

# Multistate Outbreak of *E. coli* O157:H7 Infections Associated with In-shell Hazelnuts

Carrie E. Rigdon, Ph.D.  
Minnesota Department of Agriculture  
GLBHI Annual Conference  
May 5, 2011



## Collaborative Effort



## Case-Patient Summary

- 8 cases of *E. coli* O157:H7 from Michigan (1), Minnesota (3), and Wisconsin (4)\*
  - \*Epi and traceback investigation = 7 cases
- Illness onset date range: December 20, 2010 to February 16, 2011
- Age range: 15 to 78 years, with a median age of 63 years; 75% were male
- 50% hospitalized, no HUS, no deaths
- No common exposures of the “usual suspects”



## Simplified Nut Exposure Traceback

**7**

**111**  
persons



4 with in-shell “mixed nuts” exposure  
and 3 with in-shell hazelnuts exposure



## *Simplified* Nut Exposure Traceback

7 → 7

**Ill  
persons**

**Retail  
Stores**

Different companies, geographically  
dispersed



## *Simplified* Nut Exposure Traceback

7 → 7 → 2

**Ill  
persons**

**Retail  
Stores**

**Distributors  
(MN, WI)**

6 stores supplied by one Distributor;  
had good internal traceability



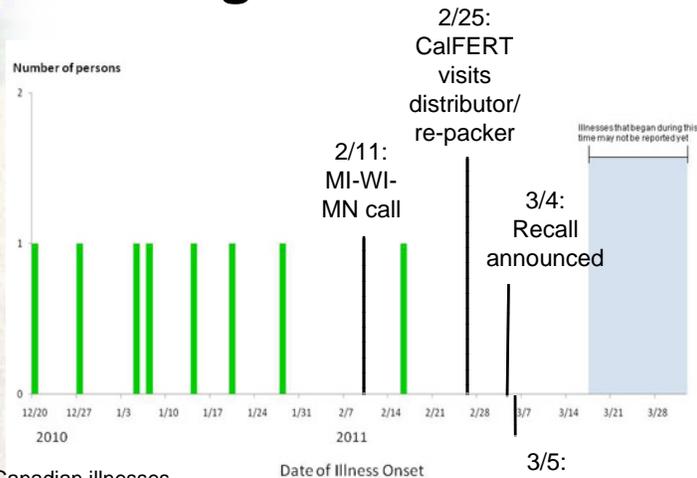
# Simplified Nut Exposure Traceback



Distributed hazelnuts and re-packed them into mixed nuts; had record-keeping gaps



# Epi Curve and Investigation Timeline



(2 Canadian illnesses determined by lab analysis to not be part of this cluster)



# Summary

- Good rapport → willing to pursue nuts
- Frequent communication was key to success
- Highlighted importance of supply chain traceability