



## DEPARTMENT OF HEALTH

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### **Hawai'i Department of Health presents best practices on managing clusters with CDC**

HONOLULU – The Centers for Disease Control and Prevention (CDC) provides guidance that has helped Hawai'i to effectively respond to the COVID-19 pandemic. This week, Hawai'i returns the favor to the CDC by providing lessons learned from last year's cluster traced to three fitness centers highlighted in a scientific paper published today in the CDC's Morbidity and Mortality Weekly Report (MMWR).

The investigation was performed by a team led by Dr. Sarah Kemble, acting state epidemiologist, who served as the principal investigator and lead researcher, for a paper titled, "Community Transmission of SARS-CoV-2 at Three Fitness Facilities — Hawai'i, June–July 2020."

"This publication is an acknowledgement of the caliber of work being done at the Hawai'i Department of Health," said Health Director Dr. Elizabeth Char. "As a result of the diligent work of Dr. Kemble and her staff on follow-up contact tracing and testing, we've been able to see patterns to gain more insight into transmission. This has helped us develop more effective guidance and requirements in our state, and it's an honor to have the opportunity to contribute to the collective body of knowledge for other states to use."

The paper chronicles how an asymptomatic fitness instructor initially transmitted the virus to participants in a high-intensity stationary cycle class in late June 2020. Another instructor who attended one of the classes, in turn, unknowingly transmitted the virus to participants during personal training sessions and kick-boxing lessons at another fitness center before the onset of symptoms. The second instructor tested positive and was later hospitalized and required intensive care. A third gym, where the first instructor taught a class more than 2 days prior to symptom onset, was also investigated, but no transmission was observed.

Altogether, more than 30 participants tested positive for COVID-19. However, the report notes the number may have been much higher as the number of participants infected with virus who were asymptomatic may not have been tested or participants might have underreported

symptoms or refused testing.

At the time of the outbreak, face masks were not required in fitness centers. However, as a result of work done by the Department of Health, Honolulu City and County amended emergency orders on July 22, 2020, to require that all persons wear face coverings (i.e., nonmedical masks) in fitness facilities, including during exercise. Wearing a well-fitting mask is important whenever around people who do not live with you. For more information, see CDC's guidance for wearing masks: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-cover-guidance.html>.

Based on the analysis of the transmission, Dr. Kemble and her team shared other key findings in the paper:

- The rate of transmission was highest on the day of symptom onset for both instructors, which is consistent with findings from a previous study;
- Transmission was likely facilitated by extended close contact, poor room ventilation, and not wearing face masks. Transmission occurred despite spin cycles being spaced at least six feet apart; and
- Shouting throughout the one-hour cycle class might have contributed to transmission as aerosol emission during speech has been correlated with loudness and COVID-19 outbreaks related to intense physical activity and singing have been previously reported.

The paper noted this COVID-19 cluster occurred when community transmission was low (daily average of two to three cases per 100,000). To reduce SARS-CoV-2 transmission in fitness facilities, the paper offered the following recommendations:

- It is important that everyone wear a mask even during high-intensity activities;
- Facilities should combine engineering and administrative controls, including improving ventilation;
- Enforce consistent and correct mask use and physical distancing (maintaining at least six feet of distance between all persons, limiting physical contact, class size, and crowded spaces);
- Increase opportunities for hand hygiene;
- Remind patrons and staff members to stay home when ill; and
- Conducting exercise activities entirely outdoors or virtually could further reduce transmission risk.

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