

# Scientific Interpretive Summary

## Ranking of the cost of foodborne disease for New Zealand

The Science Group has an ongoing series of projects to develop a risk ranking system for microbiological hazards in the food supply. This system is used to set strategies and work priorities that are proportional to the foodborne risks faced by consumers. This project involved preparing estimates for the direct and indirect economic burden of certain gastrointestinal diseases in New Zealand using a Cost of Illness matrix. The estimates represent a combination of the numbers of cases generated by the Disability Adjusted Life Years project, carried out during 2006 – 2007 utilising 2005 data, with unit costs from 2006 – 2007.

The total cost to New Zealand society due to foodborne campylobacteriosis, salmonellosis, listeriosis, STEC / VTEC infection, yersiniosis and norovirus infection is estimated to be \$86 million (95% CI \$61m to \$115m), with approximately 90% of the cost attributable to lost productivity due to absence from the work force. Campylobacteriosis accounted for approximately 90% of the total estimated cost of foodborne illness. The highest cost per case was for listeriosis and the lowest for norovirus infection.

While methodologies differ quite markedly, these findings are reasonably consistent with previous studies in New Zealand. International comparisons are not appropriate because of differences in range and incidence of diseases, levels of exposure and health sequelae.

The estimates from the current project are only approximate because of:

- Uncertainty about the annual number of cases of the diseases studied and the proportion of these diseases that are foodborne
- Lack of New Zealand-specific information about the epidemiology and clinical course of the diseases included in the study
- Lack of information on the extent of caregiver absence from work.

The study did not attempt to value losses due to time lost with the diseases, other than those associated with lost working time. Costs due to surveillance and control activities are not included.