

## Metabolic Health Calculator

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According to *The State of Obesity*, 35.7% of adults in Alabama were obese in 2016. Alabama is ranked 3rd amongst all the States in the United States (*Alabama State Obesity Data*). Our main focus is on the Jefferson County area and Birmingham in particular. In 2010, *The Centers for Disease Control and Prevention* did a research study which stated that: “In Jefferson County, which includes Birmingham, the state's largest city, approximately 66% of adults are either overweight or obese. Additionally, 22.1% of third graders in the county are overweight or obese (*Alabama State Obesity Data*).”

We met with Professor Gower from the UAB Department of Nutrition. She explained how many factors can affect not only a person's observable health, but also their internal metabolic health. She expressed a need for a system to aid individuals at risk of metabolic syndrome and what their next plan of action should be. We also have taken the time to meet with Rachel Lomax, a UAB nutrition counselor. She told us she would love to have a system that could help the individual students she counsels identify if they were at risk of metabolic syndrome or related conditions.

Our mission with the UAB Grand Challenge is to reduce risk habits that lead to obesity and diabetes. This will be accomplished through the utilization of a simple survey calculator which will which will be created to aid communities around Alabama and eventually the United States. The survey we plan to create will educate and inform individuals where they stand in terms of

metabolic health. We believe an individual's responses to five areas of concentration (listed below) will allow for an accurate calculation as to their metabolic health.

- Family History
- Diet
- Economic standing
- Body Geometry
- Age

The demand for a simple and inexpensive tool that measures metabolic health and has not met yet. With support from the Grand Challenge, we think we can have a true impact on Birmingham and the surrounding communities.

References:

Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health. 500 Cities Project Data [online]. 2016 [accessed Apr 21, 2018]. URL: <https://www.cdc.gov/500cities>.

“Alabama.” *Alabama State Obesity Data, Rates and Trends - The State of Obesity* [online]. 2016 [accessed Apr 21, 2018]. URL: <https://stateofobesity.org/states/al>

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