

## Module 01 - lecture 01

# The need for the HACCP system

**In the 30 years since its  
conception, the HACCP system  
has grown to become the  
universally accepted method for  
food safety assurance.**

**Why ?**

# The need for HACCP

**To successfully implement HACCP in the food supply, authorities responsible for food safety must first be aware of the need to move to a system such as HACCP.**

**Until this need is acknowledged, it is unlikely that a commitment at any level can be expected.**

***Report of a WHO Consultation on HACCP:  
Concept and Application (June 1995)***

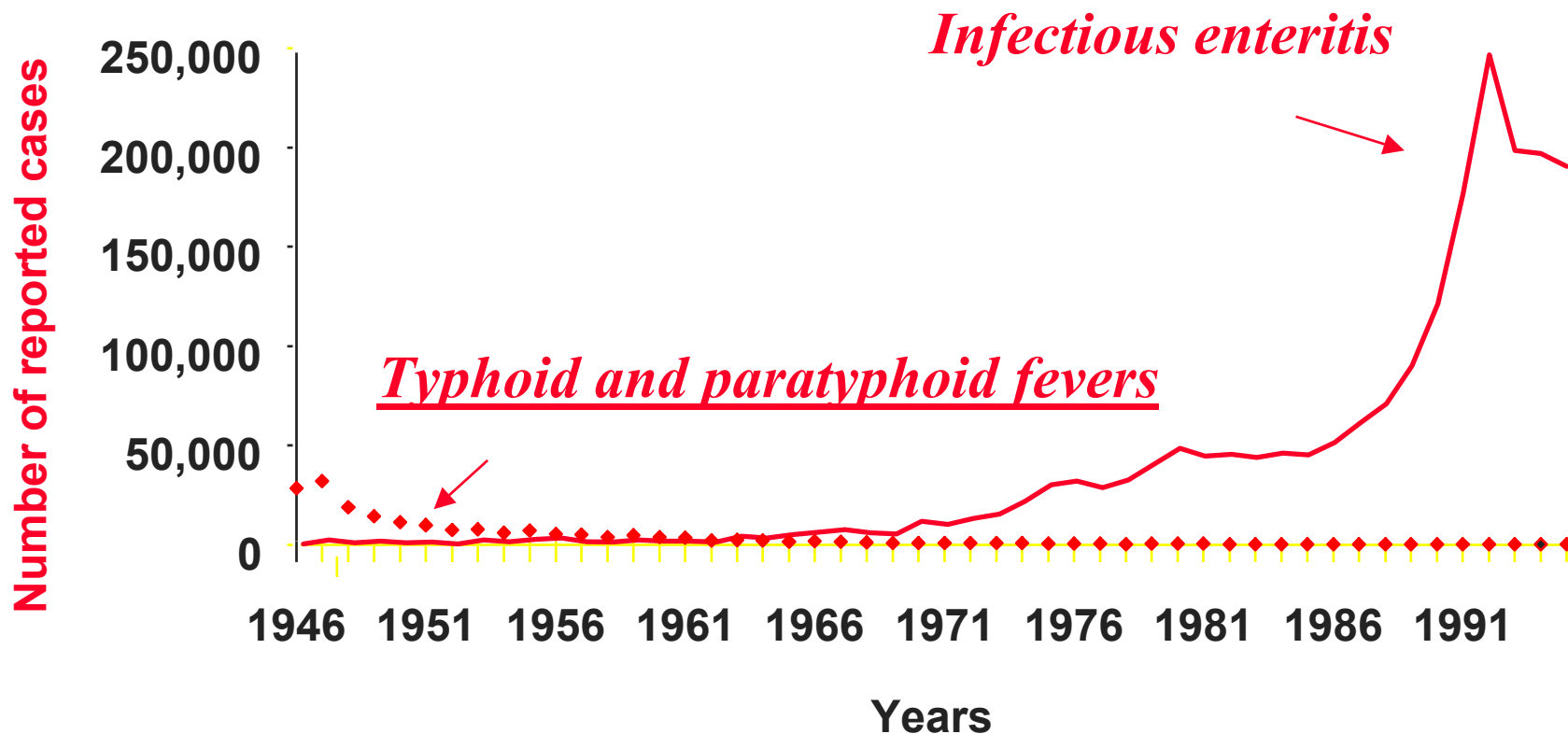
# **The need for an effective food safety assurance method**

**Foodborne diseases are  
a widespread public  
health problem**

# **Foodborne diseases are a widespread public health problem**

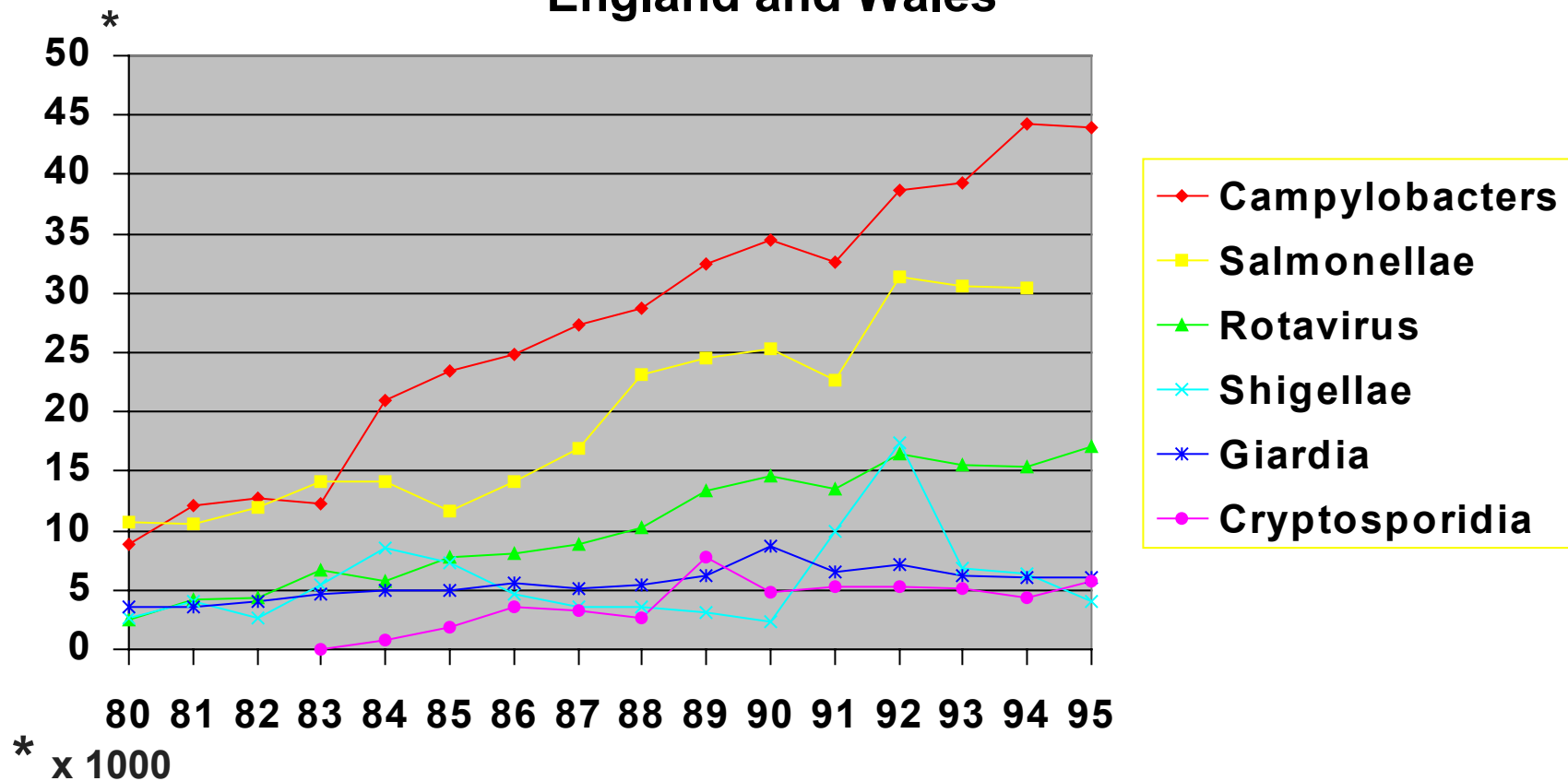
<b>Sweden (1995)</b>	<b>7%</b>	<b>National survey</b>
<b>Netherlands (1991)</b>	<b>15%</b>	<b>Sentinel study</b>
<b>New Zealand (1993)</b>	<b>9%</b>	<b>National survey</b>
<b>UK (1995)</b>	<b>7%</b>	<b>National survey</b>
<b>Canada (1985)</b>	<b>8%</b>	<b>Estimation</b>
<b>USA (1985)</b>	<b>10%</b>	<b>Estimation</b>

# Incidence of infectious enteritis and typhoid fever in Germany

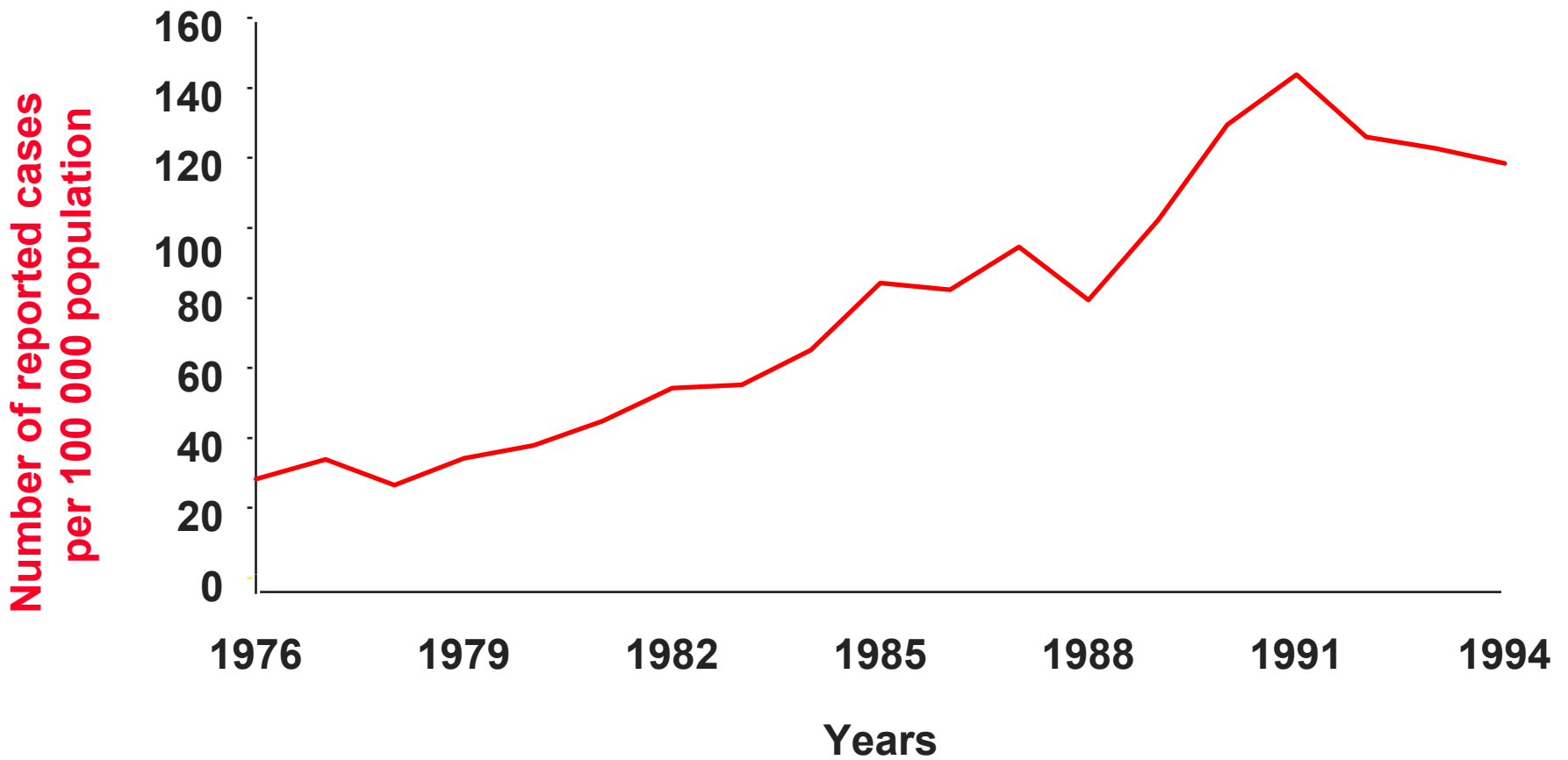


# Increased incidence of foodborne diseases in UK

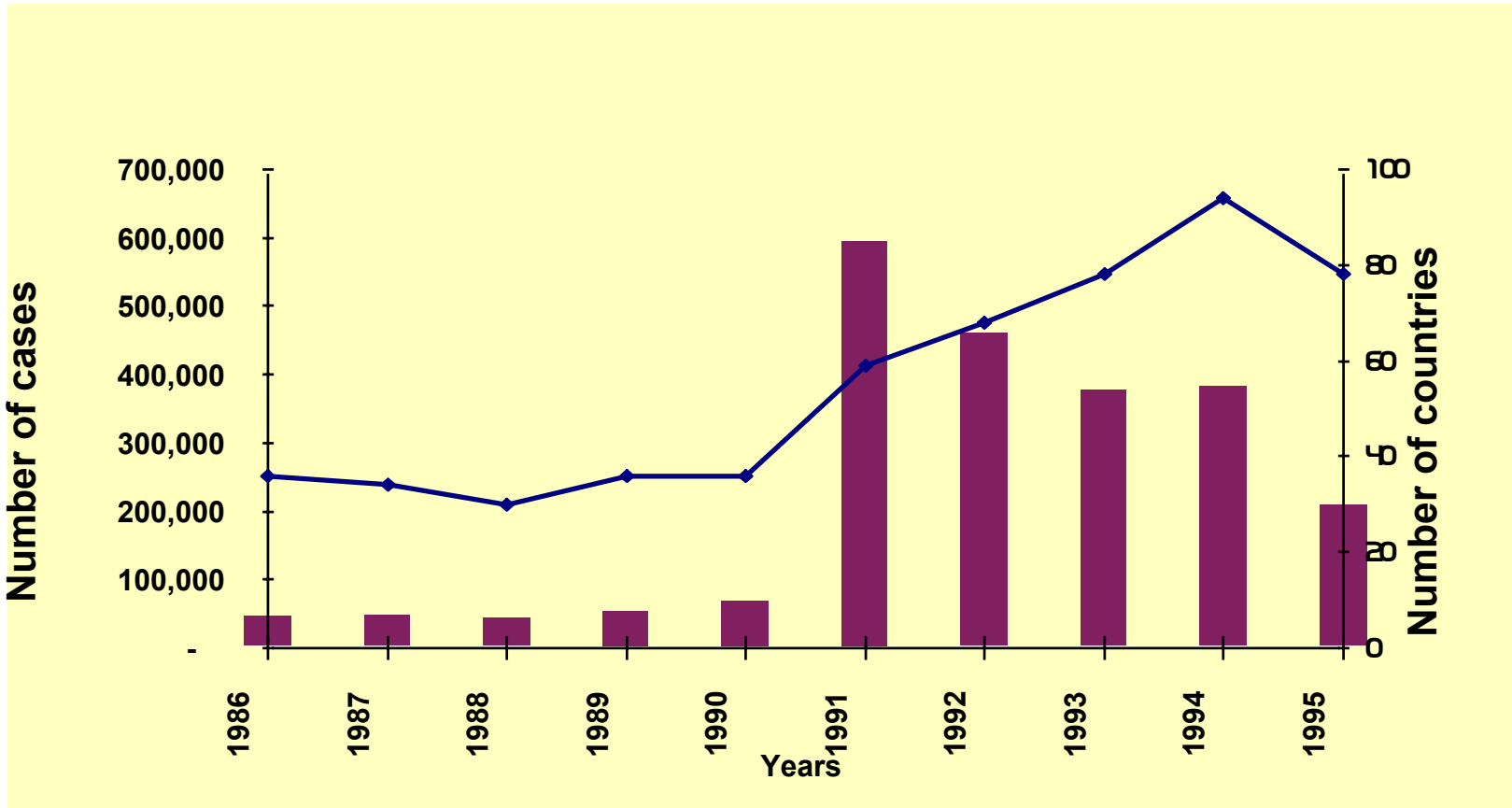
Laboratory reports of gastrointestinal infections in England and Wales



# Incidence of foodborne diseases in Venezuela



# Cholera



# Emergence or re-emergence of foodborne diseases

Verotoxin producing  
*E. coli* infections

Listeriosis

Salmonellosis  
(*S. enteritidis*)

Cholera

Campylobacteriosis

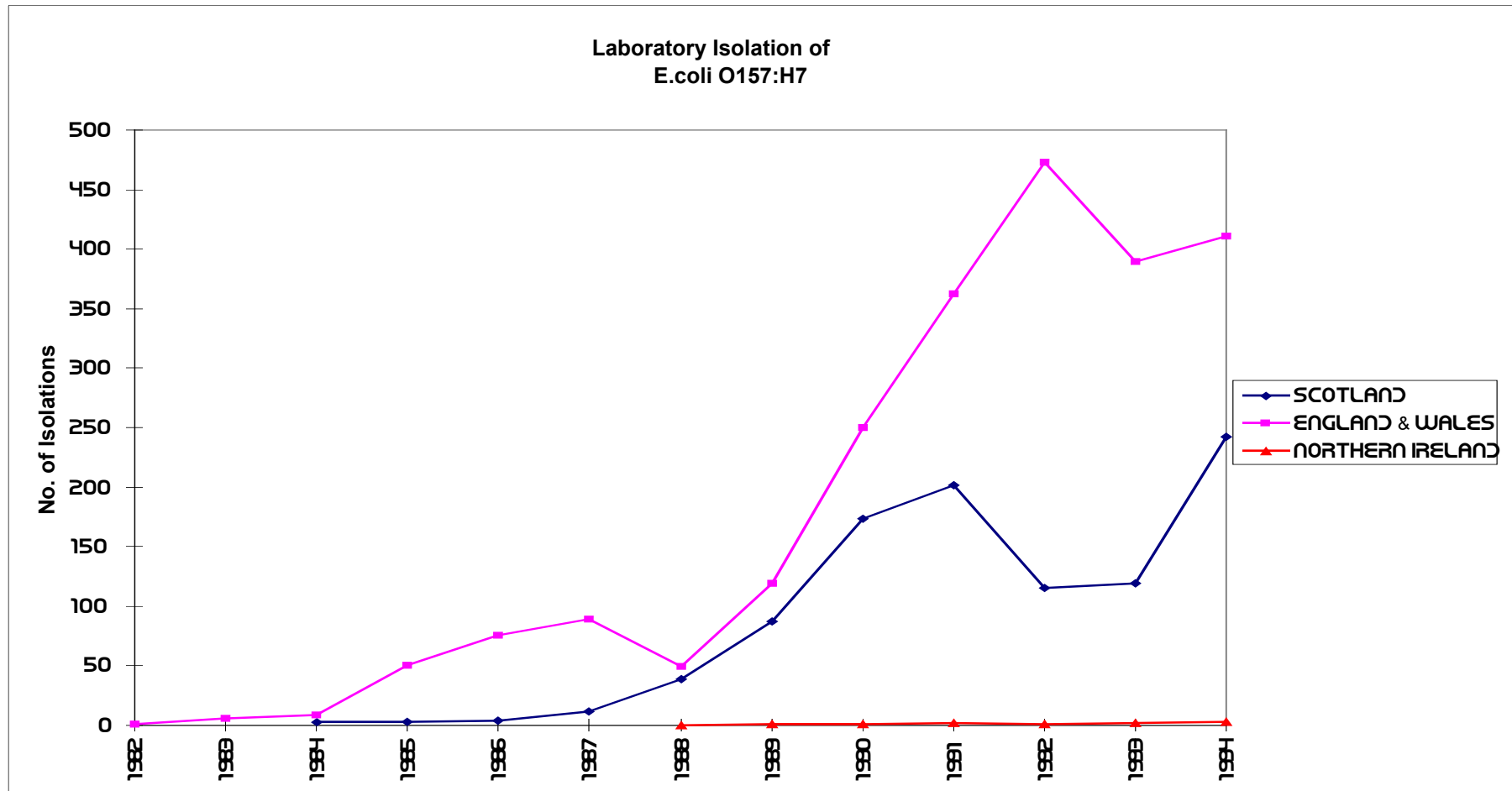
Yersiniosis

Cryptosporidiosis

*Clonorchis sinensis*  
infection

Cyclosporidiosis

# Emergence of foodborne diseases



# **Increased knowledge and awareness of the serious and chronic health effects**

**Reactive arthritis**

**Meningitis**

**Haemolytic uraemic  
syndrome (HUS)**

**Septicaemia**

**Cancer (liver)**

**Congenital blindness**

**Abortion**

**Malnutrition**

**Death**

# **New food technologies and processing methods**

**Need for predicting potential health risk associated with**

- ◆ **new technologies and their application**
- ◆ **consequences due to inappropriate handling during preparation**

# **Increased awareness of the economic consequences of foodborne diseases**

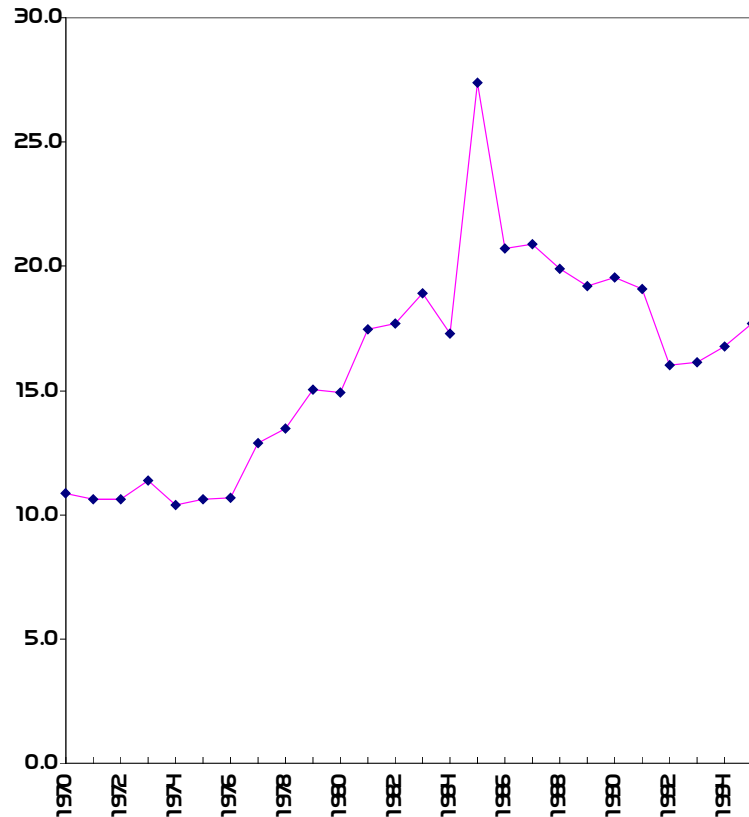
- ◆ **medical care costs**
- ◆ **loss of productivity**
- ◆ **loss of food**
- ◆ **reduced food trade**
- ◆ **decrease in tourism**

# Increase in the number of vulnerable people

- ◆ **elderly**
- ◆ **immunocompromised individuals**
- ◆ **pregnant women**
- ◆ **infants and young children**
- ◆ **undernourished individuals**

# Industrialization and mass production

Salmonellosis in the USA

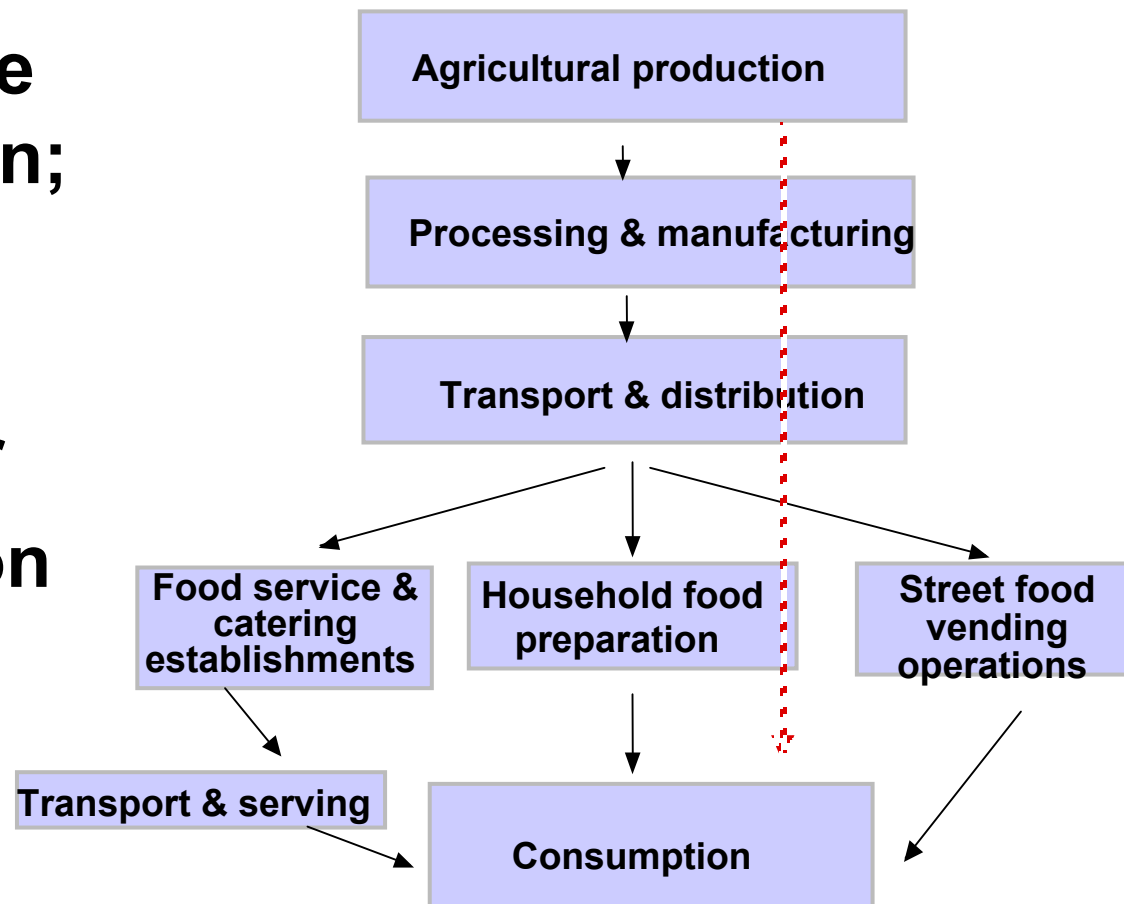


**Opportunities for food contamination**

**Large foodborne disease outbreaks**

# Urbanization

**A longer and more complex food chain;**  
**thus greater opportunities for food contamination**



# Changing lifestyles

- ◆ **increase in food service and mass catering establishments (including street food vendors)**
- ◆ **travel**
- ◆ **role of women**
- ◆ **migration**

# **Increased tourism and international trade in foodstuffs**

- ◆ **increase in travel - related foodborne diseases**
- ◆ **foodborne disease outbreaks due to contaminated foods**

# Increased consumer awareness of food safety

- ◆ education
- ◆ media
- ◆ consumer organizations

# **Lack of or decreasing resources for food safety**

- ◆ **insufficient awareness  
on the part of  
public health authorities**
- ◆ **competition with  
other health programmes**

# Objectives of application of the HACCP system

Prevention of foodborne illness

Reduction of costs  
of food analyses

More efficient  
quality assurance  
system

Reduction of  
losses due to  
product recall

Protection of reputation

# Recommended reading on module 1

**Motarjemi Y et al.**

**Importance of HACCP for public health and development.  
The role of the World Health Organization.  
*Food control*, 7(2):77-85, 1996.**

**HACCP/WHO**

**Introducing the Hazard Analysis and Critical Control Point  
system.  
*WHO document WHO/FSF/FOS/97.2, 1997***