

## Does the use of cash in daily purchases promote the spread of COVID-19?

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According to the World Health Organisation (WHO), the COVID-19 virus can spread from one person to another through small droplets originating from the mouth or nose of a person with COVID-19 who is coughing or just breathing out.<sup>1</sup> These droplets can be directly inhaled by another person while breathing, but can also land on the surface of objects. In the latter case, the COVID-19 virus can spread when other persons touch these surfaces and then touch their eyes, mouth or nose.<sup>1</sup> The lifetime of the COVID-19 virus on these surfaces has not been established yet, but comparison with other coronaviruses and preliminary studies on COVID-19 suggest that the virus may persist up to several days.<sup>1</sup> Many measures have been developed by several countries to limit the spread of the virus through inhalation, according to the WHO guidelines that invite to maintain social distancing.<sup>2</sup> In order to limit spread of the virus through contact with surfaces, the WHO advises to wash hands frequently.<sup>2</sup>

Hereby, I would like to propose to investigate an aspect of the spread of the COVID-19 virus through surfaces that, to the best of my knowledge, has not been considered in detail: the use of cash in daily transactions. Even in the countries that are currently applying the most restrictive measures to limit the spread of COVID-19 (e.g. in Italy at the time of writing), people are allowed to buy food on a regular basis. If this is done utilising cash, it implies the contact with a surface, thus providing a possible route for the spread of the virus. The habits in terms of paying in daily transactions differ significantly among countries in the European Union, with cash being the predominant method in Spain and Italy (87% and 86% of the transactions, respectively, in 2016), whereas the country in which the lowest fraction of transactions is done through cash is the Netherlands (44%).<sup>3</sup> A further distinction should be made between transactions with card that require inserting a pin-code or those that occur contactless, as only the latter would allow avoiding the contact with surfaces and thus be effective in preventing the spread of the virus.

The question is: would the use of contactless transactions help in limiting the spread of the COVID-19 virus?

This question arises from my scientific attitude towards critical analysis of the available data and from the observation that the COVID-19 virus seems to spread more readily in some countries than in others. However, my expertise is neither in medicine nor biology and I do not have sufficient knowledge to elaborate further on my hypothesis exposed above. Therefore, I would like to invite specialised researchers to investigate this topic to understand if measures related to the way in which transactions are carried out could help in limiting the spread of the COVID-19 virus.

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### References

[<sup>1</sup>] <https://www.who.int/news-room/q-a-detail/q-a-coronaviruses>, accessed on 29-03-2020.

[<sup>2</sup>] <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>, accessed on 29-03-2020.

[<sup>3</sup>] <https://www.statista.com/statistics/786680/share-of-cash-transactions-at-pos-in-europe-by-country/>, accessed on 29-03-2020.