

How social scientists in Indonesia can help epidemiologists do COVID-19 contact tracing

April 20 2020, by Testriono, and Iqra Anugrah

Social science researchers in Indonesia can support epidemiologists to find people who have been in close contact with infected people. They can be tested, isolated and quarantined.

According to the World Health Organization, this strategy, called [contact tracing](#), is key in slowing down the spread of [coronavirus](#).

As of April 19, Indonesia had [6,575 confirmed cases after testing around 42,000 people](#). Some [15,646 people](#) who have had a fever and been coughing are in the category "patients under surveillance", having been traced to a contact with an infected person or having travelled from an infected country.

Indonesia also recently launched a mobile app, [PeduliLindungi](#), to trace people who have been in contact with a mobile phone owner who has tested positive for coronavirus. The move follows in the footsteps of countries like South Korea, Taiwan and Singapore, which have successfully used digital tools to carry out contact tracing.

But this may not be enough. According to Indonesia's COVID-19 national taskforce, [the country might see around 100,000 cases in May](#). That would surpass China, the initial epicentre of the outbreak, which has now managed to slow down the virus spread.

Indonesia already has the most COVID-19 fatalities in Southeast Asia with 582 deaths. And with the health system overwhelmed by

COVID-19 – [doctors and nurses are among the victims](#) – the country needs to carry out rigorous contact tracing to make sure those who risk spreading the disease can be tested and isolated.

Utilising social science tracing skills

Indonesia has been slow in tracing people who have come into contact with infected people. For example, there have been two significant potential spread clusters in February: a sharia business conference and an annual Protestant Churches of Western Indonesia (GPIB) gathering, both held in Bogor, around two hours south of Jakarta.

While some of those attending these events have been diagnosed with COVID-19, and some have even died, the events remain under-investigated. The weak contact tracing might contribute to slow detection. That leads to a higher number of fatalities, as well as rapid transmission of the virus, especially in provinces with a dense population such as Jakarta, West Java and East Java.

While experts in epidemiology are leading the fight against the novel coronavirus, [social science](#) researchers can also help make sure contact tracing is carried out in all provinces in Indonesia.

Contact tracing is especially important in light of Indonesia's policy on implementing [large-scale social restrictions](#) in cities and regencies across the archipelago. City and regency administrators have to seek approval from the Health Ministry to implement these measures, which include closing offices and schools and limiting people's movements, by showing an increase in COVID-19 cases and/or deaths. Tracing people who have had contact with infected people can help local health officials find suspected patients to be tested.

In addition, as Indonesia does not put asymptomatic people under

surveillance, contact tracing is important to make sure those who have been in contact with an infected person, but are not showing symptoms, quarantine themselves for at least 14 days.

Social science has a method called process tracing that's similar to the method of contact tracing needed to track the contacts of an infected person in epidemiology.

In social sciences, process tracing can be used to make inferences about the presence or absence of causes and outcomes. It is the process of finding or tracking information for an event. In process tracing, [social scientists](#) examine histories, [archival documents](#) and use interviews, direct observations and other sources to see whether the causal process they are interested in a case is evident in the chain of events under investigation.

Social scientists are thus equipped to help track down people who might have been infected by someone carrying COVID-19 as well as explore the spread of COVID-19 at the community level. They can take part in interviewing the infected person—using safe procedures such as by phone—and tracking the medical records of patient movements in the last two weeks.

Health ministry officials can use the data provided by those researchers for further actions: testing and isolating infected people.

Build local contact tracing teams

Although the window of opportunity is narrowing to contain the nationwide spread of the novel coronavirus, provinces with a small number of cases still have a chance to contain it by acting quickly and undertaking extensive contact tracing.

Indonesia's COVID-19 Task Force can cooperate with local university-based resources in provinces throughout Indonesia by creating a contact tracing team in every region that includes social science researchers as members. These researchers will then work with the task force in undertaking extensive COVID-19 contact tracing.

This initiative can even be developed to complement data from the new contact-tracing app to build an extensive research database tracing the spread of the disease in the country. This could also be a source for future studies on epidemiology, public health and social aspects of infectious diseases.

Transparency and science-based policy are key

To make the ideas proposed here work, the government needs to be transparent with data on COVID-19 infections and refrain from ad-hoc and militarised policies.

In countries that are successful in battling the pandemic, science dictates their policy. Their leaders work with experts and scientists, and have taken a fact-based, data-driven approach first and foremost.

Therefore, the government should consider cooperating with academic communities and even civil society actors, such as KawalCOVID19, that have come up with various initiatives to prevent further transmission of the disease in Indonesia.

The battle against the pandemic requires a decisive, swift and participatory approach. To compensate for its lacklustre performance, the government should integrate social science sensibility in its strategy of extensive [contact tracing](#) and enlist the help of social researchers to combat the disease more effectively.

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