



voedsel en waren autoriteit

NRL - *Escherichia coli* The Netherlands

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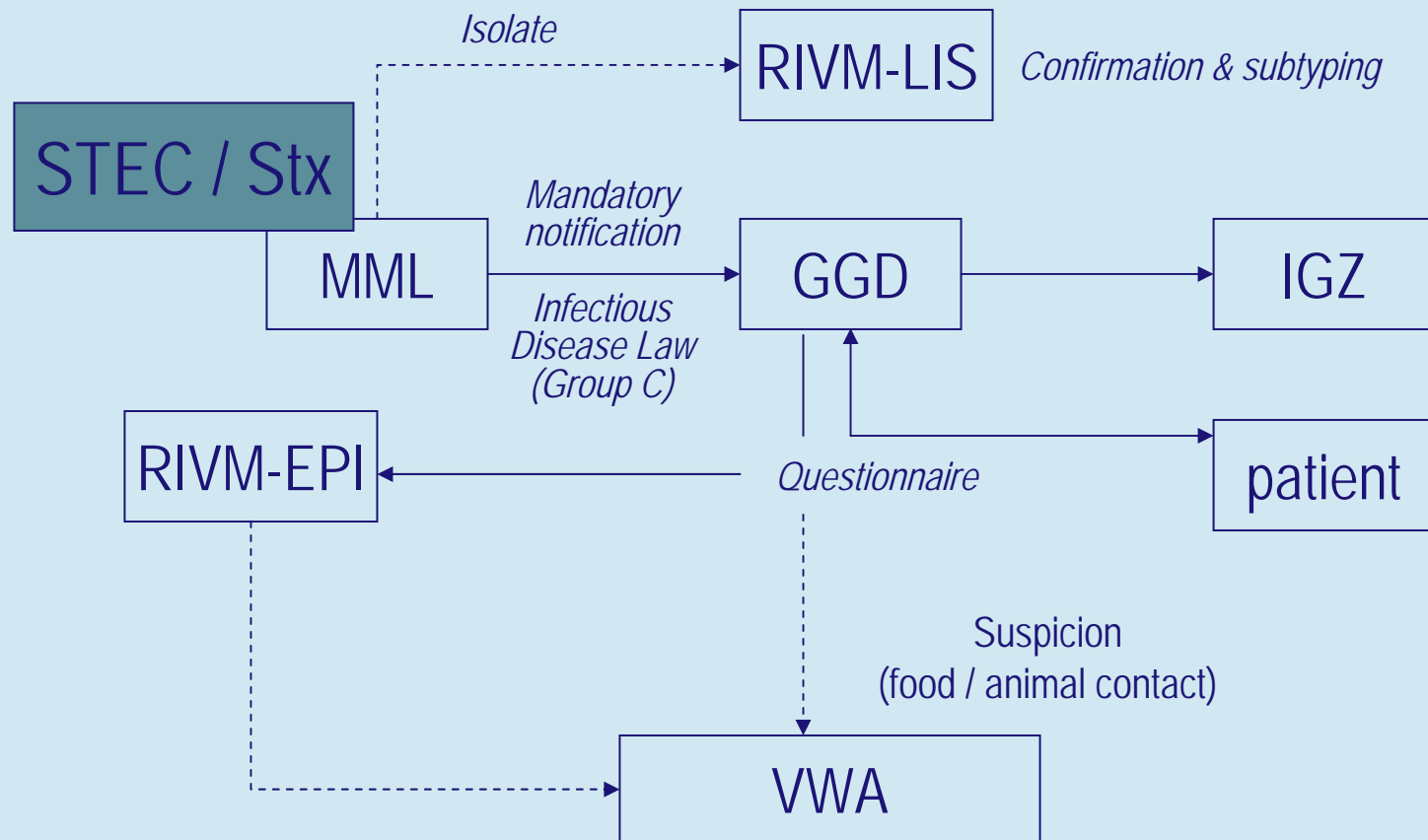
Enhanced laboratory-based surveillance of STEC O157

Goal

- Knowledge of laboratory-confirmed cases of STEC O157 infection
- Identifying clusters / epidemics
- Identifying infection sources

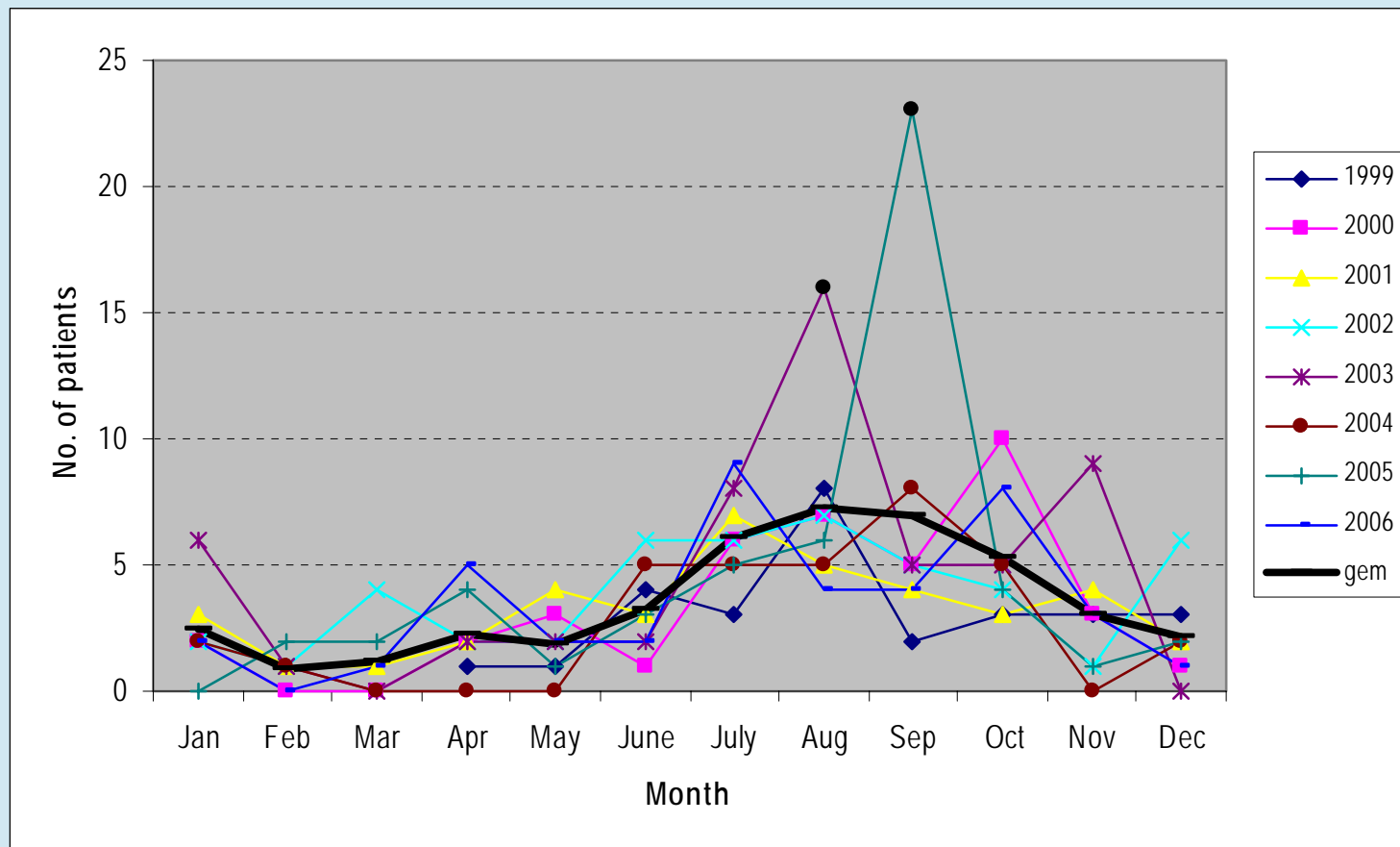
- Intervention possibilities

Enhanced laboratory-based surveillance of STEC 0157





Enhanced laboratory-based surveillance of STEC O157

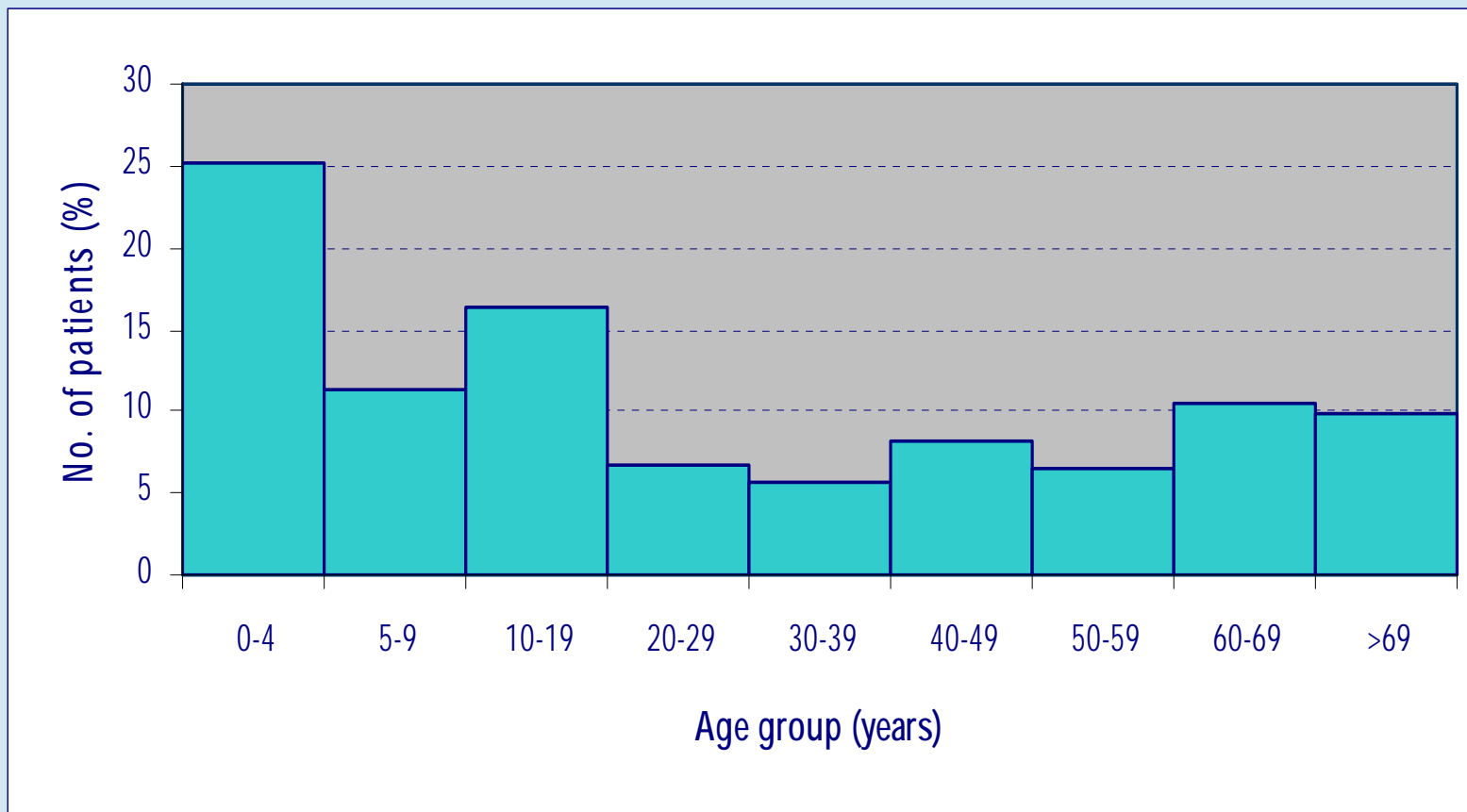


- 1999 N = 36
- 2000 N = 43
- 2001 N = 41
- 2002 N = 49
- 2003 N = 57
- 2004 N = 35
- 2005 N = 53 (21 (40%) outbreak-cases)
- 2006 N = 40

0.22 – 0.35 cases per 100,000 inhabitants per year

Source: RIVM, EPI

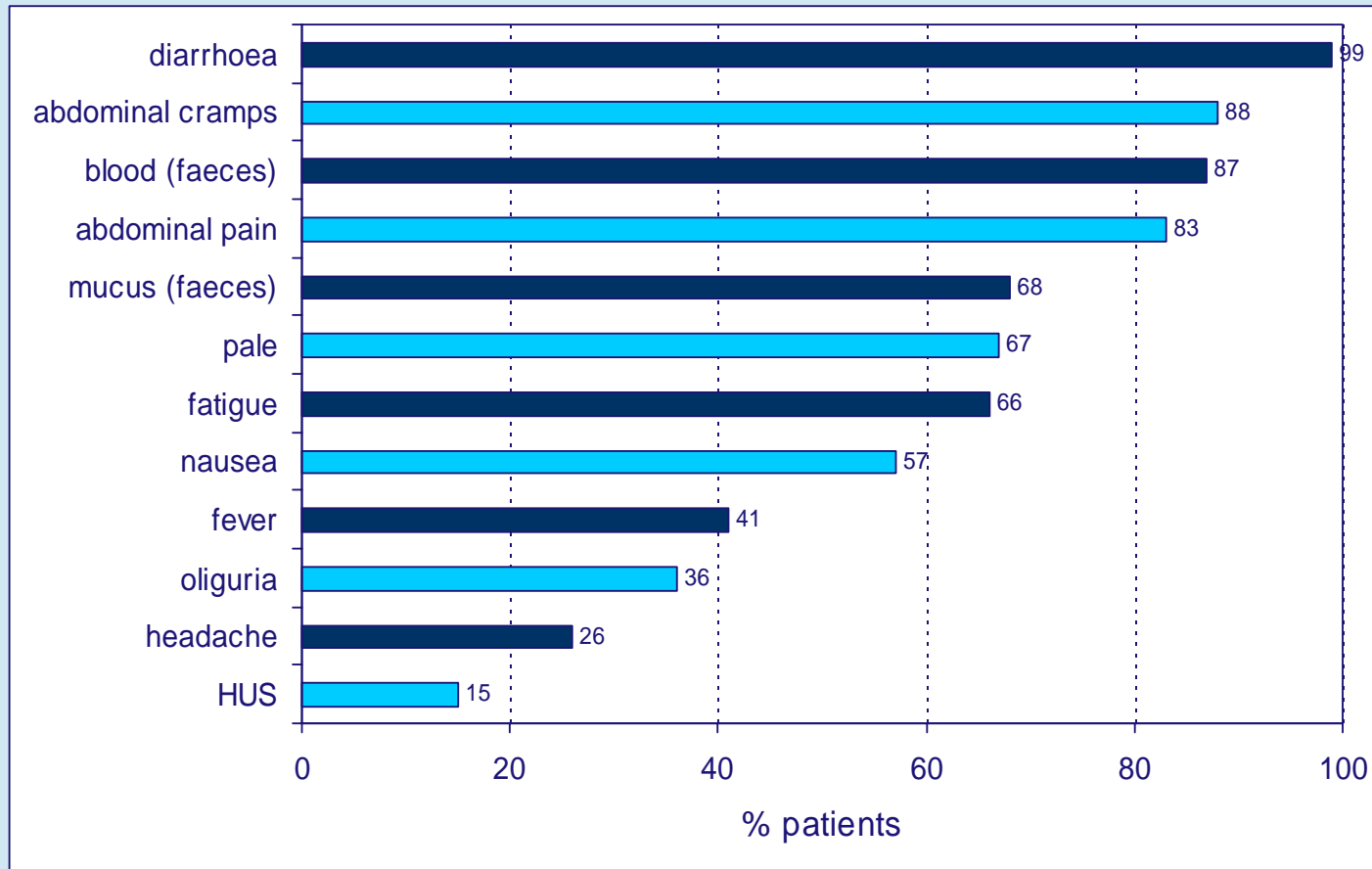
Enhanced laboratory-based surveillance of STEC O157



Source: RIVM, EPI

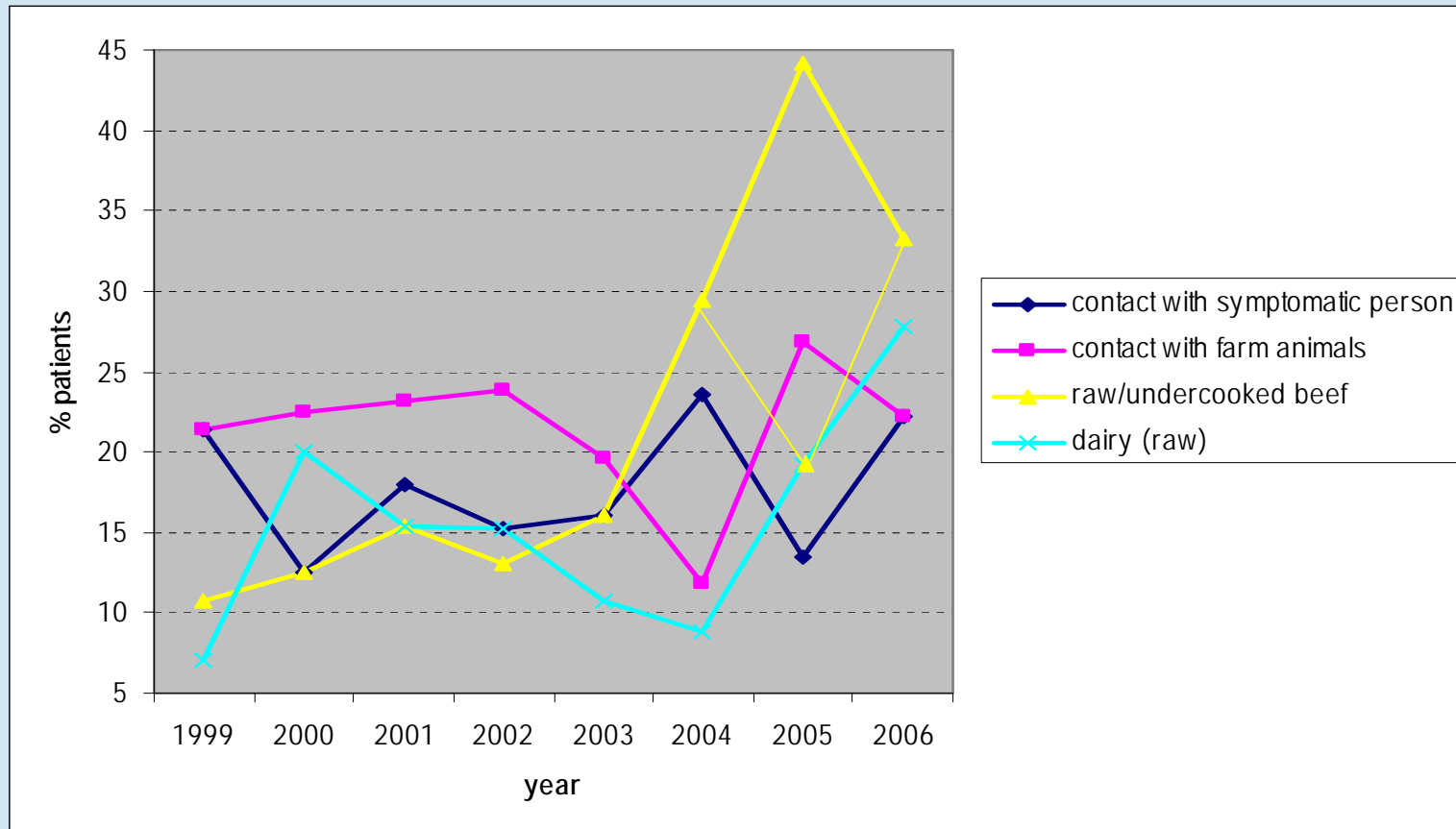


Enhanced laboratory-based surveillance of STEC 0157



Source: RIVM, EPI

Risk factors



Bron: RIVM, EPI

Farm animals

Epidemiol. Infect. (2002), **129**, 295–302. © 2002 Cambridge University Press
DOI: 10.1017/S095026880200732X Printed in the United Kingdom

***Escherichia coli* O157 infection associated with a petting zoo**

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Public farms: hygiene and zoonotic agents

A. E. HEUVELINK*, S. M. VALKENBURGH, J. J. H. C. TILBURG,
C. VAN HEERWAARDEN, J. T. M. ZWARTKRUIS-NAHUIS AND E. DE BOER

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Meat



Outbreak report

Eurosurveillance monthly release	Shiga toxin-producing Escherichia coli (STEC) O157 outbreak, The Netherlands, September – October 2005	volume	11
		issue	7-8
		publication date	July / August 2006

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Dairy



jaargang 16 nummer 08 2005 (pagina 286-288)

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Escherichia coli O157 en/of *Campylobacter*

Zo rauw hadden ze het niet gegeten, maar wel gedronken.



Vegetables & fruits ?



STEC O157 outbreak in the Netherlands, September-October 2007

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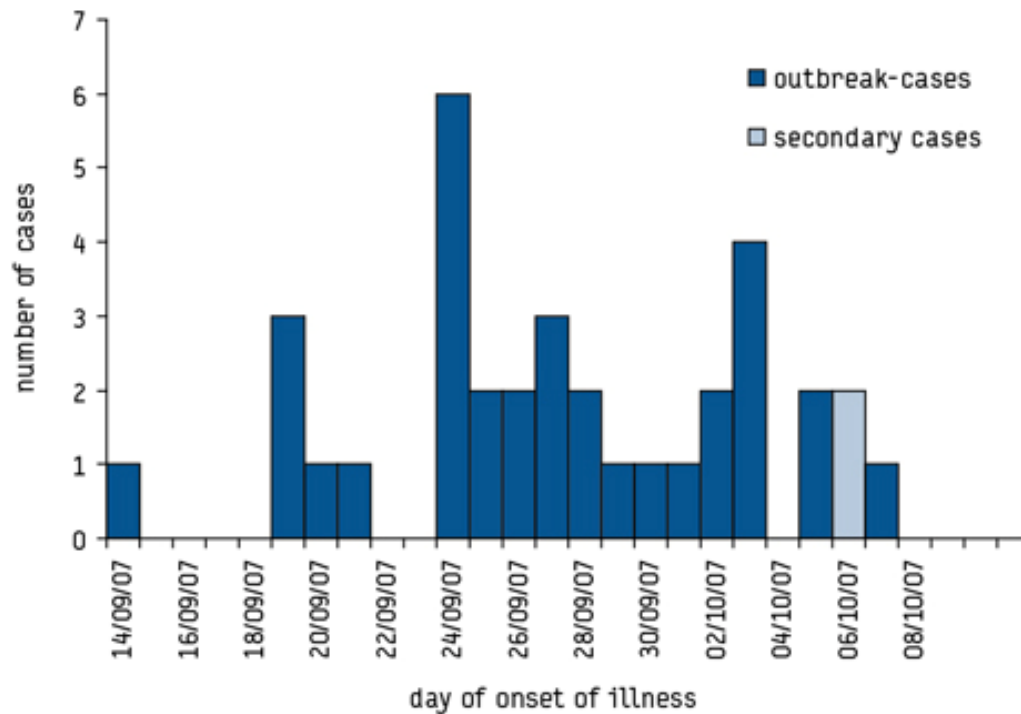
1. Centre for Infectious Disease Control, Rijksinstituut voor Volksgezondheid en Milieu (National Institute for Public Health and the Environment, RIVM), the Netherlands

2. Food and Consumer Product Safety Authority, the Netherlands

Epi curve

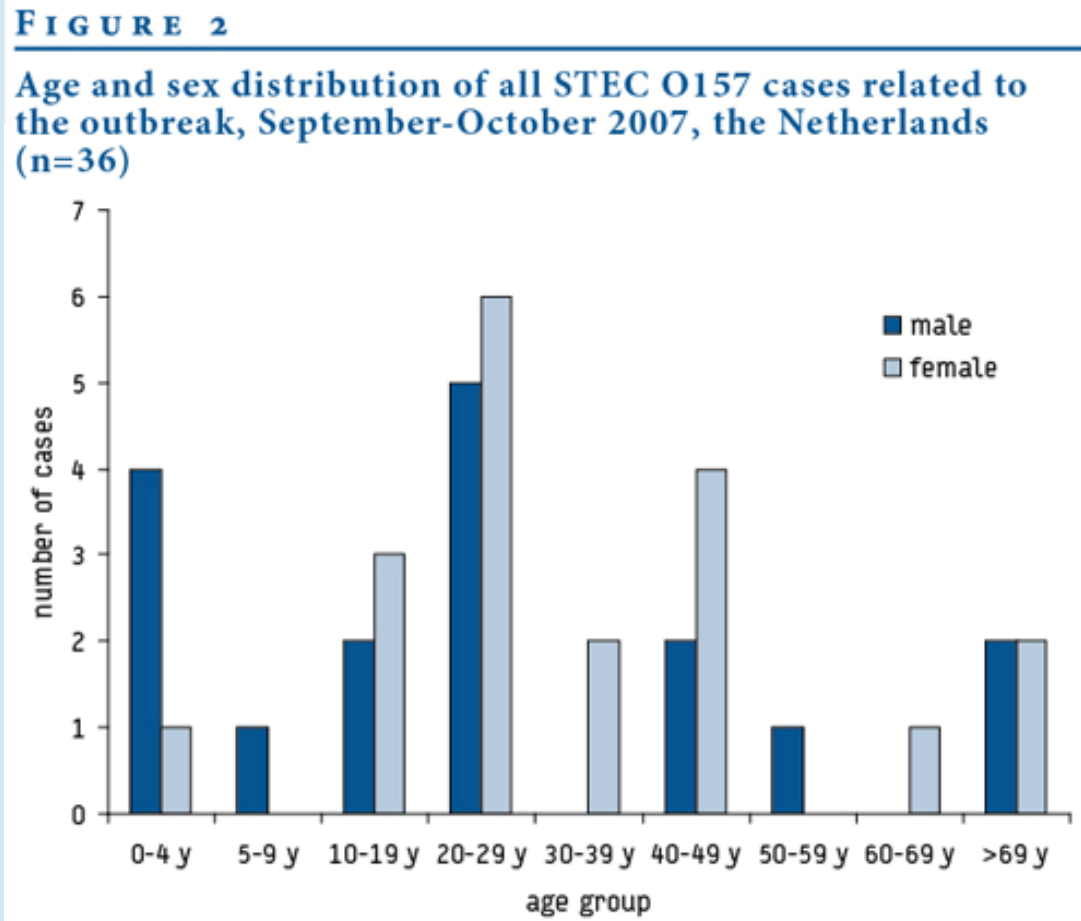
FIGURE 1

Epidemic curve by onset of symptoms of all STEC O157 cases related to the outbreak, September-October 2007, the Netherlands (n=35)



<http://www.eurosurveillance.org/ew/2007/071101.asp#1>

Age and sex



<http://www.eurosurveillance.org/ew/2007/071101.asp#1>



Risk factors

Case – case study: raw vegetables ($p=0.06$)

- patients belonging to the outbreak ($n=31$): 71%
- other, previously diagnosed patients 2007 ($n=37$): 49%

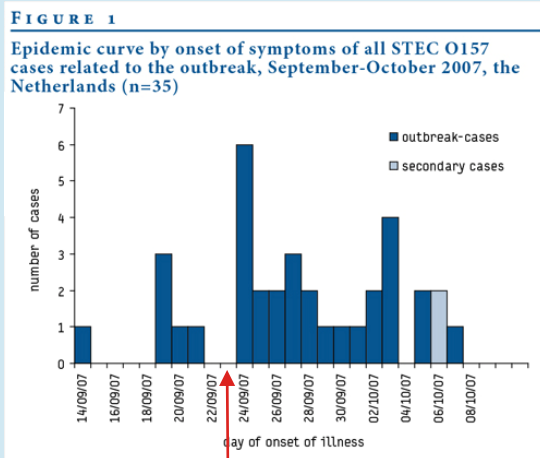
Trawling questionnaire: prepacked shredded iceberg lettuce from
different supermarket chains



Actions

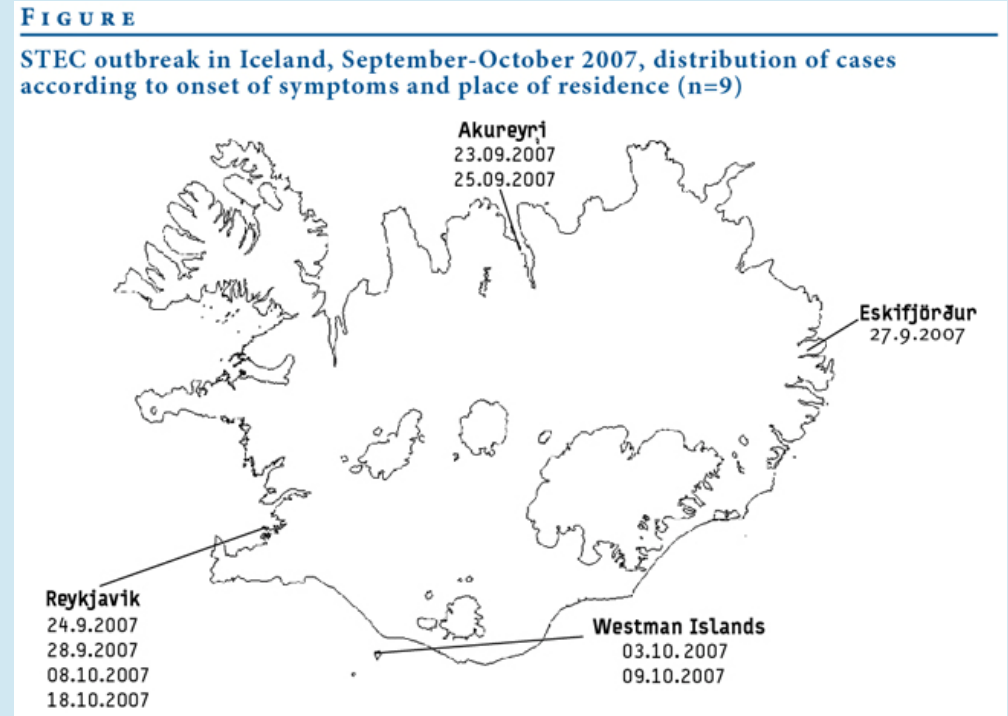
- Distribution channels prepacked, fresh vegetables (end products and ingredients)
- Microbiological examination (end products, ingredients, environmental samples)
- Rapid Alert System for Food and Feed (RASFF)

Outbreak STEC O157 infection, Sept – Oct 2007, Iceland



9 patients

- onset disease: 23 Sept – 18 Oct
- age: 2 – 61 year
- 5 male, 4 female
- stx1, stx2, PFGE Iceland = PFGE NL



Risk factors

Trawling questionnaire (n=8)

Purchase records (n=3)

- fish / ham (n=7)

- lettuce (n=6)

 - Prepacked, mixed lettuce imported from NL

Actions

(n=5; 3x trawling questionnaire and 2x purchase record)

- Microbiological examination lettuce (end products)

Problems tracing infection sources

Time between onset of disease and completing the questionnaire

(RIVM, EPI: mediaan 16 - 21 d, range 4 - 161 d)

first symptoms



consulting general practitioner



results microbiological examination of feces



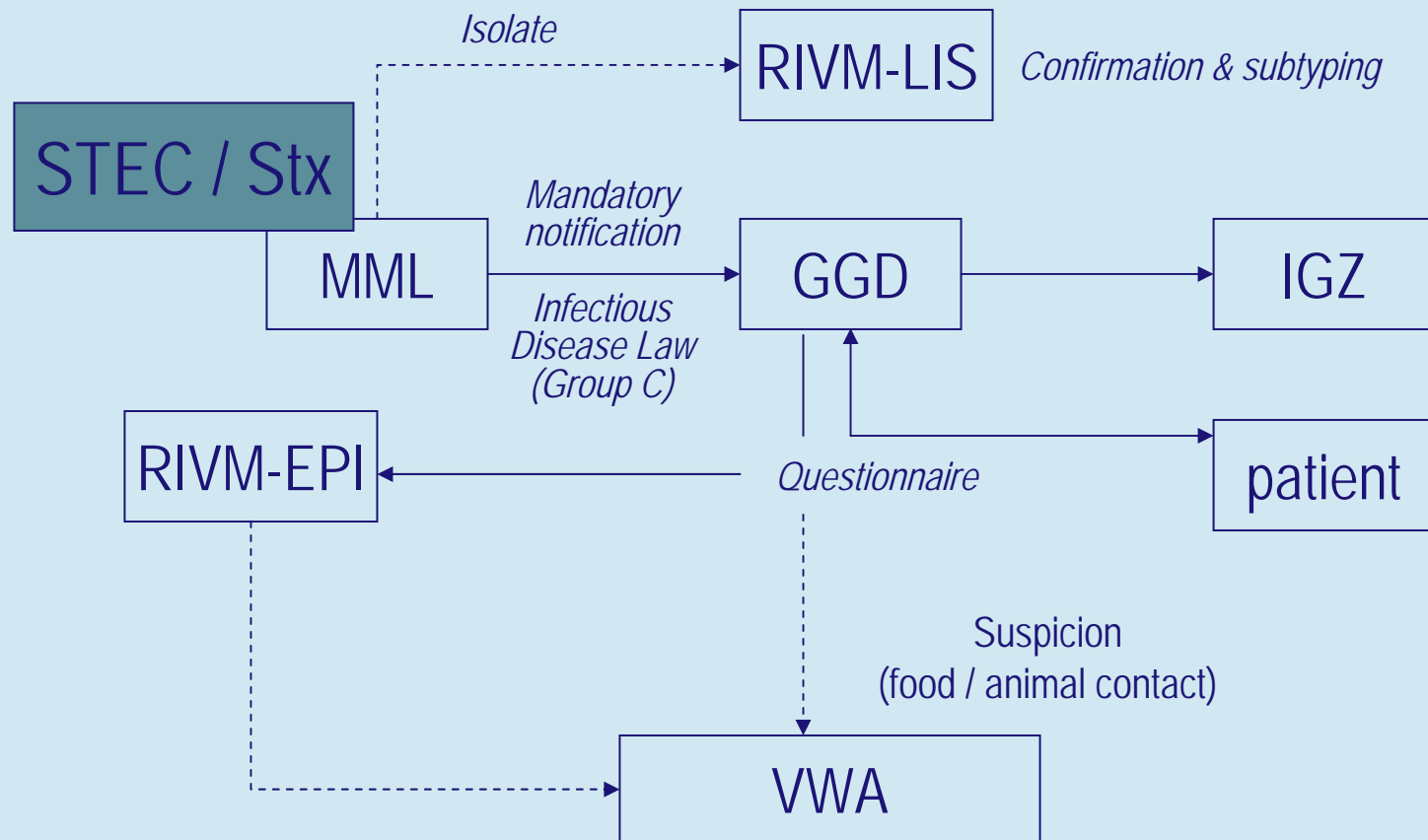
notification to the local public health office (GGD)



completing standard questionnaire by the GGD

- remember exposure to risk factors
- no left-overs food

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Thanks for your attention

21 januari 2008