COVID-19 “COFFEE CHAT” SERIES

Testing for COVID-19 in Homeless Shelters

May 1, 2020
GOALS FOR TODAY’S DISCUSSION

- Hear about CDC’s new MMWR reports on testing in shelters
- Learn about the testing experiences in four cities
- Go deeper on pro-active testing in Atlanta & responsive testing in Boston—and the implications of those approaches
- Address as many of your questions as possible

Enter your comments and questions here for group discussion.
NEW ISSUE BRIEF:
COMPREHENSIVE TESTING & SERVICES

- Addresses public health authorities and emergency response systems
- Re-iterates why this population is vulnerable & high-risk
- Highlights CDC reports & other city examples
NEW ISSUE BRIEF: COMPREHENSIVE TESTING & SERVICES

1. Prioritize testing in homeless populations
2. Conduct comprehensive testing
3. Expand both congregate and non-congregate programs
4. Arrange appropriate staffing at all programs
5. Expedite permanent housing placements
TODAY’S DISCUSSION PANEL

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Harvard Medical School
Assessment of SARS-CoV-2 Infection Prevalence in Homeless Shelters — Four U.S. Cities, March 27–April 15, 2020

COVID-19 Outbreak Among Three Affiliated Homeless Service Sites — King County, Washington, 2020
Testing in Atlanta
Testing and Management Strategies for People Experiencing Sheltered Homelessness during the COVID-19 Pandemic

Travis P. Baggett, MD, MPH & Kenneth A. Freedberg, MD, MSc

May 1, 2020
National Health Care for the Homeless Council Webinar
Partially funded by NIAID
• Late March: BHCHP identified an emerging COVID-19 cluster from single shelter
• April 2-3: Universal PCR testing of all remaining shelter guests (n=408)
  • 147 (36.0%) were positive for SARS-CoV-2
  • Cough (7.5%), shortness of breath (1.4%), and fever (0.7%) were uncommon among those infected
  • 87.8% of infected individuals reported no symptoms
  • None would have been picked up by the BHCHP COVID-19 symptom screener (cough OR shortness of breath, AND fever ≥ 100°F)
Problems
COVID-19 among people experiencing sheltered homelessness

• Testing
  • Who to test?
    • People with symptoms?
    • Everyone?
  • How often to test?
    • Once? Weekly? Every 2 weeks? As needed?

• Management
  • Optimal care site?
    • Severely ill → hospital
    • What about more mildly ill or asymptomatic?
  • Role of alternate care sites?
  • Role of temporary housing?

• We built a computer model to try to figure some of these things out
The CE-COV Model

• A microsimulation state-transition model of COVID-19 that includes natural history of infection and transmission dynamics
• We used a daily cycle for infections, disease progression, and mortality
• We assessed multiple intervention strategies, including combinations of testing approaches (symptom-triggered vs universal PCR), use of alternate care sites (ACSs) for isolation, and temporary housing for shelter guests
• Outcomes of the model included number of infected individuals and mortality, utilization of hospital inpatient and ICU beds, total costs, and cost-effectiveness of the interventions
• “Cost-effectiveness” defined as additional $/case prevented
Intervention Strategies

• Status quo (shelter infection control measures only)
• Symptom screen + PCR testing symptomatic patients + ACS
• Universal PCR testing + ACS
• Universal PCR testing + temporary housing

**PCR**, polymerase chain reaction; **ACS**, alternate care site
## Preliminary Results
### Model Outcomes at Month 4

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Cumulative infections, n</th>
<th>Total costs, 2020 USD</th>
<th>Incr. cost per infection prevented, 2020 USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal PCR testing + ACS</td>
<td>117</td>
<td>2,790,000</td>
<td>--</td>
</tr>
<tr>
<td>Symptom screen + PCR testing + ACS</td>
<td>1,011</td>
<td>15,060,000</td>
<td>Not effective</td>
</tr>
<tr>
<td>Status quo</td>
<td>1,239</td>
<td>19,990,000</td>
<td>Not effective</td>
</tr>
<tr>
<td>Universal PCR testing + temp. housing</td>
<td>98</td>
<td>47,880,000</td>
<td>2,327,000</td>
</tr>
</tbody>
</table>

N = 2,258

ACS, alternate care site for mild/moderate COVID-confirmed
Conclusions

• Specific interventions now could prevent many COVID-19 infections among people experiencing sheltered homelessness

• Symptom screening is not an effective strategy

• Universal PCR testing, followed by use of alternative care sites, will decrease infections and mortality and cost less than other strategies
  • Every other week testing is likely sufficient
  • More frequent testing may be slightly more effective but at much greater cost

• Temporary housing would be effective, but is very costly

• Routine PCR testing of sheltered adults, with development and use of alternative care sites, should begin immediately
Q&A & DISCUSSION

If you haven’t already, please send us questions using the chat box at the bottom of your screen.
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NEXT “COFFEE CHAT” WEBINARS

• **Tuesday, May 5, 1:00 EST:** Structuring I/Q Sites for People Experiencing Homelessness: Examples and Guidance from Alameda County’s Project Roomkey

• **Friday, May 8, 1:00 EST:** Using Telehealth Services for Patient Care

Registration links in the Resources Box below!
OTHER RESOURCES

• Dedicated COVID-19 webpage:
  → www.nhchc.org/coronavirus
  → HUD, CDC, & HRSA materials, local policies & guidance, consumer-specific materials

• **Request:** Please send us your local guidance and protocols!
  → Send to Michael Durham, TA Manager, at mdurham@nhchc.org

• Weekly editions of *Solidarity* *(Wednesdays)*