

Birmingham: America's Healthcare Capital

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Healthcare leader UAB will spearhead Birmingham's establishment as America's Healthcare Capital. We will earn this status by facilitating health behaviors via a digital portal initially targeted to the under- and uninsured, a financially risky group for UAB. Health outcome metrics in UAB's backyard are suboptimal, thus limiting economic productivity. Within the Birmingham hospital referral region (HRR), almost one-third of under-65 adults cite fair/poor health or health-associated activity limitations.¹ A sizeable proportion of working-age Alabamians have lost six or more teeth to oral disease (17% vs. US average of 10%).¹ Foregoing healthcare often compounds future problems. Last year, 17% of adults in the Birmingham HRR sacrificed needed healthcare due to resources.¹ Financial burden increases at both micro and macro levels as health outcomes worsen. Only 12% of Americans have five or more chronic conditions but compose 41% of total healthcare spending.² Our goals are ambitious but achievable. If Birmingham rises to the current top-performer level, our HRR would have more than 12,000 fewer annual ER visits among Medicare recipients alone and over 189,000 more adults would have a usual source of care.¹

To establish Birmingham as America's Healthcare Capital, UAB will invest in a digital platform/system that links initiatives facilitating coverage and access for under- and uninsured Jefferson County residents. As service coverage is necessary but insufficient, this user-friendly platform ideally would eventually serve as a central point of contact and service facilitation for both patients and providers. Additionally, this platform serves as a repository for data from clients and service providers. Data analyzation can assess outcomes, improve quality, and identify service gaps. Three principles of successful innovation guide this concept: hyper-customization of service provision, digital-human connectivity,³ and data-informed practice.

Hyper-customization allows for strategic targeting within the under- and uninsured Jefferson County population. Success requires a combination of both technological and human resources. First, population analytics of frequent ER users, for example, can inform generation of a limited number (e.g., 8-10) of patient personas. Using this, a company such as HCIactive recommends health benefits and interventions specific to each profile that maximize return on investment. Claims data analysis may increase generalizability of patient profiles and inform geo-targeting. The Jefferson County indigent care fund provides a potential funding mechanism for such targeted benefits and health interventions.

Customized care should be coordinated in, but not limited to, the digital space. Competing resource needs often serve as barriers to care. Therefore, the platform can facilitate patient access to select healthcare clinics and ancillary support services that offer limited interdisciplinary services outside typical working hours. For family caregivers, patient access to select healthcare centers with limited on-site child and/or eldercare can support successful engagement with the healthcare system. Customization continues by facilitating delivery of people, services, and products via the health portal. As transportation is a key pre-requisite for access when virtual options are exhausted, public and private grants can subsidize alternative transport models to help compensate for inadequate public transit. Ride sharing services such as Uber Health specifically cater to patient transport without requiring patient smart phone ownership or app usage. Existing organizations such as Kid One Transport are key partners as well. Additionally, servicing area neighborhoods with a shuttle on specific days may provide

1. Health System Data Center [Internet]. New York City (NY): The Commonwealth Fund. c2017-[cited 2018 Apr 30]. Available from: <http://datacenter.commonwealthfund.org/scorecard/local/64/birmingham/>
2. Buttorff C, Ruder T, Bauman M. Multiple chronic conditions in the United States [Internet]. Santa Monica, CA: RAND Corporation; 2017 [cited 2018 Mar 19]. Available from: <https://www.rand.org/pubs/tools/TL221.html>
3. Toufani A. Exonomics: Identify the Next Big Thing. Presentation at the YPO Edge Global Conference; 2018 Mar 9; Singapore.
4. Food Environment Atlas [Internet]. Washington, DC: United States Department of Agriculture, Economic Research Service. [cited 2018 Apr 30]. Available from: <https://www.ers.usda.gov/data-products/food-environment-atlas/>

group patient transport. Using the portal to maximize virtual appointments, efficient service coordination, and product delivery, however, can reduce the need for physical transportation. Incorporating product delivery into the platform via Shipt, a Birmingham-based company presently capable of coordinating grocery delivery and eventual pharmacy delivery, helps further mitigate transportation woes. Grocery and pharmacy delivery are key health components as almost one-third of Jefferson County residents have low access to a store, making healthy consumption even more difficult.⁴

Digital-human connectivity is also facilitated by the health portal. Community health workers serve as physical and virtual liaisons to engage and coordinate with local influencers and leaders. Birmingham boasts well-organized neighborhoods and vibrant religious communities, both of which provide logistical ground support for social workers in terms of people and places. The aforementioned digital platform would facilitate health-related behaviors by connecting patients and healthcare workers with one another and community services. Platform functionality should allow for enrollment in selected profile-specific health benefits and intervention support, engagement in tele-health, and provision of information related to care clinics. Additionally, platform users may engage with resources that support healthy behaviors related to nutrition, smoking cessation, substance abuse, and mental health. Eventually, users could access this comprehensive, inter-disciplinary care portal to view and even schedule covered service needs. Connectivity with other established community services, such as the local childcare network Wyndy, may further facilitate healthcare access.

Data-informed practice uses big data for good health across Jefferson County. By harnessing the digital byproducts of the platform, we could assess and interpret information from patients, community providers, and health care professionals to inform data-driven decisions designed to improve access to health care and related services. Thus, health is further customized in our community. Aggregating and analyzing a large database of health-related data will require integration of systems, effectively linking records across agencies and providers. Confidentiality, privacy, and transparency are fundamental values crucial to the success of this aspect of the platform. Its design and management must convey trust, necessary for consumer participation and provider collaboration. Current models that could inform this aspect of platform development include *PatientsLikeMe* and *Our Data Helps*.

Hyper-customization, connectivity, and data-informed practice facilitate a health culture defined by community engagement and partnership. The goal is to shift default actions towards the healthier end of the spectrum. Virtually connecting engaged individuals and groups via the health portal may be a catalyst for both competition and coordination. Relatively modest financial incentives may spur various groups to compete in contests promoting improvement in key health indicators such as BMI, blood pressure, and HbA1c levels. Additionally, corporate partners such as FitBit may donate product in exchange for publicity so individual health goals can be further incentivized. The existing BCBS model of free exercise sessions may expand to include multi-generational classes in more locations.

A combination of revenue streams from public, private, and corporate citizens may complement UAB's investment to fund this endeavor initially. Sustainability depends on resultant savings in healthcare costs, local economic development, and increased productivity. Great cities are defined by their citizens. If UAB helps Birmingham take care of its people, then the people will take care of Birmingham...and UAB.

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4. Food Environment Atlas [Internet]. Washington, DC: United States Department of Agriculture, Economic Research Service. [cited 2018 Apr 30]. Available from: <https://www.ers.usda.gov/data-products/food-environment-atlas/>

List of Potential Partners

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Bethel Ensley Action Task, Inc.
Blue Cross Blue Shield
Cooper Green Mercy Health Services
FitBit
HCIactive
Intermark Group
Jefferson County Commission
Kid One Transport
Mayor Randall Woodfin's office
Representative Terri Sewell's office
Shipt
Uber Health
Wyndy

Acknowledgements

The authors of this proposal, Drs. McKenzie and Hitchcock, wish to thank the following people for their valuable input on this concept:

Mr. Bob Crutchfield, Executive Director of Innovate Birmingham
Dr. Conan Davis, Assistant Dean for Community Collaborations and Public Health, UAB School of Dentistry
Dr. Nancy Dunlap, Professor Emerita, UAB School of Medicine
Mr. Jake McKenzie, CEO of Intermark Group
Dr. David Randall, Senior Vice President of Strategy and Business Development, UAB Health System
Dr. Michelle Robinson, Interim Dean, UAB School of Dentistry
Mr. Bill Smith, CEO and Founder, Shipt

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