Why Should This Be Important to You?

• AMCs constitute a major portion of the country’s biomedical research pipeline and many are major innovation hubs

• We train your future providers

• Many of our strategies and tactics are industry agnostic
What are the Challenges

• Economic model: healthcare margins support research and education
• Substantial margin compression
• Unpredictable shifts in the reimbursement model
Success Strategies

• Focus: Singular Mission to Improve Health

• Focus: All strategies, include research and education, ultimately focused on leveraging innovation to improve health outcomes

• Focus: Lead, don’t follow, in value-based healthcare

• Invest in analytics, and most importantly, people who can leverage analytics to improve outcomes

• Focus: Partnerships

• Focus: Creation of an Innovation Ecosystem
What is an Academic Medical Center?

• Medical School that grants the M.D. degree
• At least one other School, e.g. Graduate Biomedical Science (Ph.D), Public Health, Nursing, etc.
• Substantial, federally funded research programs
• Affiliated or owned healthcare delivery system
Wake Forest Baptist Medical Center

- Wake Forest School of Medicine
  - 480 medical students; >600 residents
  - Top 10 PA and CRNA programs
  - Cutting-edge biomedical research
- Graduate School for Biomedical Sciences
- Wake Forest Baptist Health
  - Fully integrated delivery system
- Wake Forest Innovations & WF Innovation Quarter
- >$3B economic impact in Forsyth County alone
The Historical Mission of an AMC

• The “Tripartite” Mission
  • Research
  • Education
  • Patient Care
Wake Forest Baptist Mission

• Wake Forest Baptist Medical Center's [single] mission is to **improve** the **health** of our region, state and nation by:

  • Generating and translating knowledge to prevent, diagnose and treat disease.

  • Training leaders in health care and biomedical science.

  • Serving as the premier health system in our region, with specific centers of excellence recognized as national and international care destinations.
Integrated tripartite mission

17 Services lines were deployed in the past 18 months
Specific WFMBC Strategies

• Fully Integrate Leadership and Governance
• Invest in Population Health Management
• Apply Public Health Sciences Expertise
• Focus the Research Portfolio
• Invest in Data Analytics
• Create an Ecosystem for Innovation and Commercialization
An important and complicated journey…

Fee for Service to Value-Based Care

Old System (World 1)
- Fee for service model
- Patients “discharged”
- Disease management focus
- Addressing sickness
- Measuring mortality/harm

New System (World 2)
- Value-based reimbursement model
- Patients “transitioned”
- Care coordination and navigation
- Addressing health
- Measuring risk of harm

We are deploying a variety of resources to lead on this journey…
The Shift From Volume (fee-for-service) to Value (outcome/cost)

The usual discussion is about how challenging this journey will be for AMCs

We believe innovative AMCs with non-tradition business models can be leaders in value-based care.
Major Bet in Population Health Management:

CHESS is a health care services company that **empowers physicians and health systems** to make the transition to **value-based medicine**, a model where they are **financially rewarded** for improving the **quality** of care and reducing the **cost** of care they deliver to **patients**.
CHESS: We bring proven solutions to enable the health care delivery system to successful transition to value-based care models.

- Develop and deliver **enhanced models of care** that create a high-value, patient-centered system.
- Support care models with **advanced analytics** to drive change and measure success.
- Negotiate **payer contracts** that reward medical groups for making the move to value-based care.
- Create a **practice environment** for physicians that honors the work that they do and brings the joy back to practicing medicine.

Wake Forest Baptist Medical Center
CHESS Success Story:
Client #1 Cornerstone achieves high quality results.

Cornerstone has the highest quality scores of North Carolina ACOs

94%

Of 214 ACOs nationally, Cornerstone was ranked 6th
Results:
CHESS is continuing to see positive value-based contract results.

Cumulative Value-Based Payments

- 2010
- 2011
- 2012
- 2013
- 2014
- 2015

Cumulative Revenue Collected
Highlights regarding WF SOM Division of Public Health Sciences

- **WF SOM Division of Public Health Sciences**
  - Top 5 in the country and significant asset as WFBMC realigns for Population Management

- **250 total employees**
  - 55 primary faculty members, 24 PhD Biostatisticians, 14 epidemiologists, 18 social scientists and health policy, larger group are analysts (programmers and masters level biostatisticians)

- Division has served as coordinating center for numerous large multisite studies with
  - Examples - Look AHEAD, ACCORD, SPRINT, ARIC, MESA, LIFE, and WHIMS
Focused Research Strategic Priorities

80% of Research spend focuses on domains affecting large populations

- **Cancer**
  - Precision oncology

- **Neurosciences/Brain**
  - Substance abuse and addiction
  - Pain

- **Regenerative Medicine**
  - Restorative Medicine

- **Aging/Alzheimer’s Disease**
  - Alzheimer’s disease and dementia
  - Healthy aging

- **Diabetes/Obesity/Metabolism**
  - Precision medicine of diabetes and obesity

- **Cardiovascular Disease**
  - Cardiovascular disease prevention
  - Novel approaches to the prediction, prevention and treatment of heart failure
Clinical Trials-New Thinking

• Outcomes improved simply by participation in a trial
  • More active monitoring: visits and testing
  • Funded with other people’s money
• Patient and physician satisfaction enhanced
Wake Cloud: An Enterprise Hybrid Cloud Solution
Greater Agility, Leverage Existing Skills & Process
Patient-Centric/Care Coordination Focus

Data Transformation and Normalization

Raw Data
- Claims
- Clinical
- Wellness
- Satisfaction

HL7, CCD, EDI, PHR, Batch, Web Services

De-identified
Client Opt In/Out

Structured Data
Longitudinal Record
Analytics

Applications
- Enhancing knowledge translation and the adoption of evidence-based practice
- Identify
- Predict
- Prevent
- Intervene
- Measure

Personalized Health Plan

Advanced Analytics

Research (Evidence-Based Medicine)

People
- Clinic
- Hospital

Device
- HIE

Payer

Wake Forest Baptist Medical Center

Internal Use Only – Subject to Change
Specific examples of the impact of analytics on improving outcomes

• Predictive analytics to focus resources
  ▪ Readmissions
  ▪ Redesign of care in CHESS
  ▪ Place-based strategies for vulnerable patients

• Tumor genomics
  ▪ Tumor DNA sequencing and associated analytics impacted therapy in 48% of 650 patients to date: value-based care
Wake Forest Innovation Quarter
Research, Business, Education
Biomedicine, Information Technology, Materials
Wake Forest Innovations

• The translation of research into products and services that improve health and fuel economic development in the region

• Provide services, expertise and facilities to corporate R&D

• Two technology development investment funds:
  • General biomedical pipeline—Pappas Fund
  • Healthcare IT applications—Dioko Ventures
Dioko Ventures

- WFBMC has taken a leadership position with Dioko Ventures, an early stage healthcare IT and services fund, that will make capital available to promising young companies.
- Formed in partnership with Clayton Associates, an experienced healthcare investor in Nashville, TN.
- An example of the types of partnerships emerging between AMCs and venture firms to create novel healthcare solutions.
Success Strategies

• Focus: Singular Mission to Improve Health

• Focus: All strategies, include research and education, ultimately focused on leveraging innovation to improve health outcomes

• Focus: Lead, don’t follow, in value-based healthcare

• Invest in analytics, and most importantly, people who can leverage analytics to improve outcomes

• Focus: Partnerships

• Focus: Creation of an Innovation Ecosystem