The Michigan PBB Registry: Community partners provide a way forward during the pandemic

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#### **Velsicol Chemical Plant Disaster**



#### **Research Findings**

- Can be transferred from mother to child in the womb and through breast milk
  - "I didn't know that something that I was exposed to...could be passed to my kid. Did I just poison my kid?" Anonymous PBB Registry member



- Earlier puberty among daughters, increased risk of urinary and genital problems among sons.
  - "My daughter had her first menstrual period when she was five years old." Anonymous PBB Registry participant

### **Additional Research Findings**

#### Increased risk of Thyroid Problems

"I had symptoms for years before my doctors considered thyroid problems as the cause. My years of suffering could have been avoided if the doctors knew my PBB level and the associated risks." *Anonymous PBB Registry participant* 

- Increased risk of Breast Cancer
- Three generations affected
- Extremely persistent in the body
  - 60% of Michiganders recently tested still had elevated levels of PBB in their blood
- Epigenetics



#### **Community-Driven Research**

"It was my father who was exposed. We are seeing the same health problems"

- Three-generation epigenetic study
- "How can I get rid of the PBB in my body?"
  - Randomized trial of nutritional intervention to speed elimination of PBBs and other POPs
- "My doctor doesn't know anything about PBB"
  - CME for health care providers and local public health

## PBB Partnerships Pre-Pandemic: in-person and remote



PBB Community Engagement Monthly conference calls: PBB Leadership Team

Quarterly conference calls: PBB Citizens Advisory Board

PBB Partner Retreats 2x/yr: All Partners

Community meetings: 4x/yr: All Registry Members invited

Virtual



Michele Marcus Lead PBB Scientist Brittany Fremion PBB Oral History Project

Have you attended a PBB community meeting before the recent virtual meetings?



If eligible, are you interested in participating in PBB health studies?



### **COVID Challenges**

#### March 2020: University halts research activities



Challenge: How do we collect blood samples and measurements on research participants while protecting the safety of the participants and the partner researchers?



#### Offers use of their facilities



Research participants text upon arrival, wait in car for temperature check



Emory provides PPE for partner researchers



Emory hires local phlebotomist



Only one participant admitted at a time. Allows for cleaning between participants.

# Challenge: How do we maintain the integrity of the research data using partner researchers?

**CITI** PROGRAM

Partner researchers complete research ethics training and are added to Emory's IRB



https://about.citiprogram.org/en/homepage/

Logo credit:

Partner researchers trained on obtaining measurements and collecting blood specimens

Detailed written protocols clearly define the requirements for labeling, spinning, packing and transporting specimens



Emory provides packets with the required forms, specimen tubes and labels for each participant

Alma College students transport the blood samples to the Fed Ex Office

# Community engagement/partnerships are the key to our projects' success



PBB Partner Retreat February 2020

- Community partners provide input on the appointment site locations
- Community partners provide input on the appointment/meeting dates
- Research participants are very dedicated to the project
- Community partners disseminate information through local communication channels



#### **PBB Partner Retreat – February 2020**

Mid-Michigan District Health Department

St. Johns, Michigan