Innovative scholarship that makes significant contributions to knowledge and science in areas of strategic importance to CU, and that has potential to improve human lives, society, the environment, or the economy, will enhance culture and community, or provide other public benefit;

Multidisciplinary collaboration that positions CU as a national leader in these selected areas;

Faculty teamwork across career stages to provide mentorship, support professional advancement, and position CU faculty as leaders in key fields; and

Training opportunities in cutting-edge interdisciplinary or multidisciplinary research.
D2V VISION STATEMENT

To make the University of Colorado Anschutz Medical Campus School of Medicine a national and global leader in the development, implementation and dissemination of person-centered, high value health care by advancing innovations in data and health systems science to improve the lives of patient, families, and communities.
D2V OBJECTIVES

1. Accelerate rigorous cutting edge data science methods and applications to address pressing health problems

2. Advance the science of person-centered high value health care across the care continuum by integrating different stakeholder perspectives including the UCH Health System as a learning and innovations partner.

3. Train the next generation of scientists who can advance and integrate the methods of data science and health systems innovation.
THREE TRANSFORMATIONAL FEATURES

• Creation of a multidisciplinary, collaborative analytics and computational research environment that includes medical/health scientists, mathematicians/statisticians, computer/data scientists, informaticists, and implementation scientists.

• Consideration of multiple stakeholder perspectives (patients, providers, health systems, payers and policymakers) when conducting research to inform clinical, health system, and policy decisions; and

• Collaboration between researchers and clinical operations to design and conduct care delivery interventions, translate evidence into practice and policy, and work with the health system as a real-world innovations laboratory.
D2V Organizational Structure

Central Office
Kelley Burns
Kyle Bishop, Lisa Caputo, Chan Voong

Patient & System Value
Mark Gritz
Dan Matlock
Martha Meyer

Executive Committee
Mike Ho
Michael Kahn
Jean Kutner
Lisa Schilling

Stakeholder Engagement & Governance
Heidi Wald | Matt Wynia
Marilyn Coors, Suzanne Millward

Training & Education
Cathy Battaglia | Larry Hunter
Andrey Soares

Dissemination & AIC
Bethany Kwan

Data & Informatics
Michael Kahn | Lisa Schilling
William Carter, Jessica Toth, Xiuping Wang, Rachel Zucker

Analytics
Tell Bennett | Debashis Ghosh
James King, Seth Russell, Fuyong Xing
Recruiting emphasis: specialization in Natural Language Processing (NLP), visual analytics, distributed computing, data harmonization/standardization, database programming, encryption and identity management.
Recruiting Emphasis: Predictive modeling, machine learning, and skilled technical staff in R, Python, Apache Spark.
PATIENT & SYSTEM VALUE
• Focus on Patients’ perspective on value
• Performing Economic evaluations which generate meaningful and actionable information for patients, provider, payers, purchasers and policy/decision makers.
• Recruitment Emphasis: System Engineering/Organizational Management expertise
Stakeholder Engagement & Governance
Technical assistance:
• CU researchers
• Clinical leaders
• Organizational leaders
• In depth understandings of governance and policies that support engagement, trust and collaboration

Resource Library
Innovation and Methods Research
Training
DISSEMINATION AND ACADEMIC INDUSTRY COLLABORATION

1. Consumer-centered
2. Multi-modal, integrated communication
3. Adaptive and responsive
TRAINING AND EDUCATION

To train and mentor the next generation of scientists who can advance and integrate the methods of data science and health systems innovation.

Accepting applications Nov 1, 2017
RESEARCH SEMINARS AND VISITING PROFESSOR LECTURES TO DATE

Julie Bynum
Effectiveness of Health Care Delivery to High Risk Elderly Including the Oldest Old or Cognitively Impaired

Erika Blacksher
Deliberative Practices in the Health Arena: Meanings, Methods and Challenges to Diversity, Inclusivity and Equity

Paul Rathouz
Efficient Sampling to Enhance Studies with Longitudinal and Clustered Data

Laura Scherer
Medical Maximizing vs. Minimizing: A Framework for Understanding Patient Values and Preferences for Healthcare
Examples of current pilot projects:

- Using Colorado Health Observation Regional Data Service (CHORDS) to identify season asthma exacerbation patterns in children.

- Identify value of Post Acute Care for patients and their caregivers following hospitalization.

- Implement scalable and novel privacy preserving (encrypted) Record Linkage (PPRL) methods to probabilistically link data under different data quality constraints.

- Expand the reach of Palliative Care via a psychosocial intervention in Latino patients with advanced cancer.

- Develop an electronic method of identifying and preventing Surgical Infections through supervised learning.
D2V PILOT PROJECT PROGRAM

Con’t-

• Implement strategies to maximize value of Noninvasive Cardiovascular Testing.

• Determine the feasibility, safety and value of a virtual Cardiac Implantable Electronic Device Wound Check.

• Assess the sustainability of innovative care models in Neurologic Palliative Care.

• Use Value of Information Outputs to inform future clinical trial design.

• Create infrastructure to store and standardize EHR data from multiple hospitals.

• Develop a Causal Inference Framework to quantify surgical learning effects.