A green button for the learning healthcare system

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Learning from aggregate patient data

- **Problem**: 96% of medical care is best guesses
- **Opportunity**: Make decisions based on what happened to real people like you.
- **Solution**:
  - Find similar patients using all the data
  - See trajectories of similar patients, at the bedside
- **Main risk**: getting enough data.
  - 10 million lives x 10 years of coverage
Green button
(with Chris Longhurst and Robert Harrington)

Electronic Medical Record

My Patient
A 55 year old female of Vietnamese heritage with known asthma presents to her physician with new onset moderate hypertension

Intervention
antihypertensives

Outcome
Diastolic pressure < 90 mm Hg

Variables associated with Outcome
- Drug A
- Asthma
- Ethnicity
- HDL
- HbA1c > 10%

Gender
- Men
- Women
Personalizing Evidence

- Point of care randomization / large simple trial
- Queue / Consider for randomization at point of care
- Guideline available?
  - Yes: Use level A guideline
  - No:
    - Use "Green Button"
      - Use practice-based evidence
      - Use professional judgment
Seeing a million patients at a time