CAB Conference Call July 27, 2017 12:00 EST Meeting Minutes

Participants:

| Brandon Denise Exzavia Gena | University of Florida, Jacksonville Harvard University Children's Diagnostic and Treatment Center University of Miami |
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| Jeanie | University of Southern California |
| Jennifer | San Juan Hospital |
| Joel | University of Puerto Rico |
| Juanita | Tulane University |
| Julie | University of Alabama, Birmingham |
| Julie | Westat |
| Kimberly | Rutgers New Jersey Medical School |
| Kimbrae | Texas Children's Hospital |
| Kylie | Texas Children's Hospital |
| Latrina | University of Alabama, Birmingham |
| Lesley | Texas Children's Hospital |
| Lourdes | San Juan Hospital |
| Marilyn | Bronx-Lebanon Hospital Center |
| Megan | Westat |
| Raiko | University of Colorado, Denver |
| Stephanie | University of California, San Diego |
| Stephanie | University of Miami |
| Theresa | Texas Children's Hospital |
| Tracie | University of Miami |
| Trinise | Tulane University |
| Zena | University of Miami |

• METABOLIC WORKING GROUP PRESENTATION

Drs. Denise Jacobson and **Tracie Miller** talked about the Metabolic Working Group (WG). **Tracie** reviewed studies done by the Metabolic WG involving children who are HIV-exposed but uninfected. One study looked at early growth outcomes in babies who were exposed to the antiretroviral (ARV) drug, Tenofovir (TDF) in the womb. Low birth weight was not an outcome of exposure to TDF. Babies who were exposed to TDF tended to be slightly shorter in length and have smaller head sizes. Researchers are continuing to explore these growth outcomes.

Denise talked about a study looking at ARV drugs given during pregnancy in HIV-exposed, but infected babies. This study looked at whether ARV exposure before birth affected how a baby grows in the first two years of life. If a child does not grow as they should, or if they gain too much weight, they might be at risk for diabetes or heart disease when they are adults. The study compared the effect from different ARV drugs, as well as when the mother started taking them. Overall, babies in the study had high weight, weight-for-height, and head circumference. Children whose mothers started medication in the first trimester of their pregnancy had different effects depending on the medication.

Tracie talked about another study that looked at TDF use during pregnancy and bone mineral content in babies. In this study, a special scanner called a DXA scanner was used to measure each baby's bone mineral content. Researchers also looked at other factors that can affect bone mineral content such as being born early. Other factors also include being born small, or smoking during pregnancy. Researchers found that babies whose mothers used TDF during pregnancy had lower bone mineral content. Researchers will continue to look at bone mineral content in these youth as they grow up.

Another study looked at whether diet in pregnant women living with HIV is associated with higher birth weight. Researchers found that women who ate healthier had babies with healthier weights. Women born outside the continental United States had a better overall diet quality than women born in the United States. Women who abused substances tended to have a lower diet quality.

Denise and **Tracie** talked about studies involving youth born with HIV. Youth born with HIV have risk factors for developing heart disease. There have been reports outside of PHACS that these youth may be at risk for early heart attack and stroke. Researchers in PHACS will continue to follow youth born with HIV to look at risk factors for heart problems.

Tracie talked about a study that looked at youth born with HIV and whether they have high cholesterol. This study looked at chemicals in the blood that are associated with inflammation. Inflammation can lead to heart disease. Inflammation can get into arteries in the heart and cause a lot irritation. Fats in the blood called lipids can get deposited in the arteries and lead to heart problems. The study showed that youth born with HIV have high levels of these chemicals in their blood that can cause inflammation.

Denise talked about a study on body fat differences between youth born with HIV and youth who were HIV-exposed but uninfected. This study used the DXA scanner to compare percentages of fat compared to total weight in these youth. Researchers looked at fat in the abdominal area, as well as fat in the arms and legs. Researchers found that youth born with HIV had lower total body fat and weight-forheight. Even though they had less fat, they had a fat distribution that may be associated with risk for heart disease.

Tracie talked about two studies about insulin resistance. Insulin resistance happens when the body cannot break down sugar or store fat properly. Insulin resistance is also known as pre-diabetes. One study looked at insulin resistance in youth born with HIV. The study found that about 15% of youth born with HIV had insulin resistance. The youth with insulin resistance were more likely to weigh more. They were also more likely to have higher CD4 counts. Another study looked at how insulin resistance changes over time. This study found that there was a high rate of insulin resistance in both youth born with HIV and HIV-exposed but uninfected youth.

Another study looked at the mitochondria in youth born with HIV. Mitochondria are an organelle in cells within the body. Mitochondria are sometimes called the "batteries" of the cell. Mitochondria use sugar for fuel to make energy in the cell. This study looked at a process in the mitochondria called respiration. Researchers found that mitochondrial respiration in youth born with HIV who had insulin resistance was lower than youth born with HIV who didn't have insulin resistance. This means that their mitochondria were not working very well. Poor mitochondrial respiration may be a factor in insulin resistance in youth born with HIV. PHACS is currently researching the causes of lower mitochondrial respiration.

Another study used a measurement called the PDAY score which is used to calculate risk for health disease. This study looked at youth born with HIV. The PDAY scores adds together many different risk factors for heart disease. These include obesity, exercise, and diet. They also include smoking and cholesterol levels. A higher score means higher risk. It shows the likelihood of current damage to the blood vessels in the heart. If there is damage now, there is a higher risk for developing heart disease later in life. The study found that about half of the youth studied had high PDAY scores. This means that youth with HIV may be at higher overall risk for early damage to the heart. This puts them at higher risk for heart disease later in life.

The Metabolic WG continues to study bone health. One study looked at bone health in youth born with HIV. The study found that youth born with HIV had lower bone mineral density for their age than youth without HIV. However, youth born with HIV in this study were shorter and weighed less for their age than the youth without HIV. This means that even though their bone mineral density seemed low, it was actually normal for their body size. Researchers will continue to study bone health in youth born with HIV.

Denise talked about a study looking at vitamin D and bone mineral density in youth born with HIV. Youth with lower vitamin D levels tend to have lower total body bone mineral density. This is true for

both youth born with HIV and HIV-exposed but uninfected youth. This means that it is important for youth to get vitamin D while their bodies are developing.

Links to research summaries: https://phacsstudy.org/Our-Research/Nutrition-Growth-and-Metabolism

• APPROVAL OF MINUTES

The minutes from the June 22, 2017 call were approved with no changes.

• PHACS CAB EVALUATION SURVEY RESULTS

Megan talked about the survey. There were 6 responses. Topics suggested through the survey included:

- Depression;
- Site CAB updates;
- Stigma;
- HIV and health literacy.

• PHACS CAB NEWSLETTER, JULY 2017 EDITION

Stephanie talked about the PHACS CAB Newsletter, July 2017 edition. The CAB chose a theme of "Endurance, Strength, and Survival." The newsletter is currently undergoing review and will be released by August 7, 2017. Stephanie thanked the CAB for their submissions to the newsletter.

• PHACS FALL 2017 CAB RETREAT AND NETWORK MEETING

Megan talked about the Fall 2017 CAB Retreat and Network Meeting. The meeting and retreat will be held at the Hilton Washington, DC/Rockville in Rockville, Maryland. The Network Meeting is scheduled for September 25-26, 2017. The CAB Retreat will take place on September 27, 2017. CAB members will arrive on September 24, 2017. Westat Travel representatives will call CAB attendees to arrange flights. **Megan** will review all meeting details during the August CAB call.

Megan invited CAB members to attend the next Health Education and Communication Committee (HECC) CAB Subcommittee call to help plan for the CAB Retreat. The call is scheduled for Thursday, August 3rd at 12:00 PM EST.

NOTE: The next CAB call will be on Thursday, August 24, 2017 at 12:00 pm EST.