



# Regional rates of notified cryptosporidiosis compared with drinking-water supply quality in Aotearoa New Zealand

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## *Abstract Only*

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This paper will correlate incidence of cryptosporidiosis with drinking-water supply quality at the geographical level of drinking-water distribution zones in New Zealand. Such linking of disease surveillance with hazard surveillance is an advance in the development of evidence based Public Health practice.

Waterborne spread of *Cryptosporidium parvum* has the potential to affect large numbers of people, as demonstrated in the Milwaukee outbreak in 1993 in which over 400,000 people were affected. National research into the relationship between surveillance of drinking-water quality and of human health can provide important new information about the accuracy of risk assessment in current grading systems, and guide policy to ensure that surveillance systems are appropriate to protect the health of communities.

The paper will present the findings of a review of 916 cases of cryptosporidiosis notified to Medical Officers of Health in New Zealand over a two year period. Notified cases of cryptosporidiosis will be mapped according to drinking-water distribution zone. Adjusted rates of notified cryptosporidiosis will be overlaid with three measures of water quality:

Public health grading of water supply;

Performance of drinking water distribution zone on microbiological testing (pass/fail); and

Compliance of drinking-water supply treatment plants with national *Cryptosporidium* standards.

The paper will include a description of the development of methods of analysis that have the potential to be used more widely in waterborne disease and drinking-water quality research.

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