SEQUOIA

# Demo

https://www.youtube.com/watch?v=1f80zagRxHs&feature=youtu.be

Try it yourself!

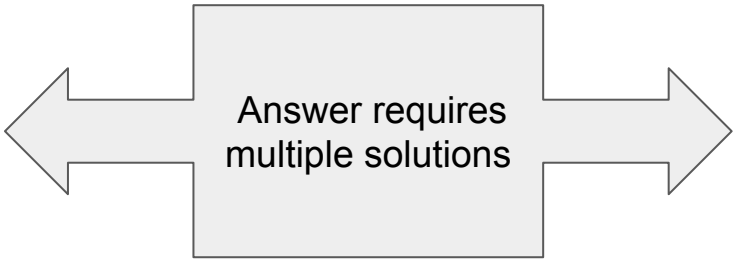
- User: Text your zip code to 618-643-9906
- Provider: Triage user(s) at http://159.89.236.70/

COVID 19

Problem: Healthcare resources overwhelmed by an exponential patient influx

Answer: Make Sure Right Patients Enter Right Facilities at Right Times

Solutions already being developed address complexity of isolated resource problems



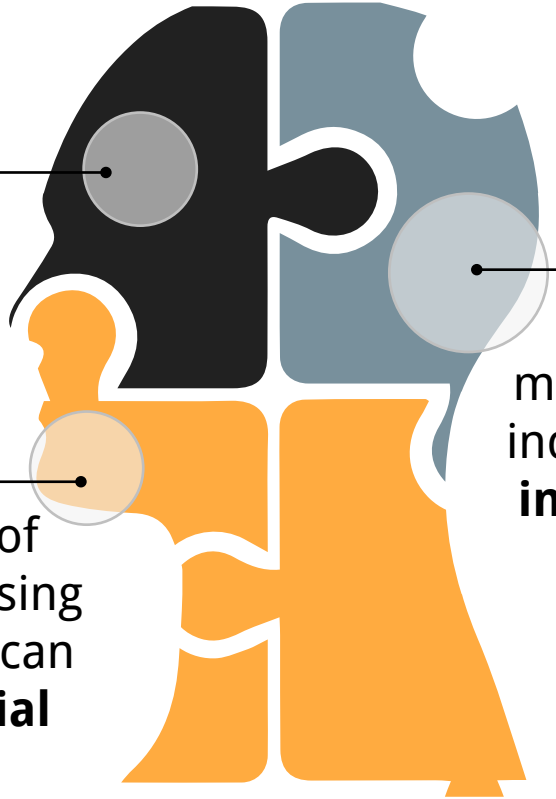

Our solution solves a problem of resource connection: patients to the care facilities

Sequoia Uses Remote Provider Input to achieve this.
Such a tactic depends on simplicity and flexibility.

# Why Remote Provider Input is Needed vs Pure Machine

**53%**

Greater Care Adherence when provided by human in comparison to pure AI



Meta analysis of pure machine “symptom checkers” indicate **greatest failure rate in the context of triage** and diagnosis

Pure AI tools err on the side of more care than is necessary. Using provider input avoids this and can **better control an exponential patient influx**.

# The Sequoia Solution: Simplicity

**USER SIDE**

All done via phone screen from user home. Free

- Users text hotline number
- Users respond to automated questions
- Users receive next steps including list of best nearby care facilities

- Providers log-in to web interface
- Providers select and view request
- Providers select where to send patient from automated list of care facilities

All done on web in less than 5 minutes per patient. Free

**PROVIDER SIDE**

# The Sequoia Solution: Flexibility

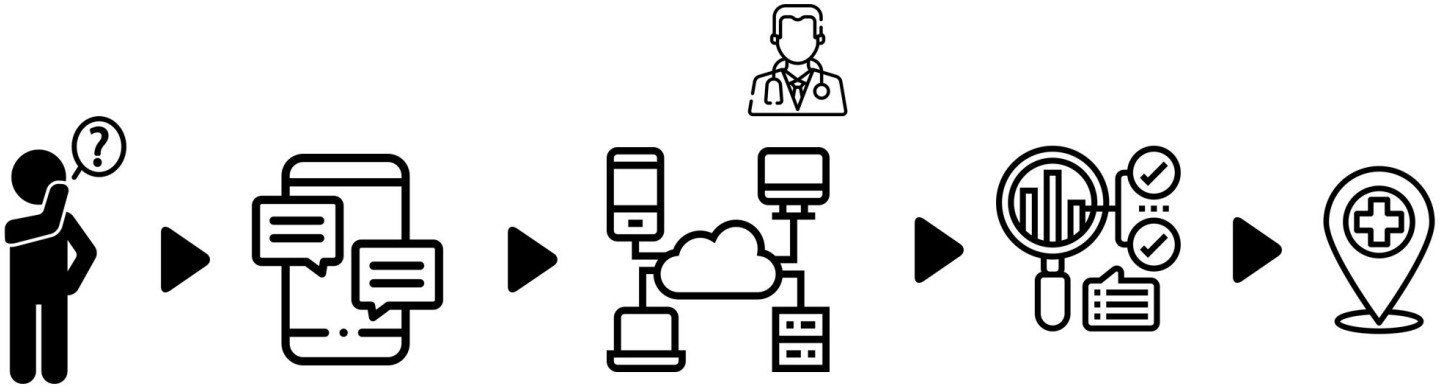
**USER SIDE**

- Customize automated questions that users respond to and providers get info from
- Users receive list of nearby facilities based on customizable facility data that is fed into algorithm

- Customize list of care facilities from which providers choose where to send patients
- Customize care facility data that is fed into algorithm to generate facility list for user

**PROVIDER SIDE**

# User Flow



# Provider Flow

# Two potential use cases

## Intra System: Toolkit to rapidly develop tele-triaging

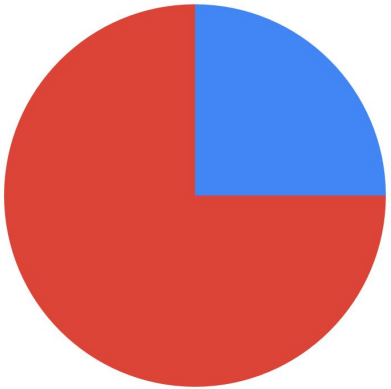
- Maximize efficient distribution across one health system's facilities
- Program inputs available care facility data (number of providers, beds, ventilators) into algorithm
- Implement tool within existing health system framework and maximize use of provider pool

## Inter System: Optimal load distribution and burden reduction

- Alternate option if individual health systems can no longer handle influx
- Neighboring health systems have same basic Sequoia platform
- Use Sequoia platform to combine care facility options, care facility data, and provider pool across systems

# Ease of use maximizes Available Provider Pool

Within each health system (pool expands when health systems are combined):



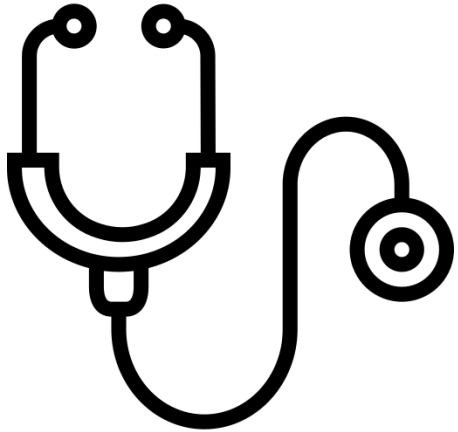
25% now-cancelled elective procedures and surgeries from which provider pool can be expanded to assist with triage and use Sequoia

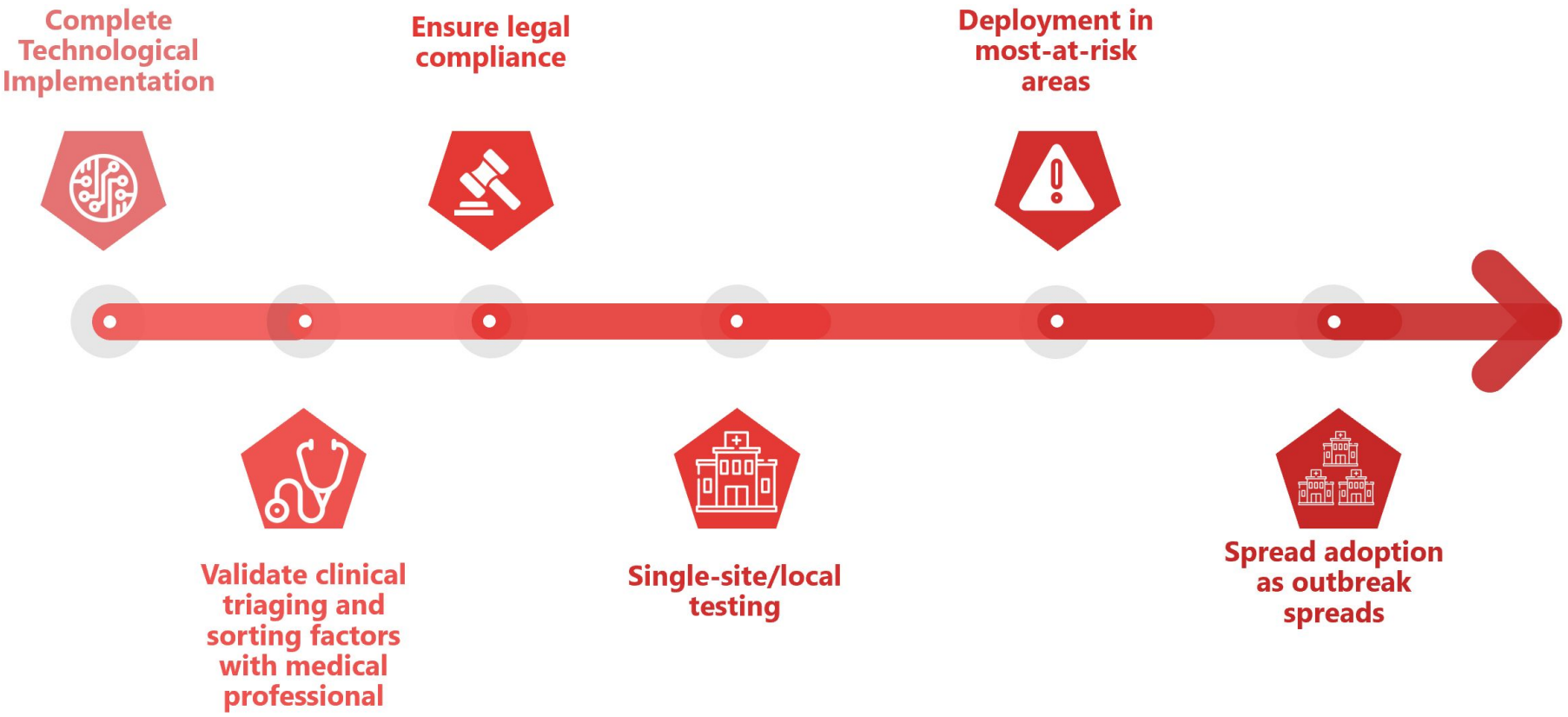
Integrating providers from **outside** a care system can potentially expand pool to:

- Rural providers
- Retired medical professionals
- Out-of-state providers (Inter-state triage rules may be relaxed for COVID-19)

# Areas Needing Further Derisking and Support

- HIPAA-secure protocol
- Need public health and/or governmental support to aid rapid deployment



- Validating triage questions
- Determining best static and dynamic factors for patient distribution algorithm

# Implementation Plan & Partners