Curating health information to improve patient outcomes & the human experience of care delivery
Meet Charles.

Charles was celebrating his granddaughter’s birthday when he became acutely short of breath.

He arrives to the ER in his daughter’s car gasping for air.

Charles takes 8 medicines for 4 major chronic problems.

When seconds matter - doctors need to know

What’s Charles’ heart and kidney function?

Did Charles recently start a medication that could cause blood clots?
Clunky EHR + explosion of information = pertinent data scattered & buried which

- distracts clinicians (~15% of clinical time looking for data*)
- can result in patient harm

*EHR chart review & patient tracking time as % of total clinical hours across YNHHS EDs
A market ripe for disruption

- Practice inefficiency has driven physician burnout to an all time high
- No competition or incentive to improve usability
  - EHRs built for billing not care
  - 3 large vendors with 70% of market
  - High switching costs
- New technology now enables interoperability with 3rd party overlays
The Problem

This is an actual screen capture of Epic that is publicly available on the internet. Gag clauses prevent sharing screen captures like this.
The Problem

Here is a typical workflow for an initial emergency department assessment before seeing a medically complex patient:

- The Problem
- 4 clicks
  - Ejection Fraction
- 3 clicks
  - Creatinine
- 7 clicks
  - Urine Culture
- 1 click
  - BMI
- 2 clicks
  - Care Plan
Curate and display customized information most salient to clinicians for safe & effective clinical decision-making.

The Solution

4 clicks Ejection Fraction
3 clicks Creatinine
7 clicks Urine Culture
1 click BMI
2 clicks Care Plan
**Business Model**

**Product**: ED doctor dashboard nirvana  
**Customer**: Medical practices, hospitals  
**Value proposition**:  
- Increased productivity  
- Reduced errors  
- Reduced physician burnout  
**Revenue model**: subscription-based with customization services  
**Distribution**: EHR-specific app stores (e.g., Epic App Orchard, Cerner Code)
The team

Innovators in digital health design, implementation & EHR integration

Ted Melnick, MD, MHS
Digital health research
Yale School of Medicine

Arjun Venkatesh, MD, MBA, MHS
Implementation science
Yale School of Medicine

Yauheni Solad, MD, MHS, MBA
Informatician & Entrepreneur
Yale-New Haven Health

Greg Makoul, PhD, MS
Seasoned entrepreneur in digital health
Yale faculty | Founder & CEO PatientWisdom
Milestones

Exactly what we would accomplish with Blavatnik funding

**Budget Year 1**
- Consultants (design, human factors, data standards) $35,000
- Software development contract (programming) $45,000
- Insurance, legal & corporate fees $20,000

**January 2022**
- **Needs assessment**
  - Grow team, user focus groups for workflow & task analyses, apply for Phase I SBIR/STTR & related R01 to scale out use cases

**July 2022**
- **User-centered design**
  - Iterative prototype development with formative usability evaluation through minimally viable product

**July 2023**
- **EHR integration**
  - Complete security review and go-live at Yale-New Haven

**Budget Year 2**
- Consultants $35,000
- Software development $75,000
- Project manager $60,000
- Fees (legal, insurance, corporate & Epic App Orchard) $30,000

**January 2023**
- **Pilot launch & scale up**
  - Assess efficacy, summative usability evaluation, secure next round of funding, recruit first external customers
Join us.

Thank you. Questions?

- How will CLEHR be different from the EHR?
- Is there a successful EHR overlay market?