Uptake and factors associated with the installation of the COVID-19 mobile contact tracing application among SARS-CoV-2 infected people in Amsterdam, the Netherlands



on behalf of the CONTROL Project Team

Introduction

Tracing and quarantining contacts is key in limiting SARS-CoV-2 transmission, but is labor intensive and time consuming. A tracing application for mobile phones could speed up contact tracing. This study aimed to assess determinants of installing the Dutch 'Coronamelder' application (CA).

Methods

We used anonymized routine SARS-CoV-2 source- and contact-tracing data collected between October 18th 2020 and January 19th 2021 in the Amsterdam region. Potential determinants were gender, age in years, municipality, the number of close contacts and country of birth. Logistic regression analysis was performed to identify determinants of CA installation. Continuous variables were modelled as b-splines.

Results

Of the 25359 SARS-CoV-2 positive cases, 4296 (16.9%) had installed the CA, 46.6% were male and their median age was 41 (IQR 29-55) years. Having installed the CA was associated with being male (adjusted odds ratio [aOR] 1.2, 95%CI 1.1-1.3) and living in Aalsmeer (aOR 1.5 95%CI 1.2-1.8), Amstelveen (aOR 1.4 95%CI 1.3-1.6) or Ouder-Amstel (aOR 1.9 95%CI 1.4-2.4) compared to living in Amsterdam. In general, people aged between 41 and 63 were more likely to have the CA than the youngest and especially the oldest individuals. People who reported <3 or >10 contacts were less likely to have the CA compared to those who had 3-10 contacts. Compared to people born in the Netherlands, those born in non-Western countries (aOR 0.3, 95%CI 0.3-0.4) and those born in other Western countries (aOR 0.7 95%CI 0.6-0.8) were also less likely to have the CA.

Conclusion

Attempts should be made to increase the use of the Coronamelder application, especially among people living in urban setting, those born outside of the Netherlands, and people with many contacts, in order to increase its potential impact on SARS-CoV-2 epidemic control.

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