Health impact of the *Salmonella enterica* serotype Enteritidis phage type 4 epidemic

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Background

Special Report
Scares prompt Food Agency move

Wednesday, January 14, 1998 Published at 15:23 GMT

Farmers suffered as fears over BSE saw beef exports banned

Relevant Stories
13 Jan 98 | UK Food expert warns of crisis
13 Jan 98 | Background Salmonella poisoning
05 Dec 97 | Special Report BSE - The story so far
16 Oct 97 | Background BSE

Internet Links
Ministry of Agriculture, Fisheries and Food
Institute of Trading Standards
Background

Salmonella

Salmonella is one of the most common causes of food poisoning and can be fatal. It is contracted mainly through eating raw or undercooked food.

Salmonella came to prominence when Edwina Currie MP, a junior health minister, said in 1988 that most eggs in Britain were infected with the bacterium.

Her comments sparked a public outcry and two weeks later she resigned.

But by early 1989, the House of Commons Select Committee on Agriculture had investigated the issue and concluded there was a link between eggs and salmonella poisoning.

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Egg-safety measures to be announced today

WASHINGTON (CNN) -- A government report says federal agencies need to do a better job of fighting salmonella contamination in eggs, and, as a result, new safety initiatives will be announced Thursday.
Background

Health

Chickens to be vaccinated against salmonella

Thursday, June 18, 1998 Published at 12:14 GMT 13:14 UK

Health

Salmonella infection cases drop

Eggs from vaccinated hens have helped cut salmonella cases

Health Contents

- Background Briefings
- Medical notes

Relevant Stories

08 Jun 98 | Food Safety
Eating safe

19 May 00 | Food Safety
Food safety links

You are in: Health

Saturday, 10 February, 2001, 00:40 GMT
Aims

To estimate the health impact of the emergence of indigenous foodborne *Salmonella enterica* serotype Enteritidis phage type 4 (IFSE4) on the population of England and Wales during the period 1981 - 2000.
Methods

Laboratory reports of S. Enteritidis PT4 (SE4) to PHLS
Methods

- IID (Population) study
- Laboratory reports of S. Enteritidis PT4 (SE4) to PHLS
- All SE4 illness in England & Wales

Data for England and Wales
Laboratory reports of S. Enteritidis PT4 (SE4) to PHLS

IID (Population) study

LabBase data

All SE4 illness in England & Wales

All indigenous SE4 illness
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GSurv Data

Indigenous foodborne SE4

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Indigenous foodborne SE4
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- Laboratory reports of S. Enteritidis PT4 (SE4) to PHLS
  - IID (Population) study
  - LabBase data
  - GSurv Data
  - IID study
  - GSurv Data

- All SE4 illness in England & Wales
  - All indigenous SE4 illness
  - Indigenous foodborne SE4

- Family doctor

- Hospitalizations
  - Hospital occupancy

Data for England and Wales
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HES

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All indigenous SE4 illness

Indigenous foodborne SE4

Family doctor

Hospitalizations

Hospital occupancy

Deaths

Data for England and Wales
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Hospital occupancy

Deaths

IID Study

Costs

Data for England and Wales
Results - Illness due to IFSE4
Results - Illness due to IFSE4

Number

Year


0 10000 20000 30000 40000 50000 60000 70000

12,000
Results - Illness due to IFSE4

Number

Year


0 10000 20000 30000 40000 50000 60000 70000

59,000
Results - Illness due to IFSE4

- Year: 1981-2000
- Number: 0-70000
- Number of Illness cases over the years.
Results - Illness due to IFSE4

Number

Vaccination of poultry flocks

Year
Results - Illness due to IFSE4

Number

Year


0 10000 20000 30000 40000 50000 60000 70000

586,000
Results - Health impact of IFSE4

- 419,000 patients presenting to family doctors
- 18,000 hospitalizations (acute phase)
- 104,000 patient days in hospital (acute phase)
- 1,300 deaths
Results - Illness due to IFSE4
Results - Illness prevented

Number

Year

Prevented Cases


88,000
Results - Impact 1998 - 2000

Estimated prevention of:
- 80,000 illnesses
- 63,000 people presenting to family doctors
- 2,700 hospitalizations
- 16,000 bed days
- 190 deaths

Estimated cost saving of: $48,000,000 (1995 prices)
Conclusions

- IFSE4 - profound impact
- Sharp decline following interventions by the food industry
- Benefits to individuals
- Savings to the Health Service
Eggs follow hens
Hens follow eggs
Interventions should follow science
Science should follow interventions
Moral

Good science can make a difference.