Driving Decisions with Analytics

Class 6 | 3 August 2024

Electronic Health Records and Data Structures

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Course Topic Outline

Getting Data In

1. EHRs and Clinical Records

   Origin and relevant history of the medical record; contemporary promise and problems

2. Clinical Decision Support

   Uses of medical record data to drive patient care

Storing, Finding, Retrieving

1. Data Structures and Liquidity

   Relational database structures and effective use of EHR data

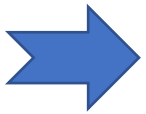
2. Data Curation

   Raw data, refined data, and patient data from non-EHR sources

Turning Data into Insight

1. Leading Innovation

   Analytics strategy in healthcare organizations



2. Driving Decisions with Analytics

   Designing an environment compatible with data-driven decision making

Final Exam

- August 10th-19th; 35% of final grade
- ”Take home” style; you’ll be able to open the test as early as the 10th. This is intended to provide you some flexibility in scheduling your work. You should only need around 90 minutes to complete the test.
- You’ll have 3 hours to complete it, once you start.
- Rely on the “learning objectives” from the website (majority were covered in class) to guide your test preparation.
- Very similar to last year’s exam, which comprised:
  - 12 multiple choice/fill the blank
  - 5 short answer
  - 1 short essay

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Class 6 Learning Objectives

- Understand the positives and negatives of distributing analytics throughout the organization, as opposed to collecting all the analytics talent into a single team.
- Be able to define value from the requestors' perspective as well as from the patients'; and to explain how these definitions might differ.
- Understand how *variation* in treatment cost and volume impacts Value Based Care and what role the Dartmouth Atlas played in bringing this to light.
- Understand what Learning Health Systems intend to accomplish and how the concept of "evidence" plays a part.
- Be able to explain the differences between Pragmatic Trials and Randomized Clinical Trials.

Creating a “System” for Analytics

- Whom do we serve?
  - Clinicians
  - Patients
  - Employers
- What is our goal?
  - Patient Health
  - Staff Retention
  - Advancing the Mission
- What do data contribute?
  - Checking the Box
  - Learning Health
  - Information Medicine

“If you wanna do data science, learn how it is a **technical, cultural, economic, and social discipline** that has the ability to **consolidate and rearrange societal power structures.**”

Hugo Bowne-Anderson

Coiled