Environmental exposures across urban and rural communities in the Deep South

CAB Meeting

March 13 2017 3-4pm Central
Phone Call

Draft Meeting Minutes

Attendees: Keisha Brown, Mary Evans, Julia Gohlke, Ethel Johnson, Matt Lackey, Linsey Marr, Michael Milazzo, Molly Richardson, Anna Scott, Sheryl Threadgill-Matthews, Sheila Tyson, Connor Wu, Ben Zaitchik

Adoption of Meeting Agenda and Announcements: The session for APHA (American Public Health Association) Annual Meeting Nov in Atlanta was accepted. Kaya Bryant, a Tuskegee Vet student will be joining us this summer for the field research. She is interested in pet ownership and how it affects environmental exposures. Sheila mentioned that there are plans to build a large Humane Society Hospital and dorms for vet students in her District (6).

Brief Update on Recent Discussions: We followed the handouts listed as *January Meetings Update* found on Basecamp. This summarizes several phone calls and meetings over the past couple of months. We updated screening sheets to make it easier to distinguish age brackets and new dates of participation. Details are as follows.

Recruitment Strategy: WCACHIL and FoWE will recruit using flyers and word-of-mouth to screen participants for eligibility. Screening sheets have been updated. For each site, we would like to target 15 participants in the 19-35 age bracket, 38 in the 36-50 age bracket, and 37 in the 51-65 age bracket (total n=90 in Birmingham and n=90 in Wilcox County). Participants should be women, from across many communities in Birmingham and across Wilcox County. We will limit to one participant per household, and exclude anyone unable to complete program requirements, or who is currently taking medication that limit time spent outside.

Participant Expectations:
Participants will attend a 1.5 hour training session to consent, fill out a demographic questionnaire, take body measurements (height/ weight), and learn how to wear the monitor and record daily activities. *Ethel and Sheila said that placement on the shoe was preferred over the wrist by participants. Molly will follow-up on a comfortable, secure shoe clip option for the iBUTTON monitor.* They will wear the monitor for one week (7 days) and record their daily activities and locations in a daily log. After 1 week, they will return their monitors. They will fill out a survey to assess their comfort and compliance of wearing the monitor as well as to assess their levels of physical activity and any deterrents to physical activity. They will receive a print out of the temperatures that they experienced. *They will not take an additional monitor to set outside of their home as previously discussed.*

Add on Participant Involvement: Diabetics- daily blood glucose testing
In those who are diabetic and already test their blood glucose daily, we will ask for them to report their daily blood glucose values. This will assist in gathering pilot data on how the thermal environment affects blood glucose levels (anticipated 20% of all participants 36 participants or 18 per site).

Compensation:
All participants will receive $150 for participating in the thermal exposure study and those that report daily glucose will receive an additional $15. Compensation will be in the form of a Wal*Mart gift card (or cash) at the end of participation (turn in session).

Enrollment: Dates currently suggested for enrollment are July 10-13 with turn in sessions the following week. That would require approximately 23 participants to be enrolled per day. Three options were suggested 1) Rolling enrollment where participants are staggered throughout the day to accommodate their schedules 2) A small group of 5 scheduled in hourly intervals or 3) A large group of 10 at a time scheduled for 90 minutes. Based on the number of staff available, small groups of 5 scheduled in hourly intervals might work best. If we go with 10 per group, we should have at least 4 staff available to ensure participants can be enrolled in a timely manner. Site Selection: In Camden, BAMA Kids facility will serve as the site and Ethel suggested a preference for 2 morning sessions of 10+ participants. A site has not been decided in Birmingham, but it was suggested that a central location where members from different neighborhoods could meet. Community centers, public libraries, or a room on the UAB campus with parking are possibilities for a Birmingham site. Sheila, Molly, Julia, and Mary will continue discussions to determine an appropriate site. No snacks are necessary at the training and turn in sessions.

Temperature and Humidity Stationary Monitors: We followed the *Maps and analysis of results on 2016 iBUTTONs* document on Basecamp. These monitors measured temperature and humidity and had a cover that looked like a Christmas tree. They were placed in May, checked in July, and collected in September 2016. Connor shows the maps with the locations of monitor placement from 2016. We notice that in order to better compare the monitor to the satellite data (called Land surface data and NLDAS air temperature grids), *we need to spread the monitors out into the different grids that are shown as thin and thick black lines on the maps*. We will come up with a strategy as to how many monitors to place in the communities, how many monitors per grid are necessary, and how frequently they need to be checked. Ben, Anna, Connor, Molly, and Julia will follow up with this and report back during the next meeting. Next, together we would identify locations within the identified grids to place the monitors in May.

Preliminary VOC Results: Michael and Linsey presented the VOC results saved on Basecamp as *Preliminary VOC Results*. Results from the passive monitors were consistent with previous results from EPA monitoring and were low compared to national levels, with the exception of benzene levels at the Harriman Park sampling site. Based on the toluene/benzene ratio, it was suggested that the emissions seen were less likely from a vehicle source and more likely from a point source. In addition, Michael and Linsey clarified that the analysis suggested the source was close to the sampling site---young air is near the point source and is a recent emission that has not had much time to break down yet. Old air is slightly downwind of a source and has had time to react with sunlight to degrade. They were able to compare the data the group collected with some from the EPA North Birmingham Air Toxics Report. Matt brought up the fact that the coke plant across the street from the Harriman Park sampling site is permitted to emit 2.5 tons of benzene each year. This is within the acceptable limits based on the permits. The Jefferson County Health Department has not heard from EPA that they are planning to monitor for air toxics in the near future. However, they may be interested in seeing these results. Frustration was expressed with the air toxics in Birmingham. For this upcoming summer, Michael and Linsey suggested a plan to look at how air toxics and heat exposure may be related and also brought up the idea of personal monitoring.

If personal monitoring is desired, participants would wear a small pendant monitor clipped to their t-shirt for one week. They could place the monitor next to their bedside table while they sleep. (This monitor is similar to the one worn by groundskeepers in 2012. It's a passive sampler with charcoal filter that catches compounds in the air.) It was suggested that a subset of all of the participants could wear them, but details would need to be discussed further. It was suggested in Birmingham that participants from Harriman Park could be compared to participants from other communities in Birmingham. Linsey, Michael, Julia, and Molly will follow-up discussions and we'll talk further about this at the April meeting.

Summary: We will continue discussions over the next month and look forward to another planning meeting tentatively scheduled for Monday April 10th at 3pm Central.