

# An Innovative Solution to an Unprecedented Challenge:

## Impact Analysis of King County's COVID-19 Isolation and Quarantine Sites

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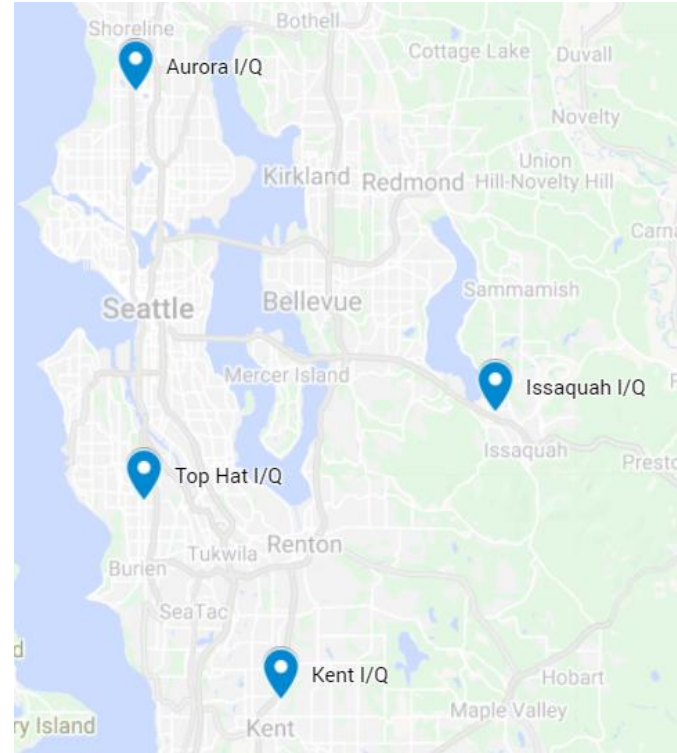
**King County**



**EVANS SCHOOL  
OF PUBLIC POLICY & GOVERNANCE**  
UNIVERSITY of WASHINGTON

## Background & Research Questions

1. How were I/Q sites developed, implemented and changed over time?
2. Who did I/Q sites serve, and how did they compare to relevant comparison populations in King County?
3. How did I/Q sites impact the spread of COVID-19 in King County?



# How were I/Q sites developed, implemented and changed over time?

## Development & Implementation

- Rapid implementation
- Partnerships

## Changes

- Testing protocol
- Aurora for high behavioral needs
- Behavioral health
- Nursing agencies



# How were I/Q sites developed, implemented and changed over time?

## Successes

- Reduced spread of COVID
- 2,200+ guests
- Wraparound services

## Challenges

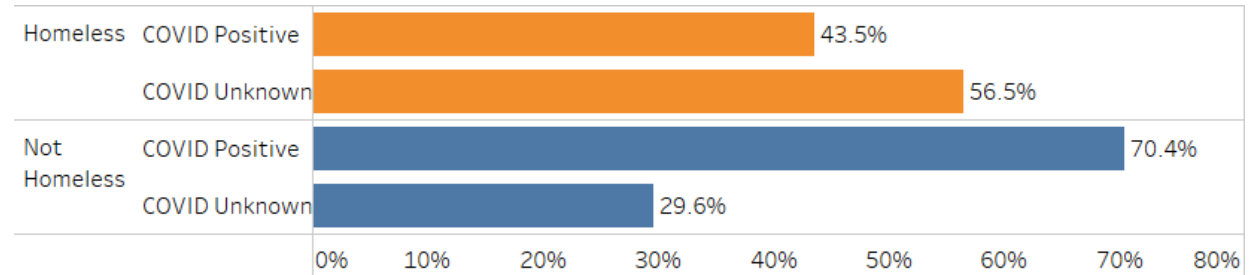
- Data collection
- Serving people living unsheltered
- Large families
- Staff shortages



# Who did I/Q sites serve, and how did they compare to similar populations in King County?

- Analyzed: race, age, gender, and housing status
- Over 80% of guests were experiencing homelessness

A larger proportion of housed I/Q guests were confirmed COVID+



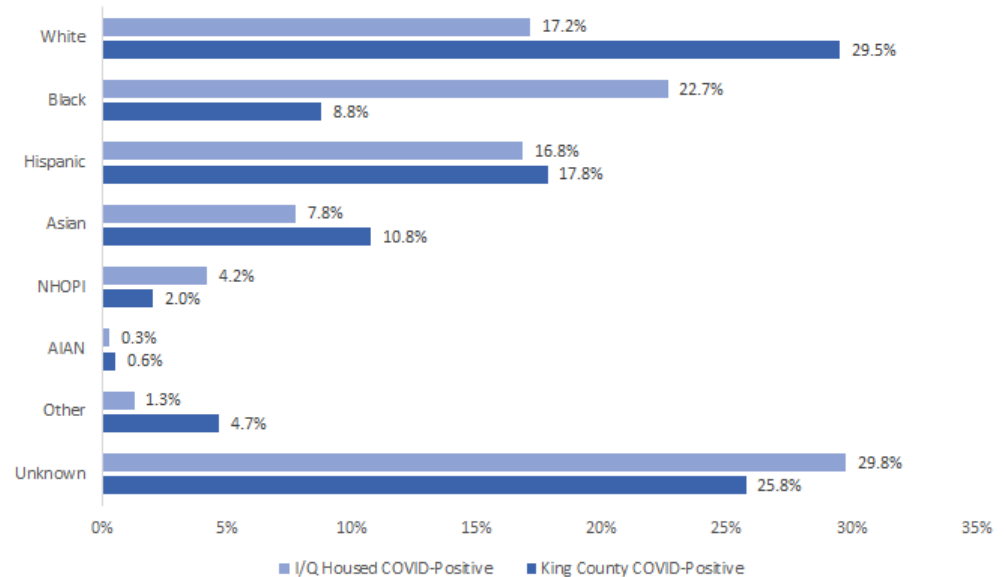
**Note:** Data on I/Q guests contained non-trivial amounts of missing race (29%) and gender (11%) data

# Equity: COVID+ Housed Guests

## Comparing COVID+ housed I/Q guests to King County's population with COVID-19

- Black/African-Americans were overrepresented

**Note:** I/Q and PHSKC datasets both contained significant amounts of missing data

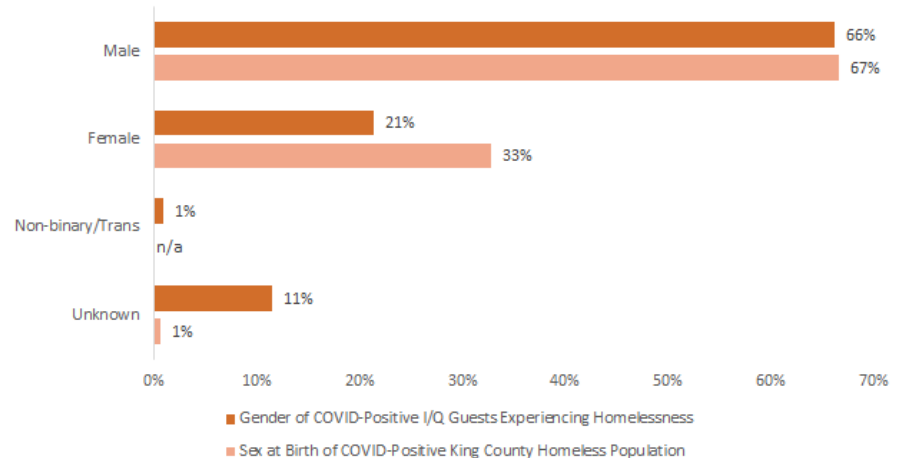


# Equity: COVID+ Homeless Guests

## Comparing COVID+ homeless I/Q guests to King County's COVID+ homeless population

- In general, I/Q sites equitably served COVID+ guests experiencing homelessness
- Females appear to have been underrepresented

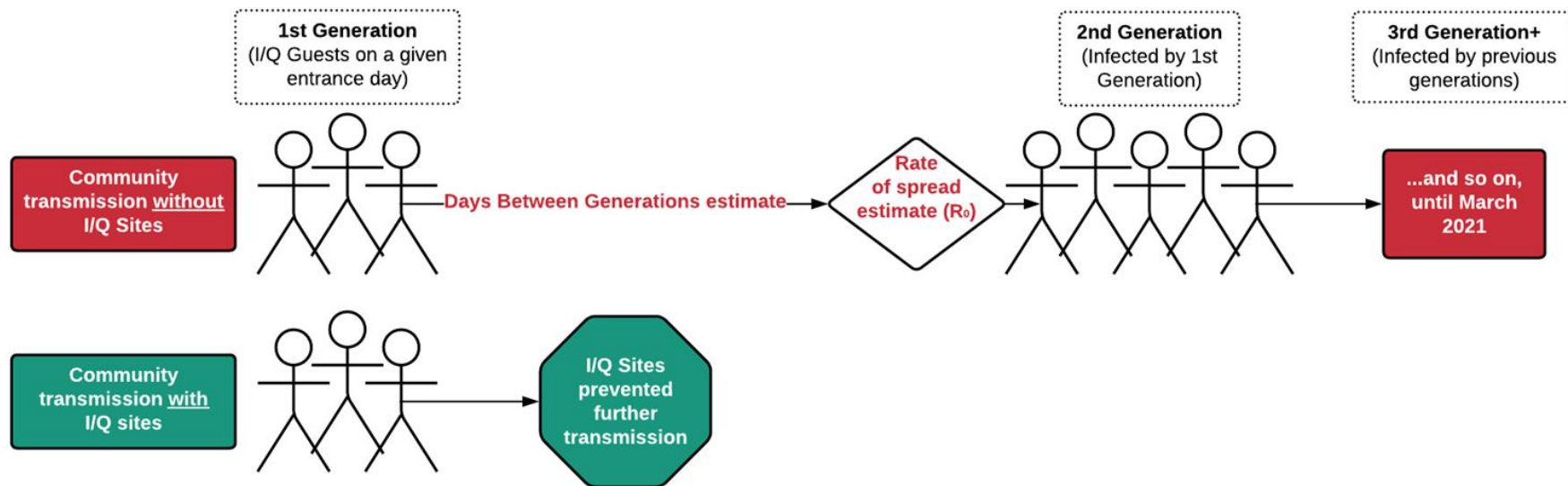
**Note:** I/Q and PHSKC datasets both contained significant amounts of missing data



# How did I/Q sites impact the spread of COVID-19 in King County?

## *How many COVID-19 Cases, Hospitalizations, and Deaths did I/Q prevent?*

### Modeling Strategy:





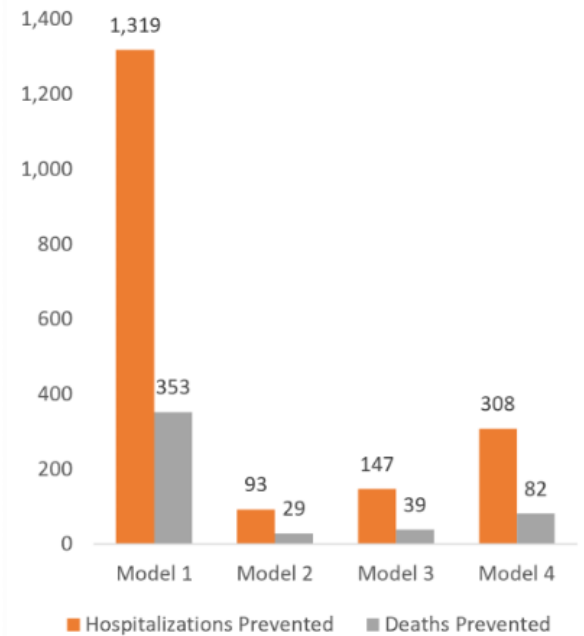
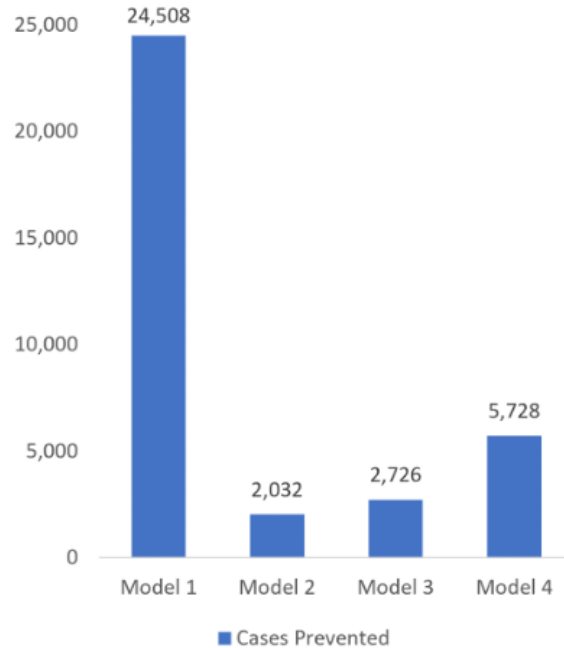
# Summary of Key Model Inputs

	Rate of Spread ( $R_0$ )	Days Between Generations	COVID-19+ Guest Data
<b>Model 1</b> <i>(least conservative)</i>	Point estimate	10	March 2020 - December 2020
<b>Model 2</b> <i>(most conservative)</i>	Low estimate	10	
<b>Model 3</b>	Low estimate	7	
<b>Model 4</b>	Low estimate	4	

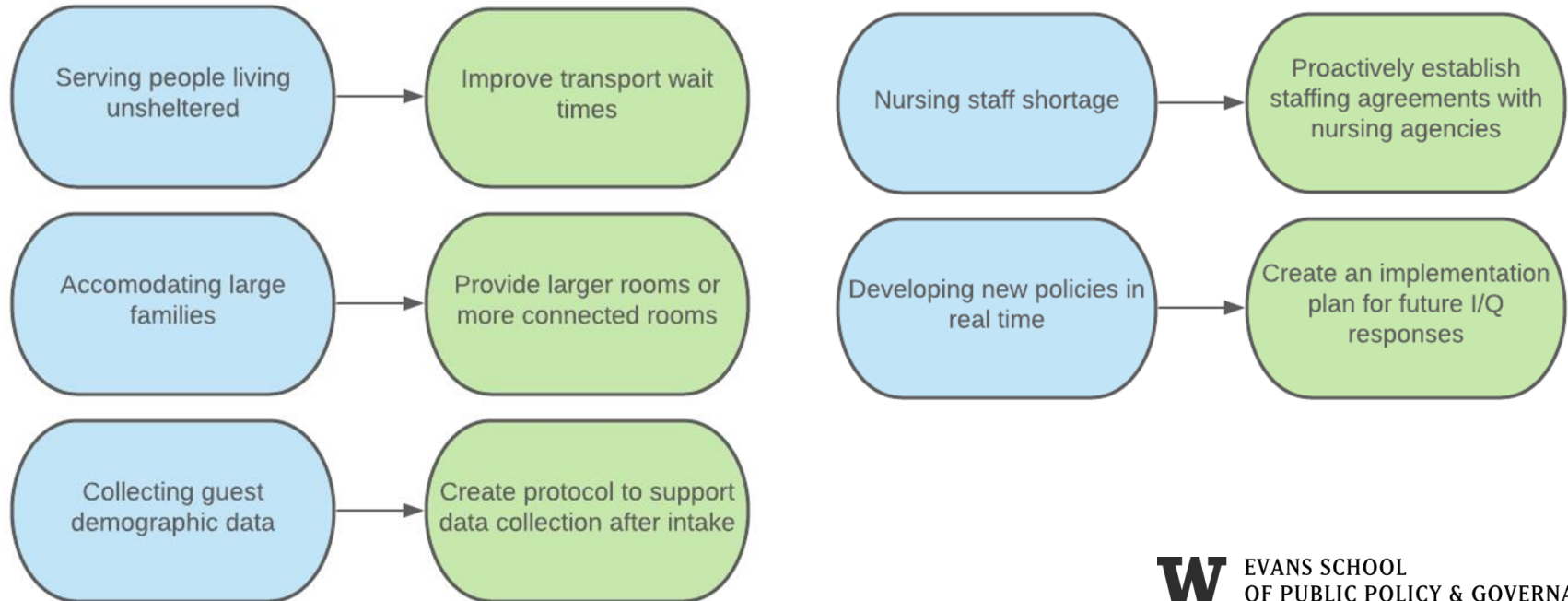
# Modeling Results

## King County's I/Q sites at minimum prevented:

- Between 2,032 and 24,508 cases of COVID-19
- Between 93 and 1,319 COVID-19 hospitalizations
- Between 29 and 353 COVID-19 deaths



# Improve I/Q sites in future pandemics



# Permanently maintain an I/Q site

- Considerations
  - Location
  - Partnership
  - Services
- Benefits
  - Reduce spread of communicable diseases, especially among people experiencing homelessness
- Challenges
  - Location
  - Public opposition



Thank you!

Questions?