

Baltimore City COVID-19 Congregate Homeless Shelter Response

The Baltimore City Health Department (BCHD), Mayor’s Office, Mayor’s office for Homeless Services (MOHS), Healthcare for the Homeless (HCH) and other partners coordinated early in the COVID epidemic to accomplish the following:

- Establish an isolation and quarantine hotel for people experiencing homelessness
- Decompress large emergency shelters by placing residents with underlying medical conditions in shelter decompression sites (hotels)
- Develop a protocol for data sharing between BCHD and MOHS, and systems for early case identification and notification
- Develop a protocol for symptom screening and referral for testing and isolation

Simultaneously, the Baltimore City Health Department expanded its COVID outbreaks team and established a position called the “infection control advisor”, initially to provide site visits and infection control support to long-term care facilities, then later expanding to support any congregate facility (ie, assisted living, residential drug treatment, homeless shelters) in the city. The infection control advisors also began offering preventive site visits to large congregate facilities with no known cases.

In early April, the BCHD outbreaks team was alerted to a COVID case associated with a shelter. Due to the evidence that there was transmission occurring within the facility, BCHD decided to pursue universal testing. The following chart and lessons learned summarize our experience with universal testing over the course of three months in ten shelters in Baltimore City. Evidence from universal testing in long-term care facilities in Baltimore also helped guide decision-making about how to support shelter testing. Our long-term care facility experience showed that frequent, low-threshold symptomatic testing followed quickly by universal testing upon identification of cases resulted in lower test positivity and the ability to quickly cohort cases and implement further infection control strategies to limit transmission.

Summary

Ten shelters received universal testing: eight were related to outbreaks, one followed identification of a case that was later associated with a correctional facility (not an outbreak for that shelter), and one had no known cases, but received testing due to its large congregate setting (no cases were identified during universal testing for that facility).

The Baltimore City Health Department was alerted to cases for each of the nine shelter facilities where there were cases identified through four different pathways: a hospital called BCHD, a shelter provider called BCHD, Healthcare for the Homeless called BCHD, or data matching between HMIS or a shelter addresses list and a database of all positive lab results identified the case.

Universal testing positivity ranged from 0% to 56%. After a high percent positivity (56%) with the first universal testing event BCHD more proactively pursued universal testing upon any knowledge of a case in a shelter. A longer time period between initial symptom onset and universal testing was associated

with a higher test positivity rate. A larger number of known cases prior to a universal testing event was also associated with higher positivity.

Therefore, BCHD began focusing on strategies to rapidly identify cases and report them to the health department, followed immediately by universal testing. Direct communication from Healthcare for the Homeless, the testing partner for any symptomatic shelter resident, was certainly the most rapid notification process (Avg of 0 days from initial symptom onset to health department notification). This was followed by data matching (average of 10 days from initial symptom onset to health department notification).

# of shelters	Type of notification	Average days from initial symptom onset to reporting	Average number of known cases prior to testing	Average days from initial symptom onset to testing	% positivity
3	Hospital called BCHD	16 (7-30)	9 (4-16)	24 (10-42)	38 (17-56)
2	Shelter provider called BCHD	13	4	16	3
2	HCH called BCHD	0	2	5 (0-10)	4 (0-7)
2	Data matching	10	1	17	1

Lessons Learned

Case identification

- There should be multiple redundant systems in place for the local health department to be alerted to cases in congregate facilities.
- Ensure that screening for exposure to a congregate shelter environment is part of the isolation and quarantine hotel intake process, paired with immediate notification of the local health department. Individuals discharged from the hospital to an isolation and quarantine hotel may have been living in a congregate facility prior to hospitalization.
- Rapid identification and notification of the local health department and homeless services partners of a COVID case in a congregate shelter should be quickly followed by an onsite assessment and recommendation for universal testing.
- Follow up frequently with shelter providers to ensure proactive symptom screening using a comprehensive list of potential COVID symptoms. Fix any glitches in the referral to testing and quarantine process as they arise.
- Give a list of shelter addresses to an epidemiologist at the local health department who can match this information with addresses from a centralized database of COVID-positive lab results

Timing and pairing of testing and isolation

- If universal testing resources are limited, the timing of testing becomes important. Universal testing prior to identification of a known case may not be the best use of resources.
- Performing universal testing once there is already evidence of transmission *within* a facility is too late.
- Pairing testing with immediate isolation and quarantine for all residents to individual hotel rooms is effective, but resource intensive and perhaps not necessary if hotel rooms are limited.

- Provide isolation resources for families. If there will be universal testing at a family shelter, have conversations with shelter leadership, local and state health department, and other partners before testing to discuss how to handle isolation in the event of discordant results within a family.

Universal testing

- It is essential to identify a testing partner with the ability to perform large numbers of tests onsite at shelters with a quick turnaround time
- Do not make COVID testing mandatory in order to maintain housing without an alternative plan for where people will go
- It is not enough for local public health and homeless services leaders to identify the need for testing at a shelter; onsite buy-in and support from the shelter management as well as clear communication to residents about the reason for testing is essential.
- Many shelter residents are essential employees and found it beneficial to have a paper copy of their result, or a letter confirming their test result, particularly those who tested negative.
- Include all staff in universal testing, not just residents or staff who reside onsite

Other testing strategies

- Following a universal testing event when COVID cases are identified and isolated, continue proactive symptom screening and referral to testing and isolation for symptomatic individuals. If new cases are identified who had previously tested negative, consider testing all close contacts, then if additional cases are identified, proceed again with universal testing.
- Consider testing all new shelter intakes coming from corrections or other congregate facilities where COVID transmission is likely.
- Overnight emergency shelters pose a particular challenge due to the irregularity of living arrangements, and variability of residents on any given day. Note that collaborating with emergency overnight shelters is an opportunity to work with people who often experience unsheltered homelessness. Provide resources for easy access to ongoing testing.

Shelter testing strategy summary

- Provide preventive site visits to large congregate shelters to support infection control practices and ensure knowledge of guidelines.
- Promote proactive symptom screening for residents and staff.
- Immediately refer any symptomatic resident for testing and quarantine at the isolation and quarantine site
- Once one case is identified in a congregate shelter, proceed with universal testing and isolation of any newly identified cases.
- Continue with proactive symptom screening.
- Following universal testing, if new cases are identified who had previously tested negative, test and quarantine all close contacts. If additional cases are identified through testing contacts, repeat universal testing.