As of 31 March 2020, the EU Reference Laboratory for Foodborne viruses, the Swedish Food Agency, has not posted a Coronavirus update.

Emerging data on coronavirus viability unanimously point to the possibility of additional transmission routes (Yeo et al, Lancet, 2020; Kampf et al, JoHI, 2020; N van Doremalen et al, NEJM, 2020). In practice, hand hygiene had a clear protective effect in SARS (see Yen et al, 2010), indicating contact transmissions as significant transmission factor.

In 2011, EFSA gave a more honest opinion: “Viruses do not multiply in foods, but may persist for extended periods of time as infectious particles in the environment, or in foods.”. Also good to remember that and why existing food hygiene regulations do not tackle viral – as opposed to bacterial - contamination well (see WHO 2008).

* There is no evidence since the necessary data are missing
  + Data on virus viability; although it has been shown that SARS/MERS-CoV are viable under various conditions. “Although direct droplet transmission is an important route of transmission, faecal excretion, environmental contamination, and fomites might contribute to viral transmission” (Yeo et al in Lancet 2020)
* (see EFSA’s own conclusion in 2011)
* The missing data are ‘known unknowns’ in the literature, such as transfer efficiencies, and it would be urgent to find these out. Partial data indicate the following -worrying - findings:
* A meta review (Kampf et al, JoHI, 2020) concluded that touch surfaces are a potential source of transmission, and that data on transmissability is unavailable.
* Lab and practical studies confirm that contact transmissions
* Hand hygiene clearly showed a protective effect in SARS (see Yen et al, 2010), indicating that contact transmissions had been a significant factor.
* From a policy perspective, it has been identified for some time that the 2004 EU food hygiene regulations are largely adequate to tackle bacterial, but not viral contamination (see WHO 2008).

In terms of preparing Food Borne Viruses [[1]](#footnote-1): “This data suggests that there is a need for education on risks of norovirus transmission for food handlers in institutions and restaurants (Boxman, Food Control, 2015)”.

“The most common viruses implicated in foodborne disease are enteric viruses, which are found in the human gastrointestinal tract”. “Emerging viruses should be monitored, particularly when new problems arise, in an effort to assess the potential for foodborne transmission. The specific research needs to address this question should be defined at the early stages of their emergence.” (WHO, 2008). The WHO defined the following agenda: “To adequately control foodborne viral infections it will be necessary to: heighten awareness of the potential for transmission by infected food handlers; optimize and standardize methods for detection of foodborne viruses and foodborne disease outbreaks; enhance laboratory-based surveillance to detect large common-source outbreaks at an early stage; develop quality control measures specifically for virus control; take into consideration the role of viruses as foodborne pathogens in the development of HACCP plans; inform consumers of the risks presented by foodborne viruses; and better understand transmission and risk through the application of risk assessment.”

EFSA, Scientific opinion on an update on the present knowledge on the occurrence and control of foodborne viruses, EFSA J., 9 (2011), p. 2190

Albert Bosch, Elissavet Gkogka, Françoise S. Le Guyader, Fabienne Loisy-Hamon, Alvin Lee, Lilou van Lieshout, Balkumar Marthi, Mette Myrmel, Annette Sansom, Anna Charlotte Schultz, Anett Winkler, Sophie Zuber, Trevor Phister, Foodborne viruses: Detection, risk assessment, and control options in food processing, International Journal of Food Microbiology, Volume 285, 2018, Pages 110-128, ISSN 0168-1605, <https://doi.org/10.1016/j.ijfoodmicro.2018.06.001>

Issues to be considered: viral persistence and stability in different environments

transfer rates

“there are current data gaps in the understanding of foodborne viruses and their behavior”.

It is clear that there are a number of ‘known unknowns’ relating to the behavior of foodborne viruses in general, including the coronaviruses. However, several studies have partial findings which support the conclusion that coronaviruses may be a hazard in the food supply chain: a 2018 study of different viruses concluded that,

1. <https://www.livsmedelsverket.se/globalassets/english/production-control-trade/eurl/minutes-from-the-2nd-workshop-for-nrls-for-foodborne-viruses-2019.pdf> [↑](#footnote-ref-1)