Design Cues for Today
The Next Level: White Paper by Joel Seligman

• "Information technology is redefining the way we think, analyze information and make decisions. **Data science is ubiquitous.**

• We would like to focus on specific areas in which we are most likely to achieve best in class or **near best in class programs.**”
The Next Level: White Paper by Joel Seligman

• “Some of the biggest advances in health care will come from using data to predict individual health outcomes on the basis of treatments, genomics, as well as lifestyle and behavioral factors.”

• “We will build on programs at the Medical Center to utilize data science and biomedical informatics to improve health and healthcare delivery.”
How?
Start with a Strong Foundation.

UR Medicine

Goergen Institute for Data Science
UR Health Lab

We strive to combine our proud history of the biopsychosocial model of health with our culture of “Ever Better”.

Seek to expand the frontiers of patient care and organizational capabilities by creating a nimble, highly collaborative team that will accelerate innovation at the intersection of health care and data sciences.
How Google Does Data Science

**Look – no driver**

**Video camera**
Detects traffic lights, oncoming vehicles and other obstacles

**Lidar**
A rotating sensor on the roof scans 200ft in all directions to create a 3D map of its surroundings

**Radar**
Three sensors at the front and one at the back work out the positions of nearby objects

**Position estimator**
A sensor on the left rear wheel measures the car’s movements so that its position can be mapped with accuracy
Capture New Data Streams

Capture

Analyze

Intervene

Create Novel Interventions

Develop Analytic Tools

Data to Knowledge
App Store

3 years of experience with enterprise level IT solutions.

Stable Framework to build upon.

A Window into Health Care

Physician Builder Program 20+
9000+ employees

Fastest growing

11,400-seat expandable auditorium known as Deep Space.
UR VOICE: Validated Outcomes In Clinical Experience

It Just Works!
Best Practice Alerts
5 Million Questions Answered
505 Providers
30 Departments
> 30 IRB’s
National awards
DSRIP: Delivery System Reform Incentive Payment Program DSRIP
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Symposium 6:

The Use of Patient Reported Outcomes in Clinical Decision Making

Moderator:
Judith Baumhauer, MD MPH, University of Rochester Medical Center

Discussants:
Jeff Houck, PhD PT, George Fox University
Allison W. McIntyre, MPH, University of Rochester Medical Center
Owen Papuga, PhD, University of Rochester Medical Center
David John Milten, MD, University of Rochester Medical Center
Chris DaSilva, University of Rochester Medical Center

Symposium Overview

Patient reported outcomes are not new concept. Although in years past traditional physician derived legacy instruments were used in research studies to help guide clinical decision making, these are being replaced with validated, real-time PRO for standard of care clinical assessments. Through the use of PROMs, the patient's voice is being heard, quantified and compared to normative data in a large variety of domains such as physical function, pain, depression, anxiety, and fatigue. Objective: To present 1st year successes, challenges, and research in implementing real-time patient reported outcomes (Patient Reported Outcomes Instrumentation System [PROMIS]) in musculoskeletal care in a large US academic medical institution (patient visits to date = 140,000)

Individual Presentations
Roadmap to Predictive Modeling: Skilled Nursing Facility Admission Model
The URMC Total Joint Bundle

Get Data → Clean → Exploratory Analysis → Test Machine Learning Models → Model: Web Endpoints for Clinical Use
We have cracked Epic wide open for 3rd party development.
2016 Digital Sports Conference

DSPORTS SUMMIT 2016

The dSports Summit will assemble regional and national leaders in data science, technology, and sports to share novel ideas, apply these ideas and demonstrate how data science and new technologies are being utilized to improve the well-being of athletes.

Tuesday, August 16, 2016
8:00 am – 4:00 pm

Oak Hill Country Club
Rochester, New York

CLARKE MACARTHUR
Left Winger, Ottawa Senators
Simulation and Education
MC10
BioStampRC™ Sensors