release, and please let me know when it is going out. See my other note about removing the word "from" in the second paragraph that was left in inadvertently during the final edit.

Please feel free to call me in the morning on my cell. I can fill you in on some of your questions. I take the kids to school in the morning. Feel free to call after 9.

Nancy

**Nancy G. Love, Ph.D., P.E., BCEE**

Professor, Department of Civil and Environmental Engineering

~~Adjunct Professor, Addis Ababa University Institute of Biotechnology, Ethiopia~~

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

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----- Forwarded message -----

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

**Date:** Sun, Oct 9, 2016 at 10:46 PM

**Subject:** PoU Filter Study Release

**To:** "Wells, Eden (DHHS)" <[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)>, Suzanne Cupal <[scupal@gchd.us](mailto:scupal@gchd.us)>, Laura Carravallah <[Laura.Carravallah@hc.msu.edu](mailto:Laura.Carravallah@hc.msu.edu)>, Lawrence Reynolds <[lrey52@gmail.com](mailto:lrey52@gmail.com)>

**Cc:** Nancy Love <[nglove@umich.edu](mailto:nglove@umich.edu)>, Shawn Patrick McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>, Susan Masten <[masten@egr.msu.edu](mailto:masten@egr.msu.edu)>, Paul Evan Kilgore <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>, Laura Sullivan <[dr.laura2@gmail.com](mailto:dr.laura2@gmail.com)>

Dear Colleagues,

The PoU filter team has been working on a joint statement about the study and we have reached consensus about the following release. We believe this accurately reflects the current state of the study. We expect this to be released sometime tomorrow.

Shawn McElmurry

From: Nancy Love <nglove@umich.edu>  
Sent: Tuesday, October 04, 2016 11:03 AM  
To: Susan Masten  
Cc: Shawn Patrick McElmurry  
Subject: Re: Conference Call

We do not have qPCR results for specific pathogenic species yet and timing is bad as my student [REDACTED] But, we have a more thorough MiSeq result. I have her focused on qPCR of filter effluents only next week once back. I have given [REDACTED] an Oct 14 deadline for first cut results on all samples, not just from July but other effluents taken since. [REDACTED]

REDACTED

I will work on a communication piece tonight based on a conversation I had with Laura Sullivan. Trying to merge Laura's desire for full face-to-face transparency with homeowners, Matt's thoughts about how to communicate so as to avoid causing alarm, and my own principles which align pretty far toward Laura's thoughts, but which desire having more data before engaging.

Sorry. I am not happy with the week off timing and didn't know it was scheduled.

Nancy

Nancy G. Love, Ph.D., P.E., BCEE  
Professor, Department of Civil and Environmental Engineering  
Adjunct Professor, Addis Ababa University Institute of Biotechnology, Ethiopia  
Fellow: Water Environment Federation; International Water Association; Association of Environmental Engineering and Science Professors  
University of Michigan  
183 EWRE Building  
1351 Beal Avenue  
Ann Arbor, MI 48109  
Voice: (734) 763-9664  
[nglove@umich.edu](mailto:nglove@umich.edu)  
<http://envbiotech.engin.umich.edu/>  
Twitter: @Love\_H2O

On Tue, Oct 4, 2016 at 10:49 AM, Prof. Susan Masten <[masten@egr.msu.edu](mailto:masten@egr.msu.edu)> wrote:  
Hi Shawn,

Welcome back from utopia! We should talk soon.

NEXT:

**Shawn McElmurry**

**From:** Shawn Patrick McElmurry  
**Sent:** Monday, October 10, 2016 10:21 AM  
**To:** Durno, Mark  
**Subject:** FW: PoU Filter Study Release

Hey Mark, I know I owe you a call back. Tied up now. Is there a time that works well for you today?

Shawn

**From:** Henry, James [mailto:jhenry@gchd.us]  
**Sent:** Monday, October 10, 2016 10:08 AM  
**To:** Cupal, Suzanne <scupal@gchd.us>; LaRocco, Toni <tlarocco@gchd.us>; Valacak, Mark <MVALACAK@gchd.us>; Durno, Mark <Durno.Mark@epamail.epa.gov>; Shawn Patrick McElmurry <s.mcelmurry@wayne.edu>  
**Subject:** RE: PoU Filter Study Release

Hi Shawn, I'm confident that we will receive questions about this, specifically what can be done to reduce potential risks, now. Please see my recommendations below.

**From:** Cupal, Suzanne  
**Sent:** Monday, October 10, 2016 9:58 AM  
**To:** Henry, James; Cupal, Suzanne; LaRocco, Toni; Valacak, Mark; [Durno.Mark@epamail.epa.gov](mailto:Durno.Mark@epamail.epa.gov)  
**Subject:** RE: PoU Filter Study Release

Wayne State is sending this out. We don't get a say in it. I forwarded the release to Mark Durnow and Gretchen Michael earlier as we are all likely to receive questions....

Suzanne Cupal, M.P.H.  
Public Health Division Director  
Genesee County Health Department  
630 S. Saginaw Street  
Suite 4  
Flint, MI 48502  
(810) 768-7970  
[scupal@gchd.us](mailto:scupal@gchd.us)

**From:** Henry, James  
**Sent:** Monday, October 10, 2016 9:56 AM  
**To:** 'scupal@gchd.us'; LaRocco, Toni; 'MVALACAK@gchd.us'; [Durno.Mark@epamail.epa.gov](mailto:Durno.Mark@epamail.epa.gov)  
**Subject:** FW: PoU Filter Study Release

Reads pretty good, but I think we should incorporate an action step for residents.

Perhaps a quote from, Mark Durno regarding the EPA chlorine monitoring campaign throughout the City to ensure levels are adequate to kill bacteria. Maybe a quick message about the importance of running the water to pull in chlorine into the residential POU filter, as the lack of use allows chlorine to dissipate, creating an environment for bacteria to grow.

Genesee County Health Dept [www.gchd.us](http://www.gchd.us)  
630 S. Saginaw St., Suite 4  
Flint, MI 48502-1540  
Phone (810) 257-3618 Fax (810) 257-3125  
E-mail [jhenry@gchd.us](mailto:jhenry@gchd.us)



**Genesee County  
Health Department**

Your Health. Our Work.

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For a copy of the Health Department's Notice of Information Practices, contact the Health Department or visit the Health Department's website at <http://www.gchd.us/>

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**From:** Cupal, Suzanne  
**Sent:** Monday, October 10, 2016 8:55 AM  
**To:** Valacak, Mark; Henry, James; LaRocco, Toni  
**Subject:** FW: PoU Filter Study Release

FYI...

Suzanne Cupal, M.P.H.  
Public Health Division Director  
Genesee County Health Department  
630 S. Saginaw Street  
Suite 4  
Flint, MI 48502  
(810) 768-7970  
[scupal@gchd.us](mailto:scupal@gchd.us)

---

**From:** Shawn Patrick McElmurry [<mailto:s.mcelmurry@wayne.edu>]  
**Sent:** Monday, October 10, 2016 8:51 AM  
**To:** [ppugh@cityofflint.com](mailto:ppugh@cityofflint.com)  
**Cc:** Matthew Seeger; Paul Evan Kilgore; Wells, Eden (DHHS); Cupal, Suzanne; Laura Carravallah; Lawrence Reynolds; Nancy Love; Susan Masten; Paul Evan Kilgore; Laura Sullivan ([dr.laura2@gmail.com](mailto:dr.laura2@gmail.com))  
**Subject:** FW: PoU Filter Study Release

Dr. Pugh, attached is a joint press release that will be sent out today regarding the filter study. I am sorry but Matt didn't have your email when he sent this out last night - my apologies. Please confirm I have the right email and you received this.

It was great meeting with you Friday.

Cheers!

Shawn

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:** Matthew Seeger

**Sent:** Sunday, October 9, 2016 10:47 PM

**To:** Wells, Eden (DHHS) <[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)>; Suzanne Cupal <[scupal@gchd.us](mailto:scupal@gchd.us)>; Laura Carravallah <[Laura.Carravallah@hc.msu.edu](mailto:Laura.Carravallah@hc.msu.edu)>; Lawrence Reynolds <[lrey52@gmail.com](mailto:lrey52@gmail.com)>

**Cc:** Nancy Love <[nglove@umich.edu](mailto:nglove@umich.edu)>; Shawn Patrick McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>; Susan Masten <[masten@egr.msu.edu](mailto:masten@egr.msu.edu)>; Paul Evan Kilgore <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>; Laura Sullivan <[dr.laura2@gmail.com](mailto:dr.laura2@gmail.com)>

**Subject:** PoU Filter Study Release

Dear Colleagues,

The PoU filter team has been working on a joint statement about the study and we have reached consensus about the following release. We believe this accurately reflects the current state of the study. We expect this to be released sometime tomorrow.

Thank you,

Matt Seeger



College of Fine, Performing  
and Communication Arts



[REDACTED]

**From:** Zervos, Marcus <MZERVOS1@hfhs.org>  
**Sent:** Thursday, October 06, 2016 2:31 PM  
**To:** Matthew Seeger  
**Subject:** RE: Message Points- Please response ASAP

Not really maybe leave it out, will look bad for us if it turns out to be the water

**From:** Matthew Seeger [mailto:matthew.seeger@wayne.edu]  
**Sent:** Thursday, October 06, 2016 2:30 PM  
**To:** Zervos, Marcus <MZERVOS1@hfhs.org>  
**Subject:** Re: Message Points- Please response ASAP

Any suggestions as to how?

**From:** "Zervos, Marcus"  
**Date:** Thursday, October 6, 2016 at 2:21 PM  
**To:** Matt Seeger, Nancy Love, Paul Evan Kilgore, Shawn Patrick McElmurry, Laura Sullivan  
**Subject:** RE: Message Points- Please response ASAP

Sorry reacting to wrong document, this one is fine but think the statement highlighted needs modification

**From:** Matthew Seeger [mailto:matthew.seeger@wayne.edu]  
**Sent:** Thursday, October 06, 2016 2:15 PM  
**To:** Nancy Love <nglove@umich.edu>; Paul Evan Kilgore <paul.kilgore@wayne.edu>; Shawn Patrick McElmurry <s.mcelmurry@wayne.edu>; Laura Sullivan <dr.laura2@gmail.com>; Zervos, Marcus <MZERVOS1@hfhs.org>  
**Subject:** Message Points- Please response ASAP

Hi Everyone, Again apologies for sending out the wrong draft. I'm at a conference and trying to manage most of this on my phone.

Attached is the correct document, also replicated below. If anyone has feedback on this version, please let me know. I would like to send this to the larger group today.

My cell is [REDACTED] if you would prefer to talk

Matt

---

Draft points for messaging: Shigella follow up release

Ongoing investigations of the Shigella outbreak in Flint Michigan are occurring on multiple levels.

No source has been identified for the outbreak at this time.

There is no evidence at this time that the Shigella outbreak is caused by poor hygiene or lack of hand washing by the people of Flint.

There is no evident at this time the Shigella outbreak is caused by the Flint water system.

---

Shigella is a bacteria that causes Shigellosis an infectious disease that causes diarrhea, fever, and stomach cramps starting a day or two after people have been exposed. Most people recover from Shigellosis in 5 to 7 days. Outbreaks are most often associated with food and made be spread by poor hygiene. The CDC recommends that the spread of Shigella can be controlled by frequent and careful hand washing with soap and water.

Coordinated investigations of the Flint outbreak by MDHSS, GCPH, GCMS and other public health partners are using several methods.

Detailed information is being collected from Flint residents who have contracted Shigella about what food they have eaten, where they have been and who they have been in contact with.

Case-control methods are being used to compare people who have contracted Shigella to people who are not sick. These studies are can help identify factors that may contribute to the outbreak.

Environmental tests are being conducted at the homes of people in Flint who have contracted Shigella.

Information about these and other investigations will be disseminated as soon as it is available.

Shigella outbreaks occur with some frequency in Michigan and throughout the country.

Proper food preparation, practicing good sanitation in kitchens and good hand washing is important to controlling an outbreak.

Residents who may be concerned about the presence of bacterial in their water, such as those with infants or those with immune compromised health, may choose to use bottled water for cooking and hand washing or they may choose to boil their water after it has been filtered.

Boiling the water after it has been filtered creates an additional layer of protection for water systems.

For more information visit CDC, MDHHS, GCHD

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**From:** Matthew Seeger  
**Sent:** Thursday, October 06, 2016 2:35 PM  
**To:** Zervos, Marcus  
**Subject:** Re: Message Points- Please response ASAP

Possible. Let me work in that.

**From:** "Zervos, Marcus"  
**Date:** Thursday, October 6, 2016 at 2:34 PM  
**To:** Matt Seeger  
**Subject:** RE: Message Points- Please response ASAP

How about ..... At this time but is being investigated

**From:** Matthew Seeger [<mailto:matthew.seeger@wayne.edu>]  
**Sent:** Thursday, October 06, 2016 2:33 PM  
**To:** Zervos, Marcus <[MZERVOS1@hfhs.org](mailto:MZERVOS1@hfhs.org)>  
**Subject:** Re: Message Points- Please response ASAP

So the caveat is "at this time." Give the uncertainty and the rumors I think we have to include something. Ill discuss with Shawn and hopefully nancy.

Thanks

Matt

**From:** "Zervos, Marcus"  
**Date:** Thursday, October 6, 2016 at 2:30 PM  
**To:** Matt Seeger  
**Subject:** RE: Message Points- Please response ASAP

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**Sent:** Thursday, October 06, 2016 2:30 PM  
**To:** Zervos, Marcus <[MZERVOS1@hfhs.org](mailto:MZERVOS1@hfhs.org)>  
**Subject:** Re: Message Points- Please response ASAP

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**From:** "Zervos, Marcus"  
**Date:** Thursday, October 6, 2016 at 2:21 PM  
**To:** Matt Seeger, Nancy Love, Paul Evan Kilgore, Shawn Patrick McElmurry, Laura Sullivan  
**Subject:** RE: Message Points- Please response ASAP

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Sent: Thursday, October 06, 2016 2:15 PM

To: Nancy Love <nglove@umich.edu>; Paul Evan Kilgore <paul.kilgore@wayne.edu>; Shawn Patrick McElmurry <s.mcelmurry@wayne.edu>; Laura Sullivan <dr.laura2@gmail.com>; Zervos, Marcus <MZERVOS1@hfhs.org>

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Boiling the water after it has been filtered creates an additional layer of protection for water systems.

For more information visit CDC, MDHHS, GCHD

[REDACTED]

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**From:** Zervos, Marcus <MZERVOS1@hfhs.org>  
**Sent:** Saturday, October 08, 2016 8:36 AM  
**To:** Paul Evan Kilgore; Shawn Patrick McElmurry; Matthew Seeger  
**Subject:** FW: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Paul, what data do you have access to now from the state, will you and shawn go with me when I meet with them.

**From:** Cupal, Suzanne [mailto:scupal@gchd.us]  
**Sent:** Saturday, October 08, 2016 12:50 AM  
**To:** Shawn Patrick McElmurry  
**Cc:** Krause, Kurt (DHHS); Lasher, GERALYN (DHHS); LyonCallo, Sarah (DHHS); Paul Evan Kilgore; Valacak, Mark; Henry, James; LaRocco, Toni; Zervos, Marcus; Wells, Eden (DHHS); dr.laura2@gmail.com; Matthew Seeger  
**Subject:** RE: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Shawn,

I will review my emails for this correspondence. This was during the time frame of initiation of the protective order. The email did not come from Dr. Zervos.

I spoke with him recently and the conversation he referenced did not include Shigella information.

Sent from my Windows Phone

---

**From:** Shawn Patrick McElmurry  
**Sent:** 10/7/2016 11:34 PM  
**To:** Cupal, Suzanne  
**Cc:** Krause, Kurt (DHHS); Lasher, GERALYN (DHHS); LyonCallo, Sarah (DHHS); Paul Evan Kilgore; Valacak, Mark; Henry, James; LaRocco, Toni; Zervos, Marcus; Wells, Eden (DHHS); Laura Sullivan (dr.laura2@gmail.com); Matthew Seeger  
**Subject:** RE: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Suzanne, I have not read through all of the email exchange that proceeded this email so I will refrain from further comment but I want to point out your statement "You have never made a request of me for Shigella information." is patently false. We requested this data on August 22, 2016 (see attached). To my knowledge, we never received a response.

Sincerely,  
Shawn McElmurry

---

**From:** Cupal, Suzanne [mailto:scupal@gchd.us]  
**Sent:** Friday, October 7, 2016 9:49 PM  
**To:** Zervos, Marcus <MZERVOS1@hfhs.org>; Wells, Eden (DHHS) <WellsE3@michigan.gov>  
**Cc:** Krause, Kurt (DHHS) <KrauseK2@michigan.gov>; Lasher, GERALYN (DHHS) <lasherg@michigan.gov>; LyonCallo, Sarah (DHHS) <lyoncallos@michigan.gov>; Shawn Patrick McElmurry <s.mcelmurry@wayne.edu>; Paul Evan Kilgore <paul.kilgore@wayne.edu>; Valacak, Mark <MVALACAK@gchd.us>; Henry, James <jhenry@gchd.us>; LaRocco, Toni <tlarocco@gchd.us>  
**Subject:** RE: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Dr. Zervos,

To be very clear, I indicated that we would not be sharing any case investigation information about Legionnaires' disease. That has been communicated with the Wayne State team.

You have never made a request of me for Shigella information. Nor am I aware that you have made that request of any other GCHD staff member. Had you had asked, we would have shared our reports. Also, I offered to share the Shigella questionnaire in the calls yesterday.

A request for information should be directed to the health department and not members of our Board of Health. That is an inappropriate pathway to request information.

Further, to imply secrecy of any kind when a request has not been made is also inappropriate. Too many assumptions are being made. That does not promote trust.

Collecting food histories, etc. is epi 101. To imply there has been no investigation when you have not asked to have data shared is inappropriate. GCHD, MDHHS and subject matter experts from the CDC have all analyzed the data. Our colleagues in Saginaw County have also reviewed their data with MDHHS. We have consulted with our colleagues in Saginaw as well.

I ask you to not make assumptions. Let's work toward clear communications and direct requests of the appropriate parties. Let's keep the conversations moving forward. I look forward to speaking with you on Monday.

Thank you.  
Suzanne

Sent from my Windows Phone

From: Zervos, Marcus

Sent: 10/7/2016 9:01 PM

To: Wells, Eden (DHHS)

Cc: Krause, Kurt (DHHS); Lasher, GERALYN (DHHS); LyonCallo, Sarah (DHHS); Suzanne Cupal; Shawn Patrick McElmurry; Paul Evan Kilgore (paul.kilgore@wayne.edu); Matthew Seeger

Subject: RE: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Eden, as expressed in the other email, I have the highest respect for you and the work the HD's do, and have worked with the health departments as you know for years collaboratively. My concern was related to endorsing a statement without seeing the data that supports it. Well this for me is the best news I have heard in months! Yes I have questions about the legionella cases from 2014 to present (deidentified is better than seeing nothing other than what was presented on your website), along with interrelated investigation, mitigation strategies along with the details of the investigation of the shigella cases, and be allowed to comment. I thought I was not allowed to see this information or ask questions of the health departments that is related to cases, I have asked for this before. In fact I just heard that from Suzanne last week that she would not be sharing any data with me. This is great news, lets set up a time next week to do, will take a few days, Mark

---

From: Wells, Eden (DHHS) (mailto:WellsE3@michigan.gov)

Sent: Friday, October 07, 2016 8:09 PM

To: Zervos, Marcus

Cc: Krause, Kurt (DHHS); Lasher, GERALYN (DHHS); LyonCallo, Sarah (DHHS); Suzanne Cupal

Subject: Re: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Dr. Zervos- i'm confused – you could've asked for the data at any time and it would've been available to you. And an SME is a subject matter expert. And these guys are the nation's best, from CDC, on Shigella and waterborne disease.

I'm a bit confused as why you think there is secrecy when you could just give me or our Bureau or Suzanne at GCHD a call and we would've shared any Shigella data with you. De- identified of course.

Eden V. Wells, MD, MPH, FACPM  
Chief Medical Executive  
Michigan Department of Health and Human Services  
Tel: 517-284-4020

Sent from my iPhone, please excuse typos

On Oct 7, 2016, at 7:23 PM, Zervos, Marcus <MZERVOS1@hfhs.org> wrote:

whats a sme thats not my intent to lack respect for anyone just asking to see data i don't know why there is so much secrecy about this. the reason there is lack of trust in community is related to many factors including not allowing independent review.

Sent from my iPhone

On Oct 7, 2016, at 5:59 PM, Wells, Eden (DHHS) <WellsE3@michigan.gov> wrote:

Sorry you feel that way- particularly if you say that and you don't know them or of them. I have certainly witnessed this before, in my whole clinical and PH health career in fact, that clinicians lack respect for public health physicians- the "cultural gap" Ron Davis would talk about.

Yet PH is the first they call when an outbreak or an EID hits...

Eden V. Wells, MD, MPH, FACPM  
Chief Medical Executive  
Michigan Department of Health and Human Services  
Tel: 517-284-4020

Sent from my iPhone, please excuse typos

On Oct 7, 2016, at 5:52 PM, Zervos, Marcus <MZERVOS1@hfhs.org> wrote:

I guess I did

---

**From:** Wells, Eden (DHHS) [mailto:WellsE3@michigan.gov]  
**Sent:** Friday, October 07, 2016 5:11 PM  
**To:** Zervos, Marcus  
**Subject:** Re: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Basically you just stated that Michael Beach and Vince Hill and their teams at CDC are not valid SME's...

Eden V. Wells, MD, MPH, FACPM  
Chief Medical Executive  
Michigan Department of Health and Human Services  
Tel: 517-284-4020

Sent from my iPhone, please excuse typos

On Oct 7, 2016, at 4:41 PM, Zervos, Marcus  
<[MZERVOS1@hfhs.org](mailto:MZERVOS1@hfhs.org)> wrote:

Im saying is far as I know there was not a detailed history of food intake, and where people were during the incubation period, were there water breaks or issues leading to the homes of patients, a case control study was not done, and water and filters in the home of patients was not cultured, so I don't know how the statement can be made that this is typical of shigella with person to person spread, that's all. I don't have any information myself, other than the information laura caravallah and kay dorr shared with me from GCHD in their early investigation, and the filter studies of nancy love, and my interview of one of the ill patients that sought medical care from me, I did culture her water which was negative for shigella, I didn't do the filter, Mark

---

**From:** Wells, Eden (DHHS)  
[mailto:[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)]  
**Sent:** Friday, October 07, 2016 4:27 PM  
**To:** Zervos, Marcus  
**Subject:** Re: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Hi Marc, are you saying that you think you have epidemiologic information that states that this is not a typical Shigella outbreak?

Eden V. Wells, MD, MPH, FACPM  
Chief Medical Executive  
Michigan Department of Health and Human Services  
Tel: 517-284-4020

Sent from my iPhone, please excuse typos

On Oct 7, 2016, at 4:09 PM, Zervos, Marcus  
<[MZERVOS1@hfhs.org](mailto:MZERVOS1@hfhs.org)> wrote:

All, I will go on record at least personally to say that I don't agree with parts of this, in particular, the statement, "the characteristics of the outbreak are similar to other shigellosis outbreaks caused by person-to-person transmission within a community", you may have other information that I havnt seen , but at least with the information I have seen, and the investigation that was done, I don't see how this conclusion can be reached, secondly, I think more definitive recommendations should be made to prevent illness as we have expressed earlier, I am not forwarding others than to copy our legal office, Mark

Marcus Zervos, MD  
Division Head, Infectious Disease  
Henry Ford Health System  
Professor of Medicine  
Wayne State University School of  
Medicine

313 916 2573

---

From: Michael, Gretchen  
(OS/ASPR/COO)  
[\[mailto:Gretchen.Michael@hhs.gov\]](mailto:Gretchen.Michael@hhs.gov)  
Sent: Friday, October 07, 2016 3:37 PM  
To: Wells, Eden (DHHS); Shawn Patrick McElmurry; Nancy Love; Susan Masten; Terese Olson; Paul Evan Kilgore; Zervos, Marcus; Matthew Seeger; Lawrence Reynolds; Adler, Ari (GOV); Lasher, Geralyn (DHHS); Minicuci, Angela (DHHS); Eisner, Jennifer (DHHS); Suzanne Cupal; Jim Henry; [mvalacak@gchd.us](mailto:mvalacak@gchd.us); Baird, Richard (GOV); LyonCallo, Sarah (DHHS); Lyon, Nick (DHHS); Creagh, Keith (DNR); Laura Sullivan; Laura Carravallah; Pete Levine; McFadden, Jevon (DHHS-Contractor); Reynolds, Lawrence; [ksmith@flint.org](mailto:ksmith@flint.org);



Shawn McElmurry

---

**From:** Shawn Patrick McElmurry  
**Sent:** Friday, October 07, 2016 11:47 PM  
**To:** Lawrence Reynolds  
**Subject:** FW: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners  
**Attachments:** Request for Shigellosis Data from GCHD - 22 AUG 2016.pdf

Not sure I want to bring down your evening, it's been a hard week I know. But I wanted you to be aware of the continued BS we get from Suzanne and GCHD. Mark Zervos is really discouraged. They really have no interest in collaboration.

I hope you have a great weekend Larry.

Cheers!  
Shawn

**From:** Shawn Patrick McElmurry  
**Sent:** Friday, October 7, 2016 11:35 PM  
**To:** 'Cupal, Suzanne' <scupal@gchd.us>  
**Cc:** Krause, Kurt (DHHS) <KrauseK2@michigan.gov>; Lasher, GERALYN (DHHS) <lasherg@michigan.gov>; LyonCallo, Sarah (DHHS) <lyoncallos@michigan.gov>; Paul Evan Kilgore <paul.kilgore@wayne.edu>; Valacak, Mark <MVALACAK@gchd.us>; Henry, James <jhenry@gchd.us>; LaRocco, Toni <tlarocco@gchd.us>; Zervos, Marcus <MZERVOS1@hfhs.org>; Wells, Eden (DHHS) <WellsE3@michigan.gov>; Laura Sullivan (dr.laura2@gmail.com) <dr.laura2@gmail.com>; Matthew Seeger <matthew.seeger@wayne.edu>  
**Subject:** RE: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Suzanne, I have not read through all of the email exchange that proceeded this email so I will refrain from further comment but I want to point out your statement "You have never made a request of me for Shigella information." is patently false. We requested this data on August 22, 2016 (see attached). To my knowledge, we never received a response.

Sincerely,  
Shawn McElmurry

**From:** Cupal, Suzanne [mailto:scupal@gchd.us]  
**Sent:** Friday, October 7, 2016 9:49 PM  
**To:** Zervos, Marcus <MZERVOS1@hfhs.org>; Wells, Eden (DHHS) <WellsE3@michigan.gov>  
**Cc:** Krause, Kurt (DHHS) <KrauseK2@michigan.gov>; Lasher, GERALYN (DHHS) <lasherg@michigan.gov>; LyonCallo, Sarah (DHHS) <lyoncallos@michigan.gov>; Shawn Patrick McElmurry <s.mcelmurry@wayne.edu>; Paul Evan Kilgore <paul.kilgore@wayne.edu>; Valacak, Mark <MVALACAK@gchd.us>; Henry, James <jhenry@gchd.us>; LaRocco, Toni <tlarocco@gchd.us>  
**Subject:** RE: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Dr. Zervos,

To be very clear, I indicated that we would not be sharing any case investigation information about Legionnaires' disease. That has been communicated with the Wayne State team.

You have never made a request of me for Shigella information. Nor am I aware that you have made that request of any

other GCHD staff member. Had you had asked, we would have shared our reports. Also, I offered to share the Shigella questionnaire in the calls yesterday.

A request for information should be directed to the health department and not members of our Board of Health. That is an inappropriate pathway to request information.

Further, to imply secrecy of any kind when a request has not been made is also inappropriate. Too many assumptions are being made. That does not promote trust.

Collecting food histories, etc. is epi 101. To imply there has been no investigation when you have not asked to have data shared is inappropriate. GCHD, MDHHS and subject matter experts from the CDC have all analyzed the data. Our colleagues in Saginaw County have also reviewed their data with MDHHS. We have consulted with our colleagues in Saginaw as well.

I ask you to not make assumptions. Let's work toward clear communications and direct requests of the appropriate parties. Let's keep the conversations moving forward. I look forward to speaking with you on Monday.

Thank you.  
Suzanne

Sent from my Windows Phone

From: Zervos, Marcus

Sent: 10/7/2016 9:01 PM

To: Wells, Eden (DHHS)

Cc: Krause, Kurt (DHHS); Lasher, GERALYN (DHHS); LyonCallo, Sarah (DHHS); Suzanne Cupal; Shawn Patrick McElmurry; Paul Evan Kilgore (paul.kilgore@wayne.edu); Matthew Seeger

Subject: RE: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Eden, as expressed in the other email, I have the highest respect for you and the work the HD's do, and have worked with the health departments as you know for years collaboratively. My concern was related to endorsing a statement without seeing the data that supports it. Well this for me is the best news I have heard in months! Yes I have questions about the legionella cases from 2014 to present (deidentified is better than seeing nothing other than what was presented on your website), along with interrelated investigation, mitigation strategies along with the details of the investigation of the shigella cases, and be allowed to comment. I thought I was not allowed to see this information or ask questions of the health departments that is related to cases, I have asked for this before. In fact I just heard that from Suzanne last week that she would not be sharing any data with me. This is great news, lets set up a time next week to do, will take a few days, Mark

---

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

Sent: Friday, October 07, 2016 8:09 PM

To: Zervos, Marcus

Cc: Krause, Kurt (DHHS); Lasher, GERALYN (DHHS); LyonCallo, Sarah (DHHS); Suzanne Cupal

Subject: Re: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Dr. Zervos- i'm confused -- you could've asked for the data at any time and it would've been available to you. And an SME is a subject matter expert. And these guys are the nation's best, from CDC, on Shigella and waterborne disease.

I'm a bit confused as why you think there is secrecy when you could just give me or our Bureau or Suzanne at GCHD a call and we would've shared any Shigella data with you. De- identified of course.

Eden V. Wells, MD, MPH, FACPM  
Chief Medical Executive  
Michigan Department of Health and Human Services  
Tel: 517-284-4020

Sent from my iPhone, please excuse typos

On Oct 7, 2016, at 7:23 PM, Zervos, Marcus <[MZERVOS1@hfhs.org](mailto:MZERVOS1@hfhs.org)> wrote:

whats a sme thats not my intent to lack respect for anyone just asking to see data i don't know why there is so much secrecy about this. the reason there is lack of trust in community is related to many factors including not allowing independent review.

Sent from my iPhone

On Oct 7, 2016, at 5:59 PM, Wells, Eden (DHHS) <[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)> wrote:

Sorry you feel that way- particularly if you say that and you don't know them or of them. I have certainly witnessed this before, in my whole clinical and PH health career in fact, that clinicians lack respect for public health physicians- the "cultural gap" Ron Davis would talk about.

Yet PH is the first they call when an outbreak or an EID hits...

Eden V. Wells, MD, MPH, FACPM  
Chief Medical Executive  
Michigan Department of Health and Human Services  
Tel: 517-284-4020

Sent from my iPhone, please excuse typos

On Oct 7, 2016, at 5:52 PM, Zervos, Marcus <[MZERVOS1@hfhs.org](mailto:MZERVOS1@hfhs.org)> wrote:

I guess I did

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**From:** Wells, Eden (DHHS) [<mailto:WellsE3@michigan.gov>]  
**Sent:** Friday, October 07, 2016 5:11 PM  
**To:** Zervos, Marcus  
**Subject:** Re: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Basically you just stated that Michael Beach and Vince Hill and their teams at CDC are not valid SME's...

Eden V. Wells, MD, MPH, FACPM  
Chief Medical Executive  
Michigan Department of Health and Human Services

NEXT:

Shawn McElmurry

From: Shawn Patrick McElmurry  
Sent: Saturday, October 08, 2016 9:56 PM  
To: Susan J. Masten (masten@egr.msu.edu)  
Subject: FW: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Hey Susan, Nancy, I and a few others have been dealing with an unbelievable amount of....shall we say correspondence from local, state and federal entities. A lot of email is below, review if you wish but not necessary. Anyway, my reason for sending you this is to let you know that we are going to have to release a press release on Monday to deal with some of these rumors. We (Nancy, Paul, Mark, Matt and me) had a conference call tonight and discussed what would be in that press release. I would like to make a statement regarding the chemical results. Could we talk briefly tomorrow morning about this statement? I'm guessing you have a nice run planned so just let me know if there is a time that is possible tomorrow.

Thanks,  
Shawn

From: Wells, Eden (DHHS) [mailto:WellsE3@michigan.gov]  
Sent: Saturday, October 8, 2016 10:34 AM  
To: Zervos, Marcus <MZERVOS1@hfh.org>  
Cc: Lasher, GERALYN (DHHS) <lsherg@michigan.gov>; LyonCallo, Sarah (DHHS) <lyoncallos@michigan.gov>; Suzanne Scupal <scupal@gchd.us>; Shawn Patrick McElmurry <s.mcelmurry@wayne.edu>; Paul Evan Kilgore <paul.kilgore@wayne.edu>; Matthew Seeger <matthew.seeger@wayne.edu>  
Subject: Re: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Hi there,

Paul received the Legionaire's data several weeks ago, per a letter providing an exception to the PO. PLEASE communicate with him. We cannot provide further due to the legal constraints of that PO.

Shigella does not have that restriction, and is not included in the PO. Right now, we are working to get an extremely timely message out to the public due to the fact that WSU/UM study findings somehow got into the community without context. Thus, we do not have the luxury to await your analysis of the data- which is why I collaboratively offered to take that statement out at this time.

FYI-The CDC experts are very familiar with Nancy's protocols, and what is being found in that study.

There will be opportunity to review the Shigella data. Just also know that my cell is always with me 24/7 and I can always address any questions or concerns you all may have, as long as it is NOT regarding lead or Legionella, or the FWC.

Eden  
Eden V. Wells, MD, MPH, FACPM  
Chief Medical Executive  
Michigan Department of Health and Human Services  
Tel: 517-284-4020

Sent from my iPhone, please excuse typos

On Oct 8, 2016, at 8:33 AM, Zervos, Marcus <[MZERVOS1@hfhs.org](mailto:MZERVOS1@hfhs.org)> wrote:

Thank you, Eden and Susanne, , lets set up times to review the legionairres data up to present cases and the shigella data, I can make myself available any time this week

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

Sent: Friday, October 07, 2016 9:18 PM

To: Zervos, Marcus

Cc: Krause, Kurt (DHHS); Lasher, GERALYN (DHHS); LyonCallo, Sarah (DHHS); Suzanne Cupal; Shawn Patrick McElmurry; Paul Evan Kilgore ([paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)); Matthew Seeger

Subject: Re: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Marcus-

You know I have the utmost respect for you. Will get you what you need. I think for now, given that I stated we should remove the statement that I had inserted, would be fine as a rapid response is needed to address a rumor. I have to defer to our communications experts at the local state and federal level on that, of course, as to what happens with that.

Please know that I want you to have full access to any data that you need, as well as to conversations with subject matter experts at CDC. You are a very busy clinician so I would not have expected you to be able to make a call that literally only had 30 minutes notice. So whatever we can do to address your issues, questions, or concerns will be done. But I think I should just remove that statement so that the press release can go forward to at least begin to address the Flint citizens' concerns.

And you are a great partner for public health!

My cell is 517-230-5827- available tomorrow and over weekend!

Pax vobiscum,

Eden

Eden V. Wells, MD, MPH, FACPM

Chief Medical Executive

Michigan Department of Health and Human Services

Tel: 517-284-4020

Sent from my iPhone, please excuse typos

On Oct 7, 2016, at 9:02 PM, Zervos, Marcus <[MZERVOS1@hfhs.org](mailto:MZERVOS1@hfhs.org)> wrote:

Eden, as expressed in the other email, I have the highest respect for you and the work the HD's do, and have worked with the health departments as you know for years collaboratively. My concern was related to endorsing a statement without seeing the data that supports it. Well this for me is the best news I have heard in months! Yes I

NEXT:



**From:** Zervos, Marcus <MZERVOS1@hfhs.org>  
**Sent:** Friday, October 07, 2016 7:41 PM  
**To:** Matthew Seeger; Paul Evan Kilgore; Shawn Patrick McElmurry  
**Subject:** FW: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

This is too much for me, I mean it, if the HD's ever get to a point where they will share data, and work collaboratively, I'll be glad to review and comment. I'm going to stop emailing and being involved, I don't think my contributions are helping at all. For the work at HFH I'm going to turn over to Kate, to coordinate

**From:** Wells, Eden (DHHS) [mailto:WellsE3@michigan.gov]  
**Sent:** Friday, October 07, 2016 5:48 PM  
**To:** Laura Carravallah

**Cc:** Zervos, Marcus; Michael, Gretchen (OS/ASPR/COO); Shawn Patrick McElmurry; Nancy Love; Susan Masten; Terese Olson; Paul Evan Kilgore; Matthew Seeger; Lawrence Reynolds; Adler, Ari (GOV); Lasher, GERALYN (DHHS); Minicuci, Angela (DHHS); Eisner, Jennifer (DHHS); Suzanne Cupal; Jim Henry; mvalacak@gchd.us; Baird, Richard (GOV); LyonCallo, Sarah (DHHS); Lyon, Nick (DHHS); Creagh, Keith (DNR); Laura Sullivan; Pete Levine; McFadden, Jevon (DHHS-Contractor); Reynolds, Lawrence; ksmith@flint.org; Karwowski, Mateusz P. (CDC/ONDIEH/NCEH); Hill, Vincent (CDC/OID/NCEZID); Yoder, Jonathan S. (CDC/OID/NCEZID); Beach, Michael J. (CDC/OID/NCEZID); Urbanregeneration LLC; Reyes, Katherine (Infectious Disease); Vreibel, Nancy (DHHS); Moran, Susan (DHHS); Richards, Denise (DHHS); Rockefeller, Cheryl (DHHS); Jones, Kamara (OS/ASPA); Falk, Kathleen (OS/IEA); Kane, Ellén (OS/ASPR/COO); O'Connor, John (CDC/OID/NCEZID); Mucha, John

**Subject:** Re: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Fix of typo...

Eden V. Wells, MD, MPH, FACPM  
Chief Medical Executive  
Michigan Department of Health and Human Services  
Tel: 517-284-4020

Sent from my iPhone, please excuse typos

On Oct 7, 2016, at 5:26 PM, Wells, Eden (DHHS) <WellsE3@michigan.gov> wrote:

Yes- here is our difficulty – as you all know we're dealing with the rumor mill and with the timing I really think this ought to be done early next week. Like Monday.

We do have data that has lead PH at local state and federal levels to determine that this looks to be a typical chain of transmission; not sure we can get that to you over weekend. Also- some folks did not have the opportunity to discuss issues/concerns with CDC last eve.

Also, we are going to be doing further studies both to ensure that the epidemiologic investigations are thorough as they can be, as well as potential case control studies. There will be further discussion about whether water studies are indicated – as you recall yesterday that is not something that would typically be sought during a shigella outbreak, and this viewpoint from PH

was not altered by the University of Michigan study prelim results per the discussions last night as well.

DUE TO TIMING required for rumor control, and my respect for Drs. Carravallah and Zervos and others who have similar concerns:

I am amenable to take the comment that I wrote about a "typical Shigella outbreak" out of the press release at this time until such studies are actually conducted which could be weeks to months away.

Does that help?

Eden V. Wells, MD, MPH, FACPM  
Chief Medical Executive  
Michigan Department of Health and Human Services  
Tel: 517-284-4020

Sent from my iPhone, please excuse typos

On Oct 7, 2016, at 5:11 PM, Laura Carravallah <[Laura.Carravallah@hc.msu.edu](mailto:Laura.Carravallah@hc.msu.edu)> wrote:

Thank you, Eden. I think that would help quite a bit.

Laura

On Oct 7, 2016, at 5:01 PM, Wells, Eden (DHHS) <[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)> wrote:

Hi folks,

I think that is doable. The full epidemiologic information that has been collected through the MDSS has been shared with our CDC experts. That is how they reached the conclusions that they did on yesterday evening's call. So far to date the epidemiology of this outbreak is not consistent with contamination of the municipal water. As they stated yesterday – if the municipal water was contaminated you would be seeing cases across all age groups equally as well as markedly increased cases – in fact across the whole city.

Also, as Genesee County and MDHHS and CDC noted yesterday on both calls, cases are occurring outside of the city as well and all cases tend to be transmitted through household consistent with the fecal – oral transmission. Further, another outbreak (relationship? None seen yet) with cases are in Saginaw County but many with no Epi linkages related to Flint- at least as far as I know.

I am the one who stated that the epidemiology was typical of normal Shigella outbreaks and consistent with fecal – oral transmission because if there was any other point source, or a

waterborne source, there would be an entirely different epidemiological pattern and epi curve. This comes from my experience with working with communicable disease outbreaks. However, this position was also stated multiple times by Dr. Michael Beach, and his colleagues at CDC.

If you feel that access to the questionnaire in the types of questions asked and a breakdown of the responses to the questions as necessary – I am certain that could be made available because it was made available to the centers for disease control. Further I think that we should share the Epi curves and the Epi data as we have to the group, de-identified, so that you can understand why the public health agencies have been able to determine some of the transmission patterns at this point.

Experience with public health epidemiology and public health outbreak investigation and control is also important to put this outbreak into the context that is required. Again, multiple times to the call yesterday it was stated that the epidemiology is not consistent with waterborne municipal contamination nor is it consistent with a point source outbreak.

THAT SAID, we did mention that there will be a further called to discuss studies that will help settle some of the concerns that of been registered by folks on this group and our public. Also, a formal request for Epi assistance from the CDC experts that you see on this email was also made today to begin working to further investigate any common risks for the Shigella cases here in Flint and Saginaw.

I just wanted to relay to you that the science behind communicable disease epidemiology is being utilized in the situation and once we share information with you all I think we can explain why we think the patterns are consistent with fecal – oral transmission.

Hope this helps!!!!

Eden V. Wells, MD, MPH, FACPM  
Chief Medical Executive  
Michigan Department of Health and Human Services  
Tel: 517-284-4020

Sent from my iPhone, please excuse typos

On Oct 7, 2016, at 4:25 PM, Laura Carravallah  
<[Laura.Carravallah@hc.msu.edu](mailto:Laura.Carravallah@hc.msu.edu)> wrote:



I think it would be very helpful if all of us can see the investigation to date. This would help to settle a lot of issues, I believe.

For me, this would mean seeing the questionnaire used and the data collected, as well as the conclusions.


We are fortunate to have a lot of brainpower on this list and I hope we can use that for the benefit of our collective community.

Laura Carravallah, MD, FAAP, FACP  
Genesee County Board of Health  
Genesee County Medical Society Board of Directors  
(speaking for myself on both accounts)

On Oct 7, 2016, at 4:09 PM, Zervos, Marcus  
<MZERVOS1@hfhs.org> wrote:

All, I will go on record at least personally to say that I don't agree with parts of this, in particular, the statement, "the characteristics of the outbreak are similar to other shigellosis outbreaks caused by person-to-person transmission within a community", you may have other information that I havnt seen, but at least with the information I have seen, and the investigation that was done, I don't see how this conclusion can be reached, secondly, I think more definitive recommendations should be made to prevent illness as we have expressed earlier, I am not forwarding others than to copy our legal office, Mark

Marcus Zervos, MD  
Division Head, Infectious Disease  
Henry Ford Health System  
Professor of Medicine  
Wayne State University School of Medicine



[REDACTED]

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**From:** Zervos, Marcus <MZERVOS1@hfhs.org>  
**Sent:** Saturday, October 08, 2016 9:12 AM  
**To:** Shawn Patrick McElmurry; Paul Evan Kilgore; Matthew Seeger  
**Subject:** FW: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

So much for getting data, im going to cool off before more email, not going to email more today

**From:** Cupal, Suzanne [mailto:scupal@gchd.us]  
**Sent:** Saturday, October 08, 2016 8:46 AM  
**To:** Zervos, Marcus  
**Subject:** RE: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Dr. Zervos,

As expressed, I hold you in high esteem. You have been a knowledgeable and supportive partner. I enjoy working with you and look forward to continued collaboration. I cannot discuss Legionnaires' case information with you.

I am very happy to share Shigella information. I also see a need to educate physicians about public health cd investigations. I hope we can discuss this on Monday.

I am taking a break today. If you would like to talk tomorrow, my cell phone number is 810-624-4742. We are all navigating through a lot right now. Please recognize that and we will navigate today.

With great respect,  
Suzanne

Sent from my Windows Phone

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**From:** Zervos, Marcus  
**Sent:** 10/8/2016 8:32 AM  
**To:** Wells, Eden (DHHS)  
**Cc:** Krause, Kurt (DHHS); Lasher, Geralyn (DHHS); LyonCallo, Sarah (DHHS); Suzanne Cupal; Shawn Patrick McElmurry; Paul Evan Kilgore (paul.kilgore@wayne.edu); Matthew Seeger  
**Subject:** RE: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Thank you, Eden and Susanne, , lets set up times to review the legionairres data up to present cases and the shigella data, I can make myself available any time this week

---

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**Sent:** Friday, October 07, 2016 9:18 PM  
**To:** Zervos, Marcus  
**Cc:** Krause, Kurt (DHHS); Lasher, Geralyn (DHHS); LyonCallo, Sarah (DHHS); Suzanne Cupal; Shawn Patrick McElmurry; Paul Evan Kilgore (paul.kilgore@wayne.edu); Matthew Seeger  
**Subject:** Re: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Marcus-

You know I have the utmost respect for you. Will get you what you need. I think for now, given that I stated we should remove the statement that I had inserted, would be fine as a rapid response is needed to address a rumor. I have to defer to our communications experts at the local state and federal level on that, of course, as to what happens with that.

Please know that I want you to have full access to any data that you need, as well as to conversations with subject matter experts at CDC. You are a very busy clinician so I would not have expected you to be able to make a call that literally only had 30 minutes notice. So whatever we can do to address your issues, questions, or concerns will be done. But I think I should just remove that statement so that the press release can go forward to at least begin to address the Flint citizens' concerns.

And you are a great partner for public health!

My cell is 517-230-5827- available tomorrow and over weekend!

Pax vobiscum,


Eden

Eden V. Wells, MD, MPH, FACPM  
Chief Medical Executive  
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Sent from my iPhone, please excuse typos

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Sent: Friday, October 07, 2016 8:09 PM

To: Zervos, Marcus

Cc: Krause, Kurt (DHHS); Lasher, Geralyn (DHHS); LyonCallo, Sarah (DHHS); Suzanne Cupal

Subject: Re: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Dr. Zervos- i'm confused – you could've asked for the data at any time and it would've been available to you. And an SME is a subject matter expert. And these guys are the nation's best, from CDC, on Shigella and waterborne disease.



I'm a bit confused as why you think there is secrecy when you could just give me or our Bureau or Suzanne at GCHD a call and we would've shared any Shigella data with you. De-identified of course.

Eden V. Wells, MD, MPH, FACPM  
Chief Medical Executive  
Michigan Department of Health and Human Services  
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Yet PH is the first they call when an outbreak or an EID hits...

Eden V. Wells, MD, MPH, FACPM  
Chief Medical Executive  
Michigan Department of Health and Human Services  
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I guess I did

---

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**Sent:** Friday, October 07, 2016 5:11 PM  
**To:** Zervos, Marcus  
**Subject:** Re: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

NEXT:

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**Sent:** Saturday, October 08, 2016 10:34 AM  
**To:** Zervos, Marcus  
**Cc:** Lasher, GERALYN (DHHS); LyonCallo, Sarah (DHHS); Suzanne Cupal; Shawn Patrick McElmurry; Paul Evan Kilgore; Matthew Seeger  
**Subject:** Re: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Hi there,

Paul received the Legionnaire's data several weeks ago, per a letter providing an exception to the PO. PLEASE communicate with him. We cannot provide further due to the legal constraints of that PO.

Shigella does not have that restriction, and is not included in the PO. Right now, we are working to get an extremely timely message out to the public due to the fact that WSU/UM study findings somehow got into the community without context. Thus, we do not have the luxury to await your analysis of the data- which is why I collaboratively offered to take that statement out at this time.

FYI-The CDC experts are very familiar with Nancy's protocols, and what is being found in that study.

There will be opportunity to review the Shigella data. Just also know that my cell is always with me 24/7 and I can always address any questions or concerns you all may have, as long as it is NOT regarding lead or Legionella, or the FWC.

Eden  
Eden V. Wells, MD, MPH, FACPM  
Chief Medical Executive  
Michigan Department of Health and Human Services  
Tel: 517-284-4020

Sent from my iPhone, please excuse typos


On Oct 8, 2016, at 8:33 AM, Zervos, Marcus <MZERVOS1@hfhs.org> wrote:

Thank you, Eden and Susanne, , lets set up times to review the legionairres data up to present cases and the shigella data, I can make myself available any time this week

**From:** Wells, Eden (DHHS) [mailto:WellsE3@michigan.gov]  
**Sent:** Friday, October 07, 2016 9:18 PM  
**To:** Zervos, Marcus  
**Cc:** Krause, Kurt (DHHS); Lasher, GERALYN (DHHS); LyonCallo, Sarah (DHHS); Suzanne Cupal; Shawn Patrick McElmurry; Paul Evan Kilgore (paul.kilgore@wayne.edu); Matthew Seeger  
**Subject:** Re: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Marcus-

You know I have the utmost respect for you. Will get you what you need. I think for now, given that I stated we should remove the statement that I had inserted, would be fine as a rapid response is needed to address a rumor. I have to defer to our communications experts at the local state and federal level on that, of course, as to what happens with that.

Please know that I want you to have full access to any data that you need, as well as to conversations with subject matter experts at CDC. You are a very busy clinician so I would not have expected you to be able to make a call that literally only had 30 minutes notice. So whatever we can do to address your issues, questions, or concerns will be done. But I think I should just remove that statement so that the press release can go forward to at least begin to address the Flint citizens' concerns. 

And you are a great partner for public health!

My cell is 517-230-5827- available tomorrow and over weekend!

Pax vobiscum,

Eden

Eden V. Wells, MD, MPH, FACPM  
Chief Medical Executive  
Michigan Department of Health and Human Services  
Tel: 517-284-4020

Sent from my iPhone, please excuse typos

On Oct 7, 2016, at 9:02 PM, Zervos, Marcus <[MZERVOS1@hfhs.org](mailto:MZERVOS1@hfhs.org)> wrote:

Eden, as expressed in the other email, I have the highest respect for you and the work the HD's do, and have worked with the health departments as you know for years collaboratively. My concern was related to endorsing a statement without seeing the data that supports it. Well this for me is the best news I have heard in months! Yes I have questions about the legionella cases from 2014 to present (deidentified is better than seeing nothing other than what was presented on your website), along with interrelated investigation, mitigation strategies along with the details of the investigation of the shigella cases, and be allowed to comment. I thought I was not allowed to see this information or ask questions of the health departments that is related to cases, I have asked for this before. In fact I just heard that from Suzanne last week that she would not be sharing any data with me. This is great news, lets set up a time next week to do, will take a few days, Mark

**From:** Wells, Eden (DHHS) [<mailto:WellsE3@michigan.gov>]  
**Sent:** Friday, October 07, 2016 8:09 PM  
**To:** Zervos, Marcus  
**Cc:** Krause, Kurt (DHHS); Lasher, GERALYN (DHHS); LyonCallo, Sarah (DHHS); Suzanne Cupal  
**Subject:** Re: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Sent: Friday, October 07, 2011 4:30 PM  
To: Wells, Eden (DHHS); Shuman, Patrick (DHHS); McElmurry, Nancy Love; Susan Masten; Terese Olson; Paul Evan Kilgore; Zervos, Marcus; Matthew Seeger; Lawrence Reynolds; Adler, Ari (GOV); Lasher, GERALYN (DHHS); Minicuci, Angela (DHHS); Eisner, Jennifer (DHHS); Suzanne Cupal; Jim Henry; [mvalacak@gchd.us](mailto:mvalacak@gchd.us); Baird, Richard (GOV); LyonCallo, Sarah (DHHS); Lyon, Nick (DHHS); Creagh, Keith (DNR); Laura Sullivan; Laura Carravallah; Pete Levine; McFadden, Jevon (DHHS-Contractor); Reynolds, Lawrence; [ksmith@flint.org](mailto:ksmith@flint.org); Karwowski, Mateusz P. (CDC/ONDIEH/NCEH); Hill, Vincent (CDC/OID/NCEZID); Yoder, Jonathan S. (CDC/OID/NCEZID); Beach, Michael J. (CDC/OID/NCEZID); Urbanregeneration LLC; Reyes, Katherine (Infectious Disease); Vreibel, Nancy (DHHS); Moran, Susan (DHHS)  
Cc: Richards, Denise (DHHS); Rockefeller, Cheryl (DHHS); Jones, Kamara (OS/ASPA); Falk, Kathleen (OS/IEA); Kane, Elleen (OS/ASPR/COO); O'Connor, John (CDC/OID/NCEZID)  
Subject: RE: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

All –

Per our conversation yesterday, attached are draft TP's that were developed by CDC.

This is not intended to be distributed beyond this group, rather, it is a starting point for discussion among this group early next week. Please review these and we can all get on a call next week to discuss next steps.

Have a nice weekend.

Regards,  
Gretchen

Gretchen Michael, JD



Director of Communications  
Office of the Assistant Secretary for  
Preparedness and Response  
U.S. Department of Health and  
Human Services

200 C Street, SW  
Room 12J07  
Washington, DC 20201  
202-205-8114 office  
571-839-7617 cell

<image001.png>

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**From:** Wells, Eden (DHHS)  
[mailto:WellsE3@michigan.gov]  
**Sent:** Thursday, October 06, 2016 6:54  
PM  
**To:** Shawn Patrick McElmurry; Nancy  
Love; Susan Masten; Terese Olson; Paul  
Evan Kilgore; Marcus Zervos; Matthew  
Seeger; Lawrence Reynolds; Adler, Ari  
(GOV); Michael, Gretchen  
(OS/ASPR/COO); Lasher, Geralyn  
(DHHS); Minicuci, Angela (DHHS);  
Eisner, Jennifer (DHHS); Suzanne Cupal;  
Jim Henry; mvalacak@gchd.us; Baird,  
Richard (GOV); LyonCallo, Sarah  
(DHHS); Lyon, Nick (DHHS); Creagh,  
Keith (DNR); Laura Sullivan; Laura  
Carravallah; Pete Levine; McFadden,  
Jevon (DHHS-Contractor); Reynol

[The entire original message is not included.]

On Oct 7, 2016, at 4:41 PM, Zervos, Marcus <[MZERVOS1@hfhs.org](mailto:MZERVOS1@hfhs.org)> wrote:

Im saying is far as I know there was not a detailed history of food intake, and where people were during the incubation period, were there water breaks or issues leading to the homes of patients, a case control study was not done, and water and filters in the home of patients was not cultured, so I don't know how the statement can be made that this is typical of shigella with person to person spread, that's all. I don't have any information myself, other than the information laura caravallah and kay dorr shared with me from GCHD in their early investigation, and the filter studies of nancy love, and my interview of one of the ill patients that sought medical care from me, I did culture her water which was negative for shigella, I didn't do the filter, Mark

---

**From:** Wells, Eden (DHHS)  
[\[mailto:WellsE3@michigan.gov\]](mailto:WellsE3@michigan.gov)  
**Sent:** Friday, October 07, 2016 4:27 PM  
**To:** Zervos, Marcus  
**Subject:** Re: Follow-up from 4:30 PM Call,

Shigella and Filters Call,  
Local/State/Federal  
Partners

Hi Marc, are you  
saying that you think  
you have  
epidemiologic  
information that states  
that this is not a  
typical Shigella  
outbreak?

Eden V. Wells, MD,  
MPH, FACPM  
Chief Medical  
Executive  
Michigan Department  
of Health and Human  
Services  
Tel: 517-284-4020

Sent from my iPhone,  
please excuse typos

On Oct 7, 2016, at  
4:09 PM, Zervos,  
Marcus  
<[MZERVOS1@hfhs.org](mailto:MZERVOS1@hfhs.org)>  
wrote:

All, I  
will go  
on  
record  
at least  
person  
ally to  
say that  
I don't  
agree  
with  
parts of  
this, in  
particul  
ar, the  
statem  
ent,  
"the  
charact

NEXT:

**From:** Beach, Michael J. (CDC/OID/NCEZID)  
**To:** Reynolds, Lawrence; Zervos, Marcus; Matthew Seeger; Laura Carravallah  
**Cc:** Michael, Gretchen (OS/ASPR/COO); Wells, Eden (DHHS); Shawn Patrick McElmurry; Nancy Love; Susan Masten; Terese Olson; Paul Evan Kilgore; Lawrence Reynolds; Adler, Ari (GOV); Lasher, GERALYN (DHHS); Minicuci, Angela (DHHS); Eisner, Jennifer (DHHS); Jim Henry; mvalacak@gchd.us; Baird, Richard (GOV); LyonCallo, Sarah (DHHS); Lyon, Nick (DHHS); Creagh, Keith (DNR); Laura Sullivan; Pete Levine; McFadden, Jevon (DHHS-Contractor); ksmith@flint.org; Karwowski, Mateusz P. (CDC/OID/NCEZID); Hill, Vincent (CDC/OID/NCEZID); Yoder, Jonathan S. (CDC/OID/NCEZID); Urbanregeneration LLC; Reyes, Katherine (Infectious Disease); Vreibel, Nancy (DHHS); Moran, Susan (DHHS); Richards, Denise (DHHS); Rockefeller, Cheryl (DHHS); Jones, Kamara (OS/ASPA); Falk, Kathleen (OS/IEA); Kane, Elleen (OS/ASPR/COO); O'Connor, John (CDC/OID/NCEZID); Mucha, John; Yates, Kirsten M. (CDC/OID/NCEZID); Cupal, Suzanne (scupal@gchd.us)  
**Subject:** RE: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners  
**Date:** Monday, October 10, 2016 4:01:14 PM  
**Attachments:** Flint Shigella CDC TPs 10-10-2016 1550.docx

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Here are some edits to the Shigella TPs from Paul Kilgore included and I have tried to soften the last bullet. We hear from a recent phone call that the Filter Study press release should come out shortly.

Thanks

Michael

Michael J. Beach, Ph.D.  
Deputy Director, Division of Foodborne, Waterborne, and Environmental Diseases  
Associate Director for Healthy Water  
National Center for Emerging and Zoonotic Infectious Diseases  
Centers for Disease Control and Prevention  
Mailstop C-09  
1600 Clifton Rd NE  
Atlanta, GA 30329-4018  
Tel: 404-639-1591  
E-mail: [mbeach@cdc.gov](mailto:mbeach@cdc.gov)  
Visit CDC's Healthy Water website at [www.cdc.gov/healthywater](http://www.cdc.gov/healthywater)



Please only print this e-mail if necessary.

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**From:** Beach, Michael J. (CDC/OID/NCEZID)  
**Sent:** Monday, October 10, 2016 11:32 AM  
**To:** Reynolds, Lawrence; Zervos, Marcus; Matthew Seeger; Laura Carravallah  
**Cc:** Michael, Gretchen (OS/ASPR/COO); Wells, Eden (DHHS); Shawn Patrick McElmurry; Nancy Love; Susan Masten; Terese Olson; Paul Evan Kilgore; Lawrence Reynolds; Adler, Ari (GOV); Lasher, GERALYN (DHHS); Minicuci, Angela (DHHS); Eisner, Jennifer (DHHS); Suzanne Cupal; Jim Henry; mvalacak@gchd.us; Baird, Richard (GOV); LyonCallo, Sarah (DHHS); Lyon, Nick (DHHS); Creagh, Keith (DNR); Laura Sullivan; Pete Levine; McFadden, Jevon (CDC michigan.gov); ksmith@flint.org; Karwowski, Mateusz P. (CDC/OID/NCEZID); Hill, Vincent (CDC/OID/NCEZID); Yoder, Jonathan S. (CDC/OID/NCEZID); Urbanregeneration LLC; Reyes, Katherine (Infectious Disease); Vreibel, Nancy (DHHS); Moran, Susan (DHHS); Richards, Denise (DHHS); Rockefeller, Cheryl (DHHS); Jones, Kamara (OS/ASPA); Falk, Kathleen (OS/IEA); Kane, Elleen (OS/ASPR/COO); O'Connor, John (CDC/OID/NCEZID); Mucha, John; Beach, Michael J. (CDC/OID/NCEZID); Yates, Kirsten M. (CDC/OID/NCEZID)  
**Subject:** RE: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

I have edited some of the wording so please feel free to edit further. The data collected thus far is be put into a summary document that can be shared with all but an intake survey was done on all case-patients asking about food, travel, etc. As pointed out, no conclusion can be made until the planned

epidemiologic study is completed but the data so far is what is being used to inform these talking points. I have moved the hygiene statement and altered it based on the wording used in the rash study that it is based on since it could be a factor in this outbreak and we want to promote good handwashing. It is not clear to me how to edit the filter wording since there are no results at this point beyond what has been included (i.e., there are bacteria present) but welcome suggestions. It might be advisable to add a new sub-bullet (or completely new bullet) in the last section to say a more in-depth study will be conducted to definitively determine associated risk factors?

Thx

Michael

Michael J. Beach, Ph.D.

Deputy Director, Division of Foodborne, Waterborne, and Environmental Diseases

Associate Director for Healthy Water

National Center for Emerging and Zoonotic Infectious Diseases

Centers for Disease Control and Prevention

Mailstop C-09

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Tel: 404-639-1591

E-mail: [mbeach@cdc.gov](mailto:mbeach@cdc.gov)

Visit CDC's Healthy Water website at [www.cdc.gov/healthywater](http://www.cdc.gov/healthywater)



Please only print this e-mail if necessary.

---

**From:** Reynolds, Lawrence [<mailto:LawrenceR2@mottchc.org>]

**Sent:** Monday, October 10, 2016 8:56 AM

**To:** Zervos, Marcus; Matthew Seeger; Laura Carravallah

**Cc:** Michael, Gretchen (OS/ASPR/COO); Wells, Eden (DHHS); Shawn Patrick McElmurry; Nancy Love; Susan Masten; Terese Olson; Paul Evan Kilgore; Lawrence Reynolds; Adler, Ari (GOV); Lasher, GERALYN (DHHS); Minicuci, Angela (DHHS); Eisner, Jennifer (DHHS); Suzanne Cupal; Jim Henry;

[mvalacak@gchd.us](mailto:mvalacak@gchd.us); Baird, Richard (GOV); LyonCallo, Sarah (DHHS); Lyon, Nick (DHHS); Creagh, Keith (DNR); Laura Sullivan; Pete Levine; McFadden, Jevon (CDC michigan.gov); [ksmith@flint.org](mailto:ksmith@flint.org);

Karwowski, Mateusz P. (CDC/OID/NCEZID); Hill, Vincent (CDC/OID/NCEZID); Yoder, Jonathan S. (CDC/OID/NCEZID); Beach, Michael J. (CDC/OID/NCEZID); Urbanregeneration LLC; Reyes, Katherine

(Infectious Disease); Vreibel, Nancy (DHHS); Moran, Susan (DHHS); Richards, Denise (DHHS);

Rockefeller, Cheryl (DHHS); Jones, Kamara (OS/ASPA); Falk, Kathleen (OS/IEA); Kane, Elleen

(OS/ASPR/COO); O'Connor, John (CDC/OID/NCEZID); Mucha, John

**Subject:** RE: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Thank you Dr. Zervos. I appreciate your caution not to jump to any conclusions.

---

**From:** Zervos, Marcus [<mailto:MZERVOS1@hfhs.org>]

**Sent:** Friday, October 07, 2016 5:51 PM

**To:** Matthew Seeger <[matthew.seeger@wayne.edu](mailto:matthew.seeger@wayne.edu)>; Laura Carravallah

<[Laura.Carravallah@hc.msu.edu](mailto:Laura.Carravallah@hc.msu.edu)>

**Cc:** Michael, Gretchen (OS/ASPR/COO) <[Gretchen.Michael@hhs.gov](mailto:Gretchen.Michael@hhs.gov)>; Wells, Eden (DHHS)

<[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)>; Shawn Patrick McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>; Nancy Love



<[nglove@umich.edu](mailto:nglove@umich.edu)>; Susan Masten <[masten@egr.msu.edu](mailto:masten@egr.msu.edu)>; Terese Olson <[tmolson@umich.edu](mailto:tmolson@umich.edu)>; Paul Evan Kilgore <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>; Lawrence Reynolds <[lrey52@gmail.com](mailto:lrey52@gmail.com)>; Adler, Ari (GOV) <[AdlerA@michigan.gov](mailto:AdlerA@michigan.gov)>; Lasher, GERALYN (DHHS) <[lasherg@michigan.gov](mailto:lasherg@michigan.gov)>; Minicuci, Angela (DHHS) <[MinicuciA@michigan.gov](mailto:MinicuciA@michigan.gov)>; Eisner, Jennifer (DHHS) <[EisnerJ@michigan.gov](mailto:EisnerJ@michigan.gov)>; Suzanne Cupal <[sucpal@gchd.us](mailto:sucpal@gchd.us)>; Jim Henry <[jhenry@gchd.us](mailto:jhenry@gchd.us)>; mvalacak@gchd.us; Baird, Richard (GOV) <[bairdr@michigan.gov](mailto:bairdr@michigan.gov)>; LyonCallo, Sarah (DHHS) <[lyoncallos@michigan.gov](mailto:lyoncallos@michigan.gov)>; Lyon, Nick (DHHS) <[LyonN2@michigan.gov](mailto:LyonN2@michigan.gov)>; Creagh, Keith (DNR) <[creaghk@michigan.gov](mailto:creaghk@michigan.gov)>; Laura Sullivan <[lsulliva@kettering.edu](mailto:lsulliva@kettering.edu)>; Pete Levine <[plevine@gcms.org](mailto:plevine@gcms.org)>; McFadden, Jevon (DHHS-Contractor) <[McFaddenJ1@michigan.gov](mailto:McFaddenJ1@michigan.gov)>; Reynolds, Lawrence <[LawrenceR2@mottchc.org](mailto:LawrenceR2@mottchc.org)>; ksmith@flint.org; Karwowski, Mateusz P. (CDC/ONDIEH/NCEH) <[ydh4@cdc.gov](mailto:ydh4@cdc.gov)>; Hill, Vincent (CDC/OID/NCEZID) <[veh2@cdc.gov](mailto:veh2@cdc.gov)>; Yoder, Jonathan S. (CDC/OID/NCEZID) <[jev9@cdc.gov](mailto:jev9@cdc.gov)>; Beach, Michael J. (CDC/OID/NCEZID) <[mjb3@cdc.gov](mailto:mjb3@cdc.gov)>; Urbanregeneration LLC <[pamela@urbanregenerationllc.com](mailto:pamela@urbanregenerationllc.com)>; Reyes, Katherine (Infectious Disease) <[KREYES1@hfhs.org](mailto:KREYES1@hfhs.org)>; Vreibel, Nancy (DHHS) <[VreibelN@michigan.gov](mailto:VreibelN@michigan.gov)>; Moran, Susan (DHHS) <[MoranS@michigan.gov](mailto:MoranS@michigan.gov)>; Richards, Denise (DHHS) <[richardsd@michigan.gov](mailto:richardsd@michigan.gov)>; Rockefeller, Cheryl (DHHS) <[RockefellerC@michigan.gov](mailto:RockefellerC@michigan.gov)>; Jones, Kamara (OS/ASPA) <[Kamara.Jones@hhs.gov](mailto:Kamara.Jones@hhs.gov)>; Falk, Kathleen (OS/IEA) <[Kathleen.Falk@hhs.gov](mailto:Kathleen.Falk@hhs.gov)>; Kane, Elleen (OS/ASPR/COO) <[Elleen.Kane@hhs.gov](mailto:Elleen.Kane@hhs.gov)>; O'Connor, John (CDC/OID/NCEZID) <[jpo2@cdc.gov](mailto:jpo2@cdc.gov)>; Mucha, John <[JMUCHA@hfhs.org](mailto:JMUCHA@hfhs.org)>

**Subject:** RE: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Sorry couldn't be on the call and to be clear, my comment, is that I have not seen any data to suggest person to person transmission of shigella, so I don't know how that statement can be made, for example, as far as I know there was not a detailed history of food intake, and where people were during the incubation period, were there water breaks or issues leading to the homes of patients, was a case control study done, were water and filters in the home of patients cultured, were strain analysis done, and how did this tie in to the epidemiologic investigation. Further, the results of the filter studies that were presented were overly minimized, and filters are not intended for their current use in relation to bacteria. The information I do have suggests these issues were not addressed, as stated before, maybe there are data that exists that I am not aware of, agree with Matt Seeger comments below

---

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

**Sent:** Friday, October 07, 2016 4:45 PM

**To:** Laura Carravallah; Zervos, Marcus

**Cc:** Michael, Gretchen (OS/ASPR/COO); Wells, Eden (DHHS); Shawn Patrick McElmurry; Nancy Love; Susan Masten; Terese Olson; Paul Evan Kilgore; Lawrence Reynolds; Adler, Ari (GOV); Lasher, GERALYN (DHHS); Minicuci, Angela (DHHS); Eisner, Jennifer (DHHS); Suzanne Cupal; Jim Henry; mvalacak@gchd.us; Baird, Richard (GOV); LyonCallo, Sarah (DHHS); Lyon, Nick (DHHS); Creagh, Keith (DNR); Laura Sullivan; Pete Levine; McFadden, Jevon (DHHS-Contractor); Reynolds, Lawrence; ksmith@flint.org; Karwowski, Mateusz P. (CDC/ONDIEH/NCEH); Hill, Vincent (CDC/OID/NCEZID); Yoder, Jonathan S. (CDC/OID/NCEZID); Beach, Michael J. (CDC/OID/NCEZID); Urbanregeneration LLC; Reyes, Katherine (Infectious Disease); Vreibel, Nancy (DHHS); Moran, Susan (DHHS); Richards, Denise (DHHS); Rockefeller, Cheryl (DHHS); Jones, Kamara (OS/ASPA); Falk, Kathleen (OS/IEA); Kane, Elleen (OS/ASPR/COO); O'Connor, John (CDC/OID/NCEZID); Mucha, John

**Subject:** Re: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Hi everyone -

This is of course a difficult problem, and these message points are helpful in carrying the conversation forward. I have some concerns about the general approach which seems somewhat overly reassuring and I would make a couple of general observations.

- 1). It is likely that the public has already made an association between the water and the outbreak. This is actually a very logical association given what the community has experienced. I believe it is important to acknowledge that perception. Simply saying the perception is wrong will not be effective, particularly given the history of misinformation.
- 2). Unless there is data to support the claim, I would avoid the statement "While the source of this outbreak has not been identified, some surveys of residents in the area suggest that people have changed their hygiene habits, possibly due to concerns about the water." Although this is a plausible hypothesis, it certainly can be perceived as offensive to a community that already believes it has been badly mistreated and misrepresented.
- 3). I think some reordering of the information may address more salient issues earlier and result in a message that is more effective.
- 4). Finally, I would emphasize the importance of moving quickly in getting a message out.

Thanks

Matt Seeger

---

**From:** Laura Carravallah

**Date:** Friday, October 7, 2016 at 4:25 PM

**To:** "Zervos, Marcus"

**Cc:** "Michael, Gretchen (OS/ASPR/COO)", "Wells, Eden (DHHS)", Shawn Patrick McElmurry, Nancy Love, Susan Masten, Terese Olson, Paul Evan Kilgore, Matt Seeger, Lawrence Reynolds, "Adler, Ari (GOV)", "Lasher, GERALYN (DHHS)", Angela Minicuci, "Eisner, Jennifer (DHHS)", Suzanne Cupal, Jim Henry, "[mvalacak@gchd.us](mailto:mvalacak@gchd.us)", "Baird, Richard (GOV)", "LyonCallo, Sarah (DHHS)", "Lyon, Nick (DHHS)", "Creagh, Keith (DNR)", Laura Sullivan, Pete Levine, "McFadden, Jevon (DHHS-Contractor)", "Reynolds, Lawrence", "[ksmith@flint.org](mailto:ksmith@flint.org)", "Karowski, Mateusz P. (CDC/ONDIEH/NCEH)", "Hill, Vincent (CDC/OID/NCEZID)", "Yoder, Jonathan S. (CDC/OID/NCEZID)", "Beach, Michael J. (CDC/OID/NCEZID)", Urbanregeneration LLC, "Reyes, Katherine (Infectious Disease)", "Vreibel, Nancy (DHHS)", "Moran, Susan (DHHS)", "Richards, Denise (DHHS)", "Rockefeller, Cheryl (DHHS)", "Jones, Kamara (OS/ASPA)", "Falk, Kathleen (OS/IEA)", "Kane, Elleen (OS/ASPR/COO)", "O'Connor, John (CDC/OID/NCEZID)", "Mucha, John"  
**Subject:** Re: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

I think it would be very helpful if all of us can see the investigation to date. This would help to settle a lot of issues, I believe.

For me, this would mean seeing the questionnaire used and the data collected, as well as the conclusions.



We are fortunate to have a lot of brainpower on this list and I hope we can use that for the benefit of our collective community.

Laura Carravallah, MD, FAAP, FACP  
Genesee County Board of Health  
Genesee County Medical Society Board of Directors  
(speaking for myself on both accounts)

On Oct 7, 2016, at 4:09 PM, Zervos, Marcus <[MZERVOSI@hfhs.org](mailto:MZERVOSI@hfhs.org)> wrote:

All, I will go on record at least personally to say that I don't agree with parts of this, in particular, the statement, "the characteristics of the outbreak are similar to other shigellosis outbreaks caused by person-to-person transmission within a community", you may have other information that I havnt seen , but at least with the information I have seen, and the investigation that was done, I don't see how this conclusion can be reached, secondly, I think more definitive recommendations should be made to prevent illness as we have expressed earlier, I am not forwarding others than to copy our legal office, Mark

Marcus Zervos, MD  
Division Head, Infectious Disease  
Henry Ford Health System  
Professor of Medicine  
Wayne State University School of Medicine

313 916 2573

---

**From:** Michael, Gretchen (OS/ASPR/COO) [<mailto:Gretchen.Michael@hhs.gov>]

**Sent:** Friday, October 07, 2016 3:37 PM

**To:** Wells, Eden (DHHS); Shawn Patrick McElmurry; Nancy Love; Susan Masten; Terese Olson; Paul Evan Kilgore; Zervos, Marcus; Matthew Seeger; Lawrence Reynolds; Adler, Ari (GOV); Lasher, Geralyn (DHHS); Minicuci, Angela (DHHS); Eisner, Jennifer (DHHS); Suzanne Cupal; Jim Henry; [mvalacak@gchd.us](mailto:mvalacak@gchd.us); Baird, Richard (GOV); LyonCallo, Sarah (DHHS); Lyon, Nick (DHHS); Creagh, Keith (DNR); Laura Sullivan; Laura Carravallah; Pete Levine; McFadden, Jevon (DHHS-Contractor); Reynolds, Lawrence; [ksmith@flint.org](mailto:ksmith@flint.org); Karwowski, Mateusz P. (CDC/ONDIEH/NCEH); Hill, Vincent (CDC/OID/NCEZID); Yoder, Jonathan S. (CDC/OID/NCEZID); Beach, Michael J. (CDC/OID/NCEZID); Urbanregeneration LLC; Reyes, Katherine (Infectious Disease); Vreibel, Nancy (DHHS); Moran, Susan (DHHS)

**Cc:** Richards, Denise (DHHS); Rockefeller, Cheryl (DHHS); Jones, Kamara (OS/ASPA); Falk, Kathleen (OS/IEA); Kane, Eileen (OS/ASPR/COO); O'Connor, John (CDC/OID/NCEZID)

**Subject:** RE: Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

All –

Per our conversation yesterday, attached are draft TP's that were developed by CDC.

This is not intended to be distributed beyond this group, rather, it is a starting point for discussion among this group early next week. Please review these and we can all get on a call next week to discuss next steps.

Have a nice weekend.

Regards,  
Gretchen

**Gretchen Michael, JD**

Director of Communications  
Office of the Assistant Secretary for Preparedness and Response  
U.S. Department of Health and Human Services

200 C Street, SW  
Room 12J07  
Washington, DC 20201  
202-205-8114 office  
571-839-7617 cell

<image001.png>

---

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

**Sent:** Thursday, October 06, 2016 6:54 PM

**To:** Shawn Patrick McElmurry; Nancy Love; Susan Masten; Terese Olson; Paul Evan Kilgore; Marcus Zervos; Matthew Seeger; Lawrence Reynolds; Adler, Ari (GOV); Michael, Gretchen (OS/ASPR/COO); Lasher, Geralyn (DHHS); Minicuci, Angela (DHHS); Eisner, Jennifer (DHHS); Suzanne Cupal; Jim Henry; [mvalacak@gchd.us](mailto:mvalacak@gchd.us); Baird, Richard (GOV); LyonCallo, Sarah (DHHS); Lyon, Nick (DHHS); Creagh, Keith (DNR); Laura Sullivan; Laura Carravallah; Pete Levine; McFadden, Jevon (DHHS-Contractor); Reynolds, Lawrence; [ksmith@flint.org](mailto:ksmith@flint.org); Karwowski, Mateusz P. (CDC/ONDIEH/NCEH); Hill, Vincent (CDC/OID/NCEZID); Yoder, Jonathan S. (CDC/OID/NCEZID); Beach, Michael J. (CDC/OID/NCEZID); Urbanregeneration LLC; Reyes, Katherine (Infectious Disease); Vreibel, Nancy (DHHS); Moran, Susan (DHHS)

**Cc:** Richards, Denise (DHHS); Rockefeller, Cheryl (DHHS)

**Subject:** Follow-up from 4:30 PM Call, Shigella and Filters Call, Local/State/Federal Partners

Dear Colleagues,

I cannot thank you enough for being ready to participate on a 4:30-6 PM call with a 30-45 minute notice, all on behalf of Flint citizens. You are all amazing.

Dr. Seeger had forward initial bullet points from our discussion this morning- please provide edits to Gretchen Michael by 11 AM tomorrow. If you did not receive, let me know.

**We have promised another call, likely next week,**

to discuss further studies that may be needed, desired. The urgent risk communication issue has priority for the next 24-48 hours.

As further studies about Shigella are not directly related to the WSU/UM studies being done, we can arrange a conference line, and set up a time here from MDHHS; of course all on this email are welcome.

I have tried to put all that I know who were on the calls today onto this one email. If I have inadvertently missed anyone, please forward, and also let me know,

Again, thank you all, particularly to our CDC colleagues who literally dropped everything to spend the afternoon and early evening with all of us in addressing these issues.

Eden

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

**Sent:** Thursday, October 6, 2016 3:41 PM

**To:** Nancy Love; Susan Masten; Terese Olson; Paul Evan Kilgore; Marcus Zervos; Matthew Seeger; Lawrence Reynolds

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

**Subject:** 4:30pm conference call with CDC to discuss shigella investigation

Just got off the phone with Eden (cc'd), we are going to go ahead with 4:30pm conference call with CDC regarding the shigella investigation. They would like to discuss possible public health implications of PoU filter study. I realize many of you will not be able to join as this is very last minute. Sorry.

Same call in number as this morning. Feel free to disseminate to others that joined us earlier today.

Thursday, Oct. 6<sup>th</sup> (TODAY) 4:30-5:00pm

Dial-in Number: (641) 715-3580

Access Code: 299749

Shawn

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)

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NEXT:

**Shawn McElmurry**

**From:** Shawn Patrick McElmurry  
**Sent:** Monday, October 10, 2016 10:21 AM  
**To:** Durno, Mark  
**Subject:** FW: PoU Filter Study Release

Hey Mark, I know I owe you a call back. Tied up now. Is there a time that works well for you today?

Shawn

**From:** Henry, James [mailto:jhenry@gchd.us]  
**Sent:** Monday, October 10, 2016 10:08 AM  
**To:** Cupal, Suzanne <scupal@gchd.us>; LaRocco, Toni <tlarocco@gchd.us>; Valacak, Mark <MVALACAK@gchd.us>; Durno.Mark@epamail.epa.gov; Shawn Patrick McElmurry <s.mcelmurry@wayne.edu>  
**Subject:** RE: PoU Filter Study Release

Hi Shawn, I'm confident that we will receive questions about this, specifically what can be done to reduce potential risks, now. Please see my recommendations below.

**From:** Cupal, Suzanne  
**Sent:** Monday, October 10, 2016 9:58 AM  
**To:** Henry, James; Cupal, Suzanne; LaRocco, Toni; Valacak, Mark; [Durno.Mark@epamail.epa.gov](mailto:Durno.Mark@epamail.epa.gov)  
**Subject:** RE: PoU Filter Study Release

Wayne State is sending this out. We don't get a say in it. I forwarded the release to Mark Durnow and Gretchen Michael earlier as we are all likely to receive questions....

Suzanne Cupal, M.P.H.  
Public Health Division Director  
Genesee County Health Department  
630 S. Saginaw Street  
Suite 4  
Flint, MI 48502  
(810) 768-7970  
[scupal@gchd.us](mailto:scupal@gchd.us)

**From:** Henry, James  
**Sent:** Monday, October 10, 2016 9:56 AM  
**To:** 'scupal@gchd.us'; LaRocco, Toni; 'MVALACAK@gchd.us'; [Durno.Mark@epamail.epa.gov](mailto:Durno.Mark@epamail.epa.gov)  
**Subject:** FW: PoU Filter Study Release

Reads pretty good, but I think we should incorporate an action step for residents.

Perhaps a quote from, Mark Durno regarding the EPA chlorine monitoring campaign throughout the City to ensure levels are adequate to kill bacteria. Maybe a quick message about the importance of running the water to pull in chlorine into the residential POU filter, as the lack of use allows chlorine to dissipate, creating an environment for bacteria to grow.

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630 S. Saginaw St., Suite 4  
Flint, MI 48502-1540  
Phone (810) 257-3618 Fax (810) 257-3125  
E-mail [jhenry@gchd.us](mailto:jhenry@gchd.us)



## Genesee County Health Department

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---

**From:** Cupal, Suzanne  
**Sent:** Monday, October 10, 2016 8:55 AM  
**To:** Valacak, Mark; Henry, James; LaRocco, Toni  
**Subject:** FW: PoU Filter Study Release

FYI...

Suzanne Cupal, M.P.H.  
Public Health Division Director  
Genesee County Health Department  
630 S. Saginaw Street  
Suite 4  
Flint, MI 48502  
(810) 768-7970  
[scupal@gchd.us](mailto:scupal@gchd.us)

---

**From:** Shawn Patrick McElmurry [<mailto:s.mcelmurry@wayne.edu>]  
**Sent:** Monday, October 10, 2016 8:51 AM  
**To:** [ppugh@cityofflint.com](mailto:ppugh@cityofflint.com)  
**Cc:** Matthew Seeger; Paul Evan Kilgore; Wells, Eden (DHHS); Cupal, Suzanne; Laura Carravallah; Lawrence Reynolds; Nancy Love; Susan Masten; Paul Evan Kilgore; Laura Sullivan ([dr.laura2@gmail.com](mailto:dr.laura2@gmail.com))  
**Subject:** FW: PoU Filter Study Release



Dr. Pugh, attached is a joint press release that will be sent out today regarding the filter study. I am sorry but Matt didn't have your email when he sent this out last night - my apologies. Please confirm I have the right email and you received this.

It was great meeting with you Friday.

Cheers!

Shawn

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:** Matthew Seeger

**Sent:** Sunday, October 9, 2016 10:47 PM

**To:** Wells, Eden (DHHS) <[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)>; Suzanne Cupal <[scupal@gchd.us](mailto:scupal@gchd.us)>; Laura Carravallah <[Laura.Carravallah@hc.msu.edu](mailto:Laura.Carravallah@hc.msu.edu)>; Lawrence Reynolds <[lrey52@gmail.com](mailto:lrey52@gmail.com)>

**Cc:** Nancy Love <[nglove@umich.edu](mailto:nglove@umich.edu)>; Shawn Patrick McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>; Susan Masten <[masten@egr.msu.edu](mailto:masten@egr.msu.edu)>; Paul Evan Kilgore <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>; Laura Sullivan <[dr.laura2@gmail.com](mailto:dr.laura2@gmail.com)>

**Subject:** PoU Filter Study Release

Dear Colleagues,

The PoU filter team has been working on a joint statement about the study and we have reached consensus about the following release. We believe this accurately reflects the current state of the study. We expect this to be released sometime tomorrow.

Thank you,

Matt Seeger



College of Fine, Performing  
and Communication Arts

Matthew W. Seeger, Ph.D.  
Professor and Dean  
College of Fine, Performing & Communication Arts  
5104 Gullen Mall - The Linsell House

Wayne State University  
Detroit, MI 48202  
Phone: (313) 577-5342  
FAX: (313) 577-5355

Web: <http://www.cfpc.wayne.edu/>  
Please reply to: [Matthew.Seeger@Wayne.edu](mailto:Matthew.Seeger@Wayne.edu)

### Michigan universities collaborate to examine Flint water filters

ANN ARBOR—DETROIT—EAST LANSING - Researchers from the University of Michigan, Wayne State University and Michigan State University are conducting studies to determine the best ways to manage the type of point-of-use water filters being used by Flint residents. The studies are supported by grants from the National Science Foundation.

Several studies have also shown that point-of-use water filters can harbor and support the growth of bacteria in water, said Nancy Love, professor of civil and environmental engineering at the University of Michigan. Filters have been shown to work well to remove metals such as lead and chemicals from produced during chlorination. Love emphasized that Flint residents should continue to use water filters in accordance with manufacturer's recommendations.

"All water, including drinking water, contains some amount of bacteria. The question is whether the bacteria are harmful," Love said. "Our research is focused on helping to determine how filters may be used to reduce or prevent transmission of harmful bacteria through the filters. Our study is well underway and we will make the results public once the scientific process is complete." The research team is coordinating closely with the Michigan Department of Health and Human Services, the Genesee County Health Department and the Flint Mayor's Office.

Manufacturers typically recommend replacing filters after processing approximately 100 gallons. Susan Masten, professor of civil and environmental engineering at Michigan State University noted that the team is examining if this point-of-use replacement schedule is best for the Flint water distribution system.

Masten added, "Based on the results we have gathered thus far, the filters are doing a good job removing lead and disinfection by-products. These by-products are the chemical compounds that occur after water has been disinfected and are measured as total trihalomethanes. So far, after filtration, these chemical are typically at concentrations below what we can measure."

The research is expected to provide additional guidance about the use of filters in Flint. Shawn McElmurry, associate professor of civil and environmental engineering at Wayne State University emphasized that the research group is committed to addressing resident's concerns and need for scientific information about the quality of their water.

The team appreciates the cooperation of Flint residents, which makes the study possible by providing access into their homes and supplying the filters used in the study.

NEXT:

**From:** Henry, James <jhenry@gchd.us>  
**Sent:** Monday, October 10, 2016 11:26 AM  
**To:** Shawn Patrick McElmurry  
**Cc:** Cupal, Suzanne; LaRocco, Toni; Valacak, Mark; Durno.Mark@epamail.epa.gov; Matthew Seeger; Nancy Love; Susan Masten  
**Subject:** RE: PoU Filter Study Release

Thanks Shawn, I understand and thanks for keeping us informed. My office tends to get a lot of inquiries, which is a great opportunity to communicate risks and interventions. If moving stagnant water to pull in chlorine can reduce even the slightest potential risks, it will be incorporated in my response to inquiries and messaging.

If we agree that moving the water through the system has multiple benefits and is essential to healing the infrastructure, perhaps we should consider incorporating a brief unified statement/reminder in all Flint water messages.

Jim Henry RS, MBA  
Environmental Health Director  
Genesee County Health Dept [www.gchd.us](http://www.gchd.us)  
630 S. Saginaw St., Suite 4  
Flint, MI 48502-1540  
Phone (810) 257-3618 Fax (810) 257-3125  
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Health Department**

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**From:** Shawn Patrick McElmurry [mailto:s.mcelmurry@wayne.edu]  
**Sent:** Monday, October 10, 2016 10:20 AM  
**To:** Henry, James  
**Cc:** Cupal, Suzanne; LaRocco, Toni; Valacak, Mark; Durno.Mark@epamail.epa.gov; Matthew Seeger; Nancy Love; Susan Masten  
**Subject:** RE: PoU Filter Study Release

Hey Jim, thanks for the email. Yes, over the weekend we had many (too many!) internal discussions regarding possibly including additional steps residents could take to reduce risk. However, in the end, we decided that we were uncertain



that there was a risk to warrant additional recommendations or what recommendations would actually change the way the filters are performing....it's just to early in our scientific process to tell.

We are still discussing talking points in anticipation of additional questions. We welcome feedback on these so that we are all on the same page. Feel free to call me on my cell to discuss [REDACTED]

Thanks,

Shawn

Ps. I have yet to see MDHHS's press release regarding Shigella...I trust nothing in this release conflicts with what is in that release.

**From:** Henry, James [mailto:jhenry@gchd.us]

**Sent:** Monday, October 10, 2016 10:08 AM

**To:** Cupal, Suzanne <scupal@gchd.us>; LaRocco, Toni <tlarocco@gchd.us>; Valacak, Mark <MVALACAK@gchd.us>; Durno.Mark@epamail.epa.gov; Shawn Patrick McElmurry <s.mcelmurry@wayne.edu>

**Subject:** RE: PoU Filter Study Release

Hi Shawn, I'm confident that we will receive questions about this, specifically what can be done to reduce potential risks, now. Please see my recommendations below.

**From:** Cupal, Suzanne

**Sent:** Monday, October 10, 2016 9:58 AM

**To:** Henry, James; Cupal, Suzanne; LaRocco, Toni; Valacak, Mark; Durno.Mark@epamail.epa.gov

**Subject:** RE: PoU Filter Study Release

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**Subject:** FW: PoU Filter Study Release

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Perhaps a quote from, Mark Durno regarding the EPA chlorine monitoring campaign throughout the City to ensure levels are adequate to kill bacteria. Maybe a quick message about the importance of running the water to pull in chlorine into the residential POU filter, as the lack of use allows chlorine to dissipate, creating an environment for bacteria to grow.

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**From:** Cupal, Suzanne  
**Sent:** Monday, October 10, 2016 8:55 AM  
**To:** Valacak, Mark; Henry, James; LaRocco, Toni  
**Subject:** FW: PoU Filter Study Release

FYI...

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**To:** [ppugh@cityofflint.com](mailto:ppugh@cityofflint.com)  
**Cc:** Matthew Seeger; Paul Evan Kilgore; Wells, Eden (DHHS; Cupal, Suzanne; Laura Carravallah; Lawrence Reynolds; Nancy Love; Susan Masten; Paul Evan Kilgore; Laura Sullivan ([dr.laura2@gmail.com](mailto:dr.laura2@gmail.com))  
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It was great meeting with you Friday.

Cheers!

Shawn

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  
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Fax: 313-577-3881  
Skype: s.mcelmurry  
[www.eng.wayne.edu/mcelmurry](http://www.eng.wayne.edu/mcelmurry)

From: Matthew Seeger

Sent: Sunday, October 9, 2016 10:47 PM

To: Wells, Eden (DHHS) <[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)>; Suzanne Cupal <[scupal@gchd.us](mailto:scupal@gchd.us)>; Laura Carravallah <[Laura.Carravallah@hc.msu.edu](mailto:Laura.Carravallah@hc.msu.edu)>; Lawrence Reynolds <[lrey52@gmail.com](mailto:lrey52@gmail.com)>

Cc: Nancy Love <[nglove@umich.edu](mailto:nglove@umich.edu)>; Shawn Patrick McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>; Susan Masten <[masten@egr.msu.edu](mailto:masten@egr.msu.edu)>; Paul Evan Kilgore <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>; Laura Sullivan <[dr.laura2@gmail.com](mailto:dr.laura2@gmail.com)>

Subject: PoU Filter Study Release

Dear Colleagues,

The PoU filter team has been working on a joint statement about the study and we have reached consensus about the following release. We believe this accurately reflects the current state of the study. We expect this to be released sometime tomorrow.

Thank you,

Matt Seeger



College of Fine, Performing  
and Communication Arts

NEXT:



**Shawn McElmurry**

**From:** Beach, Michael J. (CDC/OID/NCEZID) <mjb3@cdc.gov>  
**Sent:** Monday, October 10, 2016 1:59 PM  
**To:** Wells, Eden (DHHS); McFadden, Jevon (CDC michigan.gov); Shawn Patrick McElmurry; Paul Evan Kilgore; Zervos, Marcus; Cupal, Suzanne (scupal@gchd.us); ppugh@cityofflint.com  
**Cc:** LyonCallo, Sarah (DHHS); Eisner, Jennifer (DHHS)  
**Subject:** RE: PoU Filter Study Release

Thanks Eden,

I am available for discussion when you are all ready.

Thx

Michael

Michael J. Beach, Ph.D.  
Deputy Director, Division of Foodborne, Waterborne, and Environmental Diseases  
Associate Director for Healthy Water  
National Center for Emerging and Zoonotic Infectious Diseases  
Centers for Disease Control and Prevention  
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E-mail: [mbeach@cdc.gov](mailto:mbeach@cdc.gov)  
Visit CDC's Healthy Water website at [www.cdc.gov/healthywater](http://www.cdc.gov/healthywater)



Please only print this e-mail if necessary.

**From:** Wells, Eden (DHHS) [mailto:WellsE3@michigan.gov]  
**Sent:** Monday, October 10, 2016 1:14 PM  
**To:** McFadden, Jevon (CDC michigan.gov); Beach, Michael J. (CDC/OID/NCEZID); Shawn Patrick McElmurry; Paul Evan Kilgore; Zervos, Marcus; Cupal, Suzanne (scupal@gchd.us); ppugh@cityofflint.com  
**Cc:** LyonCallo, Sarah (DHHS); Eisner, Jennifer (DHHS)  
**Subject:** FW: PoU Filter Study Release  
**Importance:** High

Folks,

I heartily recommend that the WSU and UM folks talk directly with CDC/Michael Beach this afternoon. He will be here in MI this week as well, but the press releases, while they do not need to be similar, they need to not add to more confusion. I am unable to set up this call given getting pulled another direction, so I am asking that the WSU/UM folks set something up with Michael and bring in Dr. McFadden and Dr. Pugh as well.

My understanding is that CDC understands the UM study protocol and findings; in fact, we had all noted Thursday that, regardless if the study identifies pathogenic bacteria, the PH implications your press release is ascertaining cannot

actually be implied given the lack of viability data...however, this is not my expertise and I am asking you all to please communicate with each other. There is always a cultural gap between the science and communications of academicians in the ivory towers and the applied public health practitioners!!

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: Wells, Eden (DHHS)  
Sent: Monday, October 10, 2016 12:35 PM  
To: Matthew Seeger <[matthew.seeger@wayne.edu](mailto:matthew.seeger@wayne.edu)>  
Cc: Suzanne Cupal <[scupal@gchd.us](mailto:scupal@gchd.us)>; Laura Carravallah <[Laura.Carravallah@hc.msu.edu](mailto:Laura.Carravallah@hc.msu.edu)>; Lawrence Reynolds <[lrey52@gmail.com](mailto:lrey52@gmail.com)>; Nancy Love <[nglove@umich.edu](mailto:nglove@umich.edu)>; Shawn Patrick McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>; Susan Masten <[masten@egr.msu.edu](mailto:masten@egr.msu.edu)>; Paul Evan Kilgore <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>; Laura Sullivan <[dr.laura2@gmail.com](mailto:dr.laura2@gmail.com)>; Beach, Michael J. (CDC/OID/NCEZID) <[mjb3@cdc.gov](mailto:mjb3@cdc.gov)>; Eisner, Jennifer (DHHS) <[EisnerJ@michigan.gov](mailto:EisnerJ@michigan.gov)>; McFadden, Jevon (DHHS-Contractor) <[McFaddenJ1@michigan.gov](mailto:McFaddenJ1@michigan.gov)>; LyonCallo, Sarah (DHHS) <[lyoncallos@michigan.gov](mailto:lyoncallos@michigan.gov)>;  
Subject: Re: PoU Filter Study Release

Hi Matt,

CDC GCHD and our team at MDHHS have concerns regarding the wording of the release. Based on the person, and our discussions Friday, some of the wording is confusing. Particularly the concept that you all were a priori looking for pathogenic bacteria as part of your hypothesis-

I suggest a call- I can do 1:30 or 2 pm.

Eden V. Wells, MD, MPH, FACPM  
Chief Medical Executive  
Michigan Department of Health and Human Services  
Tel: 517-284-4020

Sent from my iPhone, please excuse typos

NEXT:

**From:** Paul Evan Kilgore  
**Sent:** Wednesday, October 12, 2016 9:55 AM  
**To:** Sammy Zahran  
**Subject:** Fw: UPDATED SHIGELLOSIS FIGURES FOR MICHIGAN: CDC will investigate Shigella spikes in Genesee, Saginaw counties | MLive.com  
**Attachments:** Shigellosis MDSS Case Reports and Rates by Select Counties\_Upd 12 Oct 2016.xlsx

Thought you might find this interesting.

Paul E. Kilgore, MPH, MD  
Associate Professor, Department of Pharmacy Practice  
Director of Research, Department of Pharmacy Practice  
Eugene Applebaum College of Pharmacy and Health Sciences  
Adjunct Professor, Department of Family Medicine and Public Health Sciences, School of Medicine  
Wayne State University

Address:  
259 Mack Ave., Room 2156  
Detroit, Michigan 48201  
Phone: (313) 577-1215  
Cell: (248) 403-0275  
Fax: (313) 577-5369  
Skype: drpaulwsu

**From:** Paul Evan Kilgore  
**Sent:** Wednesday, October 12, 2016 9:52 AM  
**To:** Nancy Love; Shawn Patrick McElmurry  
**Cc:** Laura Sullivan; Marcus Zervos; Matthew Seeger; Ben Pauli; Susan Masten; Joanne Soback; Reyes, Katherine (kreyes1@hfhs.org); Altamimi, Sarah; Paul Evan Kilgore  
**Subject:** UPDATED SHIGELLOSIS FIGURES FOR MICHIGAN: CDC will investigate Shigella spikes in Genesee, Saginaw counties | MLive.com

Latest Shigellosis Surveillance Data from MDSS through week 40. This information may be helpful to others.

Please read and tell me if you see any errors. This is publicly available information from State of Michigan; I don't have figures specific to City of Flint residents vs. other areas of Genesee County.

Bottom lines (this text also in attached file):

REDACTED

Paul E. Kilgore, MPH, MD  
Associate Professor, Department of Pharmacy Practice  
Director of Research, Department of Pharmacy Practice  
Eugene Applebaum College of Pharmacy and Health Sciences  
Adjunct Professor, Department of Family Medicine and Public Health Sciences, School of Medicine  
Wayne State University

*Not  
deleting*

Address:  
259 Mack Ave., Room 2156  
Detroit, Michigan 48201  
Phone: (313) 577-1215  
Cell: (248) 403-0275  
Fax: (313) 577-5369  
Skype: drpaulwsu

**From:** Nancy Love <nglove@umich.edu>  
**Sent:** Wednesday, October 12, 2016 8:58 AM  
**To:** Shawn Patrick McElmurry  
**Cc:** Laura Sullivan; Paul Evan Kilgore; Marcus Zervos; Matthew Seeger; Ben Pauli; Susan Masten  
**Subject:** Re: CDC will investigate Shigella spikes in Genesee, Saginaw counties | MLive.com

read it first on-line also

**Nancy G. Love, Ph.D., P.E., BCEE**  
Professor, Department of Civil and Environmental Engineering  
Adjunct Professor, Addis Ababa University Institute of Biotechnology, Ethiopia  
Fellow: Water Environment Federation; International Water Association; Association of Environmental Engineering and Science Professors

University of Michigan  
183 EWRE Building  
1351 Beal Avenue  
Ann Arbor, MI 48109  
Voice: (734) 763-9664  
[nglove@umich.edu](mailto:nglove@umich.edu)  
<http://envbiotech.engin.umich.edu/>  
Twitter: @Love\_H20

On Wed, Oct 12, 2016 at 7:57 AM, Shawn Patrick McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)> wrote:  
Of course not.

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

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

From: Laura Sullivan <[dr.laura2@gmail.com](mailto:dr.laura2@gmail.com)>  
Date: 10/11/16 10:50 PM (GMT-05:00)  
To: Shawn Patrick McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>  
Cc: Paul Evan Kilgore <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>, Marcus Zervos <[MZERVOS1@hfhs.org](mailto:MZERVOS1@hfhs.org)>, Matthew Seeger <[matthew.seeger@wayne.edu](mailto:matthew.seeger@wayne.edu)>, Nancy Love <[nglove@umich.edu](mailto:nglove@umich.edu)>, Ben Pauli <[bpauli@kettering.edu](mailto:bpauli@kettering.edu)>, Susan Masten <[masten@egr.msu.edu](mailto:masten@egr.msu.edu)>  
Subject: Re: CDC will investigate Shigella spikes in Genesee, Saginaw counties | MLive.com

Did you get any heads up before this went out?

On Tuesday, October 11, 2016, Shawn Patrick McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)> wrote:  
[http://www.mlive.com/news/index.ssf/2016/10/cdc\\_will\\_investigate\\_shigella.html](http://www.mlive.com/news/index.ssf/2016/10/cdc_will_investigate_shigella.html)

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

--  
Laura L. Sullivan, Ph. D.  
3101 Hawthorne Drive  
Flint, Michigan 48503  
[dr.laura2@gmail.com](mailto:dr.laura2@gmail.com)

# CDC will investigate Shigella spikes in Genesee, Saginaw counties

Updated Oct 12, 2016; Posted Oct 11, 2016

health-department-slow-to-act-in-flint-171a4c7f80629a9e.jpg

Dr. Eden Wells, Michigan's chief medical executive, istens to Gov. Rick Snyder speak publicly for the first time in Flint after declaring a state of emergency in the city because of health and safety issues caused by lead in drinking water in this January 2016 Flint Journal file photo. *(Flint Journal file photo)*

5

59<sub>shares</sub>

By [Ron Fonger](#)  
[rfonger1@mlive.com](mailto:rfonger1@mlive.com)

*(This story has been updated to correct the spelling of a name and clarify a sentence regarding the CDC's investigation.)*

FLINT, MI -- A team from the Centers for Disease Control and Prevention is expected begin an investigation this week into skyrocketing rates of Shigella in Genesee and Saginaw counties in an effort to find out what's behind the spread of the bacteria that causes gastrointestinal illness.

Dr. Eden Wells, Michigan's chief medical executive, said Tuesday, Oct. 11, that the state has made a formal request for federal help in carrying out an investigation of the outbreaks in the two counties.

Investigators want to know where victims may have traveled, their living arrangements and what kind of water they had been drinking when they became ill.

"We want to look for these risk factors ... (including) what kind of water they used for drinking ...," Wells said. "Right now, we do want to ensure we have the maximum epidemiologic investigation. People want clear information about what their risk could be."





## Hand washing urged as Shigella bacteria cases triple in Genesee County

Dating back to October 2015, the health department has confirmed more than 70 cases of Shigella, a highly contagious bacteria spread person-to-person after it leaves the infected person via their stool and spreads by contaminated hands, food, surfaces or water.

Shigella is a highly contagious bacteria that is spread person-to-person after it leaves the infected person via their feces and spreads by contaminated hands, food, surfaces or water.

During the past 12 months, 75 cases of Shigellosis have been reported to the Genesee County Health Department -- about six times the amount registered in a typical year, according a report on communicable diseases distributed Tuesday to the county Board of Health.

Shigellosis is the infectious disease caused by Shigella. Most individuals who are infected with Shigella develop diarrhea, fever and stomach cramps starting a day or two after they are first exposed to the bacteria, according to the CDC.

Wells said the decision to request help from the CDC comes after discussions between the state Department of Health and Human Services, Genesee County Health Department, Genesee County Medical Society and others.

Suzanne Cupal, public health division director for the Genesee County Health Department, said CDC officials have been monitoring the rise in Shigella cases and laying the groundwork for trying to establish a genetic pattern that could link cases that have been found here and elsewhere.

In the meantime, the Health Department is promoting the importance of hand washing to prevent the spread of Shigella.

Saginaw County health officials warned of rising rates of Shigella cases in June and urged resident to be diligent in washing hands to prevent spread of the disease.

Health officials said about twice as many Shigella cases have been reported in Genesee County compared to Saginaw County.

"The next steps are to do some more in-depth review ...," Cupal said. "We start broad. We are looking for commonalities, were looking for links between cases (and) sometimes ... it's very difficult to identify those commonalities."

Genesee County Health Department employees said Tuesday that cases of Shigella have occurred across the county, but about one-half of cases have been reported from people living in Flint.

Dr. Laura Ann Carravallah, a member of the county Board of Health, raised questions Tuesday about the potential for Flint water to have played a role in the rise in Shigella.

Cupal said the CDC investigation will include reviewing what contact victims had with Flint water, which has been connected or suspected as a source of bacteria, elevated chlorine byproduct, lead and possibly Legionella.

She said there's been no link made between the latest bacteria outbreak and the Flint water supply.

"If it were related to the water crisis, you would expect there would be more cases in the city of Flint ... We're seeing cases all over," Cupal said.

Jim Henry, environmental health supervisor for the county, said people's avoidance of Flint water could play an indirect part in the rising rates of Shigella.

"It's not necessarily the water ... If people are afraid of the water -- and people have told me personally they are not going to expose their children to the water again -- it's an issue" because they need to regularly wash hands, Henry said.

**From:** Nancy Love <nglove@umich.edu>  
**Sent:** Sunday, October 09, 2016 11:00 PM  
**To:** Nicole Moore; Laura Lessnau  
**Cc:** Rick Fitzgerald; Matthew Seeger  
**Subject:** Fwd: PoU Filter Study Release

Nicole: This is the final version and has been sent as courtesy to the state, county and city of Flint. Please coordinate with Matt as to release of the press release, and please let me know when it is going out. See my other note about removing the word "from" in the second paragraph that was left in inadvertently during the final edit.

Please feel free to call me in the morning on my cell. I can fill you in on some of your questions. I take the kids to school in the morning. Feel free to call after 9.

Nancy

**Nancy G. Love, Ph.D., P.E., BCEE**

Professor, Department of Civil and Environmental Engineering  
Adjunct Professor, Addis Ababa University Institute of Biotechnology, Ethiopia  
Fellow: Water Environment Federation; International Water Association; Association of Environmental Engineering and Science Professors  
University of Michigan  
183 EWRE Building  
1351 Beal Avenue  
Ann Arbor, MI 48109  
Voice: (734) 763-9664  
[nglove@umich.edu](mailto:nglove@umich.edu)  
<http://envbiotech.engin.umich.edu/>  
Twitter: @Love\_H2O

----- Forwarded message -----

**From:** Matthew Seeger <[matthew.seeger@wayne.edu](mailto:matthew.seeger@wayne.edu)>  
**Date:** Sun, Oct 9, 2016 at 10:46 PM  
**Subject:** PoU Filter Study Release  
**To:** "Wells, Eden (DHHS)" <[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)>, Suzanne Cupal <[scupal@gchd.us](mailto:scupal@gchd.us)>, Laura Carravallah <[Laura.Carravallah@hc.msu.edu](mailto:Laura.Carravallah@hc.msu.edu)>, Lawrence Reynolds <[lrey52@gmail.com](mailto:lrey52@gmail.com)>  
**Cc:** Nancy Love <[nglove@umich.edu](mailto:nglove@umich.edu)>, Shawn Patrick McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>, Susan Masten <[masten@egr.msu.edu](mailto:masten@egr.msu.edu)>, Paul Evan Kilgore <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>, Laura Sullivan <[dr.laura2@gmail.com](mailto:dr.laura2@gmail.com)>

Dear Colleagues,

The PoU filter team has been working on a joint statement about the study and we have reached consensus about the following release. We believe this accurately reflects the current state of the study. We expect this to be released sometime tomorrow.

Thank you,

Matt Seeger



College of Fine, Performing  
and Communication Arts

Matthew W. Seeger, Ph.D.  
Professor and Dean  
College of Fine, Performing & Communication Arts  
5104 Gullen Mall - The Linsell House

Wayne State University  
Detroit, MI 48202  
Phone: (313) 577-5342  
FAX: (313) 577-5355

Web: <http://www.cfpc.wayne.edu/>  
Please reply to: [Matthew.Seeger@Wayne.edu](mailto:Matthew.Seeger@Wayne.edu)

## Michigan universities collaborate to examine Flint water filters

ANN ARBOR—DETROIT—EAST LANSING - Researchers from the University of Michigan, Wayne State University and Michigan State University are conducting studies to determine the best ways to manage the type of point-of-use water filters being used by Flint residents. The studies are supported by grants from the National Science Foundation.

Several studies have also shown that point-of-use water filters can harbor and support the growth of bacteria in water, said Nancy Love, professor of civil and environmental engineering at the University of Michigan. Filters have been shown to work well to remove metals such as lead and chemicals from produced during chlorination. Love emphasized that Flint residents should continue to use water filters in accordance with manufacturer's recommendations.

"All water, including drinking water, contains some amount of bacteria. The question is whether the bacteria are harmful," Love said. "Our research is focused on helping to determine how filters may be used to reduce or prevent transmission of harmful bacteria through the filters. Our study is well underway and we will make the results public once the scientific process is complete." The research team is coordinating closely with the Michigan Department of Health and Human Services, the Genesee County Health Department and the Flint Mayor's Office.

Manufacturers typically recommend replacing filters after processing approximately 100 gallons. Susan Masten, professor of civil and environmental engineering at Michigan State University noted that the team is examining if this point-of-use replacement schedule is best for the Flint water distribution system.

Masten added, "Based on the results we have gathered thus far, the filters are doing a good job removing lead and disinfection by-products. These by-products are the chemical compounds that occur after water has been disinfected and are measured as total trihalomethanes. So far, after filtration, these chemical are typically at concentrations below what we can measure."

The research is expected to provide additional guidance about the use of filters in Flint. Shawn McElmurry, associate professor of civil and environmental engineering at Wayne State University emphasized that the research group is committed to addressing resident's concerns and need for scientific information about the quality of their water.

The team appreciates the cooperation of Flint residents, which makes the study possible by providing access into their homes and supplying the filters used in the study.

Web: <http://www.cfpc.wayne.edu/>  
Please reply to: [Matthew.Seeger@Wayne.edu](mailto:Matthew.Seeger@Wayne.edu)

<FlintResultsRelease.10.18.docx>

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**NEXT:**

On Oct 10, 2016, at 2:04 PM, Paul Evan Kilgore <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)> wrote:

Hi Eden---Matt and Shawn are available at 2:30pm; does 2:30pm work?

Paul E. Kilgore, MPH, MD  
Associate Professor, Department of Pharmacy Practice  
Director of Research, Department of Pharmacy Practice  
Eugene Applebaum College of Pharmacy and Health Sciences  
Adjunct Professor, Department of Family Medicine and Public Health Sciences, School of  
Medicine  
Wayne State University

Address:  
259 Mack Ave., Room 2156  
Detroit, Michigan 48201  
Phone: (313) 577-1215  
Cell: (248) 403-0275  
Fax: (313) 577-5369  
Skype: drpaulwsu

---

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

**Sent:** Monday, October 10, 2016 12:35 PM

**To:** Matthew Seeger

**Cc:** Suzanne Cupal; Laura Carravallah; Lawrence Reynolds; Nancy Love; Shawn Patrick McElmurry; Susan Masten; Paul Evan Kilgore; Laura Sullivan; Beach, Michael J. (CDC/OID/NCEZID); Eisner, Jennifer (DHHS); McFadden, Jevon (DHHS-Contractor); LyonCallo, Sarah (DHHS); Pamela L. Pugh

**Subject:** Re: PoU Filter Study Release

Hi Matt,

CDC GCHD and our team at MDHHS have concerns regarding the wording of the release. Based on the person, and our discussions Friday, some of the wording is confusing. Particularly the concept that you all were a priori looking for pathogenic bacteria as part of your hypothesis-

I suggest a call- I can do 1:30 or 2 pm.

Eden V. Wells, MD, MPH, FACPM  
Chief Medical Executive  
Michigan Department of Health and Human Services  
Tel: 517-284-4020

Sent from my iPhone, please excuse typos

On Oct 9, 2016, at 10:46 PM, Matthew Seeger <[matthew.seeger@wayne.edu](mailto:matthew.seeger@wayne.edu)> wrote:

Dear Colleagues,

The PoU filter team has been working on a joint statement about the study and we have reached consensus about the following release. We believe this accurately reflects the current state of the study. We expect this to be released sometime tomorrow.

Thank you,

Matt Seeger

<2B5109AF-B2D2-4B3F-BB8F-9DE2992FA70E.png>

Matthew W. Seeger, Ph.D.  
Professor and Dean  
College of Fine, Performing & Communication Arts  
5104 Gullen Mall - The Linsell House

Wayne State University  
Detroit, MI 48202  
Phone: (313) 577-5342  
FAX: (313) 577-5355

Web: <http://www.cfpc.wayne.edu/>  
Please reply to: [Matthew.Seeger@Wayne.edu](mailto:Matthew.Seeger@Wayne.edu)

## Michigan universities collaborate to examine Flint water filters

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Several studies have also shown that point-of-use water filters can harbor and support the growth of bacteria in water, said Nancy Love, professor of civil and environmental engineering at the University of Michigan. Filters have been shown to work well to remove metals such as lead and chemicals from produced during chlorination. Love emphasized

that Flint residents should continue to use water filters in accordance with manufacturer's recommendations.

"All water, including drinking water, contains some amount of bacteria. The question is whether the bacteria are harmful," Love said. "Our research is focused on helping to determine how filters may be used to reduce or prevent transmission of harmful bacteria through the filters. Our study is well underway and we will make the results public once the scientific process is complete." The research team is coordinating closely with the Michigan Department of Health and Human Services, the Genesee County Health Department and the Flint Mayor's Office.

Manufacturers typically recommend replacing filters after processing approximately 100 gallons. Susan Masten, professor of civil and environmental engineering at Michigan State University noted that the team is examining if this point-of-use replacement schedule is best for the Flint water distribution system.

Masten added, "Based on the results we have gathered thus far, the filters are doing a good job removing lead and disinfection by-products. These by-products are the chemical compounds that occur after water has been disinfected and are measured as total trihalomethanes. So far, after filtration, these chemical are typically at concentrations below what we can measure."

The research is expected to provide additional guidance about the use of filters in Flint. Shawn McElmurry, associate professor of civil and environmental engineering at Wayne State University emphasized that the research group is committed to addressing resident's concerns and need for scientific information about the quality of their water.

The team appreciates the cooperation of Flint residents, which makes the study possible by providing access into their homes and supplying the filters used in the study.

**NEXT:**

**Shawn McElmurry**

**From:** Susan J. Masten <masten@egr.msu.edu>  
**Sent:** Sunday, October 09, 2016 2:40 PM  
**To:** Shawn Patrick McElmurry  
**Subject:** Re: 3pm Conference Call?

Shawn,

I could do a conference call at 3 pm but could only stay on the call for about a half-hour.

Susan

On 10/9/2016 1:35 PM, Shawn Patrick McElmurry wrote:

All, this is a complex situation. As we have discussed our number one objective is to be open with residents about what we know in a timely manor. Ideally, I think we would all like to wait another week or two until our results are complete before making any statements. Unfortunately, we do not have that luxury. MDSS, GCHD, and CDC are hell bent on pushing out a message that addresses the filters. I really do think we need to speak for ourselves here to preserve our independence. Perhaps adding stronger language about how incomplete our analysis is and that we continue to look for possible pathogens might help to dampen some of these concerns. Additionally, we need to make sure we do not prematurely/possibly falsely dismiss problems with the filters.

This is something that I think is best handled by talking it through as a group, rather than via email. **Could people do a conference call at 3pm to discuss?** I understand not everyone will be available.

Shawn

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:** Matthew Seeger  
**Sent:** Sunday, October 9, 2016 1:06 PM  
**To:** Nancy Love; Shawn Patrick McElmurry



Cc: Susan Masten; Laura Sullivan; Marcus Zervos; Paul Evan Kilgore  
Subject: Re: Current Version

Hi everyone,

I'll hold off until there is some consensus about approaches.

I certainly understand the challenges of going public. I would just note that the state will be discussing the PoU study and saying what it means. We would, therefore, be relying on others to speak for us and interpret our results.

I did add the sentence "Love emphasized that there is no current data that suggests a link between the Flint water system and the outbreak of Shigellosis in Genesee County." This was added to create consistency with the state's position. Please note the caveat "no current data." I would be happy to add additional caveats and I do believe this statement should reflect the inherent level of uncertainty in the situation. Removing this sentence, however, will create the impression that there is a link

Until I hear otherwise, I'm on hold.

Thanks

Matt

From: Nancy Love

Date: Sunday, October 9, 2016 at 12:12 PM

To: Shawn Patrick McElmurry

Cc: Susan Masten, Laura Sullivan, Marcus Zervos, Paul Evan Kilgore, Matt Seeger

Subject: Re: Current Version

Folks- Laura has a lot of comments, but they are by text. Cutting and pasting below. I think the bottom line message is that we need a more brief message, or perhaps no message at all. I do fear being marked in a way not intended. Here are the pastes:

I would like it if the paragraphs that start with "Love noted" and "Love emphasized" were removed, especially the latter.

I've been in contact offline with a network of citizens, asking that they wait for another two weeks for the work to be complete. I've told them that waiting is necessary because you're committing to ruling out water as a source, and that announcing that we haven't found irrefutable evidence right now would be reason for the state to announce that there is no connection to the water.

The residents will ask themselves why you are noting that no Shigella has been found.

They'd expect the state to point this out. Not you.

And the second paragraph would truly be interpreted as you deciding to minimize the risk, with the support of state, county.

Let the state point these things out. Or the CDC. Or the county. Trust in these groups has already been lost. If you or Shawn make a statement that sounds as though you think it's unlikely that there is a problem, I fear that residents will file your credibility with Marc Edwards

Let me know what you think about my comments

On Sunday, October 9, 2016, Shawn Patrick McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)> wrote:  
Susan, below is a draft of the press release I mentioned in my email late last night. Do you have any comments or edits?

Laura, based on the craziness that has transpired over the last few days we think it's important to get a message out about the filter study. I realize this isn't technically FACHEP, but I appreciate any insight you might have regarding the purposed press release.

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

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

From: Matthew Seeger <[matthew.seeger@wayne.edu](mailto:matthew.seeger@wayne.edu)>  
Date: 10/9/16 9:33 AM (GMT-05:00)  
To: Shawn Patrick McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>, Paul Evan Kilgore <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>, Nancy Love <[nglove@umich.edu](mailto:nglove@umich.edu)>, Marcus Zervos <[MZERVOS1@hfhs.org](mailto:MZERVOS1@hfhs.org)>  
Subject: Current Version

Hi Everyone,

Here is the most current version.

Please provide any additional tweaks by noon today.

Thanks,

Matt

Michigan universities collaborate to examine Flint water filters

ANN ARBOR—DETROIT- EAST LANSING - Researchers from the University of Michigan, Wayne State University and Michigan State University are conducting studies to determine the best

ways to manage the type of point-of-use water filters being used by Flint residents. The studies are supported by grants from the National Science Foundation.

Several studies have also shown that point-of-use water filters can harbor and support the growth of bacteria in water, said Dr. Nancy Love, professor of civil and environmental engineering at the University of Michigan. Filters have been shown to work well to remove metals such as lead and chemicals from disinfection byproducts. Love emphasized that Flint residents should continue to use water filters in accordance with manufactures recommendations.

"All water has bacteria in it and the question is whether the bacteria are harmful," Love said. "Our research is focused on determining how to use filters to prevent growth of the harmful bacteria. Our study is well underway and we will make the results public once the study is complete."

Love noted that in preliminary results, the researchers looked for but could not confirm the presence of Shigella bacteria in the water filters from a small sample of Filters taken from Flint homes. Genesee County has recently experienced an outbreak of Shigellosis, a diarrheal disease caused by Shigella bacteria.

The research team is coordinating closely with the Michigan Department of Health and Human Services, the Genesee County Health Department and the Flint Mayor's Office.

In most water systems, the increased bacteria from tap filters is kept in check by regularly replacing filters. Manufacturers typically recommend replacing filters after processing approximately 100 gallons. Dr. Shawn McElmurry, associate professor of civil and environmental engineering at Wayne State University noted that the team is examining if this point-of-use replacement schedule is best for the Flint water system.

McElmurry added, "Based on the results we have gathered thus far, the filters are doing a good job removing lead and disinfection-by-products. These by products are the chemical compounds that occur after water has been treated and are measured as total trihalomethanes. After filtration, these chemical were rarely even detectable."

The research is expected to provide additional guidance about the use of Filters in Flint. McElmurry emphasized that the research group is committed to addressing residents concerns and need for information about the quality of their water.

--  
**Nancy G. Love, Ph.D., P.E., BCEE**

Professor, Department of Civil and Environmental Engineering

Adjunct Professor, Addis Ababa University Institute of Biotechnology, Ethiopia

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

University of Michigan  
183 EWRE Building  
1351 Beal Avenue  
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--

Susan J. Masten, Ph.D., P.E.  
Professor  
Associate Chair for Undergraduate Studies  
Department of Civil and Environmental Engineering  
Engineering Building  
428 S. Shaw Ln., Room 3546  
East Lansing, MI 48824

Phone: 517 355-2254  
Fax: 517 355-0250

**NEXT:**

**From:** Paul Evan Kilgore  
**Sent:** Saturday, October 08, 2016 11:01 AM  
**To:** Matthew Seeger  
**Subject:** Fw: Tutorial about architecture of PoU filter

---

**From:** Nancy Love <nglove@umich.edu>  
**Sent:** Saturday, October 8, 2016 9:39:11 AM  
**To:** Shawn Patrick McElmurry; Paul Evan Kilgore; Marcus Zervos; Laura Sullivan; Benjamin Pauli  
**Subject:** Tutorial about architecture of PoU filter

All- given CDC apparent misunderstanding about how PoU filters function, Terri's and my team will initiate a set of slides to share by Monday about how PoU filters work, especially with regard to microbiology, and will show how growth occurs. Seems the CDC and others will benefit from such a tutorial.

--  
**Nancy G. Love, Ph.D., P.E., BCEE**

Professor, Department of Civil and Environmental Engineering  
Adjunct Professor, Addis Ababa University Institute of Biotechnology, Ethiopia  
Fellow: Water Environment Federation; International Water Association; Association of Environmental Engineering and Science Professors  
University of Michigan  
183 EWRE Building  
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Voice: (734) 763-9664  
[nglove@umich.edu](mailto:nglove@umich.edu)  
<http://envbiotech.engin.umich.edu/>  
Twitter: @Love\_H2O



**NEXT:**

**From:** Shawn Patrick McElmurry  
**Sent:** Monday, October 10, 2016 8:52 AM  
**To:** Matthew Seeger; Paul Evan Kilgore  
**Subject:** RE: HI Matt You may have seen Laura Sullivan's email; there is one sentence that needs fixing

All fixed.

**From:** Matthew Seeger  
**Sent:** Monday, October 10, 2016 8:51 AM  
**To:** Paul Evan Kilgore <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>  
**Cc:** Shawn Patrick McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>  
**Subject:** Re: HI Matt You may have seen Laura Sullivan's email; there is one sentence that needs fixing

Shawn is working on this now.

Matthew W. Seeger, Ph.D.  
Professor and Dean  
College of Fine, Performing & Communication Arts  
5104 Gullen Mall- The Linsell House

Wayne State University  
Detroit, MI 48202  
Phone: (313) 577-5342  
FAX: (313) 577-5355  
Web: <http://www.cfpca.wayne.edu/>  
Please reply to: [Matthew.Seeger@wayne.edu](mailto:Matthew.Seeger@wayne.edu)

Sent from my iPhone

On Oct 10, 2016, at 8:35 AM, Paul Evan Kilgore <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)> wrote:

Filters have been shown to work well to remove metals such as lead and chemicals from produced during chlorination.

change to:

Filters have been shown to work well to remove metals such as lead and chemicals produced during chlorination.

Does that work?

Laura also had couple other comments regarding manufacturers recs

Paul E. Kilgore, MPH, MD

Associate Professor, Department of Pharmacy Practice

Director of Research, Department of Pharmacy Practice

Eugene Applebaum College of Pharmacy and Health Sciences

Adjunct Professor, Department of Family Medicine and Public Health Sciences, School of Medicine

Wayne State University

Address:

259 Mack Ave., Room 2156

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Cell: (248) 403-0275

Fax: (313) 577-5369

Skype: drpaulwsu

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Web: <http://www.cfpc.wayne.edu/>  
Please reply to: [Matthew.Seeger@Wayne.edu](mailto:Matthew.Seeger@Wayne.edu)

### Michigan universities collaborate to examine Flint water filters

ANN ARBOR—DETROIT—EAST LANSING - Researchers from the University of Michigan, Wayne State University and Michigan State University are conducting studies to determine the best ways to manage the type of point-of-use water filters being used by Flint residents. The studies are supported by grants from the National Science Foundation.

Several studies have also shown that point-of-use water filters can harbor and support the growth of bacteria in water, said Nancy Love, professor of civil and environmental engineering at the University of Michigan. Filters have been shown to work well to remove metals such as lead and chemicals from produced during chlorination. Love emphasized that Flint residents should continue to use water filters in accordance with manufacturer's recommendations.

"All water, including drinking water, contains some amount of bacteria. The question is whether the bacteria are harmful," Love said. "Our research is focused on helping to determine how filters may be used to reduce or prevent transmission of harmful bacteria through the filters. Our study is well underway and we will make the results public once the scientific process is complete." The research team is coordinating closely with the Michigan Department of Health and Human Services, the Genesee County Health Department and the Flint Mayor's Office.

Manufacturers typically recommend replacing filters after processing approximately 100 gallons. Susan Masten, professor of civil and environmental engineering at Michigan State University noted that the team is examining if this point-of-use replacement schedule is best for the Flint water distribution system.

Masten added, "Based on the results we have gathered thus far, the filters are doing a good job removing lead and disinfection by-products. These by-products are the chemical compounds that occur after water has been disinfected and are measured as total trihalomethanes. So far, after filtration, these chemical are typically at concentrations below what we can measure."

The research is expected to provide additional guidance about the use of filters in Flint. Shawn McElmurry, associate professor of civil and environmental engineering at Wayne State University emphasized that the research group is committed to addressing resident's concerns and need for scientific information about the quality of their water.

The team appreciates the cooperation of Flint residents, which makes the study possible by providing access into their homes and supplying the filters used in the study.

NEXT:

[REDACTED]

---

**From:** Henry, James <jhenry@gchd.us>  
**Sent:** Monday, October 10, 2016 11:26 AM  
**To:** Shawn Patrick McElmurry  
**Cc:** Cupal, Suzanne; LaRocco, Toni; Valacak, Mark; Durno.Mark@epamail.epa.gov; Matthew Seeger; Nancy Love; Susan Masten  
**Subject:** RE: PoU Filter Study Release

Thanks Shawn, I understand and thanks for keeping us informed. My office tends to get a lot of inquiries, which is a great opportunity to communicate risks and interventions. If moving stagnant water to pull in chlorine can reduce even the slightest potential risks, it will be incorporated in my response to inquiries and messaging.

If we agree that moving the water through the system has multiple benefits and is essential to healing the infrastructure, perhaps we should consider incorporating a brief unified statement/reminder in all Flint water messages.

Jim Henry RS, MBA  
Environmental Health Director  
Genesee County Health Dept [www.gchd.us](http://www.gchd.us)  
630 S. Saginaw St., Suite 4  
Flint, MI 48502-1540  
Phone (810) 257-3618 Fax (810) 257-3125  
E-mail [jhenry@gchd.us](mailto:jhenry@gchd.us)



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Health Department**  
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**From:** Shawn Patrick McElmurry [mailto:s.mcelmurry@wayne.edu]  
**Sent:** Monday, October 10, 2016 10:20 AM  
**To:** Henry, James  
**Cc:** Cupal, Suzanne; LaRocco, Toni; Valacak, Mark; Durno.Mark@epamail.epa.gov; Matthew Seeger; Nancy Love; Susan Masten  
**Subject:** RE: PoU Filter Study Release

Hey Jim, thanks for the email. Yes, over the weekend we had many (too many!) internal discussions regarding possibly including additional steps residents could take to reduce risk. However, in the end, we decided that we were uncertain

that there was a risk to warrant additional recommendations or what recommendations would actually change the way the filters are performing....it's just too early in our scientific process to tell.

We are still discussing talking points in anticipation of additional questions. We welcome feedback on these so that we are all on the same page. Feel free to call me on my cell to discuss [REDACTED]

Thanks,

Shawn

Ps. I have yet to see MDHHS's press release regarding Shigella...I trust nothing in this release conflicts with what is in that release.

**From:** Henry, James [mailto:jhenry@gchd.us]

**Sent:** Monday, October 10, 2016 10:08 AM

**To:** Cupal, Suzanne <scupal@gchd.us>; LaRocco, Toni <tlarocco@gchd.us>; Valacak, Mark <MVALACAK@gchd.us>; Durno, Mark <Durno.Mark@epamail.epa.gov>; Shawn Patrick McElmurry <s.mcelmurry@wayne.edu>

**Subject:** RE: PoU Filter Study Release

Hi Shawn, I'm confident that we will receive questions about this, specifically what can be done to reduce potential risks, now. Please see my recommendations below.

**From:** Cupal, Suzanne

**Sent:** Monday, October 10, 2016 9:58 AM

**To:** Henry, James; Cupal, Suzanne; LaRocco, Toni; Valacak, Mark; Durno, Mark <Durno.Mark@epamail.epa.gov>

**Subject:** RE: PoU Filter Study Release

Wayne State is sending this out. We don't get a say in it. I forwarded the release to Mark Durnow and Gretchen Michael earlier as we are all likely to receive questions....

Suzanne Cupal, M.P.H.  
Public Health Division Director  
Genesee County Health Department  
630 S. Saginaw Street  
Suite 4  
Flint, MI 48502  
(810) 768-7970  
[scupal@gchd.us](mailto:scupal@gchd.us)

**From:** Henry, James

**Sent:** Monday, October 10, 2016 9:56 AM

**To:** 'scupal@gchd.us'; LaRocco, Toni; 'MVALACAK@gchd.us'; Durno, Mark <Durno.Mark@epamail.epa.gov>

**Subject:** FW: PoU Filter Study Release

Reads pretty good, but I think we should incorporate an action step for residents.

Perhaps a quote from, Mark Durno regarding the EPA chlorine monitoring campaign throughout the City to ensure levels are adequate to kill bacteria. Maybe a quick message about the importance of running the water to pull in chlorine into the residential POU filter, as the lack of use allows chlorine to dissipate, creating an environment for bacteria to grow.





Jim Henry RS, MBA  
Environmental Health Director  
Genesee County Health Dept [www.gchd.us](http://www.gchd.us)  
630 S. Saginaw St., Suite 4  
Flint, MI 48502-1540  
Phone (810) 257-3618 Fax (810) 257-3125  
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**Genesee County  
Health Department**

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**From:** Cupal, Suzanne  
**Sent:** Monday, October 10, 2016 8:55 AM  
**To:** Valacak, Mark; Henry, James; LaRocco, Toni  
**Subject:** FW: PoU Filter Study Release

FYI...

Suzanne Cupal, M.P.H.  
Public Health Division Director  
Genesee County Health Department  
630 S. Saginaw Street  
Suite 4  
Flint, MI 48502  
(810) 768-7970  
[scupal@gchd.us](mailto:scupal@gchd.us)

**From:** Shawn Patrick McElmurry [<mailto:s.mcelmurry@wayne.edu>]  
**Sent:** Monday, October 10, 2016 8:51 AM  
**To:** [ppugh@cityofflint.com](mailto:ppugh@cityofflint.com)  
**Cc:** Matthew Seeger; Paul Evan Kilgore; Wells, Eden (DHHS; Cupal, Suzanne; Laura Carravallah; Lawrence Reynolds; Nancy Love; Susan Masten; Paul Evan Kilgore; Laura Sullivan ([dr.laura2@gmail.com](mailto:dr.laura2@gmail.com))  
**Subject:** FW: PoU Filter Study Release

Dr. Pugh, attached is a joint press release that will be sent out today regarding the filter study. I am sorry but Matt didn't have your email when he sent this out last night - my apologies. Please confirm I have the right email and you received this.

It was great meeting with you Friday.

Cheers!

Shawn

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: Matthew Seeger

Sent: Sunday, October 9, 2016 10:47 PM

To: Wells, Eden (DHHS) <[WellsE3@michigan.gov](mailto:WellsE3@michigan.gov)>; Suzanne Cupal <[scupal@gchd.us](mailto:scupal@gchd.us)>; Laura Carravallah <[Laura.Carravallah@hc.msu.edu](mailto:Laura.Carravallah@hc.msu.edu)>; Lawrence Reynolds <[lrey52@gmail.com](mailto:lrey52@gmail.com)>

Cc: Nancy Love <[nglove@umich.edu](mailto:nglove@umich.edu)>; Shawn Patrick McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>; Susan Masten <[masten@egr.msu.edu](mailto:masten@egr.msu.edu)>; Paul Evan Kilgore <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>; Laura Sullivan <[dr.laura2@gmail.com](mailto:dr.laura2@gmail.com)>

Subject: PoU Filter Study Release

Dear Colleagues,

The PoU filter team has been working on a joint statement about the study and we have reached consensus about the following release. We believe this accurately reflects the current state of the study. We expect this to be released sometime tomorrow.

Thank you,

Matt Seeger



College of Fine, Performing  
and Communication Arts

NEXT:

**Shawn McElmurry**

**From:** Beach, Michael J. (CDC/OID/NCEZID) <mjb3@cdc.gov>  
**Sent:** Monday, October 10, 2016 1:59 PM  
**To:** Wells, Eden (DHHS); McFadden, Jevon (CDC michigan.gov); Shawn Patrick McElmurry; Paul Evan Kilgore; Zervos, Marcus; Cupal, Suzanne (scupal@gchd.us); ppugh@cityofflint.com  
**Cc:** LyonCallo, Sarah (DHHS); Eisner, Jennifer (DHHS)  
**Subject:** RE: PoU Filter Study Release

Thanks Eden,

I am available for discussion when you are all ready.

Thx

Michael

Michael J. Beach, Ph.D.  
Deputy Director, Division of Foodborne, Waterborne, and Environmental Diseases  
Associate Director for Healthy Water  
National Center for Emerging and Zoonotic Infectious Diseases  
Centers for Disease Control and Prevention  
Mailstop C-09  
1600 Clifton Rd NE  
Atlanta, GA 30329-4018

Tel: 404-639-1591  
E-mail: [mbeach@cdc.gov](mailto:mbeach@cdc.gov)  
Visit CDC's Healthy Water website at [www.cdc.gov/healthywater](http://www.cdc.gov/healthywater)



Please only print this e-mail if necessary.

**From:** Wells, Eden (DHHS) [mailto:WellsE3@michigan.gov]  
**Sent:** Monday, October 10, 2016 1:14 PM  
**To:** McFadden, Jevon (CDC michigan.gov); Beach, Michael J. (CDC/OID/NCEZID); Shawn Patrick McElmurry; Paul Evan Kilgore; Zervos, Marcus; Cupal, Suzanne (scupal@gchd.us); ppugh@cityofflint.com  
**Cc:** LyonCallo, Sarah (DHHS); Eisner, Jennifer (DHHS)  
**Subject:** FW: PoU Filter Study Release  
**Importance:** High

Folks,

I heartily recommend that the WSU and UM folks talk directly with CDC/Michael Beach this afternoon. He will be here in MI this week as well, but the press releases, while they do not need to be similar, they need to not add to more confusion. I am unable to set up this call given getting pulled another direction, so I am asking that the WSU/UM folks set something up with Michael and bring in Dr. McFadden and Dr. Pugh as well.

My understanding is that CDC understands the UM study protocol and findings; in fact, we had all noted Thursday that, regardless if the study identifies pathogenic bacteria, the PH implications your press release is ascertaining cannot

actually be implied given the lack of viability data...however, this is not my expertise and I am asking you all to please communicate with each other. There is always a cultural gap between the science and communications of academicians in the ivory towers and the applied public health practitioners!!

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: Wells, Eden (DHHS)  
Sent: Monday, October 10, 2016 12:35 PM  
To: Matthew Seeger <[matthew.seeger@wayne.edu](mailto:matthew.seeger@wayne.edu)>  
Cc: Suzanne Cupal <[scupal@gchd.us](mailto:scupal@gchd.us)>; Laura Carravallah <[Laura.Carravallah@hc.msu.edu](mailto:Laura.Carravallah@hc.msu.edu)>; Lawrence Reynolds <[lrey52@gmail.com](mailto:lrey52@gmail.com)>; Nancy Love <[nglove@umich.edu](mailto:nglove@umich.edu)>; Shawn Patrick McElmurry <[s.mcelmurry@wayne.edu](mailto:s.mcelmurry@wayne.edu)>; Susan Masten <[masten@egr.msu.edu](mailto:masten@egr.msu.edu)>; Paul Evan Kilgore <[paul.kilgore@wayne.edu](mailto:paul.kilgore@wayne.edu)>; Laura Sullivan <[dr.laura2@gmail.com](mailto:dr.laura2@gmail.com)>; Beach, Michael J. (CDC/OID/NCEZID) <[mjb3@cdc.gov](mailto:mjb3@cdc.gov)>; Eisner, Jennifer (DHHS) <[EisnerJ@michigan.gov](mailto:EisnerJ@michigan.gov)>; McFadden, Jevon (DHHS-Contractor) <[McFaddenJ1@michigan.gov](mailto:McFaddenJ1@michigan.gov)>; LyonCallo, Sarah (DHHS) <[lyoncallos@michigan.gov](mailto:lyoncallos@michigan.gov)>;  
Subject: Re: PoU Filter Study Release

Hi Matt,

CDC GCHD and our team at MDHHS have concerns regarding the wording of the release. Based on the person, and our discussions Friday, some of the wording is confusing. Particularly the concept that you all were a priori looking for pathogenic bacteria as part of your hypothesis-

I suggest a call- I can do 1:30 or 2 pm.

Eden V. Wells, MD, MPH, FACPM  
Chief Medical Executive  
Michigan Department of Health and Human Services  
Tel: 517-284-4020

Sent from my iPhone, please excuse typos





## Shawn McElmurry

**From:** Shawn Patrick McElmurry  
**Sent:** Wednesday, October 12, 2016 10:02 PM  
**To:** Bryce Feighner, P.E.; Shawn Patrick McElmurry  
**Subject:** RE: CDC Team Mtg - Shigellosis Investigation

Sorry Bryce, I was hoping to catch you at the meeting tonight sorry. I'd like to connect via phone.

To answer your question regarding the control population, for the FACHEP sampling we are sampling outside of Flint already. For the PoU study, we have a few points outside of Flint but we are still trying to increase the amount of locations to sample.

I'll try to call you tomorrow but Friday will probably be easier.

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

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

**From:** "Feighner, Bryce (DEQ)" <FEIGHNERB@michigan.gov>  
**Date:** 10/12/16 8:32 PM (GMT-05:00)  
**To:** Shawn Patrick McElmurry <s.mcelmurry@wayne.edu>  
**Subject:** RE: CDC Team Mtg - Shigellosis Investigation

Hi Shawn,

Do you know the disinfection contact time (CT) for Shigella? Particularly relative to coliform?

Also, I did not hear from you regarding my previous question. Are you no longer planning to mimic your Flint filter study work in a "control" water system on GLWA such as Pontiac as we previously discussed?

Thanks. Bryce

-----Original Appointment-----

**From:** Bouters, Janese (DHHS)  
**Sent:** Wednesday, October 12, 2016 12:13 PM  
**To:** Bouters, Janese (DHHS); McFadden, Jevon (DHHS-Contractor); Wells, Eden (DHHS); Reynolds, Lawrence; Zervos, Marcus; Shawn Patrick McElmurry; Paul Evan Kilgore; Lawrence Reynolds; Laura Sullivan; Pete Levine; Karwowski, Mateusz P. (CDC/OID/NCEZID); Cupal, Suzanne (scupal@gchd.us); ppugh@cityofflint.com; mjb3@cdc.gov; lwx4@cdc.gov; Mona Hanna-Attisha; Johnson, M.D., Gary; Durno, Mark; Feighner, Bryce (DEQ); Laura Carravallah; Creagh, Keith (DNR); Krisztian, George (DEQ); Benzie, Richard (DEQ); Ruch, Suzann (DEQ); Thelen, Mary Beth (DEQ); Tkaczyk, Judy (DNR)  
**Cc:** LyonCallo, Sarah (DHHS); Castillo, Caroline (DHHS-Contractor); Yates, Kirsten M. (CDC/OID/NCEZID); Michael, Gretchen (OS/ASPR/COO); Minicuci, Angela (DHHS); Lasher, GERALYN (DHHS); Collins, Jim (DHHS); McFadden, Jevon D. (CDC/OPHPR/DSLRL); Miller, Ashley (DHHS-Contractor)  
**Subject:** CDC Team Mtg - Shigellosis Investigation  
**When:** Wednesday, October 12, 2016 6:00 PM-7:30 PM (UTC-05:00) Eastern Time (US & Canada).  
**Where:** Genesee Co Medical Society -4438 Oak Bridge Drive, Suite B, Flint 48532

Good afternoon,