

# Next time let's be more prepared: Local COVID-19 prevention systems need work

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Although many pandemics have occurred throughout human history, digital technology enables the development of new tools for dealing with these events. But now, researchers from Japan have found that some of

these systems may not be as effective as initially hoped, indicating that we have much to learn about digital infection prevention.

In a study recently published in *Environmental Health and Preventive Medicine*, researchers from the University of Tsukuba have revealed that despite being associated with some positive health behaviors, use of a local system was not correlated with prevention of COVID-19.

Ibaraki's Amabie-chan is a system designed to limit the spread of COVID-19 in Ibaraki Prefecture, Japan. Like COVID-19 Contact-Confirming Application (COCOA), an international contact tracing app, the success of the system was limited because the number of active users was lower than expected. However, the system may have had a positive effect on health behaviors and attitudes that could limit the spread of [infection](#), something the researchers at the University of Tsukuba aimed to address.

"Ibaraki's Amabie-chan registration might have reminded users to take preventive action against infection," says first author Assistant Professor Daisuke Hori. "Because contact tracing systems are a new technology, we wanted to investigate the factors that make them work so that we can identify areas for improvement."

To do this, the researchers conducted an anonymous web-based survey of 347 people at two different workplaces in Tsukuba, Japan. The survey collected participant demographic characteristics as well as infection prevention behaviors, fear of contracting COVID-19, and the use of both Ibaraki's Amabie-chan and COCOA.

"The results were surprising," explains lead investigator Professor Shinichiro Sasahara. "Although the use of Ibaraki's Amabie-chan was associated with COCOA use and with the management of physical condition such as measuring body temperature, we found no association

between Ibaraki's Amabie-chan use and fear of COVID-19 or other nine type of behaviors focused on preventing infection."

"Our findings indicate that use of Ibaraki's Amabie-chan was not fully associated with infection control [behavior](#). As such, further investigation is needed to examine the factors that influence the use of this system and behaviors that prevent infection," says Assistant Professor Hori.

Identifying factors that influence effectiveness is critical to improving existing systems or designing new ones that encourage users to adopt safer behaviors. Further studies are needed to understand the factors that make such systems attractive to users, with the goal of preventing the spread of infection. Improving such systems so that they are more cost-effective and easier to use could be crucial in effectively dealing with future pandemics.

**More information:** Daisuke Hori et al, Ibaraki's Amabie-chan usage and its association with infection prevention behavior and fear of COVID-19: a cross-sectional preliminary survey of the Tsukuba Salutogenic Occupational Cohort Study, *Environmental Health and Preventive Medicine* (2022). [DOI: 10.1265/ehpm.22-00052](https://doi.org/10.1265/ehpm.22-00052)

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