



FOR IMMEDIATE RELEASE

UM Data Specialists to Design Leading-Edge Evidence Map Depicting Impact of Social Need Interventions on Health Outcomes

(Coral Gables, FL July 15, 2020) Data specialists at IDSC are collaborating with national consulting firm [MDB, Inc.](#) in designing and developing an interactive evidence map displaying the impact of social needs interventions on health outcomes. “Our multidisciplinary UM team will effectively translate scientific findings and data into a visual evidence map to help physicians, researchers, and health insurance systems see patterns that otherwise would not be evident,” said Alberto Cairo, PhD, IDSC Visualization, Data Communication & Information Design Director.

Michael D. Baker, founder of MDB, Inc., leads the collaborative team in the project: “Social Needs Interventions and Health Outcomes: An Evidence Map” for the Patient-Centered Outcomes Research Institute ([PCORI](#)). A Washington DC nonprofit launched in 2010, PCORI funds studies that can help patients and those who care for them make better-informed healthcare choices. “Data visualization in this evidence map will empower communities, health systems, purchasers, payers, and other stakeholders by depicting which interventions work for various populations, opening the door to improved health outcomes,” said Baker, whose firm works with the U.S. Department of Health and Human Services ([HHS](#)) and other Federal agencies.

Last fall, Baker reached out to UM’s professionals at IDSC and the School of Communication to prepare a proposal for the leading-edge national project, and he received approval in May. “PCORI will provide the research data on social needs interventions, and we will bring that information to life,” said Baker. “Our team blends UM faculty, graphic designers, web developers, and user experience experts to deliver a clear and user-friendly interactive evidence map to PCORI.”

Baker said a group of researchers will conduct a thorough search of the literature on social needs interventions and will prepare their findings for visualization. Then, Dr. Cairo will guide the design, development, and testing of the interactive

evidence map, which will consist of several data visualizations. “This involves visually mapping quantities using properties such as height, length, position, and color to bring out patterns and relationships within the data,” said Dr. Cairo. “Effective design visualization reflects both the purpose of the tool and its users, and the graphic elements need to convey the information in an accurate, understandable manner.”

Other UM professionals include Christopher Mader, Director of IDSC’s Software Engineering team, who will assist with the design, development, and programming of the evidence map. Lenny Martinez, a designer and engineer at the School of Communication, will be the main developer, and Barbara Millet, PhD, Director of the UM User Experience (UX) Lab and Assistant Professor of Interactive Media at the School of Communication, will guide the user testing.

“The goal of an evidence map is to facilitate evidence-informed decision making for clinicians and their patients,” said Baker. “We are confident this important initiative will achieve that goal.”

About the University of Miami Institute for Data Science and Computing

The University of Miami is one of the largest private academic and research institutions in the southeastern United States. The University’s mission is to transform lives through education, research, innovation and service. Drawing on the multidisciplinary resources of the University of Miami, the Miami Institute for Data Science and Computing (IDSC) is dedicated to solving pressing societal challenges by empowering data science research, education, ethics, community engagement and commercial ventures. The institute is organized around research programs that focus on key areas of societal need, including [Atmosphere, Ocean and Earth Science](#); [Data Driven Discovery in Biological Sciences and Health Care](#); and [Urban Lab and Smart Cities](#). For more information, visit idsc.miami.edu. Follow us on Twitter [@UMIDSC](#).

About MDB, Inc.

MDB Inc., a small business, is celebrating more than two decades of service to the Federal government in science, education, and public health. The firm’s central vision is “Doing Well by Doing Good,” producing top-quality work in support of a healthier and more sustainable future. MDB, Inc. offers a range of technical, analytic, logistic, and creative services to help clients achieve their communication and program goals. MDB is based in Washington, DC, with additional offices in Research Triangle Park, NC, and Miami, FL.