

UAB Grand Challenge: Improve the Overall Health of the Citizens of Birmingham
ShapeBham

In 2013, the city of Birmingham adopted its first comprehensive plan since 1961. The plan is extensive, long range and takes a holistic approach to what the City should strive to be. After developing the plan, City leaders discovered that models for including social determinants of health had been excluded. Realizing that the environment (built, social, landscape, organizational, etc.) and health go hand in hand, Birmingham looked for metrics to viably and reliably measure impacts of social determinants of health on the built environment. The City recognized that this knowledge would be significant when defining health concerns in the context of other important factors when faced with policy, budget or zoning questions and their impacts on various cohorts within the City. Within this framework, a group of four individuals two of whom work at UAB (Dr. Nyesha Black, and David Hooks) applied for a Pew Charitable Trust/Robert Wood Johnson grant to develop a health impact analysis for the City. The grant was awarded and ShapeBham was born.

In analyzing the health impact of the City's 2013 comprehensive plan's outcomes, ShapeBham established a *uniform* measuring tool or "report card" for assessing health and quality of life, as they relate to the impact of the built environment on the residents of Birmingham. By looking at health from a broad perspective considering social, economic, and environmental influences and by bringing community members, business interests and other stakeholders together to help build consensus ShapeBham was able to develop 12 domains of importance with 39 ranked indicators for measurement purposes. These 12 domains and attendant indicators are:

1. **Demographic and Contextual Measures:** Concentrated Poverty • Income Inequality • Life Expectancy • Park Quality • Population • Racial & Ethnic Diversity
2. **Blight:** Abandoned Properties • Tax Delinquent Properties • Visual Property Nuisances
3. **Economic Health Domain:** Business Retention • Local Business Vitality • Payday Loans
4. **Educational Opportunities Domain:** Adult Educational Attainment • High School Graduation Rate • Preschool Enrollment • Reading Proficiency • Readiness Scores
5. **Employment Opportunities Domain:** Employment Rates • Long-Term Unemployment • Public Assisted Households • Travel Time to Work
6. **Environmental Hazards Domain:** Proximity to Brownfield Sites • Proximity to Superfund Sites • Residential Proximity to Traffic • School Proximity to Traffic • Toxic Releases from Facilities
7. **Health Systems & Public Health Domain:** Chronic School Absence • Low Birth Weight • Motor Vehicle Collisions • Pedestrian & Bicycle Injuries by Motor Vehicles • Preventable Hospitalizations • Public Health Nuisances • Violent Crime
8. **Housing Domain:** Age of Housing • Blood Lead Levels in Children • Excessive Housing Cost Burden • Vacancy Rates
9. **Natural Areas Domain:** Access to Parks & Open Space • Tree Cover

- 10. **Neighborhood Characteristics Domain:** Food Desert • Offsite Alcohol Outlets • Walkability • Land Use Mix
- 11. **Social Cohesion Domain:** Residential Mobility • Voter Participation
- 12. **Transportation Domain:** Commute Mode Share • Household Transportation Costs • Pedestrian Connectivity • Transit Accessibility

The list of domains provides a framework from which UAB's Grand Challenge can develop a university-wide strategy to introduce and create programs that will move the needle on quality of health measurements within the indicators and improve the overall health and well-being of the City of Birmingham and its residents. ShapeBham would serve two unique purposes. One, it would allow UAB to utilize all 12 schools and all their departments, every Center and The Health System to participate in developing successful programs and providing expertise to improve the indicators in each of the 12 Domains. Second, it would jump start the Grand Challenge. With ShapeBham, partnerships are already in place with the Mayor of Birmingham, the City Planning Department, the Regional Planning Commission of Greater Birmingham, United Way and the Jefferson County Health Department. ShapeBham has been included in the City's long range plans. Additionally, the neighborhood associations and several community service organizations are vested in the ShapeBham program providing foundational trust and support from the communities most impacted by the Challenge.

As the largest city in the state of Alabama, Birmingham has a population of over 200,000 with an underrepresented population of over 70%, comprised of African American, Hispanic and Asian individuals (US Census data 2016). Economic growth and development in the City is improving, underscoring the urgency of establishing programs and policies aimed toward the complete health of the City and its residents. Through the Grand Challenge, Birmingham and UAB can serve as a catalyst throughout the state and ultimately as a sentinel of change across the country.

One essential cornerstone to the ultimate success of the City of Birmingham is facilitating collaborative partnerships and promoting smart, healthy growth. UAB has the breadth and reach to provide more than a partnership; we can support research, implementation, outreach, education, creativity and change. Through the Grand Challenge the University can take the ShapeBham program and quickly and efficiently impact change that will foster innovation and creativity across the state and potentially the nation.

Primary Contact:

David Hooks, Director of Innovation, UAB SOPH Edge of Chaos

dhooks@uab.edu

205-934-7762

List of Partners

Currently Committed External Partners for ShapeBham*:

City of Birmingham
Mayor's Office
City Council
Planning Department
Regional Planning Commission of Greater Birmingham
UAB School of Public Health
Jefferson County Public Health Department
Jefferson County
JCCEO
United Way of Central Alabama
AARP
Bold Goals
Birmingham Housing Authority
Birmingham Board of Education
Birmingham Education Foundation
Birmingham Jefferson Transit Authority
YWCA
REV Birmingham
Woodlawn Foundation
State of Alabama
Alabama Public Health Department
Appalachian Regional Commission
Alabama Power
Alagasco
Robert Wood Johnson Foundation
Pew Charitable Trust

Potential Internal Partners:

UAB: All 12 Schools and attendant Departments (academic and administrative)
UAB: Almost all of the 60 plus Centers
The UAB Health System

Potential Quasi Internal/External Partners:

Innovation Depot
Southern Research Institute
VIVA Health Insurance
Alabama Public Health Institute

*Due to their prior commitment to the ShapeBham initiative the City of Birmingham and its current partners would welcome a partnership with UAB to provide deliverables utilizing the framework of the Grand Challenge.