

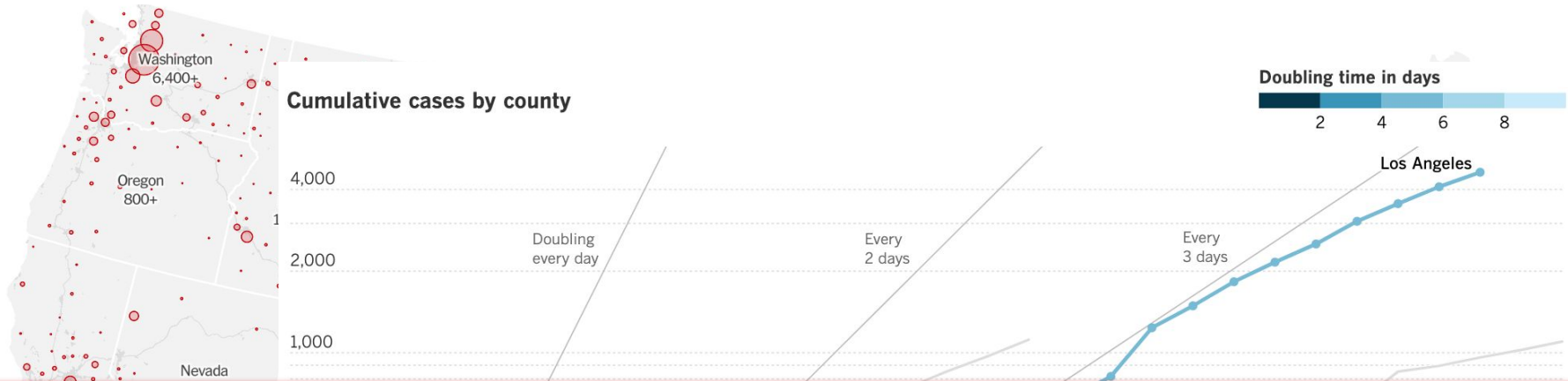
TESTING TRIAGE

MIT COVID-19 Beat the Pandemic Challenge
April 3-5, 2020

Up to 25% of people
show symptoms

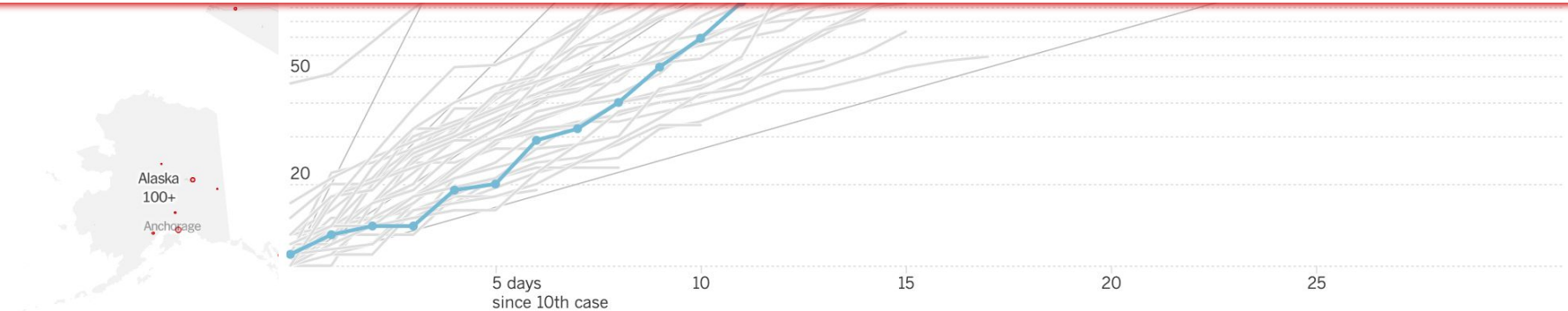
I don't feel sick
so I need to
keep working...





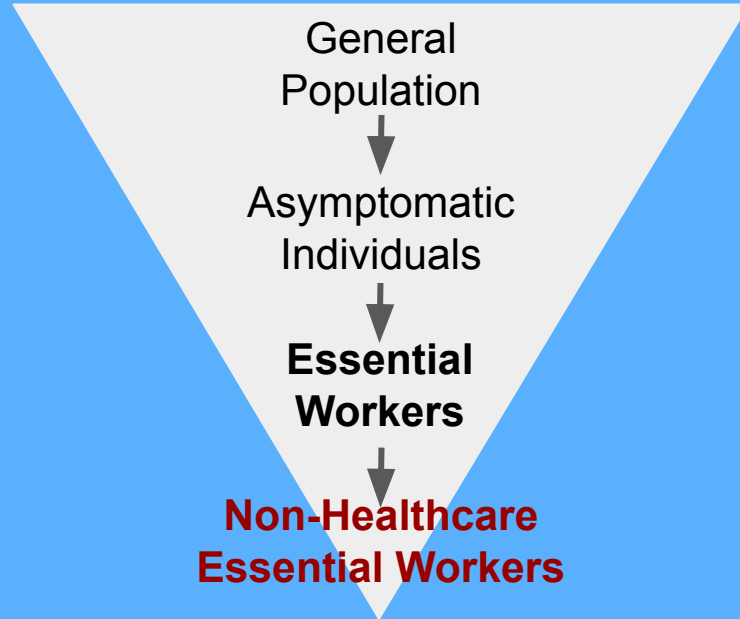
Individuals eligible for testing at this time include:

- Those with symptoms who are 65 and older
- Those with symptoms who have underlying chronic health conditions
- Those who are subject to a mandatory 14 day quarantine period due to a confirmed COVID-19 exposure (with more than 7 days of quarantine remaining)



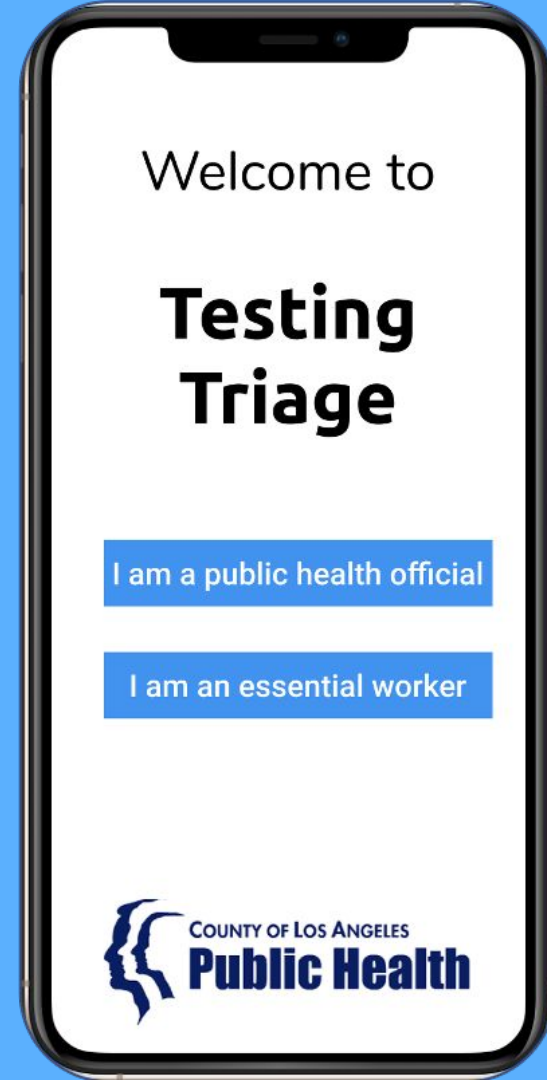
PROBLEM

How might we slow the progression of COVID-19 in LA county by more effectively testing the asymptomatic essential worker subgroup - the overlooked “super-spreaders”?

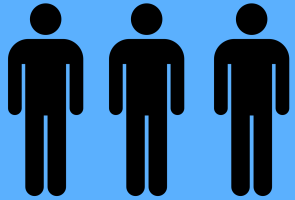


GOAL

Identify essential workers likely to transmit COVID-19, then allow public health authorities to approach high risk groups for testing



USERS



Essential
workers

Submit
questionnaire
to **Testing Triage**

Testing
Triage

Analyze and prioritize
cases, keep track of
testing capacity and
reach out for testing



Please provide us with as
much information as you can

*Note that all questions are optional, although
more information would help us with testing
prioritization

Name

Your response

What is your occupation?

Your response

Who is your employer?

Your response

Approximately how many people do you come
into contact with at your workplace per day?

Your response

On average, how frequently do you come in
contact with people at your workplace?

Your response

How many people do you live with?

Your response

Submit Questionnaire

By clicking "Submit Questionnaire", you are agreeing to
our [Terms](#) and [Data Use Policy](#).

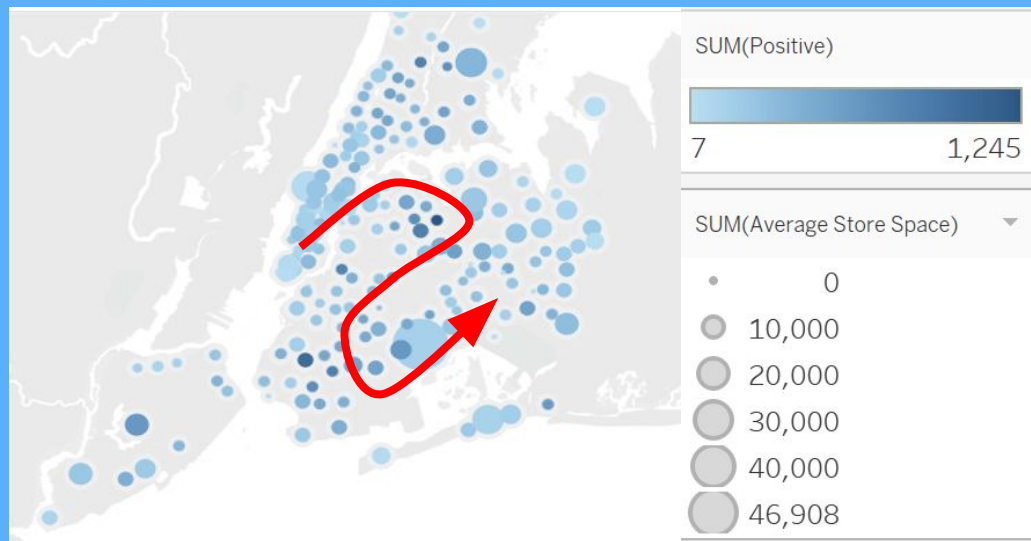
SOLUTION

Self-reporting and GPS-based user density maps overlaid on COVID-19 heat map

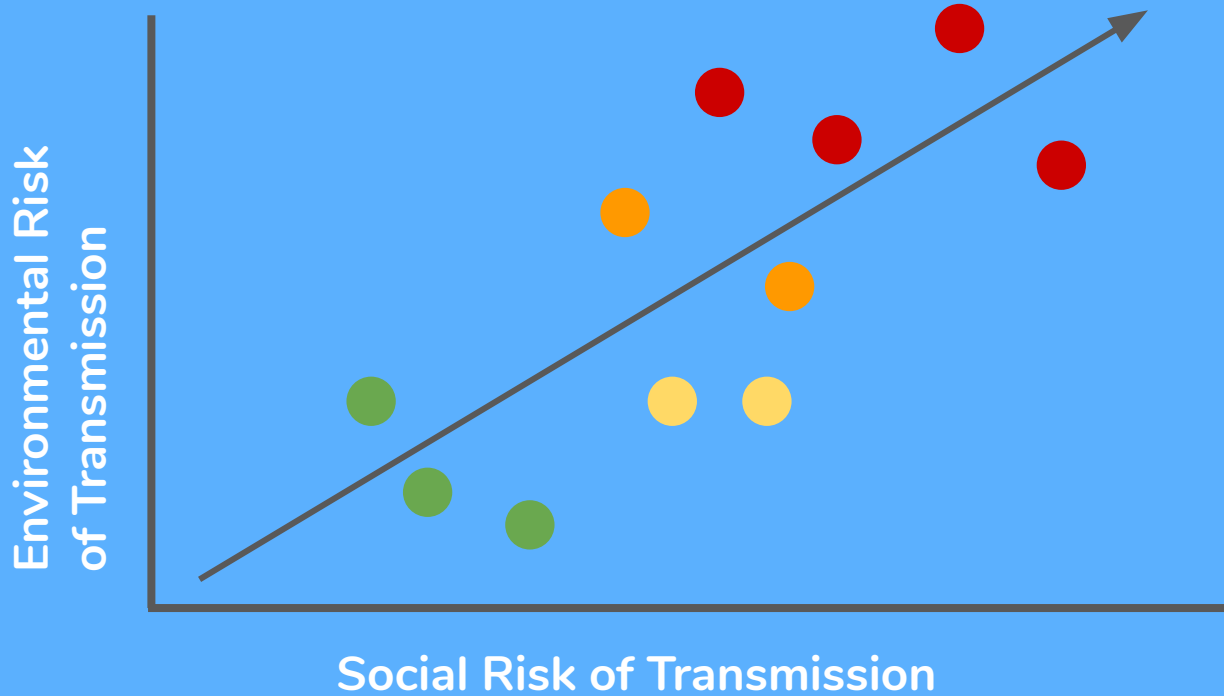
Compute risk scores based on:







Social risk of transmission

Environmental risk of transmission

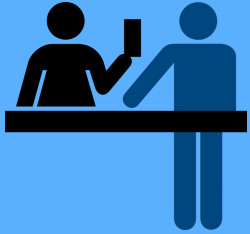


PRIORITY SCORE



Current Supply	
Testing Priority	200
 John Doe	Priority Score: 99.8
 Don Coe	Priority Score: 98.3
 Mary Moe	Priority Score: 90.2
 Sam Soe	Priority Score: 86.7
 Vin Voe	Priority Score: 82.1
 Jane Roe	Priority Score: 76.5

STAKEHOLDERS // ROLLOUT



Essential
Workers



Workers'
Families



Public Health
Dept.



Telecom/Tech
Companies



GENERAL
PUBLIC

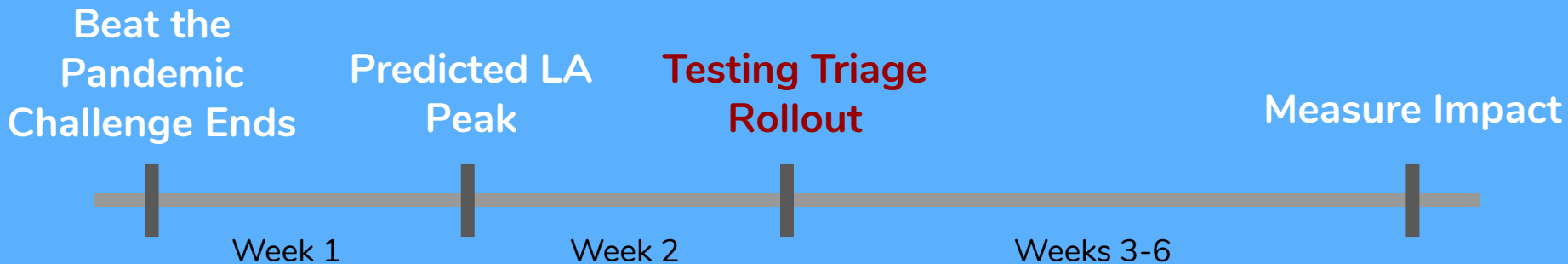
Rollout with the **mayor announcement** of Testing Triage in daily briefings

Incentivize essential workers with a free N95 mask

Information available on **Public Health websites**

Essential employers can help **facilitate access** for essential workers

WHAT'S NEXT?



Connect interface with back-end data

Engage LA Public Health & telecom companies

Finalize Testing Triage

Establish 501(c)3 non-profit organization

Pivot to
Immunity
Testing/Other
Outbreaks

TESTING TRIAGE

Team



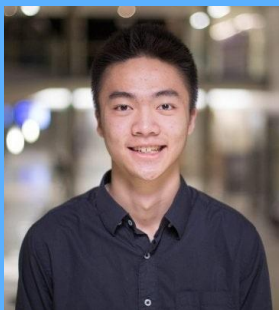
Alana Dixon
MD/PhD
Neuroscience



Ali Solehdin
Product
Strategy



Behloul Khan
Business
Analytics &
Market Research



Eric Yang
Biomedical
Informatician



Elizabet Aklyan
Public Health BA,
Management
Consulting



Sander de la Rambelje
Biomedical Engineer, Life
Sciences Innovation
Business Development



Sarah Slack
Bioengineer, HIV
researcher & clinical
volunteer

Testing Triage

Appendix

75%

“**WHO study**, 75 percent of people in China who were first classified as asymptomatic later developed symptoms.”

50%

“The **CDC** also evaluated coronavirus patients on the Diamond Princess cruise....almost 50 percent of them had no symptoms at the time.”

31%

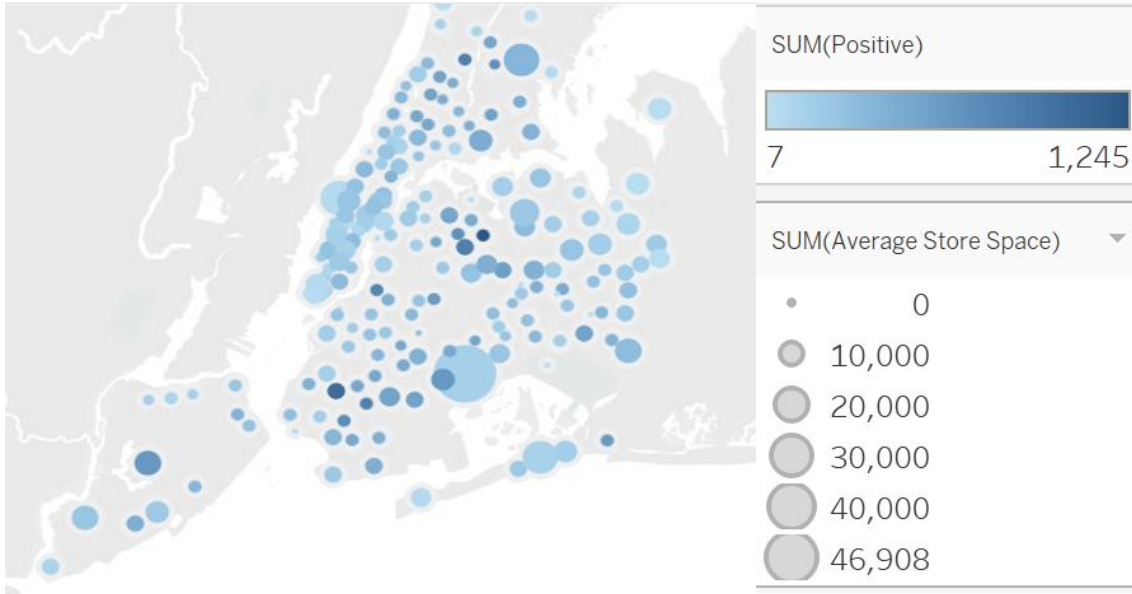
“A **small study** among Japanese ex-pats evacuated from **Wuhan** in February revealed that 30.8 percent of people who tested positive showed no symptoms.”

“Patient Z,” for example, a 26-year-old man in Guangdong, China, was a close contact of a Wuhan traveler infected with the coronavirus in February. **But he felt no signs of anything amiss, not on Day 7 after the contact, nor on Day 10 or 11.**

-New York Times

Back-End Data

COVID 19 Cases vs Average Store Size



**Feed publicly available
location data
(COVID-19 cases,
store location,
demographics & etc)**

AND

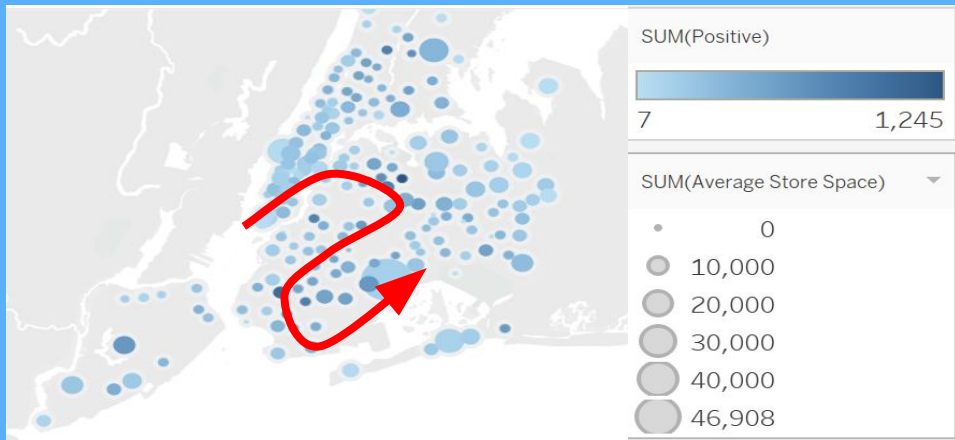
**Location services
(Google Maps,
Verizon..ec) to inform
on risk assessment**

Funding & Sustainability

Business Model

- 1) 501(c)3 non-profit
- 2) Funding
 - a) Crowdsource
 - b) Donations
 - c) Sponsorships, partnerships
 - d) Minimal ad revenue
- 3) Minimize overhead with low developer base
 - a) Minimal hosting fees
 - b) Original content generation--donated animation from Pixar, Disney, celebrity guests
 - c) Staff compensation
 - d) Interns and student assistants
- 4) By-laws to ensure longevity of organizational mission and culture
- 5) Board of directors from broad sponsors
 - a) Manage ownership
 - b) Moderator panel of key influencers to shape and build content

How to get buy-in?



Education through visual tools

Show people how risk looks in their community



Informing about
risk to families

Incentivizing with
supply of
masks/monetary gifts

