

BIG DATA IN HEALTHCARE

Health
Sector
Advisory
Council

November 9
2018

HSAC
Health Sector
Advisory Council

**DUKE
FUQUA**
SCHOOL OF BUSINESS

BIG DATA IN HEALTHCARE

Health Sector Advisory Council

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Friday, November 9, 2018

**The Fuqua School of Business—Faculty Hall
100 Fuqua Drive, Durham, NC 27708**

8:00a Light Breakfast

8:30a Introduction and Discussion

What does “big data” mean for your organization??

- David Ridley, PhD
Faculty Director, Health Sector Management
The Fuqua School of Business, Duke University

9:00a Overview of the Sector

- Yogin Patel, MD, MBA
President ApolloMD

9:30a Business and Policy

- Mark McClellan, MD, PhD
Director Duke-Margolis Center for Health Policy

10:00a Break

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10:15a **Data for Use in the Life Sciences and by Researchers**

- Amy Abernethy, MD, PhD
Chief Medical Officer
Flatiron Health

10:45a **Data Use by Manufacturers**

- Kenneth Park, MD
Vice President of Offering Development in Real World and Analytic Solutions IQVIA

11:15a **Data Use by Payers**

- Aaron McKethan, PhD
Chief Data Officer
NC Department of Health & Human Services

11:45a **Lunch**

12:45p **Educating Leaders**

- Preyas Desai, PhD
Senior Associate Dean for Digital Education
The Fuqua School of Business, Duke University

1:30p **Wrap Up**

- David Ridley, PhD

2:00p **Adjourn**

Speakers

Amy Abernethy, MD, PhD, serves as chief medical officer, chief scientific officer and senior vice president, oncology, where she leads the research oncology, clinical operations and data science teams, and contributes to the strategic vision of Flatiron Health.

Before joining Flatiron, Amy was professor of medicine at Duke University School of Medicine, and ran the Center for Learning Health Care in the Duke Clinical Research Institute and Duke Cancer Care Research Program in the Duke Cancer Institute. For more than a decade, she has pioneered the development of technology platforms to spur novel advancements in cancer care, including the development of systems by which aggregated clinical data can support personalized medicine, outcomes research, cancer care quality monitoring, and scientific discovery.

With over 400 peer-reviewed publications, Amy is an internationally recognized expert in clinical trials, cancer outcomes research, health policy, health services research, patient reported outcomes, clinical informatics and patient-centered care. She maintains a close affiliation with Duke, and is a member of the National Academy of Medicine's National Cancer Policy Forum, past president of the American Academy of Hospice & Palliative Medicine, recent member of the Board of Directors for the Personalized Medicine Coalition, and recent leader within several federally-funded research networks. She also serves on the Board of Directors for athenahealth.

Amy received her MD at Duke University, where she also did her internal medicine residency, served as chief resident and completed her hematology/oncology fellowship. She has her PhD from Flinders University in Australia, focused on evidence-based medicine and clinical informatics, and her Bachelor's degree from the University of Pennsylvania.

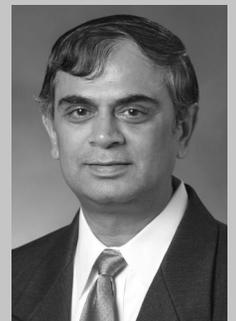
Preyas Desai is the Spencer R. Hassell Professor of Business Administration and the Senior Associate Dean for Digital Education at the Fuqua School of Business, Duke University. Preyas Desai's research covers a wide range of topics in marketing strategy, distribution channels, and marketing of durable products.

His research analyzes strategic interactions such as those among competing firms, and among firms partnering within a distribution channel. His articles on these topics have appeared in top-tier academic journals such as Marketing Science, Management Science, Journal of Marketing, Journal of Marketing Research, and Quantitative Marketing and Economics.

He has served as a departmental editor for Management Science and as the editor-in-chief of Marketing Science.



Abernethy



Desai



McClellan

Mark McClellan, MD, PhD, is the Robert J. Margolis Professor of Business, Medicine, and Policy, and Director of the Margolis Center for Health Policy at Duke University. He is a physician-economist who focuses on quality and value in health care including payment reform, real-world evidence and more effective drug and device innovation. He is former administrator of the Centers for Medicare & Medicaid Services and former commissioner of the U.S. Food and Drug Administration, where he developed and implemented major reforms in health policy.

He was previously Senior Fellow at the Brookings Institution and a faculty member at Stanford University.



McKethan

Aaron McKethan is an Assistant Professor in the Duke School of Medicine Department of Population Health Sciences and a Senior Policy Fellow in the Duke-Margolis Center for Health Policy.

He recently served as the Chief Data Officer for the North Carolina Department of Health and Human Services. His career in government, academia and the private sector has focused on health care delivery innovation, data and information technology.

Before coming to Duke and NCDHHS, he co-founded RxAnte, a predictive analytics and technology company focusing on improving population health (acquired in 2016). Previously, he directed the Beacon Communities program - the nation's largest health IT cooperative agreement program - at the Office of the National Coordinator for Health IT at the U.S. Department of Health and Human Services.

He also previously served as Research Director in health policy at the Brookings Institution, where he led projects focused on provider payment reform, health care quality and state health policy. Dr. McKethan's academic work has appeared in the Journal of the American Medical Association, the New England Journal of Medicine, and Health Affairs.



Park

Kenneth Park, MD, joined IQVIA in 2015 and is Vice President of Offering Development in Real World and Analytic Solutions. He is responsible for bringing innovative new offerings from product concept through implementation to early commercialization as well as managing the M&A portfolio for IQVIA's Real World and Analytic Solutions. His portfolio incorporates technologies including big data, machine learning, and genomics.

Dr. Park has over 10 years working with Big Data in healthcare. Prior to joining IQVIA, he was a Vice President at Anthem where he led the data operations at their subsidiary HealthCore, managed Anthem's All Payer Claims Database (APCD) submissions, and led their clinical data strategy. At Anthem, he also designed and launched a next-generation Health Information Exchange in California.

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Kenneth Park led the pharmaceutical industry's initial engagements on Real World Evidence and has designed and launched new business models utilizing Big Data for payers and providers.

Dr. Park has a BA from Harvard College and an MD from University of Southern California Keck School of Medicine.

Yogin Patel, MD, MBA, is a physician executive. He is President of ApolloMD, a private multidisciplinary provider group with expertise in Emergency Medicine, Hospitalist Medicine, Anesthesia, and Radiology services. In addition to his leadership role, he is a practicing Emergency Physician serving communities throughout the Carolinas. Dr. Patel holds three degrees from Duke University: BS, MBA, and MD. He completed his residency in Emergency Medicine at Oregon Health Sciences University where he was inducted into AOA and served as Chief Resident in Emergency Medicine. He is active in the American College of Emergency Physicians.

David Ridley, PhD is the Dr. and Mrs. Frank A. Riddick Associate Professor of the Practice of Business and Economics. He is also the Faculty Director of the Health Sector Management program at Duke University's Fuqua School of Business.

In his research, Dr. Ridley examines innovation, location, and pricing, especially in health care. To encourage innovation in medicines for neglected diseases, Dr. Ridley, with Jeffrey Moe and Henry Grabowski, proposed a priority review voucher prize. The prize became law in 2007. Dr. Ridley received a doctorate in economics from Duke University in 2001.



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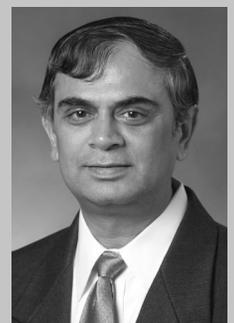
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Patel



Ridley



Member Roster

Cytokinetics

Robert I. Blum

President and CEO

Eli Lilly and Company

Paula Garrett

Senior Director, Alzheimer's Global Marketing

HCR ManorCare

Ruth Hancock

Director, Palliative and Chronic Care

Amgen

Shaun Horrigan

Director, Value Marketing

Laboratory Corporation of America

Tom Kaminski

Senior Vice President, Corporate Strategy

HCA Healthcare

Jim Kinser

Assistant Vice President, Bundled Payments

Amgen

Dan Sullivan

Executive Business Director, US Value & Access

Director, Payer Segments

Laboratory Corporation of America

Jonathan Meltzer

Vice President

U.S. Congress

David Price

Representative

Heartland Home Health & Hospice, HCR ManorCare

Mike Reed

Vice President and General Manager

Medtronic

Jeff Reiersen

Global Marketing, Strategy, & Business Dev Leader

Beacon Laboratory Benefit Solutions, Inc.

Rina Shah

Vice President, Clinical Programs

Crescendo Bioscience

Bernie Tobin

President

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Duke University Divinity School*

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*Faculty Director, Health Sector Management
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Duke University Sanford School of Public Policy*

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*Professor of Business, Public Policy and
Medicine
The Fuqua School of Business*

Krishna Udayakumar, MD, MBA

*Head of Global Innovation
Duke Medicine*

Spring 2018 Meeting: Health Care Consumerism

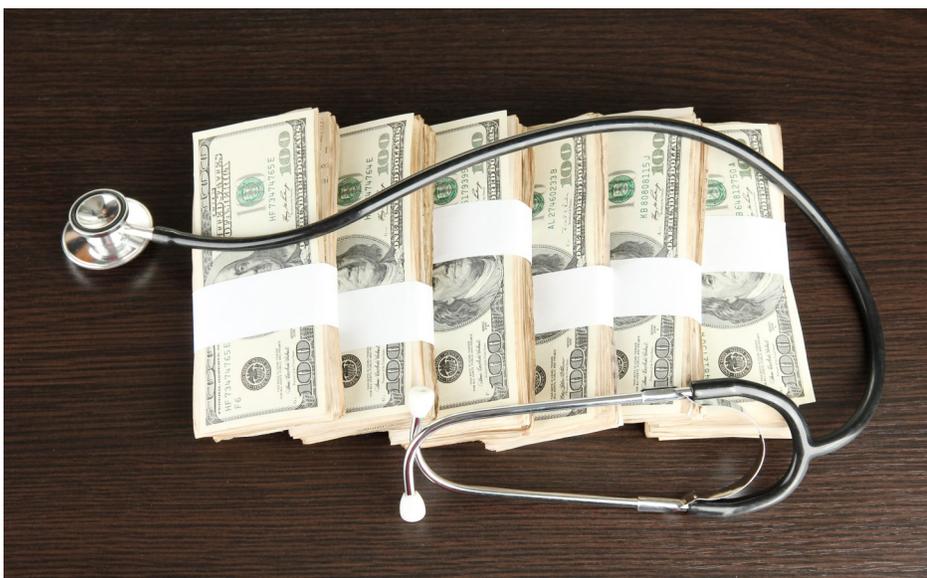
"Value-based care" was the topic of discussion at the Spring 2018 meeting of the Duke Health Sector Advisory Council. This was the fifteenth meeting of the Council. We began the meeting by thanking Jeff Moe of Duke for hosting the first meeting in 2003.

At the beginning of the meeting, council members discussed what value-based care meant for their organizations. Ruth Hancock of HCR ManorCare led off the discussion by talking about how quality metrics and bearing risk will affect her organization. She also told the story of a patient needing advocacy, raising the question of how we can improve the interaction between patients and

providers. Other representatives of payers, providers, and manufacturers spoke about the challenge of measuring quality, and the need for timely information about performance.

Rob Saunders of the Duke-Margolis Health Policy Center presented his research on value-based care, including results he and co-authors published in Health Affairs. He also updated members on events in Washington, including flexibility from the federal government on allowing Medicare Advantage plans to spend money to address the social determinants of health.

Peter Juhn of Amgen provided examples of value-based contracts, including Amgen's contract with Harvard Pilgrim for Amgen's lipid-lowering medication. Under the contracts, if patients have a cardiac event in the first 6 months after initiating therapy, then Amgen pays a refund.



Dev Sangvai, who runs Duke's Accountable Care Organization, told of challenges, including low benchmarks and misalignment of incentives. Both Dr. Sangvai and others at the meeting spoke of trial and error in improving systems. He also shared a paper "Getting Doers not to Do" and described a working paper "Second doc hero, first doc zero."

Krishna Udayakumar of Duke shared international comparisons on quality and cost, showing examples of success in India and Germany, and challenged participants to think bigger about improving US health care.

Health Sector Management

The health sector is increasingly intricate, dynamic and far-reaching – a global network of business, government, and non-profit entities that impacts people and economies like no other. The demand for and development of new healthcare products and services calls for leaders with both business acumen and insight into the industry's complexities. Equally critical is the need for creative new approaches to improve patient outcomes, access to care and cost management strategies.



Health Sector Management (HSM) at The Fuqua School of Business leverages Duke University's longstanding leadership in education, research, and clinical care to develop the leaders who will drive and innovate the healthcare industry. HSM layers the interdisciplinary study of the global health sector onto Fuqua's world-class business management curriculum, providing rich, holistic and lasting learning experiences inside and outside the classroom.

HSM students work closely with faculty and industry leaders to explore and identify answers to healthcare's most fundamental and emerging issues, among them:

- Health Sector Economics
- Biopharmaceutical and Medical Device Strategy
- Health Systems Management
- Commercialization of Disruptive Innovations
- Healthcare Law and Policy
- Financial Management of Healthcare

With their understanding of the industry, highly applicable skills, and professional network, HSM graduates join noted public and private organizations to become industry leaders making a difference in healthcare.



"Healthcare has a major impact on our well being and budgets. Furthermore, healthcare technology and regulation are always changing. In Duke's HSM program, we help you stay ahead of trends and provide fundamental tools of economics and strategy. With this knowledge you'll have opportunities to make important contributions in business and society."

David Ridley, PhD
Faculty Director, Health Sector Management
Dr. and Mrs. Frank A. Riddick Professor of the Practice

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The HSM Certificate is offered as part of the Daytime MBA, Weekend Executive MBA, and Global Executive MBA Programs.

HSM Students are exposed to a multitude of extra- and co-curricular events and programming that serve to augment their coursework and subsequently their knowledge within the healthcare industry.

HSM
Duke Health Sector Management

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HSM Daytime Curriculum

Fuqua daytime students must complete six courses to earn the HSM certificate:

- Three required HSM courses.
- Three electives (minimum 9 credits).



Required Courses (Must complete all three)

Health Institutions, Systems, and Policy (HSM Bootcamp) - HLTHMGMT 710:

A detailed overview of the healthcare system's segments and stakeholders; analyzes the industry's evolution and on-going changes within the sector during the next century.

Healthcare Markets - HLTHMGMT 711:

Economics and strategy of the challenges and opportunities faced by product manufacturers, insurers, healthcare providers, and hospitals.

Seminars in Healthcare - HLTHMGMT 705 and 706:

Duke Faculty and external industry experts explore the most current healthcare issues.

Elective Courses

More than twenty-five elective courses, including:

- Medical Device Strategy
- Biotech and Pharma Strategy
- Duke University Hospital Project Course
- Health Policy & Management (Week in DC)
- Fuqua Client Consulting Practicum
- Provider Strategy
- Health Law and Policy
- Health Analytics & Innovation



HSM EMBA Curriculum

Executive MBA students complete four required courses and two electives.

EMBA courses are designed and delivered specifically for working professionals.



Required Courses (Must complete all four)

Health Institutions, Systems, and Policy (HSM Bootcamp) - HLTHMGMT 710:

See description above.

Healthcare Markets - HLTHMGMT 711:

See description above.

Seminars in Healthcare - HLTHMGMT 705 - 709:

See description above.

HSM Project Course - HLTHMGMT 897:

Capstone project that applies MBA skills and training to address a health sector business opportunity.

Elective Courses

See examples above. Please note, not all daytime elective courses are available to EMBA students.



For more information, visit www.fuqua.duke.edu

Health Sector Management

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