# Study shows student-based contact-tracing prevented COVID-19 exposures, infections for university students and staff

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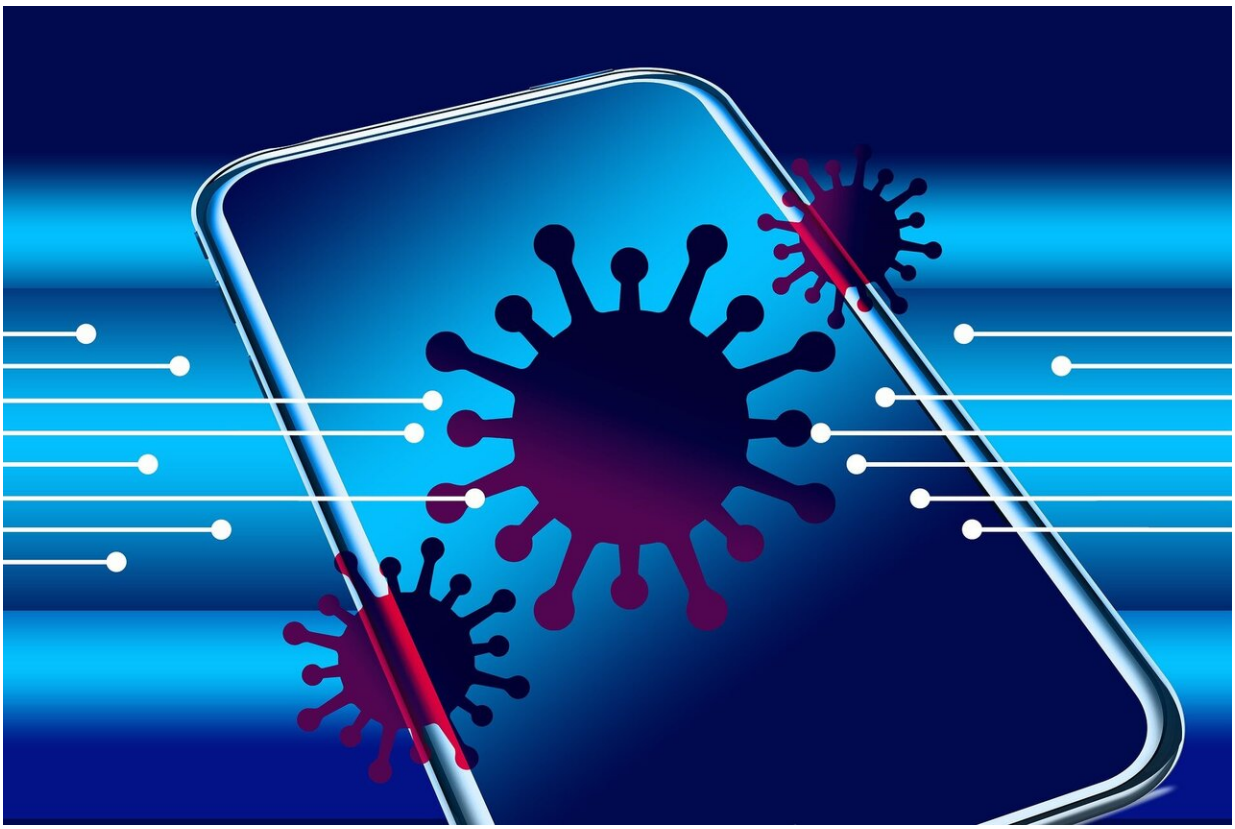

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Epidemiologists at the University of Illinois Chicago (UIC) developed and implemented a novel, student-driven, contact-tracing program that

reduced COVID-19 exposures and infections on the campus during the 2020-2021 school year. Results from the program, which deployed UIC students to conduct both COVID-19 case investigations and contact tracing among non-clinical campus members, were published today in the *American Journal of Infection Control (AJIC)* .

"Although population-based contact-tracing approaches to help control COVID-19 transmission in U.S. cities have faced significant challenges, our findings suggest that universities are a unique setting where it can be highly effective, particularly when there is strong institutional buy-in for public health interventions," said Jocelyn Vaughn, MS, MA, research data scientist at the University of Illinois Chicago School of Public Health and one of the paper's lead authors. "Universities should consider utilizing students in COVID-19 and other infectious disease response efforts."

Contact tracing is a critical strategy to control infectious disease transmission, including SARS-CoV-2, though program costs often hinder efforts by U.S. health departments to expand these programs. There is little literature on models that mobilize students as contact tracers.

During August 2020, Vaughn and colleagues created the UIC COVID-19 Contact Tracing & Epidemiology Program (CCTEP) to perform case investigation and contact tracing among campus members with a COVID-19 infection or exposure, and to monitor and report on the evolving epidemiology of COVID-19 at UIC. Staffed by a fully remote workforce of public health practitioners and trained students who were indigenous to UIC, the program was approved by the Chicago Department of Public Health (CDPH) and functioned as an independent unit within UIC.

"We trained students to conduct both case investigations and contact

tracing, which contrasted with the approach taken by most Illinois health departments, but provided both flexibility and cost-effectiveness advantages that contributed to our program's success," Vaughn said. "Routine data translation and dissemination, as well as the partnerships we established with CDPH and departments across the university were also essential."

Using REDCap, a HIPAA-compliant data-capture and reporting system hosted at UIC, CCTEP contact tracers promptly interviewed non-clinical students and employees who tested positive for COVID-19 through UIC's surveillance program, a UI Health clinical site, or off-campus (once self-reported). The goal was to reach all cases and contacts within 48 hours of specimen collection or exposure notification, respectively, the standard benchmark of contact tracing timeliness.

From August 31, 2020, to May 22, 2021, CCTEP served 1,009 confirmed COVID-19 cases and 746 contacts. Contact tracers reached 96% of cases in about one day from specimen collection, effectively quarantining 120 cases prior to converting, and preventing an estimated 132 downstream exposures and 22 COVID-19 infections. Among 18 identified clusters (>2 cases epidemiologically linked through a non-household setting), data suggest that CCTEP avoided more than 100 infections by preventing them from propagating beyond the initial group of exposed contacts.

"This program provides exciting evidence that non-clinical university students can be efficiently engaged to provide rapid, thorough and cost-effective investigation and contact tracing to supplement local public health departments' pandemic response efforts," said Linda Dickey, RN, MPH, CIC, FAPIC, 2022 APIC president.

**More information:** Implementation and Effectiveness of a COVID-19 Case Investigation and Contact Tracing Program at a Large, Urban

Midwestern University, *American Journal of Infection Control* (2022).
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