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Report on the monitoring of zoonoses and food-borne disease outbreaks

Data for 2021

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Summary

In 2021, reported cases of zoonotic disease in humans increased again overall compared to 2020 and are almost back to the same high level as before the SARS-CoV-2 pandemic. This mainly concerned the pathogens *Campylobacter*, *Salmonella* and Shigatoxin-forming *Escherichia coli* (STEC). Depending on the disease, the measures taken in the context of the SARS-CoV-2 pandemic and the associated behavioural changes may have had a continuing influence on case numbers.

With 6,793 laboratory-confirmed cases in humans in 2021 (compared with 6,196 in the previous year), **campylobacteriosis** was again the most commonly reported zoonosis. In most cases, humans are infected through contaminated food (e.g. by handling raw or undercooked poultry meat). The bacterium occurs commonly in the gut of chickens but does not pose a threat to their health.

In the case of **salmonellosis**, which remains the second most reported zoonotic disease in Switzerland, 1,487 laboratory-confirmed cases were recorded in humans in 2021 (compared with 1,260 in the previous year). The number of salmonellosis cases in animals increased in 2021, to 127 cases from 99 in 2020, but remains very low. The main animals affected were cattle, reptiles, dogs and cats.

STEC infections also showed an increase in case numbers, rising to 922 in 2021 (compared with 715 in the previous year). From 2014 to 2019, case numbers had risen steadily, largely due to an increase in testing thanks to new techniques, resulting in more frequent identification of cases. This rising trend was temporarily curbed by the start of the pandemic.

There was a significant increase in **tularaemia**, with 213 cases (133 in the previous year). The long-standing rising trend continued in 2021. The reason for the increase is not known, but it could be due at least in part to greater awareness among the medical profession.

A total of 37 **outbreaks of food-borne disease** were reported by the control authorities in Switzerland. More than 540 people fell ill and at least 40 were hospitalised. Most of the outbreaks (32) only involved one canton. The other five outbreaks involved at least four different cantons, and one extended to countries other than Switzerland. Food-borne disease outbreaks were relatively rare in 2020 (13 outbreaks). In contrast, 2021 saw a significant increase in the number of outbreaks reported by the authorities (37). There are several hypotheses to explain the causes of this increase, but so far they remain unconfirmed.

An outbreak of **hepatitis E** was recorded in spring 2021, with a total of 105 human cases reported during the outbreak. Despite extensive epidemiological and molecular biology investigations, no particular food was identified as the cause. However, this case can serve as an instructive example of One Health practice, showing how effective interdisciplinary collaboration between authorities, researchers and producers can contribute to a wide-ranging outbreak investigation.

Zoonotic members of the **Chlamydiaceae** family are the pathogens of chlamydiosis in humans. A fatal human case of severe pneumonia due to *Chlamydia psittaci* in 2021 was traced to pet birds (parrots). In addition, in 2020 and 2021, two pregnant women contracted chlamydiosis caused by *Chlamydia abortus*. Animal owners should be made more aware of zoonotic chlamydia, for example through direct discussions with veterinarians. Abortion investigations, especially in ruminants, help to identify a possible infection risk in good time and to prevent infections in humans.