Hurricane Michael caused major destruction in the Florida panhandle. (Photo by Carolyn Scofield)
following it, mental health impacts after the disaster, damage to housing including mold, the presence of carbon monoxide in homes from using generator power and the impact of harmful algal bloom, more commonly known as red tide in waters churned up by Michael’s 155 mph winds.

“If our research finds that not having access to health care following a disaster has the greatest impact on birth outcomes, then the key thing is going to be to get the healthcare facilities back up and running,” says Harville. “If we find a big effect with carbon monoxide, then we’re going to need to be thinking about generator safety and that people know the symptoms of poisoning.”

The team will look at outcomes including preterm birth and low birthweight. They’re mapping exposure patterns based on ecological sampling and satellite-based estimates of red tide, carbon monoxide surveillance data and poison control centers data. Researchers will also use hurricane damage reports such as state of the art satellite measurements, disaster declarations, power outage data, health facility closing notifications, and physical impact measurements of storm surge inundation, wind speed and land cover change.

“This is about making research work for communities,” says Lichtveld. “It’s important to develop this knowledge so we know how to prepare when the next disaster hits.”