

COVID-19 contact tracing data collection and management recommendations

This is a follow up to the report “Data management and analysis of COVID-19 data recommendations”. The first report did not include details regarding contact tracing. We have since obtained some basic information and have a specific recommendation that we want to share as soon as possible.

GAEN-based systems have mostly failed

It is our understanding that Puerto Rico’s Department of Health (PRDOH) is implementing a system based on Google/Apple Exposure Notification (GAEN) system. We are concerned over this decision because during the last few months, the number of news articles reporting of the failure of this approach has been growing. These are three examples:

<https://www.smh.com.au/politics/federal/much-hyped-contact-tracing-app-a-terrible-failure-2020-0628-p5570h.html>

<https://www.spiegel.de/international/germany/lots-of-work-but-little-utility-germans-disappointed-by-coronavirus-tracking-app-a-7c30191e-b225-4c37-917d-41dc2a6078a1>

<https://www.forbes.com/sites/ramseyfaragher/2020/10/19/what-if-contact-tracing-apps-could-warn-you-before-you-were-exposed-to-covid-19/?sh=70ea0dfb3909>

Alternative approaches

During our investigations we became aware that Dr. Arturo Portnoy, a mathematics professor in the UPR Mayagüez (arturo.portnoy1@upr.edu) has been involved in the testing of an alternative approach: the Novid app. You can find a description here:

<https://www.math.cmu.edu/~ploh/contact-tracing-flip.pdf>

This product also provides secure systems for monitoring that assure privacy. Dr. Portnoy has collaborated with the Novid development team and has indicated he can help negotiate a substantial discount. It does not appear he has a financial interest. Our recommendation is that Puerto Rico Science and Technology Trust collaborate with Dr. Portnoy as a consultant on this topic.

Prepared by the Data Science Advisory Committee Puerto Rico Science and Technology Trust

Members:

Rafael A. Irizarry (chair)

Professor and Chair, Department of Data Science, Dana-Farber University

Professor, Department of Biostatistics, Harvard T.H. Chan School of Public Health

María Eglée Pérez Hernandez

Professor and Chair, Department of Mathematics, University of Puerto Rico, Río Piedras