New Zealand’s *Campylobacter* Risk Management Strategy

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Growing and Protecting New Zealand

www.mpi.govt.nz
Strategy goals & objectives

**Goal:**
- achieve 50% reduction in the incidence of foodborne campylobacteriosis after five years (2008-2012)

**Objectives:**
- estimate proportion of cases attributable to poultry & other sources
- contributions of different interventions
- better inform risk management decisions
- assess effectiveness through monitoring and review
- coordinate and prioritise research
Risk Management Framework

- Monitoring and review
- Preliminary risk management activities
- Identification and selection of risk management options
- Implementation of control measures
- Implementation tools
- Control measures
  - Regulations
  - Decision support tools

- Risk profiling
  - Scientific evaluation
  - Risk assessment

- NMD
  - Targeted audits
  - Targeted surveys
  - Human surveillance
  - Food source attribution
Control measures

• GHP-based
  – Qualitative, empirical, prescriptive
  – Example: dressing requirements at process steps such as evisceration

• Hazard-based
  – Scientific, quantitative, validated, expected human health benefit
  – Example: immersion chilling, post-chill application of acified sodium chlorite, *Campylobacter* performance target

• Risk-based
  – Developed from information on risk, quantitative, validated against level of consumer protection
  – Example: *Campylobacter* performance target, FAO/WHO web-based tool
Science programme

• Implementation of the *Campylobacter* Strategy has been strongly underpinned by science

• Level of co-operation between government and industry has led to a high measure of success in identifying, prioritising, scoping and funding of operational research projects

• Strong links with scientists in New Zealand and overseas e.g. attribution, risk modelling
• NMD requirements:
  
  • *Campylobacter* performance target mandated since Feb 2008:
    
    – high count limit
    
    – quarterly median limit
    
    – Moving window and enumeration limit of $3.78 \log_{10} \text{CFU/carcass}$
International collaboration

- Liaison with overseas competent authorities
- Codex: Guidelines for control of Campylobacter and Salmonella spp. in chicken meat
Science outcomes

- On-farm projects have shown wide potential for breaches in biosecurity and no “silver bullet”
- Monitoring projects throughout the food chain have resulted in an effective and high-quality NMD and availability of critically-important data for risk management
- Contamination projects have shown that effective process control relies on a whole-of-food-chain approach
- Science projects provide essential inputs to risk modelling and evaluation of CPT options
Source of human cases 2008

<table>
<thead>
<tr>
<th>Source</th>
<th>Proportion of human cases</th>
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<tbody>
<tr>
<td>Cattle</td>
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<tr>
<td>Chicken</td>
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<td>Bird</td>
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Source Attribution Estimates – Island model
Caecal sampling – percentage +ve cuts

Percentage positive cuts

Cut 1
Cut 2
Cut 3
Cut 4
Prevalence: in 2nd quarter 2007 was 57%  
in 4th quarter 2011 was 40%
Quarterly progress – human incidence
Progress relative to MPI goal
Country comparison 2010

Campylobacteriosis

NZ | USA | Australia | UK | EU | Iceland | Norway | Denmark | Sweden | Czech | Japan

1/100,000 popn.
Acknowledgements

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  - Gail Duncan
  - Sonja Taege

- NZ Poultry industry and its Association (PIANZ)
The End