Public knowledge and preventive behavior during a large-scale Salmonella outbreak: results from an online survey in the Netherlands

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Background
Food-borne Salmonella infections are a worldwide concern. During a large-scale outbreak, it is important that the public follows preventive advice. To increase compliance, insight in how the public gathers its knowledge and which factors determine whether or not an individual complies with preventive advice is crucial.

Methods
In 2012, contaminated salmon caused a large Salmonella Thompson outbreak in the Netherlands. During the outbreak, we conducted an online survey (n = 1,057) to assess the general public’s perceptions, knowledge, preventive behavior and sources of information.

Results
Respondents perceived Salmonella infections and the 2012 outbreak as severe (m = 4.21; five-point scale with 5 as severe). Their knowledge regarding common food sources, the incubation period and regular treatment of Salmonella (gastro-enteritis) was relatively low (e.g., only 28.7% knew that Salmonella is not normally treated with antibiotics). Preventive behavior differed widely, and the majority (64.7%) did not check for contaminated salmon at home. Most information about the outbreak was gathered through traditional media and news and newspaper websites. This was mostly determined by time spent on the medium. Social media played a marginal role. Wikipedia seemed a potentially important source of information.

Conclusions
To persuade the public to take preventive actions during outbreaks, public health organizations should deliver their message primarily through mass media. Wikipedia seems a promising instrument for educating the public about food-borne Salmonella.

Key messages
• To persuade the public to take preventive actions during outbreaks, public health organizations should deliver their message primarily through mass media.
• Wikipedia seems a promising instrument for educating the public about food-borne Salmonella.