

## 2 FSU profs partner in post-Michael child-birth study

### Study

#### Byron Dobson

Tallahassee Democrat USA TODAY NETWORK – FLORIDA

The impact of **Hurricane Michael** on child births in the Florida Panhandle will be studied by two Florida State professors and led by a team from Tulane University.

FSU College of Medicine Chair of Behavioral Sciences and Social Medicine Dr. Les **Beitsch** and Associate Professor of Geography Christopher Uejio will partner with researchers from Tulane University to examine how infrastructure damage and exposure to carbon monoxide may have increased stress and trauma and decreased access to health care.

The study is being underwritten by the National Institutes of Health, which awarded more than \$400,000 to the project.

The team will be led by Tulane University researchers Emily Harville, the principal investigator, and Maureen Lichtveld.

The study will compare birth outcomes in areas exposed to such conditions as carbon monoxide emissions and to toxic algae pollutants to areas not affected by the storm.

#### Beitsch

#### Uejio

“Disasters like **Hurricane Michael** have severe and long-lasting impacts on our communities,” Uejio said. “The resulting stress, trauma and decreased access to maternal health care may increase the risk of having a low birth weight baby. In turn, the infant’s risk of developing multiple chronic diseases increases health care costs.”

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**Hurricane Michael** hit landfall on Oct. 10, 2018, rapidly increasing from a Category 2 storm but later upgraded to a Category 5, crippling transportation, ripping roofs off buildings and bringing to a halt emergency medical access.

The study will examine what impact environmental dangers had on births, including exposure to carbon monoxide from long-term use of generators.

Carbon monoxide poisoning during pregnancy has been associated with fetal demise, severe neurological complications, intrauterine growth retardation, preterm delivery and birth defects, the release said.

“If our research finds that not having access

to health care following a disaster has the greatest impact on birth outcomes, then the key focus will be getting health care facilities back up and running after disasters,” Harville said. “If we find a big effect with carbon monoxide, then we’ll need to think more about generator safety and people knowing about the symptoms of poisoning.”

The disaster also may have increased opportunities for exposure to harmful algae blooms that release neurotoxins and respiratory and digestive irritants. In long power outages, people tend to open windows to stay cool, allowing airborne pollutants to enter their homes.

“We are unaware of previous studies addressing harmful algae blooms or carbon monoxide poisoning in pregnant women after a disaster,” Uejio said.

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**Kim Nobles, a Port St. Joe homeowner, stands on a sheet of plywood where her floor used to be. The home was gutted due to water damage from Hurricane Michael in October.** ALICIA DEVINE/TALLAHASSEE DEMOCRAT