

COVID-19 symptom tracker ensures privacy during isolation

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An online COVID-19 symptom tracking tool developed by researchers at Georgetown University Medical Center ensures a person's confidentiality while being able to actively monitor their symptoms. The

tool is not proprietary and can be used by entities that are not able to develop their own tracking systems.

Identifying and monitoring people infected with COVID-19, or exposed to people with infection, is critical to preventing widespread transmission of the disease. Details of the COVID19 Symptom Tracker and a pilot study were published August 13, 2020, in the *Journal of Medical Information Research* (JMIR).

"One of the major impediments to tracking people with, or at risk of, COVID-19 has been an assurance of privacy and confidentiality," says infectious disease expert Seble G. Kassaye, MD, MS, lead author and associate professor of medicine at Georgetown University Medical Center. "Our online system provides a method for efficient, active monitoring of large numbers of individuals under quarantine or home isolation, while maintaining privacy."

The Georgetown internet tool assigns a unique identifier as people enter their symptoms and other relevant demographic data. One function in the system allows institutions to generate reports about items on which people can act, such as symptoms that might require medical attention. Additionally, people using the system are provided with information and links to Centers for Disease Control and Prevention COVID-19 recommendations and instructions for how people with symptoms should seek care.

Development of the system was rapid—it took five days to design. The joint project included Georgetown University's J.C. Smart, Ph.D., chief scientist of AvesTerra, a knowledge management environment that supports [data integration](#) and synthesis to identify actionable events and maintain privacy, and Georgetown's vice president for research and chief technology officer, Spiros Dimolitsas, Ph.D.

"We knew that time was of the essence and the challenges of traditional contact tracing became very clear to us based on one of our first patients who had over 500 exposures," says Kassaye. "This was what motivated us to work on this, essentially day and night."

The tool launched on March 20, followed by initial testing of the system with the voluntary participation of 48 Georgetown University School of Medicine students or their social contacts. Participants were asked to enter data twice daily for three days between March 31 and April 5, 2020.

"The lack of identifying data being collected in the system should reassure individual users and alleviate personal inhibitions that appear to be the Achille's heel of other digital contact tracing apps that require identifying information," says Kassaye. She also noted that this system could be used by health-related organizations during the re-opening of business to provide reassurance to their users that the enterprise is actively, rather than passively, monitoring its staff.

Feedback from healthcare groups using the platform led to the release of a Spanish language version. As the data currently needs to be entered through the website, development of an app for [cellphone use](#) could greatly enhance the usability of the tool, said the investigators. For places where [internet access](#) is problematic, the researchers are also pursuing development of a voice activated version.

More information: Seble G Kassaye et al, Rapid Deployment of a Free, Privacy-Assured COVID-19 Symptom Tracker for Public Safety During Reopening: System Development and Feasibility Study, *JMIR Public Health and Surveillance* (2020). [DOI: 10.2196/19399](https://doi.org/10.2196/19399)

The tracker can be view at www.COVIDgu.org.

Provided by Georgetown University Medical Center

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