

## **The Australian Society for Microbiology Annual Scientific Meeting, Melbourne, Victoria, 2002.**

### **An international outbreak of *Salmonella* Stanley associated with dried peanuts—the importance of thorough local investigation and widespread communication.**

Dania Genobile<sup>1</sup>, Agnes Tan<sup>2</sup>, Martyn Kirk<sup>3</sup>, Joan Powling<sup>2</sup>, Diane Lightfoot<sup>2</sup>, Heather O'Donnell<sup>1</sup>, Victor Di Paola<sup>1</sup>, Meredith Caelli<sup>4</sup>, Kelly Crouch<sup>5</sup> and *The Outbreak Investigation Team*<sup>1</sup>.

<sup>1</sup> Department of Human Services (DHS), Victoria

<sup>2</sup> Microbiological Diagnostic Unit (MDU), The University of Melbourne

<sup>3</sup> OzFoodNet, Australia

<sup>4</sup> Hunter Public Health Unit (PHU), New South Wales

<sup>5</sup> Australia New Zealand Food Authority (ANZFA)

#### **Introduction**

*Salmonella* Stanley is an uncommon serotype in Australia, with approximately 30 cases each year in overseas travellers. In July 2001, Australian health departments investigated an increase in locally acquired cases of *Salmonella* Stanley in people of Asian ethnicity. OzFoodNet coordinated the national response to this cluster investigation.

#### **Methods**

Health departments conducted hypothesis-generating interviews of people infected with *S. Stanley*, including visits to shops nominated by cases. Outbreak associated cases were defined as a person infected in Australia after May 2001, with *S. Stanley* that was fully sensitive to antibiotics. Investigators used a structured questionnaire to grade exposure to implicated foods. Public health laboratories tested food specimens for *Salmonella* sp. and the Microbiological Diagnostic Unit (MDU) conducted antimicrobial testing and Pulsed Field Gel Electrophoresis on isolates from humans and foods.

#### **Results**

Health Department investigations identified two cases reporting consumption of "Farmer Brand" Shandong peanuts. These peanuts tested positive for *S. Stanley* that was indistinguishable from human outbreak cases by PFGE. Twenty-seven (68%) out of forty outbreak cases reported eating these peanuts in the week prior to illness, or had the specific brand in their house in the month prior to illness. MDU also identified *Salmonella* Newport in the peanuts, and two cases of *S. Newport* reported eating the product. The peanuts were recalled across Australia and distribution halted. International investigators identified the implicated product and human cases in Canada and the United Kingdom.

#### **Discussion & Conclusion**

Peanuts are a high-risk product and have been previously implicated in large outbreaks of salmonellosis. The source of this outbreak would not have been identified without thorough hypothesis generating interviews at the local level. This outbreak showed again the importance of investigators communicating about foodborne outbreaks and sharing molecular patterns of outbreak strains. This information sharing at regional and global

---

<sup>1</sup> Other members of the Outbreak Investigation Team are (in Alphabetical Order): Scott Crerar (ANZFA), Craig Dalton (Hunter PHU), Kerena Eckert (DHS, South Australia), Rod Givney (DHS, South Australia), Joy Gregory (OzFoodNet, Victoria), Geoff Hogg (MDU, Victoria), Lynn Meuleners (OzFoodNet, Western Australia), Heather O'Donnell (DHS, Victoria), Kerry-Ann O'Grady (DHS, Victoria), Russell Stafford (OzFoodNet, Queensland), Leanne Unicomb (OzFoodNet, Hunter)

levels is vital to tackle emerging serotypes of *Salmonella* and other foodborne pathogens. Despite the international cooperation in this outbreak, the investigation failed to identify the original source of peanut contamination.