

Scientific Interpretive Summary

Estimating the Economic Cost of Foodborne Disease in New Zealand

For regulators to make the best use of food safety resources, they need to identify, assess and compare the risks posed by various contaminant/food combinations and prioritise opportunities for reducing risks through targeted food control initiatives. Reliable estimates of both the incidence of foodborne illness and its financial impact are essential for informing policy decisions in food safety. The previous (2005) New Zealand estimates of the cost of foodborne disease had a number of uncertainties and data limitations.

Five main components to the cost of enteric foodborne diseases were identified:

- Costs of regulation and surveillance incurred by the Government
- Costs borne by businesses, including the costs of compliance and the consequential costs of food incidents and disease outbreaks
- Costs of treatment—incurred mainly by the government by way of subsidies towards the cost of GP services, other community care and payments for inpatient hospital care
- Costs associated with loss of output because of worker absenteeism caused by foodborne disease
- Personal and lifestyle costs incurred by households and individuals in connection with private disbursements (where no recourse to government subsidy exists) and pain, suffering and disruption, including the possibility of premature death.

Utilising these inputs, the economic cost of the six major enteric diseases was estimated.

Central estimates for the aggregate cost of foodborne disease in 2009 for each of the five cost categories identified are:

Type of cost	\$ million	
Government outlays	16.40	
Industry costs	12.30	
<i>Subtotal, government & industry costs</i>		28.70
Treatment costs	6.19	
Output loss ¹	27.32	
Residual private costs	99.67	
<i>Subtotal, incident case costs</i>		133.19
Grand total		161.90

¹Includes losses borne by households

Campylobacteriosis is the most costly foodborne disease recognised within the health system, amounting to \$36 million or 27% of all disease-specific costs—followed by salmonellosis (\$15.4 million, 12%) and listeriosis (15.2 million, 11%). There is good scientific evidence that the NZFSA *Campylobacter* Strategy has been responsible for a reduction in the annual number of incident cases of campylobacteriosis between 2006 and 2009 of some 53%, with a saving of the order of \$40 million annually. Estimated aggregate incident foodborne case costs of \$133.2 million for 2009 (i.e. exclusive of government and industry costs) are higher than the central estimate for 2005 of \$85.3 million, partly because the latter excluded residual lifestyle costs.

The principal data uncertainties in these updated estimates still lie in the diseases estimates and the portions attributable to food

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