HEALTH SYSTEM 2.0 and Project DOC

Chronic disease burden will bankrupt our healthcare system

- Chronic disease burden is rising, estimated to cost the world $47 trillion by 2030
- In the US, nearly 1 in 2 Americans will become afflicted with one or more chronic diseases by 2030
- Today, nearly 86% of the annual US healthcare expenditure is already attributed to individuals with chronic diseases
  - Estimated $2 trillion in medical cost and $794 billion in lost productivity are due to chronic disease annually
- This burden will not only bankrupt the healthcare system, but also *compromise global competitiveness and national security*
- Current healthcare system is not designed for chronic disease care → *foundational re-design of the system is necessary*

Introducing Health System 2.0: a market-driven ecosystem model for chronic disease management

- **Health System 2.0** integrates traditional acute care capabilities with community-based, mobile-enabled chronic disease management products and services, from prevention and screening to intervention, and organizes them around the patients to provide *person-centric care, anytime, anywhere*
- It *extends care delivery beyond the walls of hospitals and clinics* to more affordable and convenient locations, enabled by new entrants and technologies (e.g., retail clinic, kiosk at work, or a mobile app on a smart phone at home)
- It allows an expanded care team (i.e. physicians, allied health professionals, trusted providers, and self) to *reduce the supply and demand mismatch for healthcare workforce* without relying solely on physicians or trained professionals
- It delivers a digital infrastructure built for extensibility and scalability, designed to facilitate market competition which *translates innovations in technology, data, and analytics into better healthcare and lower cost*.

Diabetes and Obesity Control (DOC) Program: Health System 2.0 proof point in South Texas

- Diabetes affects 29.1 million Americans today. 1 in 3 will be afflicted by 2050 according to CDC Diabetes Report Card. Costs the American healthcare system $245 billion per year, including direct (e.g. hospitalizations, ER visits) and indirect (e.g. absenteeism, disability) costs
  - 62.4 percent costs paid by government, including Medicare, Medicaid, and Tricare – the elderly, underserved and those who serve are disproportionately affected
- Texas spends over $19 billion per year in direct cost to care for its diabetes population
  - Diabetes in South Texas projected to cost $1.2 billion in direct care by 2020
- The Rio Grande Valley (RGV) is disproportionately burdened, with 30-60 percent of the population being afflicted with diabetes
  - RGV's Cameron Country is the second poorest, one of the least educated and lowest insured counties in the nation
  - 40 percent fewer physicians per 100,000 in RGV compared to rest of Texas
- DOC Program is *an implementation pilot of Health System 2.0*, focusing on diabetes control in an forgotten population with disproportionately unmet medical needs and significant economic impact for the State of Texas

DOC Program Ecosystem Stakeholders:

- **Public-private partnerships** including IBM, AT&T and PwC as the anchors of a technology core, to design, develop, and deploy a digital infrastructure akin **to a health information highway** that enables Health System 2.0
- **New entrants**, including local businesses and national retail chains like Walmart, to access the last miles (e.g. the consumers and patients) for education, disease prevention and screenings, as well as basic primary care services
- **RGV ecosystem participants** include the healthcare facilities from primary to tertiary care centers, as well as community-based programs for education, outreach and support through community health workers
- **Risk bearing entities**, including public and private payers, as well as self-insured employers, will inform development and design of the pilot demonstration projects to facilitate adoption of proven healthcare delivery capabilities and associated share of savings across the ecosystem. The inclusion of risk-bearing entities is critical to Health System 2.0 scale and sustainability

DOC Program Timeline:

- Phase 0: Developed foundational technology platforms and public-private partnerships (2012-2015)
- Phase 1: Assess, design and feasibility demonstration of leveraging foundation platforms for DOC Program (2015)
- Phase 2: Develop, test and implement a prototype of Health System 2.0 in lower RGV (2016)

  *** Successful execution of DOC Program Phase 2 is proof Health System 2.0 as a viable market-driven solution to the clear and present challenge of healthcare in America ***

- Phase 3 and beyond: Demonstrate and capture value (e.g. improved health outcome and reduced cost) of Health System 2.0; develop sustainability model with risk bearing entities for expansion and scale to other therapeutic areas and regions.