

## Community Needs and Resource Assessment Submitted In Support of the Flint ReCAST (December 30, 2016)

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### Stakeholder Participation

Below is a description of who participated in your Needs and Resource Assessment process, as well as how your coalition of stakeholders were engaged, and how you ensured inclusion of diverse perspectives, including those of youth and families representing the diversity of populations within the community, and those impacted by the trauma.

Agency, Community Group, and/or Role ( <i>e.g., youth impacted by trauma, caregiver of youth impacted by trauma, behavioral health service provider, law enforcement agent, legislator, faith-based organization, youth and family advocate</i> )	Number of Individuals Represented
Flint area youth and young adults	4
Long-term Flint community residents	20
Flint area community based organizations, agencies, and institutions	39
Behavioral health service providers	3
<p>Describe the methods and efforts used to engage the above stakeholders, (<i>e.g., we reached out to a variety of local organizations and asked for recommendations regarding individuals to serve on the coalition; we partnered with our local NAMI chapter to identify peers with lived experience; we informed coalition members about the project and this particular phase; we worked with the group to develop a document that summarizes the roles and responsibilities of group members; we asked them for input via a range of methods, such as interviews and meetings; we asked for feedback on draft materials</i>):</p>	
<p>We reached out to the partnering organizations that supported the original proposal submission in June 2016. We invited this collective to a group conversation to re-introduce the ReCAST, provide additional clarification about the outcomes that ReCAST seeks to address, and to solicit specific information about the resources that each agency offers with consideration of partnering agencies that have been valuable to their success. This first agency/organization meeting yielded 35 attendees from 26 entities. We hosted 5 additional meetings (including 2 follow-up meetings for agencies/organizations (with an additional 13 entities), 2 meetings focused on Flint area community residents (with approximately 20 attendees), and 1 meeting tailored to youth and families (9 attendees)) to further engage Flint area interested organizations and individuals.</p>	

Describe the steps you took to ensure inclusion of diverse perspectives throughout the Community Needs and Resource Assessment process, *(e.g., we used a participatory approach; we invited individuals who represent demographic sub-populations of interest to participants; we provided multiple means of participation to encourage ease of and comfort with sharing/participating)*

We used a participatory approach to reach out to our Flint area partners and residents, including specific invitations through our partner organizations that facilitate collaborations throughout Flint (Flint Area Reinvestment Organization), Genesee Health Systems community engagement, and through personal invitations. Furthermore, we have attended a number of additional meetings to introduce ReCAST, discuss ReCAST benefits for population subgroups, and to create connections with often marginalized populations, including the Genesee Intermediate School District Youth Task Force, ALPACT, CBOP, Hispanic/Latino Collaborative, Michigan Department of Civil Rights, and the Disability Network, who specifically work with underserved populations at increased risk of experiencing traumatic stress related outcomes. Through our combined offerings to discuss ReCAST in large group meetings, in phone calls, via email, and in small individualized meetings, we have created various communication opportunities to disseminate information about ReCAST, but also learn about the needs and preferences of various important subpopulations that either provide services or are in need of services in the area.

## Methodology

Below is a description of the methods used for gathering information needed for our Community Needs and Resource Assessment.

Method Used (e.g., review of scholarly literature, review of existing local data, administered survey, held focus groups, interviewed individuals)	Information Obtained (e.g., information on populations of focus, risk and protective factors, currently available local resources, what agencies/systems are providing those resources and how they are funded, programs/practices that can bolster resilience/wellness in our target population)
<b>Government and Policy Related Data</b>	
<p>Community Assessment Survey for Public Health Emergency Response (CASPER) Survey</p> <ol style="list-style-type: none"> <li>1. <a href="https://content.govdelivery.com/attachments/MIDHHS/2016/11/02/file_attachments/651442/Flint%20BMI%20CASPER%20Report.pdf">https://content.govdelivery.com/attachments/MIDHHS/2016/11/02/file_attachments/651442/Flint%20BMI%20CASPER%20Report.pdf</a></li> <li>2. <a href="https://content.govdelivery.com/attachments/MIDHHS/2016/11/02/file_attachments/651383/CASPER%20BP%20Release.pdf">https://content.govdelivery.com/attachments/MIDHHS/2016/11/02/file_attachments/651383/CASPER%20BP%20Release.pdf</a></li> </ol>	<ul style="list-style-type: none"> <li>• In households including any adult ages 21 or older, two thirds reported at least one adult had one or more new or worsening behavioral health concerns since October 2015.</li> <li>• In households with one or more member younger than 21, slightly more than half reported at least one member younger than 21 had one or more new or worsening behavioral health concerns since October 2015.</li> <li>• Examples of concerns that were inquired about include trouble concentrating, depressed mood, and anxiety or stress.</li> <li>• Recommendations include increasing community involvement and engagement in the recovery phase of the FWC to assist with disseminating information on the FWC in City of Flint.</li> <li>• Among households with members aged 21 years or older, many reported these members experiencing the following more than usual: anxiety/stress (49.1%), problems sleeping (47.3%), depressed mood (42.6%), and trouble concentrating (33.9%) (Table 4). Of these households with at least one household member under 21 years, 54.3% (95% CI [40.4, 68.2]) reported that one or more household members aged less than 21 years had at least one behavioral health concern more than usual since October 2015; 51.7% of these households perceived a need for behavioral health services. Among households with members of this age range, many reported these members experiencing the following more than usual: problems sleeping (39.0%), aggressiveness (38.4%), trouble concentrating (37.5%), and anxiety or stress (35.3%)</li> <li>• Since April 2014, 26.4% of households reported a lot of stress related to compromised health</li> </ul>

	<p>while 37.6% of households reported no stress related to compromised health due to FWC (Table 7). Half (50.0%) of households reported a lot of stress related to feeling overlooked by decision-makers and also feeling that the FWC will never be fixed. Many households (41.2%) experienced a lot of fear due to the FWC in regard to drinking or cooking with filtered tap water while 57.9% experienced a lot of fear drinking or cooking with unfiltered tap water (Table 8). Also, 22.6% of household felt some fear of 15 drinking or cooking with bottled water. The majority of households felt a lot of fear in bathing (55.2%) and brushing their teeth (55.1%) with unfiltered tap water (Table 8).</p> <ul style="list-style-type: none"> <li>• In the City of Flint, 38.0% of individuals reported having poor mental health (e.g., stress, depression, and emotional problems) for 14 or more days within the last 30 days, compared to 12.9% for the total population of Michigan as reported in the 2014 Michigan BRFSS. In the City of Flint, 29.1% of individuals reported that poor physical and mental health limited their usual activities (e.g., self-care, work, or recreation) for 14 or more days within the last 30 days, compared to 8.7% for the total Michigan population as reported in the 2014 Michigan BRFSS</li> <li>• When household respondents were asked if they or a member of their household had ever been told by a healthcare professional that they had a selected list of chronic diseases, 38.6% reported hypertension or heart disease; 32.3% reported physical disability, 31.7% reported asthma, chronic obstructive pulmonary disease, or emphysema; and 31.7% reported diabetes (Table 12). Approximately half (50.5%) of households reported worsened physical health of one or more members of a household due to the FWC.</li> </ul>
<p>Michiagn Department of Health and Human Services &amp; Federal Partners Activities Update</p> <p><a href="https://flintcares.com/money/">https://flintcares.com/money/</a></p>	<p>Nurse Case Management   Total Allocated: \$966,300</p> <p>MDHHS has partnered with the Genesee County Health Department and Greater Flint Health Coalition to provide nurse case management to children identified with elevated blood levels. To date, more than 100 children are receiving services. Nurse case management services connect residents with medical, educational, social and other services they may need. A case manager meets with residents face-to-face to create a plan of care and help individuals get needed services offered in the community.</p>

**Nurse Family Partnership | Total Allocated: \$500,000**

MDHHS has partnered with the Hurley Medical Center to provide specialized home visiting services to low income, first time mothers enrolled before the third trimester. Highly trained nurses provide one-on-one home visits for the purposes of parent education and support, as well as provision of services to ensure a successful pregnancy, good birth outcomes, and ongoing child development. Nurses also ensure first time mothers are connected with appropriate resources, including health insurance and a medical home, among other supports and services.

**Crisis Counseling | Total Allocated: \$500,000**

MDHHS has partnered with Genesee Health System to provide psychological first aid and crisis counseling to individuals or families. To date, 3,087 crisis counseling contacts have been made.

**Child and Adolescent Health Centers | Total Allocated: \$1,522,400**

MDHHS has partnered with Michigan Primary Care Association and University of Michigan to establish health centers inside of Flint community schools. Construction has started at Richfield Academy and two more schools are in the planning process. MDHHS is actively working with the Flint community schools to establish more.

**Pathways to Potential | Total Allocated: \$1,020,000**

MDHHS has partnered with Flint Community schools and to have a presence in every school to assist parents and children in removing barriers to success. There are five outcome areas: attendance, education, health, safety and self-sufficiency. There are currently six workers placed in the schools, in addition to the schools where they already were located.

**Flint Medicaid Waiver | Total Allocated: \$39,300,000**

MDHHS has expanded Medicaid coverage to an estimated 15,000 newly eligible beneficiaries under the waiver. In addition, Family Supports Coordination (case management) services are being provided to new and current beneficiaries including performance of comprehensive assessments and development of individualized care plans, assessment of home environments;

	<p>providing education and information regarding the potential impacts of lead exposure, early warning signs, lead hazards, and available community resources; ensuring access to resources and assistance in breaking down any barriers that may exist; and conducting appropriate monitoring and follow-up activities. As of today, there are 24,671 individuals enrolled in the waiver. This includes new enrollees since May 9 and those enrolled prior to that date who have been identified as residing or having resided on the Flint Water System. Since May 9, 6,910 individuals have applied for waiver coverage. While eligibility determinations are pending for the majority of these individuals, 2,444 people have been approved to date.</p> <p><b>Underserved Populations Healthcare Assistance</b>  MDHHS is utilizing the Nurse Professional Fund to place nurses, nurse practitioners, and nursing students in Flint with a focus on underserved populations, including the Spanish speaking community, the deaf community and the Brennan Senior Center. Most of the nurses and nursing students placed will be either bilingual or American Sign Language certified translators and will perform both clinical services and education and outreach.</p> <p><b>Primary Care Provider Recruitment</b>  MDHHS applied to the Health Resources and Services Administration to designate Flint as a Health Professional Shortage Area for Primary Care which was approved in September of 2016. This designation allows providers in Flint to take advantage of state and federal programs that incentivize the recruitment and retention of primary care providers. HRSA also previously approved a Health Professional Shortage Area designation for Mental Health.</p> <p><b>Mental Health Awareness</b>  Youth Mental Health First Aid and Adult Mental Health First Aid training is being offered to all community, church, parent, and social groups, free of charge, by Genesee Health System. This collaboration is working to identify mental health issues in the community, potentially as a result of the Flint Water Crisis.</p>
SAMHSA Emergency Response Grant	\$475,194 through the SAMHSA Emergency Response Grant is funding behavioral health and

(SERG)



other services including special outreach to vulnerable populations, including those with disabilities.

Data updates from the emergency outreach response led by Genseee Health Systems shows they have successfully contacted over 6400 Flint residents through their outreach site, community events, door-to-door canvassing, water distribution centers, and through their mobile units between August 17, 2016 and December 9, 2016. During SERG episodes, stress (56%) was the most frequently reported problem is stress, followed by frustration/anger (40%), physical health concerns (37%), child-related concerns (25%), anxiety (23%), and other mental health concerns (20%).

School Emergency Response to Violence (SERV) Project:  
<http://www.ed.gov/news/press-releases/us-department-education-awards-480000-flint-michigan-schools>

\$480,000 through the School Emergency Response to Violence project funding will help restore the learning environment, following the water crisis which may have been experienced as a traumatic event.

Federal Response Summary  
(<https://flintcares.com/wp-content/uploads/2016/04/Flint-Numbers-11-30-16-v2.pdf>)  
<https://www.phe.gov/emergency/events/Flint/Documents/Flint-by-the-numbers.pdf>  
<http://www2.ed.gov/programs/dvppserv/index.html>

- 247 healthcare providers and responders received stress management training from HHS; 183 community members participated in basic Psychological First Aid skills training taught by the USPHS Commissioned Corps officers. This included Train the Trainers course to 32 providers to provider PFA training to over 500 community members
- \$1 million helped GHS increase patient capacity and provide additional comprehensive primary and preventive health services
- Flint Community Schools will use its Project SERV grant funding from the Department of Education to hire four assistant attendance specialists, who will identify and support students who are repeatedly absent. The attendance specialists will make home visits to assess the family environment and to collaborate with school staff to develop interventions and customized educational plans for truant students.
- The district also will hire three responsive service school counselors and two school

	<p>psychologists to address the mental health needs of its students. Staff in these positions will help design, develop, implement and evaluate a comprehensive, developmental and systematic Responsive Service School Counseling program. In addition three additional speech therapists will be hired to handle the increase in special education referrals and requests for testing from parents.</p>
<p>Public Health Emergency: Contaminated Water in Flint.  <a href="https://www.phe.gov/emergency/events/flint/Pages/default.aspx">https://www.phe.gov/emergency/events/flint/Pages/default.aspx</a></p>	<ul style="list-style-type: none"> <li>• This site is provided as a resource to Flint residents, and highlights disaster distress information, including tips for survivors of traumatic stress. We look to use this resource as the ReCAST continues to engage and offer information for the project duration.</li> </ul>
<p>Voices of Flint Policy Brief  <a href="http://www.flintneighborhoodsunited.org/wp-content/uploads/2016/12/Voice-of-Flint-Policy-Brief-Final.pdf">http://www.flintneighborhoodsunited.org/wp-content/uploads/2016/12/Voice-of-Flint-Policy-Brief-Final.pdf</a></p>	<ul style="list-style-type: none"> <li>• Flint residents do not trust government officials or government scientists. Flint residents do not believe these institutions have the best interest of Flint residents in mind.</li> <li>• Residents and FWC responders believe that residents and NGOs in Flint have the least amount of power in decision-making regarding the recovery effort, while government officials have the most power.</li> <li>• The lack of trust in government coupled with feelings of powerlessness and lack of appropriate ways to communicate their concerns and experiences will complicate recovery efforts and should be addressed in future planning.</li> <li>• Residents believe that the FWC resulted from long-term economic and social problems in Flint, including a decreased tax-base, a history of marginalization, and a loss of decision-making control by the City.</li> <li>• Residents believe that <i>short-term consequences</i> of the FWC include increases in: emotional stress/fear, daily household labor, adverse effects of pre-existing health conditions, uncertainty, and community stigmatization.</li> <li>• Residents believe that <i>long-term consequences</i> of the FWC include decreases in: community health (especially children’s health), trust in officials, educational outcomes/attainment, and real estate/economic (re)- development.</li> <li>• The participants offered a salient and powerful perspective on viewing the FWC as an opportunity for development/rebuilding in the City and as a means for address</li> </ul>

	<ul style="list-style-type: none"> <li>Recognizing and responding to the community’s concerns regarding systemic failures (rather than the symptomatic problems of lead exposure) is critical not only to address the trust issue, but also because the community itself provides expertise borne of its collective experiences.</li> </ul>
<p>Water Infrastructure Improvements for the Nation Act (WIIN) Law:</p> <p><a href="https://www.congress.gov/bill/114th-congress/senate-bill/612/text">https://www.congress.gov/bill/114th-congress/senate-bill/612/text</a></p> <p><a href="http://dankildee.house.gov/senate-passes-agreement-to-provide-critical-help-for-flint-and-other-communities-clearing-way-for-presidents-signature/">http://dankildee.house.gov/senate-passes-agreement-to-provide-critical-help-for-flint-and-other-communities-clearing-way-for-presidents-signature/</a></p>	<ul style="list-style-type: none"> <li>This recently passed law includes \$50 Million for Public Health. The agreement provides \$17.5 million for the Department of Health and Human Services to create a national registry to monitor health effects of children exposed to lead, and \$2.5 million for an advisory committee to review ways to reduce lead exposure.</li> <li>Another \$30 million is provided to two different federal programs that fund efforts to address the short- and long-term effects of lead poisoning, including assistance to pregnant women and new mothers, and public education on the dangers of lead exposure. This funding also provides resources to help state efforts to identify and address environmental health and public safety issues associated with lead exposure.</li> </ul>
<p><b><u>Review of Scholarly Literature</u></b></p>	
<p>Angry, Scared, and Unsure: Mental Health Consequences of Contaminated Water in Flint, Michigan. Courtney A. Cuthbertson, Cathy Newkirk, Joan Ilardo, Scott Loveridge, and Mark Skidmore. J Urban Health. 2016 Dec; 93(6): 899–908. 2016 Nov 2. doi: 10.1007/s11524-016-0089-y</p>	<p>Researchers at MSU contributed to a pilot project for mental health and substance abuse monitoring programs, in which results for Genesee County, Michigan were included. Participation included monthly surveys of 30 key informants, including health services, substance use prevention, health-related non-governmental organizations, disability service organizations, schools, and researchers; surveys included changes in 30 behavioral health-related issues for 1 year. Of the 263 completed open-response questions over 12 monthly surveys, 120 were about the contamination of water in Flint (45.6%), largely after survey 6 (October 2015). Using grounded theory coding, mental health concerns most clearly stated included increased stress and anxiety for residents of Flint; stress was defined as feeling nervous, scared, angry, frustrated, and distrustful, with a lack of confidence in the political system or government.</p> <p>Stress was created by the potential and permanent physical health effects of lead exposure, the news coverage finding high levels of lead in the blood of Flint children, and lack of knowledge of</p>

where to find lead testing for children. “Parents are under more stress in seeking evaluations to identify impact of water-based lead poisoning of their children,” one panelist commented (November 2015). As another panelist frankly stated, “[r]esidents are not able to drink the Flint water. This is causing stress, anxiety, financial hardship, and community unrest.” (October 2015). Stress was perceived to increase not only because of the potential physical health effects of lead exposure but also because the solution and course of action were and remain unknown; additionally, panelists noted that residents faced extremely high water bills for unusable water. Panelists reported that the water issues affected the whole community but would have the greatest impact among African Americans and those of low socioeconomic status in the community. These two groups were identified as those who were disproportionately receiving contaminated water and those who had the least resources to cope with it. One panelist wrote, “[r]esidents of the city of Flint are paying huge water bills and they haven’t been able to use their water in some time. It is causing a financial hardship on people that are already stretched to the max...All residents of the city of Flint are going through something because of the water issues, but it is having a devastating effect on lower income people” (October 2015). The effects of stress were not limited to Flint residents and were perceived to have a contagion effect: “The current Flint water crisis has people behaving differently due to the elevated stress level associated with living with poisoned water. Stress is through the roof for many that I come in contact with... Even those who are not directly affected are feeling stressed because they know people who are affected by it” (April 2016).

Relatedly, panelists identified anxiety and depression as increasing due to the Flint water issues for similar reasons. Panelists expressed that anxiety was elevated among community members because of the uncertainty of knowing whether they had been exposed to lead, and that the effects and severity of lead exposure would be unknown for some time.

Depression was identified as an additional mental health effect of the water problems in Flint, although it was cited much less frequently than anxiety or stress. “The water issue in our community is like...a natural disaster. It is very stressful and depressing to know that you have to pay for a commodity that you need but cannot use appropriately without potential harm to yourself and family... This increases the level of both stress and depression as it does not appear

that any positive resolution is in sight” (June 2015). “I believe it [the water crisis] has exacerbated depression and some PTSD patients” (April 2016).

The mental health effects of the water issues in Flint are perceived to have spillover or ripple effects into other areas of behavioral health, such as abuse and substance use. One panelist wrote, “[t]he higher level of anxiety and stress is impacting abuse” (February 2016). Other panelists felt the water issues were causing increases in alcohol abuse, illicit drug use, and prescription misuse or abuse. “There are signs on the bars that read ‘Drink beer not the water’”. In addition, people are self-medicating to deal with the mental health issues experienced” (February 2016).

Concerns about the water in Flint are indirectly affecting mental health through the effects of the situation on people living, working, and interacting in the city and county. “The Flint water situation and the fact that it’s now become a topic of national concern. It was hard living here with all the negative reporting about crime and the economy. It’s even harder living here now... People look and sound defeated,” one panelist wrote (January 2016). This individual felt that the Flint water issues were the cause of depression, stress, and hopelessness among city residents. Another panelist noted, “[t]he way people are expected to live is intolerable and weighing very heavy on people” (February 2016). “The residents seem to be on edge,” one panelist wrote (February 2016).

Beyond the perception of Flint residents experiencing anxiety and being “on edge,” there was a sense that there were mental health repercussions related to how people from other communities have begun to treat Flint residents. “There seems to be an ever increasing divide among Genesee County’s communities as everyone tries to distance themselves from Flint. You can see the ‘poor you’ look on the faces of people who find out that you live in Flint” (March 2016). Another panelist commented:

“Because of the continuing water problem in Flint, we are seeing increases in stress, substance use, and depression. Flint home property values, already down, are now in crisis mode. Some additional examples: Flint restaurants have lost business and have laid off workers, biological parents of foster children are demanding children not be placed in Flint foster homes, summer job programs for low-income county youth are being affected as families are asking for

opportunities out of the city” (March 2016).

In the same month, another panelist shared that there was “increased anger from Flint homeowner residents due to [the] water crisis have identified stressful conversations due to home damage, decreased property values, illness, lack of funding to relocate, and concerns of affected family members.”

Genesee County panelists were in a unique position to assess the mental health impacts of the water issues in Flint and made astute observations about elevated levels of anxiety, stress, and depression among city residents. Panelists indicated that that the water problems were the root of increased stress, anxiety, and depression in Flint. Stress, especially prolonged or chronic stress, has the potential to lead to severe physical health outcomes such as cardiovascular disease,<sup>24</sup> <sup>25</sup> increased blood pressure, and compromised immune systems.<sup>26</sup> Stress worsens other mental health indicators, such as depressive symptoms,<sup>27</sup> and in combination with low socioeconomic status may lead to greater risk of premature death.<sup>28</sup> Lacking positive mental health increase the probability of mortality.<sup>29</sup> Stress and depression both increase chances of major cardiac events.<sup>24</sup>

Both the water contamination and the sense of distrust in government officials appear to have mental health consequences for Flint residents, especially as residents have no control over what flows through water service lines and into their homes. Generally, lower sense of control is associated with greater depressive symptoms<sup>30</sup>; in the face of disaster, decreased sense of control has been positively associated with acute stress disorder.<sup>31</sup> In addition to the direct health effects of contaminated water, the mental health effects may also contribute to serious physical health reduction. Without intervention to reduce impacts, the stress effects of the water crisis and its aftermath may increase long-term health disparities faced by Flint’s predominantly poor and African American residents.

Since 2002, the City of Flint has experienced numerous fiscal challenges, leading to two explicit interventions by state government since the early 2000s. An emergency financial manager was appointed to manage Flint’s fiscal affairs from 2002 to 2004, and then again from 2012 to April

	<p>of 2015.<sup>32</sup> While the purpose of the intervention was to help restore the fiscal health and support the provision of basic public services, the decisions of the most recent emergency financial manager were central to the emergence and continuation of the water crisis. It could be argued that the lack of democratic checks normally present in a functioning local government hindered action that might have resulted in response to citizens' expressed concerns about the water quality problems. In this sense, the state economic intervention appears to have resulted increased budgetary costs as well as higher human physical and mental health tolls. Michigan Governor Rick Snyder agreed with Congress in recent legislative hearings that it would be a "fair conclusion" to say that Michigan's emergency management system failed in this case;<sup>33</sup> this failure has led to not only catastrophic physical health effects but potentially long-lasting and impactful negative mental health outcomes as well.</p>
<p>David Rosner. Flint, Michigan: A Century of Environmental Injustice. <i>American Journal of Public Health</i>: February 2016, Vol. 106, No. 2, pp. 200-201. doi: 10.2105/AJPH.2015.303011 <a href="http://ajph.aphapublications.org/doi/full/10.2105/AJPH.2015.303011">http://ajph.aphapublications.org/doi/full/10.2105/AJPH.2015.303011</a></p>	<p>The indignities and bodily insult today's children face in Flint is horrifying. But, even more horrifying is that this city and its children have been poisoned in one way or another for at least 80 years. A look at the maps accompanying the article is unsettling for the historian: the affected children are those that live in the old industrial heartland of the city, around Chevrolet Avenue, the route workers marched on following their victory in 1937. Clearly, the Flint River (with its heritage of pollution), the pipes and plumbing (aged as they are), and lead paint (peeling from old dilapidated walls) are insults enough.<sup>6</sup> GM and their workers are gone, but the environment remains, and it is time for Flint's citizens to remember their earlier struggles and "March as Victors."</p>
<p>Kennedy C, Yard E, Dignam T, et al. Blood Lead Levels Among Children Aged &lt;6 Years — Flint, Michigan, 2013–2016. <i>MMWR Morb Mortal Wkly Rep</i> 2016;65. DOI: <a href="http://dx.doi.org/10.15585/mmwr.mm6525e1">http://dx.doi.org/10.15585/mmwr.mm6525e1</a>. <a href="https://www.cdc.gov/mmwr/volumes/65/wr/mm6525e1.htm">https://www.cdc.gov/mmwr/volumes/65/wr/mm6525e1.htm</a></p>	<p>During April 25, 2013–March 16, 2016, among 9,422 blood lead tests received by 7,306 children aged &lt;6 years living in the area served by FWS, 3.0% of blood lead level (BLL) test results were elevated (<math>\geq 5 \mu\text{g}/\text{dL}</math>). The proportion of elevated BLLs was significantly higher (5.0%) during the early period of the switch from DWA to FWS compared with the previous period when residents consumed water from DWA (3.1%). After the switch back to DWA, the percentage of elevated BLLs returned to levels comparable to those found before the water source switch.</p> <p>After controlling for covariates, the probability of having BLLs <math>\geq 5 \mu\text{g}/\text{dL}</math> remained significantly higher during the early period after the water source switch compared with the period before</p>

	<p>the switch (adjusted odds ratio = 1.46; CI = 1.06–2.01). Additionally, the probability of having BLLs <math>\geq 5</math> <math>\mu\text{g/dL}</math> was significantly higher for children aged 1–2 years compared with children aged &lt;1 year and significantly higher during summer and fall months compared with winter months.</p>
<p>The Flint Water Crisis: Overturning the Research Paradigm to Advance Science and Defend Public Welfare Marc A. Edwards* and Amy Pruden. <i>Environmental Science &amp; Technology</i>. Environ. Sci. Technol. 2016, 50, 8935–8936</p> <p><a href="http://pubs.acs.org/doi/pdfplus/10.1021/acs.est.6b03573">http://pubs.acs.org/doi/pdfplus/10.1021/acs.est.6b03573</a></p> <p>*Commentary not peer reviewed</p>	<p>Recommendations for Moving Forward:</p> <ol style="list-style-type: none"> <li>1. Be alert to urgent problems that directly affect the public, and consider partnering with them.</li> <li>2. Be courageous in taking necessary risks, which may involve calling out bad actors, losing friends, funding networks, personal financial security and your time. Our biggest problems are often un-championed for a reason-- traditional academic rewards may never come.</li> <li>3. You may need to use alternative sources of funding. Our Flint Water Study was initially funded by discretionary sources and volunteer effort. We were extremely fortunate to later benefit from crowdsourcing and donations, but this was after the fact and, even accounting for two small NSF RAPID-type Federal grants (~\$100,000), to-date we have covered only 70% of our out-of-pocket costs for the Flint effort.</li> <li>4. If danger to the public is imminent, it is necessary to forego academic rewards and openly share data in real time. This was critical to tapping the expertise of those who had access to other critical data, such as medical doctors, who helped stop harmful exposures as soon as possible.</li> <li>5. Work with an ever-evolving and woefully underfunded fourth estate (i.e., the media) to engage the public and allow democracy to function. Provide the media free and unrestricted access to photos, footage, data, graphs to support their role. The media coverage in Flint had a high level of scientific accuracy, in large part because we made ourselves and supporting materials freely available.</li> </ol>
<p>Morabia, A. (2013). Snippets from the past: is Flint, Michigan, the birthplace of the case-control study?. <i>American journal of epidemiology</i>, kwt221.</p> <p><a href="http://aje.oxfordjournals.org/content/early/2013/09/23/aje.kwt221.full.pdf+html">http://aje.oxfordjournals.org/content/early/2013/09/23/aje.kwt221.full.pdf+html</a></p>	<p>Case-control studies are central to epidemiologic research; historical research has suggested that Flint, Michigan may be one of the original locations in which case-control studies were conducted to identify specific sources of particular diseases.</p>

<p>Schindler, S. (2014). Understanding urban processes in Flint, Michigan: Approaching 'subaltern urbanism' inductively. <i>International Journal of Urban and Regional Research</i>, 38(3), 791-804.</p> <p><a href="http://onlinelibrary.wiley.com/doi/10.1111/1468-2427.12082/full">http://onlinelibrary.wiley.com/doi/10.1111/1468-2427.12082/full</a></p>	<p>There has been much concern about the control and ownership of land in the Flint community; the ways in which this has been a result of the deindustrialization of Flint, combined with the dynamic political economy within Flint, has been the subject of previous research. This work has pointed to a need for careful thought about whether Flint was moving to become an area of urban renewal prior to the water crisis.</p>
<p>Mona Hanna-Attisha, Jenny LaChance, Richard Casey Sadler, and Allison Champney Schnepf. Elevated Blood Lead Levels in Children Associated With the Flint Drinking Water Crisis: A Spatial Analysis of Risk and Public Health Response. <i>American Journal of Public Health</i>: February 2016, Vol. 106, No. 2, pp. 283-290. doi: 10.2105/AJPH.2015.303003</p>	<p>Incidence of elevated blood lead levels increased from 2.4% to 4.9% (<math>P &lt; .05</math>) after water source change, and neighborhoods with the highest water lead levels experienced a 6.6% increase. No significant change was seen outside the city. Geospatial analysis identified disadvantaged neighborhoods as having the greatest elevated blood lead level increases and informed response prioritization during the now-declared public health emergency.</p> <p>Read More: <a href="http://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2015.303003">http://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2015.303003</a></p>
<p>Flint Water Advisory Task Force Final Report.</p> <p><a href="https://www.michigan.gov/documents/snyder/FWATF_FINAL_REPORT_21March2016_517805_7.pdf">https://www.michigan.gov/documents/snyder/FWATF_FINAL_REPORT_21March2016_517805_7.pdf</a></p>	<p>The report acknowledges the struggles with guilt and depression among parents who unintentionally exposed their children based on trusting reports of their government officials. The report acknowledges the lack of provision for necessary medical and behavioral services for undocumented residents, regardless of age. One of the recommendations of the report was to establish and maintain a Flint Toxic Exposure Registry to include all the children and adults residing in Flint from April 2014 to present, with additional recommendations to ensure that children in this registry are offered health services for behavioral concerns.</p>

<p>Contamination in Flint — An Abject Failure to Protect Public Health. David C. Bellinger, Ph.D. <i>Lead N Engl J Med</i> 2016; 374:1101-1103. March 24, 2016. DOI: 10.1056/NEJMp1601013</p>	<p>This editorial provides an overview of the Flint water Crisis, and discusses the potential effects of childhood lead exposure. He also pointed to the next steps: We have the knowledge required to redress this social crime. We know where the lead is, how people are exposed, and how it damages health. What we lack is the political will to do what should be done.</p>
<p>Children’s Blood Lead Seasonality in Flint, Michigan (USA), and Soil-Sourced Lead Hazard Risks. Mark A.S. Laidlaw<sup>1,*</sup>, Gabriel M. Filippelli<sup>2</sup>, Richard C. Sadler<sup>3</sup>, Christopher R. Gonzales<sup>4</sup>, Andrew S. Ball<sup>1</sup> and Howard W. Mielke<sup>4</sup> <i>Int. J. Environ. Res. Public Health</i> 2016, 13(4), 358; doi:<a href="https://doi.org/10.3390/ijerph13040358">10.3390/ijerph13040358</a></p>	<p>In Flint; MI; USA; a public health crisis resulted from the switching of the water supply from Lake Huron to a more corrosive source from the Flint River in April 2014; which caused lead to leach from water lines. Between 2010 and 2015; Flint area children’s average blood lead patterns display consistent peaks in the third quarter of the year. The third quarter blood lead peaks displayed a declining trend between 2010 and 2013; then rose abruptly between the third quarters of 2013 from 3.6% blood lead levels <math>\geq 5</math> <math>\mu\text{g}/\text{dL}</math> to a peak of about 7% in the third quarter of 2014; an increase of approximately 50%. The percentage of blood lead level <math>\geq 5</math> <math>\mu\text{g}/\text{dL}</math> in the first quarter of 2015 then dropped to 2.3%; which was the same percentage as the first quarter of 2014 (prior to the Flint River water source change). The Flint quarterly blood lead level peak then rose to about 6% blood lead levels <math>\geq 5</math> <math>\mu\text{g}/\text{dL}</math> in the third quarter of 2015; and then declined to about 2.5% in the fourth quarter of 2015. Soil lead data collected by Edible Flint food collaborative reveal generally higher soil lead values in the metropolitan center for Flint; with lower values in the outskirts of the city. The questions that are not being asked is why did children’s blood lead levels display a seasonal blood lead pattern before the introduction of the new water supply in Flint; and what are the implications of these seasonal blood lead patterns? Based upon previous findings in Detroit and other North American cities we infer that re-suspension to the air of lead in the form of dust from lead contaminated soils in Flint appears to be a persistent contribution to lead exposure of Flint children even before the change in the water supply from Lake Huron to the Flint River. It is important to consider this as not solely a water problem with a clear solution and resulting in a short-term though obviously tragic impact on residents, but a problem that appears to be a water lead, soil-dust lead, and air lead problem. We suggest that the water lead contribution in the third quarter of 2014 and 2015 in Flint is being superimposed on the contribution from soil re-suspension. When the contribution of lead from water in Flint is</p>

	minimized, we suggest that the third quarter blood lead peaks might continue to occur until exposure of children from surficial soil lead is ameliorated.
Savitz DA <sup>1</sup> . Commentary: Response to Environmental Pollution: More Research May Not Be Needed. <i>Epidemiology</i> . 2016 Nov;27(6):919-20. doi: 10.1097/EDE.0000000000000526.	Researcher David Savitz has suggested that more research is not always a solution with regard to environmental pollution- and instead points to the practical concerns that can be addressed through applied research (including a health impact assessment).
A Case Study of Environmental Injustice: The Failure in Flint. Campbell C <sup>1</sup> , Greenberg R <sup>2</sup> , Mankikar D <sup>3</sup> , Ross RD <sup>4</sup> . <i>Int J Environ Res Public Health</i> . 2016 Sep 27;13(10). pii: E951.  <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5086690/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5086690/</a>	The failure by the city of Flint, Michigan to properly treat its municipal water system after a change in the source of water, has resulted in elevated lead levels in the city's water and an increase in city children's blood lead levels. Lead exposure in young children can lead to decrements in intelligence, development, behavior, attention and other neurological functions. This lack of ability to provide safe drinking water represents a failure to protect the public's health at various governmental levels. This article describes how the tragedy happened, how low-income and minority populations are at particularly high risk for lead exposure and environmental injustice, and ways that we can move forward to prevent childhood lead exposure and lead poisoning, as well as prevent future Flint-like exposure events from occurring. Control of the manufacture and use of toxic chemicals to prevent adverse exposure to these substances is also discussed. Environmental injustice occurred throughout the Flint water contamination incident and there are lessons we can all learn from this debacle to move forward in promoting environmental justice.
Gostin LO. Politics and Public Health: The Flint Drinking Water Crisis. <i>Hastings Cent Rep</i> . 2016 Jul;46(4):5-6. doi: 10.1002/hast.598.	Contributions of the scholarly literature have also considered the intersection of public health and politics with regard to the Flint Water Crisis, noting the difficulties Flint residents will face in seeking compensation and justice for the continued problems arising from the Flint Water Crisis.
Genesee Intermediate School District Information and Access	Currently available resources: Local data sources that currently exist to support promoting mental health efforts for youth include the Michigan Youth Risk Behavior Survey (YRBS), the Michigan Profile for Healthy Youth (MiPHY) and the Coordinated Community Student Survey (C2S2). Community resources include the Genesee Health System (GHS) Access Center where

screening and assessment to determine eligibility and medical necessity for mental health and substance use disorder services occur, and are available to youth as well. GHS also provides Children's Services and Supports for children meeting medical necessity criteria for Serious Emotional Disturbance. In addition, Genesee County has a number of mental health providers in the community that offer care for children with mild-moderate mental health symptoms and their families. The GHS Access Center also screens and assesses for substance use disorders and makes appropriate referrals for eligible adolescents to providers in the community. GHS is also currently the designated Substance Abuse Coordinating Agency and as such plans, funds and monitors substance use disorder (SUD) prevention services in addition to facilitating the Genesee Alcohol and Addiction Prevention Coalition for delivery of environmental and community based strategies. Data driven Strategic Prevention Framework tenets are utilized for these activities. Currently, Genesee is 1 of 10 counties and 2 tribes in year 2 of a Partnership for Success II (PFSII) CSAP grant through the Michigan Department of Community Health, focusing on underage drinking in ages 12-20 and prescription drug misuse in ages 12-25. The Strengthening Families Model designed to build family resiliency and protective factors for at risk youth is part of a number of strategies included in the GHS PFSII logic model. GHS also emphasizes co-occurring capability, use of peer coaches/specialists, received HRSA funding to open 2 FQHC sites focusing on homeless and public housing populations, integrated primary and behavioral healthcare and trauma informed care. GISD is currently collaborating with GHS and a number of other community partners including Department of Human Services, Circuit Court Family Division and others on the 5 year Genesee County Appropriate Trauma-Informed Screening Assessment and Treatment Project targeting children and youth in the foster care system. Mental/behavioral health: According to the Coordinated Community Student Survey (C2S2), 44% of 4<sup>th</sup>-12<sup>th</sup> grade students across Genesee County responded "Agree" or "Strongly Agree" when asked if they worried a lot<sup>6</sup>. 43% of students "Agree" or "Strongly Agree" that they felt nervous (uneasy or jumpy). 43% of students "Agree" or "Strongly Agree" that they are worried about school. Nearly half of the students "Agree" or "Strongly Agree" that they felt anxious (stressed out). Over 60% of students "Agree" or "Strongly Agree" that they worried about someone in their family. 30% of students "Agree" or "Strongly Agree" that they felt they

	<p>could not stop being sad. More than half of the students “Agree” or “Strongly Agree” that they felt they were too tired to do things. 14.1% of Genesee County residents reported poor mental health on at least 14 days in the past month on the 2012 Michigan Behavioral Risk Factor Survey (MiBRFS)<sup>7</sup>. The average number of mentally unhealthy days reported in the past 30 days was 4.2. In the 2008-2010 National Survey on Drug Use and Health (NSDUH), 7% of persons aged 18 or older in Genesee County had at least one major depressive episode in the past year<sup>8</sup>. 22% experienced any mental illness and nearly 5% had a serious mental illness in the past year. In fiscal year 2013, Genesee Health System served 1,791 children with serious emotional disturbance. More than half of the children served live in Flint (zip codes 48502, 48503, 48504, 48505, 48506 and 48507). In 2013, the ratio of the population to mental health providers is 655:1<sup>9</sup>. In 2011, the rate of hospital discharges due to psychoses in Genesee County was 68.3 per 10,000<sup>10</sup>. In 2012, the death rate due to suicide was 13.9 per 100,000 and eight suicide deaths were in 5-24 year olds.</p> <p>Bullying: 18% of 4<sup>th</sup>-12<sup>th</sup> grade students across Genesee County responded “Sometimes” or “A Lot” when asked if a kid at their school hit or pushed them when they were not playing around<sup>6</sup>. Over 30% of students answered that a kid at their school teased them “Sometimes” or “A Lot”. 35% of students answered that a kid at their school told lies or mean rumors about them “Sometimes” or “A Lot”. 30% of students answered that they had been left out or ignored by kids at their school “Sometimes” or “A Lot”. More than half of the students answered that they had seen violence in their school “Sometimes” or “A Lot”. 12% of students answered that they had hit or punched someone “Sometimes” or “A Lot”. More than half of the students answered that they “Agree” or “Strongly Agree” that if someone hits them, it’s OK to hit back.</p>
<p>Latinos 2025: A Needs Assessment of Latino Communities in Southeast Michigan. June 2015. Ruben Martinez PhD, Pilar Horner, PhD, Jean Kayitsinga, PhD, Dnaiel Velez Ortiz, PhD</p>	<ul style="list-style-type: none"> <li>• As of July 1, 2013, Genesee county had approximately 13,337 Hispanic residents according to the US Census Bureau estimates</li> <li>• Findings from the YRBS (2013) suggested Latino (29.6%) and African American (28.9%) youth were more likely to have been in a fight than White students (18.5%) in Michigan.</li> <li>• Findings suggest young adults in southeast Michigan do not mention healthcare or counseling services, and do not mention mental health services at schools or in their communities.</li> <li>• Latinos in Michigan are less likely than other race/ethnic groups to be involved in community</li> </ul>

civic activities/organizations, at 12% in 2011, compared to 40% for Whites, 23% for African americans, and 225% for Asian adults.

- Recommendations include providing after-school curricular activities, including academic support and engaging parents; providing cultrula aware and competence training for school staff members in counseling, volcational, and education course; and creating mentorship programs for both students and parents together to promote educational achievement.
- There are strained relationships with law enforcement.
- The need for increase collaboration and communication was identified as a next step, in recongition of the growing Latino population but a lack of comparable civic engagement with broad influence in the community.

Michigan Profile for Healthy Youth (MiPHY)  
2015-2016 Survey for Genesee County

[http://www.michigan.gov/mde/0,4615,7-140-74638\\_74639\\_29233\\_44681---,00.html](http://www.michigan.gov/mde/0,4615,7-140-74638_74639_29233_44681---,00.html)

- 28.5% of 848 reporting high school students responded that have ever been drunk
- 46.3% of 1384 responding high school students have consumed alcohol
- 56.6% of 1701 responding high scool students have seen students get pushed, hit, or punched one or more times during the past year
- 58.6% of 1127 7<sup>th</sup> graders reported they do little or not a all things that make a difference at school
- 74.8% of 1452 middle schoolers who reported not at all or a little true that thye help decide things like class activities or rules at school
- 49.7% of 1051 7<sup>th</sup> graders have been in a physical fight

2015-2016 Michigan Profile for Healthy Youth						
	Middle School			High School		
	N	%	Total Buildings in County	N	%	Total Buildings in County
American Indian	47	2.20%		49	1.60%	
Arab/Chaldean	46	2.10%		55	1.80%	
Asian	24	1.10%		13	0.40%	
Black	334	15.30%		628	20.30%	

	Hispanic/Latino	275	12.60%		292	9.50%	
	White	1299	59.70%		1823	59.00%	
	% Female	1048	48.10%		1571	50.90%	
	% Public	17	27.40%	62	17	26.20%	65
	% Private	0	0.00%	32	0	0.00%	16
	% Public School Academy	2	13.30%	15	1	20.00%	5

**Media (Non-Peer Reviewed) Information.**

Re-Imagining Education in the City of Flint

<http://crim.org/community-education-initiative/overview/>



In 2013, leaders in the Flint schools and throughout the community came together to re-imagine education in the city of Flint. The collaborative developed a strategic Community Schools plan around phasing in, scaling up and sustaining a district-wide community schools initiative with the assistance of the National Center for Community Schools. The Crim Fitness Foundation was selected to lead agency to establish the Community Education Initiative.

The Forgotten Victims of the Flint Water Crisis

<https://thinkprogress.org/the-forgotten->

Information about the water crisis was more clearly known to individuals living outside of the area compared to some living within the affected areas of Flint. Furthermore, even with state-ordered policy changes, many immigrants found the existing resources scary to use because of

<p><a href="#">victims-of-the-flint-water-crisis-c57395f2983e#.ufvm3bfpu</a></p>	<p>concerns about identification, although the state specifically indicated ID would not be required. These concerns coincided with heightened immigration enforcement, thus continuing to create concerns for Latino residents.</p>
<p>One reason undocumented immigrants didn't learn about Flint's lead poisoning sooner: there wasn't much in Spanish  <a href="http://www.pri.org/stories/2016-02-24/flints-undocumented-residents-face-unique-challenges-amid-water-crisis">http://www.pri.org/stories/2016-02-24/flints-undocumented-residents-face-unique-challenges-amid-water-crisis</a></p>	<p>Information was not translated into Spanish regularly, and without Spanish radio or TV in Flint, information dissemination was slow, interrupted, and incomplete for Flint Spanish-speaking families.</p>
<p>Church Aims to curb violence in Flint  <a href="http://www.abc12.com/home/headlines/Church-aims-to-curb-violence-in-Flint-321995012.html">http://www.abc12.com/home/headlines/Church-aims-to-curb-violence-in-Flint-321995012.html</a></p>	<p>Local faith-based organizations have been working through their networks and with their congregants to reduce violence in the Flint community. The training included employment training as well.</p>
<p>Flint youth train to become "peace coaches," resolve to fight worsening violence. January 25, 2012.   <a href="http://www.mlive.com/news/flint/index.ssf/2012/01/flint_youths_train_to_become_p.html">http://www.mlive.com/news/flint/index.ssf/2012/01/flint_youths_train_to_become_p.html</a></p>	<p>Previous efforts have sought to address violence in Flint, including the training of youth as "peace coaches" to resolve fights and prevent them from worsening.</p>

<p>How the Flint water crisis could send an entire generation to prison. January 22, 2016  <a href="https://thinkprogress.org/how-the-flint-water-crisis-could-send-an-entire-generation-to-prison-10f681ceab7d#.4pbdum13e">https://thinkprogress.org/how-the-flint-water-crisis-could-send-an-entire-generation-to-prison-10f681ceab7d#.4pbdum13e</a></p>	<p>There is continued concern that the water crisis could contribute to significant increases in learning disabilities and cognitive impairments that lead entire generations of Flint youth to become involved in the juvenile justice system. Unfortunately, this system is thought to already be plagued with various problems for Flint youth.</p>
<p>How big data and algorithms are slashing the cost of fixing Flint's water crisis. September 8, 2016.  <a href="https://theconversation.com/how-big-data-and-algorithms-are-slashing-the-cost-of-fixing-flints-water-crisis-62525">https://theconversation.com/how-big-data-and-algorithms-are-slashing-the-cost-of-fixing-flints-water-crisis-62525</a></p>	<p>Using data-driven algorithms can be helpful for identifying patterns in water infrastructure related issues underlying the Flint Water Crisis. University of Michigan partners and students (Michigan Data Science Team; <a href="http://mdst.eecs.umich.edu/">http://mdst.eecs.umich.edu/</a>) the application of statistical methods can continue to contribute to solutions related to the FWC.</p>

## Results of Needs and Resource Assessment

**Goal 1: Build a foundation to promote well-being, resiliency, and community healing through community-based, participatory approaches**

### **Priority Focus and Disparate Sub-Populations**

- Priority focus: Flint area community members at risk of traumatic stress disorders
- Disparate subpopulations- non-White families; Impoverished families

### **Risk Factors for Population**

- Continued exposure to traumatic stressor (water infrastructure still unsafe to drink)
- Daily life significantly affected by the continued use of bottled water
- Physical ailments seem continuous
- Poverty
- Lack of job/career opportunities
- Definitions are unclear
- Victimization is prominent

### **Protective Factors for Population**

- Presence of caring and involved adults, family members, health care providers, and other first responders
- Strong local community mental health agencies with added resources to support the Flint population affected by the FWC
- Early efforts to build trauma-focused services to address trauma in Flint youth may be built upon and integrated across system

### **Available Local Resources that Serve as or Bolster Protective Factors for this Population, including who offers and funds each resource**

- PFA offerings for Flint residents
- Crisis Counseling offered for Residents
- SPR (Skills for Psychological Recovery) for first responders in order to provide SPR to Flint residents who need it.
- Advocates and Leaders for Police and Community Trust (ALPACT) leaders have shared interest in trauma-informed approaches, and may be an avenue to build trauma-informed community
- Many of our local agencies, partners, or organizations, such as the Flint Police Activities League (PAL) interested in reaching youth in the community, and may benefit from SPR training; this includes members of the arts community (ex: Latino Collaborative)
- CEUs available for professionals in these trainings (both PFA and SPR- available online via NCTSN: <http://learn.nctsn.org/course/index.php?categoryid=11>)

- Tutoring offerings were identified via Big Brothers and Big Sisters
- Youth interested in civil activities identified through ReCAST community meetings
- Multiple organizations with complementary missions/visions (ex: African Drumming and Hispanic music lessons; mindfulness and meditation with cultural sensitivity incorporated) that are motivated and interested in collaborations
- Facilities are available in Flint (e.g. Haskell Center of the Flint PAL; Berston Field House of Friends of Berston) for youth-tailored activities, but may need additional funding to create, sustain, and coordinate activities
- Genesee Country trauma informed alliance has consistently worked with the GISD to promote trauma-informed approaches throughout the school systems

**Limitations, Challenges, and Issues with Available Resources**

- The appeal and value of skills training for non-first responders is limited
- Information not being sought from residents about the directions to move forward with regard to efforts not focused on water infrastructure
- Youth not involved in training for dissemination of mental health/stress management skills training
- Lack of diversity in the distribution of local resources, particularly with regard to size of the organizations receiving funds
- Interface of community organizations is more competitive than collaborative
- Interactions between smaller community groups and organizations with local government is strained and problematic
- Residents do not trust health professionals or government officials
- EMT contact and hospital staff contact rates may be unclear, given that many staff may perceive themselves as trauma-informed and sensitized already
- CEU process for the “In Class” versions of PFA and SPR may be valuable but unclear

**Gaps/Unmet Needs**

- Need to build collaborative models rather than competition models
- No resources to address poverty risk factor and ensure basic needs are being met
- Skills training offerings should be advertised for area youth, young adults, and families (to include seniors given common intergenerational household structures)
- Capacity to address grief as well as trauma in youth and their families
- Motivation to trust and engage with their community

## Goal 2: Create more equitable access to trauma-informed community behavioral health resources

### Priority Focus and Disparate Sub-Populations

- Priority focus: Flint area community members at risk of traumatic stress disorders
- Disparate subpopulations- non-White families; Impoverished families

### Risk Factors for Population

- Sustained chronic poverty
- Definitions are unclear
- Power to create change is placed with agencies and government rather than residents, who would more appropriately define “equitable access”
- Series of traumatic experiences over the life course are more common in underserved and vulnerable populations, thus contributing to inequitable distribution of information and access

### Protective Factors for Population

- Presence of caring and involved adults, family members, health care providers, and other first responders
- Strong local community mental health agencies with added resources to support the Flint population affected by the FWC
- Early efforts to build trauma-focused services to address trauma in Flint youth may be built upon and integrated across system

### Available Local Resources that Serve as or Bolster Protective Factors for this Population, including who offers and funds each resource

- **Culturally Informed Enrichment Opportunities**
  - Freedom School/Flint Odyssey House (<http://www.odysseyvillage.com/index.php/programs/services>)
  - Hispanic Technology and Community Center ([http://www.mcc.edu/hispanic\\_ctc/](http://www.mcc.edu/hispanic_ctc/))
- **Art Offerings:**
  - African Drumming (<https://www.facebook.com/KuunganaAfricanDrumandDanceCompany/>)
  - Hispanic Drumming (check the site)
  - Music lessons (Latino Collaborative)
  - El Ballet Folklorico Estudiantil (EBFE) is a non-profit organization focused on preserving the Mexican culture and enriching children’s lives through dance, music, and education. Services include but are not limited to beginning and Intermediate Folklorico Dance, beginning and advanced Guitar, and singing/voice lessons.

- “Why EBFE? A leader in cultural and dance instruction to Michigan for over 25 years, EBFE offers classes in ensemble work, goal-setting and personal growth through the arts. Students have the opportunity to learn with like-minded students and gain confidence through performance. Each class is staffed with experienced instructors highly trained in Mexican folkloric traditions and deeply committed to education.”
  - National Endowment for the Arts (2012, March 30) At-Risk Youth Have Better Academic Outcomes, Higher Career Goals, and are More Civically Engaged available at: <https://www.arts.gov/news/2012/new-nea-research-report-shows-potential-benefits-arts-education-risk-youth>
- The Whiting Theatre (<http://www.thewhiting.com/>)
- McCree Theatre (<http://www.thenewmccreetheatre.com/>)
- Flint Institute of Music (FIM: <http://www.thefim.org/>)
- Flint Youth Theatre (FYT) and Flint School of Performing Arts (FSPA; <http://www.thefspa.org/>, who will be engaging in the Global Water Dances (<http://globalwaterdances.org/performances/2017/flint-michigan-usa-2017/>)
- Flint Institute of Arts (FIA: <http://www.flintarts.org/programs/family.html>)
- Greater Flint Arts Council (GFAC: <http://www.greaterflintartscouncil.org/>)
- Non-traditional arts displays (via graffiti):



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- **Mental Health Service Offerings**
  - Catholic Charities (<http://www.catholiccharitiesflint.org/>)
  - Faith based organizations
  - Genesee Health System ([genhs.org](http://genhs.org))

- Wellness Services Inc (<http://www.wellnessaids.org/> or <https://www.facebook.com/THEMSMPROJECT/>)
  - Mission: Wellness Services, Inc. assists in the care of individuals who are infected/affected by HIV/AIDS, and promotes education and prevention in the community.
  - Services Include but not limited to HIV/AIDS Case Management, Food Assistance, Mental Health Counseling, Substance Abuse Counseling, Support Groups, Safe Space

**Limitations, Challenges, and Issues with Available Resources**

- Skills training offerings for employed adults is limited, thus inhibiting the distribution of skills training to individuals capable of changing their work schedules (or building in the training directly)
- Services are offered in a limited capacity because there are insufficient funds to support program structures conducive to family lifestyles in high-need communities
- Youth not involved in developing program structure
- Lack of diversity in the distribution of local resources, particularly with regard to size of the organizations receiving funds
- Interface of community organizations is more competitive than collaborative
- Smaller organizations are less commonly included in major decision making efforts, resulting in limited investment in creating a trauma-informed community
- Community agencies and resources siloed and not coordinated by shared goals and trauma-informed approaches

**Gaps/Unmet Needs**

- Need to build collaborative models rather than competition models
- No resources to address poverty risk factor and ensure basic needs are being met
- Skills training offerings should be advertised for area youth, young adults, and families (to include seniors given common intergenerational household structures), and held during more accessible time frames (or in a longer series of shorter sessions)
- Capacity to address grief as well as trauma in youth and their families
- Motivation to trust and engage with their community

**Goal 3: Strengthen the integration of behavioral health services and other community systems to address the social determinants of health, recognizing that factors, such as law enforcement practices, transportation, employment, and housing policies, can contribute to health outcomes**

**Priority Focus and Disparate Sub-Populations**

- Priority focus: Flint area community members at risk of traumatic stress disorders
- Disparate subpopulations- Impoverished families

**Risk Factors for Population**

- Vicarious experiences of dangerous experiences with law enforcement are prominently displayed in the media, and disproportionately affect non-white racial/ethnic groups
- Unemployment rate is significantly higher for the city of Flint compared to the state of Michigan or Genesee county
- Poverty
- Housing policies disproportionately affect low-income communities, and particularly those in which rental unit enforcement is limited
- Victimization is prominent, and commonly leads to mistreatment of vulnerable populations, including those with disabilities, residents who have communication concerns (e.g. non-native English speaker, or with hearing impairments), or those with immigration concerns (e.g. undocumented immigrants)
- Stigma of seeking behavioral health services persist, and particularly in minority communities

**Protective Factors for Population**

- Presence of caring and involved adults, family members, health care providers, and other first responders
- Strong local community mental health agencies with added resources to support the Flint population affected by the FWC
- Early efforts to build trauma-focused services to address trauma in Flint youth may be built upon and integrated across systems
- Vulnerable population members/representatives have become more visible as a result of the Flint Water Crisis

**Available Local Resources that Serve as or Bolster Protective Factors for this Population, including who offers and funds each resource**

- There are multiple local agencies and organizations of varying sizes that have offer resources in the Flint community, including the partner organizations listed at the end of this document. Here, two are briefly highlighted:

- Genesee County Hispanic/Latino Collaborative- Mission: To advocate for the Hispanic-Latino Populations in Genesee County in the Areas of Education, Cultural Awareness, and Social Needs. Services Include but are not limited to ESL, SSL (Spanish as a Second Language), document translation, basic computer classes, resume assistance, after school art, tutoring, dance, and a food pantry. This organization, although smaller in nature, has contributed to efforts to help the city deal with the water crisis using non-clinical based efforts, including gardening (<http://www.abc12.com/home/headlines/Latinos-United-For-Flint-start-gardens-to-help-city-deal-with-water-crisis-381905321.html>)
- Urban Renaissance Center of Flint (<http://www.urcflint.org/index.html>), which supports the socio-economic empowerment, civic engagement, and holistic wellness of urban children, youth, and families.

#### **Limitations, Challenges, and Issues with Available Resources**

- Information not being sought from residents about the directions to move forward with regard to efforts not focused on water infrastructure
- Youth not involved in training for dissemination of mental health/stress management skills training
- Youth may lack access to adequate job/career opportunities
- Lack of diversity in the distribution of local resources, particularly with regard to size of the organizations receiving funds
- Interface of community organizations is more competitive than collaborative

#### **Gaps/Unmet Needs**

- Need to build collaborative models rather than competition models
- No resources to address poverty risk factor and ensure basic needs are being met
- Trust between various organizations, across domains, needs to be built for collaboration to occur, and for mutual respect of various traumatic experiences to develop
- Integrate shared goals and common understanding of trauma-informed care into policies/practices to coordinate efforts to address the needs of Flint youth.

**Goal 4: Create community change through community-based, participatory approaches that promote community and youth engagement, leadership development, improved governance, and capacity building**

#### **Priority Focus and Disparate Sub-Populations**

- Priority focus: Flint area community members at risk of traumatic stress disorders
- Disparate subpopulations- non-White families; Impoverished families

**Risk Factors for Population**

- Continued exposure to traumatic stressor (water infrastructure still unsafe to drink)
- Daily life significantly affected by the continued use of bottled water
- Poverty
- History of deprivation, with regard to educational opportunities, educational benefits, employment opportunities, and career trajectories are less than positive, and frequently undermine the long-term success of community residents
- High violence rates distract from long-term goal-oriented thinking, thus exacerbating immediate threats and concerns, including anxiety and stress associated with the Flint Water Crisis
- Lack of resources within the academic setting has limited the perspectives of many Flint youth for success, particularly within the Flint Community Schools district
- Lack of adequate job/career opportunities
- Victimization is prominent

**Protective Factors for Population**

- Presence of caring and involved adults, family members, health care providers, and other first responders
- Health in all policies just passed through the Genesee County Board of Commissioners
  - Need support to provide these trainings
  - How this is implemented across entities of various sizes remains to be seen
- SERV grant recently funded to ensure reduce truancy and promote educational outcomes as students work to deal with the Flint Water Crisis
- Crim Fitness Foundation is looking to revive the Community School model, and has now placed community directors in each school building to support the educational efforts of each school (<http://crim.org/community-education-initiative/> and <http://crim.org/community-education-initiative/overview/> )

**Available Local Resources that Serve as or Bolster Protective Factors for this Population, including who offers and funds each resource**

- UM-Flint Health Career Opportunity Program has curriculums for exposure for high school students (funding just ended; [https://www.umflint.edu/sites/default/files/groups/School\\_of\\_Health\\_Professions\\_and\\_Studies/dvd\\_rom\\_hcop\\_no\\_video.pdf](https://www.umflint.edu/sites/default/files/groups/School_of_Health_Professions_and_Studies/dvd_rom_hcop_no_video.pdf)), and was a funded program through the Health Careers Pipeline and Diversity Programs effort of the Bureau of Health Workforce within Health Resources and Services Administration (HRSA) (<https://bhwh.hrsa.gov/grants/healthcareers>).
- Big Brothers Big Sisters Program includes leadership and skills development (funded)

- Ruth Mott Health Explorers program previously existed in community, and experts affiliated with the program remain in Flint
- Flint Strive ([www.flintstrive.com](http://www.flintstrive.com)), which provides support and training that leads to livable wage employment and societal re-integration.
- Flint/Genesee Job Corps Training Center, which provides opportunities for students to receive skills training to succeed in today's workforce at no cost to them (<http://flintgenesee.jobcorps.gov/home.aspx>).
- The 29<sup>th</sup> annual Youth Leadership Institute creates opportunities for youth to engage in local leadership events and build their skills ([http://www.mlive.com/news/flint/index.ssf/2015/05/young\\_leaders\\_get\\_papers\\_to\\_pr.html](http://www.mlive.com/news/flint/index.ssf/2015/05/young_leaders_get_papers_to_pr.html))
- GSD is offering Mental Health First Aid training to whomever attends (including youth)
- Introductory health careers courses are offered within local university settings (e.g. Introduction to Health Careers at University of Michigan-Flint, Public Health and Health Sciences;  
[http://catalog.umflint.edu/preview\\_course\\_nopop.php?catoid=7&coid=18064](http://catalog.umflint.edu/preview_course_nopop.php?catoid=7&coid=18064))
- Motherly Intercession (relationship maintenance; school/academic support; <http://www.miforu.org/>)

#### **Limitations, Challenges, and Issues with Available Resources**

- Existing programs for youth and families, particularly in forms of transition (e.g. from schooling to employment, from imprisonment to community reintegration) have limited funding or lost funding
- After school and summer skills-based training opportunities are limited, are offered on schedules that are not aligned with parent work schedules, or are relatively inconvenient, thus leaving the resource unused
- Youth not involved in training for dissemination of mental health/stress management skills training
- Youth may lack access to positive role models
- Programs of various sizes offer more nuanced cultural or tailored exposures for skills building- these programs often do not require less funding to operate efficiently, but receive less funding because of organizational size compared to competitors for grant funding
- Facility resources in Flint are available, but perhaps limited during the time frames most desirable by coordinating partners
- Lack of diversity in the distribution of local resources, particularly with regard to size of the organizations receiving funds
- Interface of community organizations is more competitive than collaborative
- Interactions between smaller community groups and organizations with local government is strained and problematic, which may lead to fewer programs held in otherwise public city-owned spaces (which then appear unused and mistreated)
- Youth are unfamiliar with the numerous career opportunities that abound with various levels of education, and particularly the various ways in which different careers interact to promote community well-being.

**Gaps/Unmet Needs**

- Funding to support collaborations of complementary programs are limited and need reinstatement
- Capacity for grant writing and visions of collaborations for community (rather than sole organization) advancement must be supported and further developed
- Larger and more funded organizations should be willing to collaborate with smaller organizations, rather than compete, in order to support positive community wide outcomes that accommodate the various needs of community subpopulations
- Need to build collaborative models rather than competition models
- Integrate shared goals and common understanding of trauma-informed care into policies/practices to coordinate efforts to address the needs of Flint youth.
- No resources to address poverty risk factor and ensure basic needs are being met
- Skills training offerings should be advertised for area youth, young adults, and families (to include seniors given common intergenerational household structures)

**Goal 5: Ensure that program services are culturally specific and developmentally appropriate**

**Priority Focus and Disparate Sub-Populations**

- Priority focus: Flint area community members at risk of traumatic stress disorders
- Disparate subpopulations- non-White families; Impoverished families

**Risk Factors for Population**

- Continued exposure to traumatic stressor (water infrastructure still unsafe to drink)
- Physical ailments seem continuous and inhibit participation in group meetings
- Integration of culturally specific concerns early in decision making processes, and particularly when the communities with power are mutually exclusive from communities that have historically had minimal or non-existent political power or control
- Chronic Poverty
- Historical disrespect or mistreatment by organizations/agencies that currently have substantial finances and power, but limited motivation to collaborate
- Victimization is prominent

**Protective Factors for Population**

- Presence of caring and involved adults, family members, health care providers, and other first responders that are members of both predominant and minority/vulnerable populations

**Available Local Resources that Serve as or Bolster Protective Factors for this Population, including who offers and funds each resource**

- Representative from local organizations that are culturally tailored in their approaches continue to attend and engage with larger organizations, when invited
  - Ex: Hispanic/Latino Collaborative, Community Based Organization Partners, Disability Network

**Limitations, Challenges, and Issues with Available Resources**

- Definitions are unclear and inconsistently applied within various cultures (due to various interpretations and historical experiences)
- Information not being sought from residents about the directions to move forward with regard to efforts not focused on water infrastructure

- Youth not involved in training to prepare them for major decision making efforts in the community setting (civic engagement is limited)
- Organizations with current funding are frequently not diverse, thus various cultural perspectives are overlooked and considered barriers with late stage consideration (after decisions have largely been made), and without interest (or expected passive agreement) for modification.
- Lack of diversity in the distribution of local resources, particularly with regard to size of the organizations receiving funds
- Residents do not trust health professionals or government officials
- Difficult to integrate perspectives alternative to our own without those alternative perspectives specifically represented in decision making conversations

**Gaps/Unmet Needs**

- Need to build collaborative models rather than competition models
- Need to build common understanding of trauma-informed care and develop policies/practices which coordinate based on shared goals for Flint youth
- No resources to address poverty risk factor and ensure basic needs are being met
- Culturally tailored perspectives warrant introduction and integration in decision making processes near the project onset rather than project implementation to increase participation and uptake in vulnerable populations

### **Summary of Findings and Conclusions:**

Below is a summary of the findings and conclusions drawn from our Needs and Resource Assessment. We have highlighted how our conclusions contribute to our project goals and will enable us to next identify specific objectives and related outcomes. The gaps and unmet needs that were identified by comparing currently available local resources for our priority focus and disparate populations to resources that may serve as or bolster protective factors are summarized below. These gaps will be used to generate proposed project activities in our forthcoming Community Strategic Plan.

Our primary population includes families that have members at risk for traumatic stress related disorders, and our disparate populations include racial/ethnic minorities, chronically impoverished families, and Flint community members with disabilities who have experienced multiple setbacks over the past several years. Across the 5 program objectives, gaps that need to be addressed include building collaborative models rather than competition models for area organizations, addressing the risks introduced by living in sustained poverty, with the expectation of ensuring that basic needs are being met; building positively driven motivation for residents to rebuild trust with local government and organizations; building opportunities for youth engagement in developing programs focused on youth, but also providing youth with skills training with regard to mental health promotion, stress management, conflict resolution, and leadership skills; increasing access to such skills training by using different formats for distributing information; building organizational capacity to seek additional funding through collaborations to help ensure that successful programs are not limited or dismantled due to funding insufficiencies; deliberately creating diversity (through, at a minimum, organization size, disability status, poverty status, and racial/ethnic status) in decision making processes, and especially within the affected community intended to receive or use the resulting product/program/resource being developed; building trauma-informed approaches into organizational policies of various sizes; and we must also build capacity to address grief as well as trauma in youth and their families. As we continue to engage our wide variety of partners, who are closely connected and engaged with the various programs, research efforts, and projects that have been well-established as well as those programs that have just recently received funding and are getting underway, we will strive to create models of collaboration, incorporate health and trauma-informed approaches into as many policies as possible, and incorporate representation from the populations these organizations and their projects tend to impact.

<b>Complete list of Agencies Represented in ReCAST Meetings to Date</b>
Big Brothers Big Sisters
Boys and Girls Club
City of Flint
Community Foundation of Greater Flint
Crim Foundation
Crime Stoppers
Disability Network
Michigan Institute for Clinical Health Research
Ele's Place
Ennis Center
Ennis Center
Feeding America
Flint Action Coordination Team
Flint and Genesee Chamber of Commerce
Flint and Genesee Literacy Network
Flint Odyssey House/Health Awareness Center
Flint Police Activities League
Flint STRIVE
Genesee County Health Department
Genesee Health Systems
Genesee Intermediate School District
Latinos United for Flint (key MDCR partner)
Legal Services of Eastern Michigan
Metro Flint
Michigan Department of Civil Rights
Michigan Department of Health and Human Services
Mott Community College
MSU-Flint/CBOP
Odyssey House Health Awareness Center
Raise It Up Youth Arts & Awareness
Senator Stabenow
Senator Peters Office
State of Michigan
United Way Genesee
University of Michigan-Flint Public Health and Health Sciences
University of Michigan-Flint Security
Veterans' Affairs (homeless outreach)
YMCA/Safe Places
YWCA Flint

<b>Initial Partnership List of the City of Flint</b>	
State of MI Behavioral Health unit	Genesee Intermediate School District
Healthy Flint Research Coordinating Center	YMCA of Greater Flint
Genesee Health System	University of Michigan-Flint
Genesee County Health Department	University of Michigan -Ann Arbor
Michigan Department of Health and Human Services- Child Welfare District	Michigan State University
MSU Center for Community and Economic Development	Mott Community College
REACH/ Traverse Place	Police Activities League
Big Brothers/ Big Sisters	Boys and Girls Club
Michigan Department of Civil Rights	International Academy
WOW Outreach	Legal Services of Eastern Michigan
Youth Violence Prevention Center	North Central Church of Christ
Mission Flint Team Education	Flint and Genesee Literacy Network
Flint Community Schools	Michigan Department of Health and Human Services

<b>Groups Recommended for Involvement By Meeting Attendees</b>
Youth
Faith-based
Non-resident community members
Seniors
Latino/immigrant
Disabled community members (including those with hearing impairments)
Flint Neighborhoods United
Area Block Clubs (Carriage Town, Mott Park, Civic Park, Grand Traverse)
Neighborhood Associations (Court Street Village, Brownell/Holmes)
Building Neighborhood Capacity