

The Problem

Veterans often use the VA for eye care, but may face barriers to care, including:



Technology-based Eye Care Services (TECS) can help reduce barriers:



Our Approach

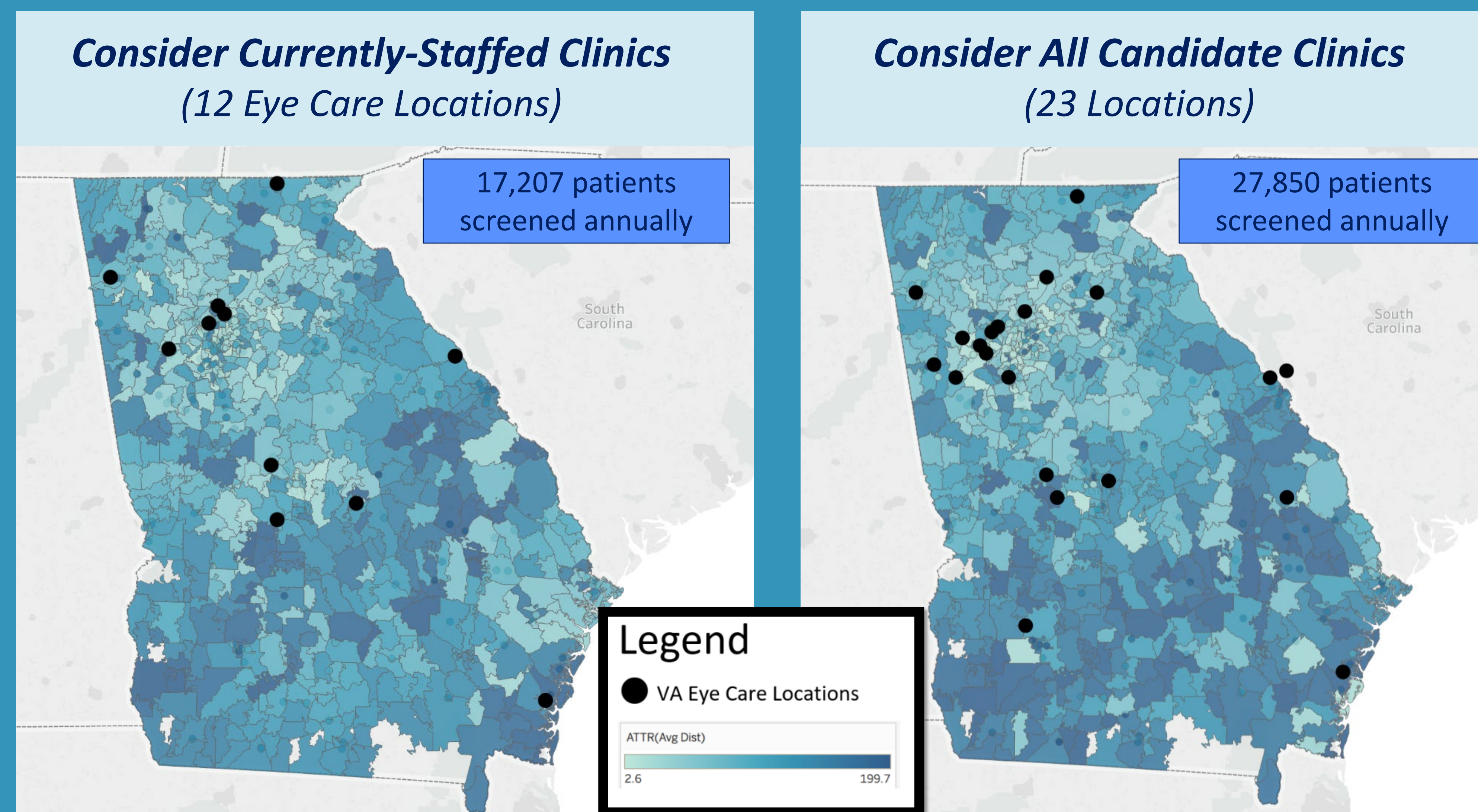
- Develop models to improve access to eye care for certain metrics
- Design tool for VA decision-makers to use when considering new eye care locations
- More broadly, demonstrate how systems engineering can be used to improve access to care

Models

Model A: Maximize number of patients screened	Model B: Minimize cost
Constraints: <ul style="list-style-type: none"> • Patient population • Provider capacity • Max. distance for patients to travel • Min. % of patients screened from each zip code • Budget (Model A only) • Min. # of total patients screened (Model B only) 	
Implement using: <div style="display: flex; justify-content: space-around; align-items: center;"> </div>	

Using technicians to screen for eye disease can improve access to care for veterans

Kate Burns, Michelle Chen, Malcom Hudson, Matthew Levenson, Adam VanDeusen, Carolyn Wu, Prof. Amy Cohn, Dr. April Maa



Results

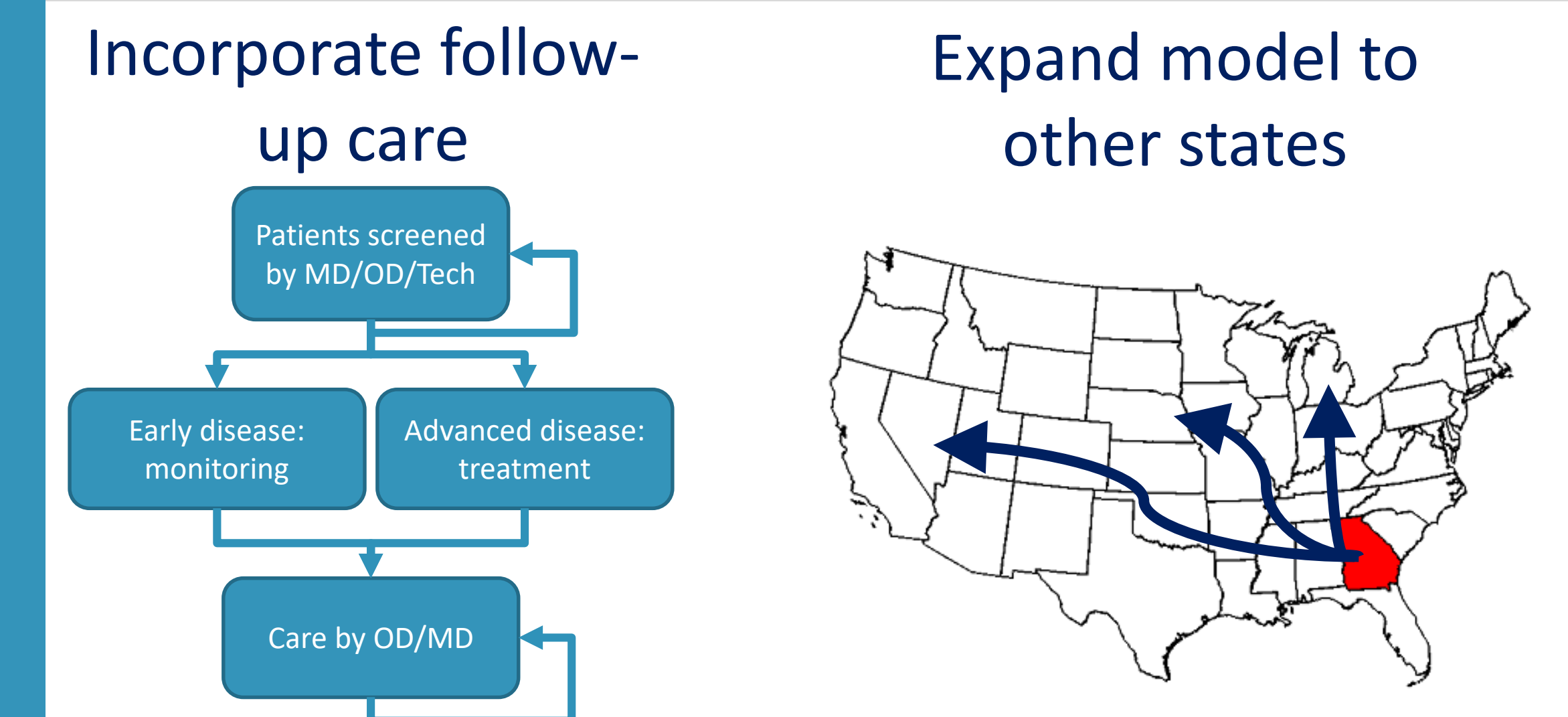
	Model A: Maximize Patients Screened		Model B: Minimize Cost	
	Baseline Providers*	Start from Scratch	Baseline Providers*	Start from Scratch
Patients Screened	86,340	91,577	20,371	20,160
Average Driving Distance (miles)	15.8	27.6	21.9	23.2
Total Cost	\$24.0M	\$25.0 M	\$7.0 M	\$5.3 M
Per Patient Cost	\$277	\$273	\$329	\$266

*Baseline providers: requires current eye care providers at the VA to stay in the same location

Constraints

- Max. travel distance: 40 miles
- Min % patients screened per zip code: 10%
- Budget (Model A): \$25M
- Minimum patients screened (Model B): 20,000

What's next?



Acknowledgements



And all prior CHEPS students who have contributed to this work!