

## Column: AlohaSafe is key part of Hawaii's solution to the pandemic

By Karl Kim | Today



Karl Kim, Ph.D., is a professor of urban and regional planning at the University of Hawaii.

The most critical need during public health emergencies is timely, accurate information. Over the last several months, Hawaii has implemented powerful technology to support the reopening of businesses and our economy to tourism. With the Department of Health and community organizations, the AlohaSafe electronic contact tracing and notification system collects vital information using Bluetooth low-energy technology and privacy-preserving cryptography on Apple and Android smartphones.

The app helps traditional contact tracers to identify people who may have come in contact with individuals infected with COVID-19.

Sharing of information is voluntary, confidential and done in a way to protect the identity of users. The free app can be downloaded from the Apple or Google stores.

Here's how it works: Individuals install the app on their phone. Every few minutes, the app exchanges random temporary codes with nearby phones. If a person tests positive for the coronavirus and consents to sharing information with the Department of Health, their codes are uploaded to a secure cloud server.

The codes are anonymous as they are randomly generated and change frequently. The app compares the reported positive codes with the codes it has exchanged, and notifies users if they may have been in close contact with an infectious person.

Additional information on how to contact the Department of Health is provided. It is all free, voluntary, confidential and no personal identifiers are transmitted.

Several scientific studies have demonstrated that the technology is more accurate in identifying people who may have been exposed to infected individuals than traditional contact-tracing methods. There have been simulations, pilot studies and evaluations of these electronic tracing technologies in Washington State, Canary Islands and in Hawaii.

More than two dozen states have set up similar, compatible systems including those likely to send visitors to Hawaii and where Hawaii residents are likely to go. While you need to install the app for the particular state you are visiting to receive and share information when traveling, it is important to note that Google Apple Exposure Network (GAEN) works on common platforms based on voluntary, confidential sharing of random codes over Bluetooth.

So far, more than 330,000 people have downloaded AlohaSafe. We have an opportunity, because of our remote island geography, to have widespread adoption and coverage of this technology.

Efforts to promote its use among arriving tourists are also underway. Because of limited mutual aid and health-care facilities, Hawaii needs to take additional precautions to track and limit the spread of the disease. We need to encourage our families and friends to use this app.

There is need to further identify high risk locations, campuses, gathering spaces where the likelihood of contagion can be countered with AlohaSafe.

Our research has shown that the disease spreads most quickly among those active in the economy and engaged in face-to-face social, recreational and cultural activities.

The efforts in Hawaii have succeeded because of robust public- private partnerships and vigorous protection of sensitive personal information while striving to share data for public health but also for individuals, businesses, schools and organizations that need to resume activities. In addition to masks, shields, handwashing, and social distancing, technologies like AlohaSafe are part of our long-term solution.

Developed by local companies and organizations, using homegrown technology assets, innovations like AlohaSafe are critical to the diversification of our economy and workforce development.

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