

Letters to the Editor

Case Numbers Beyond Contact Tracing Capacity Are Endangering the Containment of COVID-19

by Matthias Linden, Jonas Dehning, Sebastian B. Mohr, Jan Mohring, Michael Meyer-Hermann, Iris Pigeot, Anita Schöbel, and Viola Priesemann in issue 46/2020

Correct Testing and Quarantine Measures Are Missing

The interesting analysis (1) needs to be expanded to include a decisive aspect. Namely, what are the sources of infection? The (inadequate) test method makes it obvious that these are the mostly younger (<60 years old) travelers who returned after the summer and autumn holidays. After short vacations of up to a week, around 50–100% of the asymptomatic infected individuals were able to enter the country undetected. The newly infected individuals who tested positive (who were, according to the Robert Koch Institute [RKI], mostly returning travelers) were initially easy to control using test, trace, and isolate (TTI). However, incoming travelers with false-negative results who remained undetected acted as drivers of infection and unknowingly formed the gateway for SARS-CoV-2, which subsequently spread to the second wave with a high number of unreported cases.

In Reply:

Improved tracking of exposure abroad is clearly relevant for the containment of COVID-19, as the arrival of newly infected individuals endangers the pandemic control (1, 2), especially if the number of undetected cases is high.

In a parallel publication, we examined the effects of such influx events according to the different levels of workload of the health authorities (test, trace, and isolate [TTI]) and were able to clearly quantify that a tipping point occurs when there are too many undetected carriers with viral loads (1).

In this current study, however, the reason behind the change in case numbers does not matter.

In addition, we find no evidence that the number of undetected cases increased significantly from July to September, despite a doubling of case numbers among people younger than 60 years (3). We also do not know of any evidence showing that the majority of asymptomatic returning travelers were able to remain undetected. The effects that

This virus introduction would have been effectively contained through adequate testing of all incoming travelers or, alternatively, by not travelling (Christmas holidays, December 2020/January 2021). As expected, there was a renewed increase of new infections at the end of November/beginning of December 2020, despite lockdown measures, due to returning travelers because correct test quarantine measures were not carried out. The resulting very high number of unreported cases prevents TTI and requires targeted, consistent measures to prevent the increase in new infections, making an undifferentiated lockdown method that causes collateral damage superfluous. DOI: 10.3238/arztebl.m2021.0153

Reference

1. Linden M, Dehning J, Mohr SB, et al.: Case numbers beyond contact tracing capacity are endangering the containment of COVID-19. *Dtsch Arztebl Int* 2020; 117: 790–1.

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you describe on the number of undetected cases should have shown up as unexpected deaths by September at the latest (3).

Returning travelers contributed to an increase in the number of cases, but not to a measurable increase in the number of undetected cases. DOI: 10.3238/arztebl.m2021.0154

References

1. Priesemann V, Balling R, Brinkmann MM, et al.: An action plan for pan-European defence against new SARS-CoV-2 variants. *Lancet* 2021; 397: 469–70.
2. Contreras S, Dehning J, Loidolt M, et al.: The challenges of containing SARS-CoV-2 via test-trace-and-isolate. *Nat Commun* 2021; 12: 378.
3. Linden M, Dehning J, Mohr SB, et al.: Case numbers beyond contact tracing capacity are endangering the containment of COVID-19. *Dtsch Arztebl Int* 2020; 117: 790–1.

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Conflict of interest statement:

The authors of both contributions declare that no conflict of interest exists.