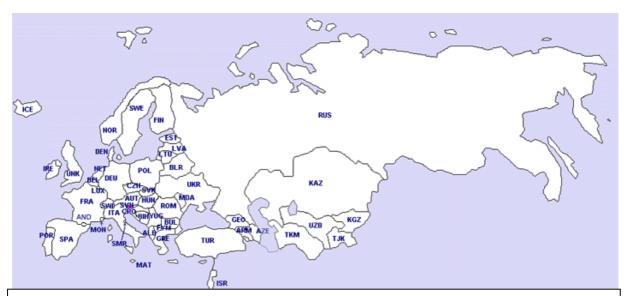




### SLOVENIA (SVN)

Population: 2 million Area: 20 273 km<sup>2</sup>



The designations and the presentation of material on this map of the Member States of the WHO European Region (as at 31 July 1997) do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines represent approximate border lines for which there may not yet be full agreement.

#### 1. General information

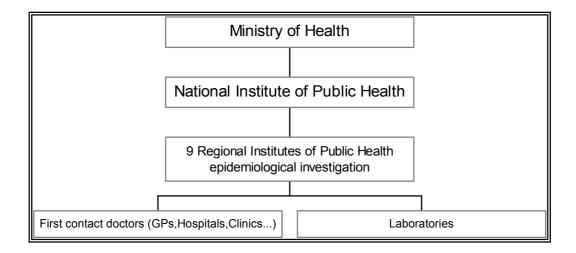
According to the Law on Communicable diseases the notification of communicable diseases is obligatory. User-friendly computerized system for surveillance on communicable diseases has been developed in 1984 and it is used since then. The data on obligatory notified diseases is sent from the physicians in the public and private sector through the nine Regional Institutes of Public Health to the National Institute of Public Health. The National Institute of Public Health carries the main responsibility for this activity and coordinates the reporting system at the national level. The information system was developed to record data and a computer network allows the transfer of data from the health facilities and laboratories to the Regional and National Institute of Public Health. Feedback is provided through newsletter monthly.

#### 1.1 The outbreak reporting system

Foodborne disease outbreaks as well as other outbreaks are reported immediately to the Regional Institute of Public Health and to the National Institute of Public Health. Epidemiological and microbiological investigations of outbreaks are provided by Regional Institutes and reports are sent to the National Institute. An annual report is compiled by this Institute.

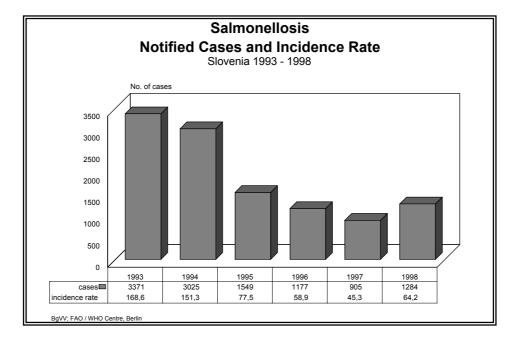
Country Reports: SLOVENIA 1993 – 1998

### Foodborne Disease Surveillance System Slovenia



#### 2. Statutory notification

Figure SL 1



Country Reports: SLOVENIA 1993 – 1998

#### 3. Epidemiologically investigated incidents

Table SL 2

#### Foodborne disease outbreaks SLOVENIA 1993 - 1998

| Year | Cases in outbreaks                            | Causative<br>Agent   | Incriminated food                       | Place of consumption                                     | Origin of food   | Contributory factors                          |
|------|---|--|---|--|--|---|
| 1993 | 17 cases                                      | S.Enteritidis  | Tiramisu cake                           | Private home   | Private home   | Improper preparing                            |
|      | 21 cases                                      | S.Enteritidis  | Meat and eggs                           | Restaurant   | Restaurant   | Unknown                                       |
|      | 116 cases                                     | S.Enteritidis  | Meat and eggs                           | Restaurant   | Restaurant   | Cross contamination                           |
|      | 6 cases                                       | S.Enteritidis  | Chicken                                 | Restaurant   | Restaurant   | Cross contamination                           |
|      | 44 cases<br>95 cases<br>10 cases              | S.Enteritidis<br>S.Enteritidis<br>S.Enteritidis                  | Chicken<br>Eggs<br>Lunch                | Canteen<br>School<br>Restaurant                          | Canteen<br>School<br>Restaurant                          | Unknown<br>Poor hygiene<br>Unknown            |
|      | 23 cases                                      | S.Enteritidis  | Chicken                                 | Private home   | Private home   | Cross contamination                           |
|      | 18 cases                                      | S.Enteritidis  | Poultry                                 | Restaurant   | Restaurant   | Cross contamination                           |
|      | 21 cases<br>25 cases<br>15 cases              | S.Enteritidis S.Enteritidis S.Enteritidis                        | Vegetables<br>Beef<br>Lunch             | Restaurant<br>Canteen<br>Canteen                         | Restaurant<br>Canteen<br>Canteen                         | Unknown<br>Unknown<br>Unknown                 |
|      | 15 cases                                      | S. Enteritidis   | Lunch                                   | Restaurant   | Restaurant   | Unknown                                       |
|      | 35 cases                                      | S.Enteritidis  | No data                                 | Private home   | Private home   | Cross contamination                           |
|      | 29 cases<br>14 cases<br>17 cases<br>153 cases | S.Enteritidis<br>S.Enteritidis<br>S.Enteritidis<br>S.Enteritidis | Meat<br>Meat prod.<br>No data<br>Sweets | Canteen<br>Private home<br>Private home<br>Confectionery | Canteen<br>Private home<br>Private home<br>Confectionery | Unknown<br>Unknown<br>Poor hygiene<br>Unknown |
|      | 9 cases                                       | S.Enteritidis  | Sweets                                  | Private home   | Private home   | Inadeq.<br>Cooking                            |
|      | 10 cases                                      | S.Enteritidis  | No data                                 | Restaurant   | Restaurant   | Unknown                                       |
|      | 33 cases                                      | S.Enteritidis  | Minced meat-<br>raw                     | Private home   | Private home   | Cross contamination                           |
|      | 17 cases<br>20 cases                          | S.Hadar<br>Staph. Aureus   | No data<br>No data                      | Restaurant<br>Restaurant<br>Home for                     | Restaurant<br>Restaurant<br>Home for                     | Poor hygiene<br>Infected pers.                |
|      | 25 cases                                      | Staph.aureus   | Milk                                    | elderly people   | elderly people   | Unknown                                       |
|      | 17 cases                                      | Citrobacter freundi  | Pork                                    | Picnic   | Picnic   | Inadeq.cool.                                  |
|      | 8 cases<br>20 cases<br>35 cases               | Unknown " "  | No data<br>No data<br>Lunch             | Kindergarten<br>Kindergarten<br>Canteen                  | Kindergarten<br>Kindergarten<br>Canteen                  | Unknown<br>Unknown<br>Unknown                 |
|      | 87 cases                                      | "  | Fish, eggs                              | Home for elderly people                                  | No data  | Poor hygiene                                  |
|      | 117 cases                                     | "  | Lunch                                   | School   | School   | Cross contamination                           |

| Year    | Cases in outbreaks  | Causative<br>Agent            | Incriminated food       | Place of consumption      | Origin of food            | Contributory factors        |
|---------|---------------------|-------------------------------|-------------------------|---------------------------|---------------------------|-----------------------------|
| 1993    | 10 cases            | "                             | Lunch                   | Canteen                   | Mass catering for spec.   | Unknown                     |
| (cont.) | 20 cases            | 11                            | Meat                    | Picnic                    | groups<br>Canteen         | Unknown                     |
|         | 40 cases            | "                             | Lunch                   | Elementary school         | School kitchen            | Unknown                     |
|         | 11 cases            | "                             | No data                 | Restaurant                | Restaurant                | Unknown                     |
|         | 10 cases            | "                             | No data                 | Vacation center           | Vacation center           | Unknown                     |
|         | 19 cases            | "                             | Meat                    | Canteen                   | Canteen                   | Unknown                     |
|         | 12 cases            | "                             | No data                 | Nursing home              | Nursing home              | Unknown                     |
|         | 7 cases             | "                             | Chicken                 | Private home              | Private home              | Unknown                     |
| 1994    | 22 cases            | S.Enteritidis                 | No data                 | Canteen                   | Mass cat. For spec.g.     | Unknown                     |
|         | 12 cases            | S.Enteritidis                 | Cake                    | Kindergarten              | Kindergarten              | Unknown                     |
|         | 30 cases            | S.Enteritidis                 | Dressing                | Restaurant                | Restaurant                | Poor hygiene                |
|         | 215 cases           | S.Enteritidis                 | Mayonnaise              | Mass cat. for spec.groups | Mass cat. for spec.groups | Inadeq.refrig.              |
|         | 21 cases            | S.Enteritidis                 | No data                 | Canteen                   | Canteen                   | Unknown                     |
|         | 273 cases           | S.Enteritidis                 | Meat and dressing       | Canteen                   | Canteen                   | Inadeq. refrig. and cooking |
|         | 19 cases            | S. Enteritidis                | Sweets                  | Restaurant                | Restaurant                | Poor hygiene                |
|         | 34 cases            | S.Enteritidis                 | Ice cream               | Confectionery             | Confectionery             | Infect.pers.                |
|         | 19 cases            | S. Enteritidis                | Ice cream               | •                         | Confectionery             | -                           |
|         | 11 cases            | S.Enteritidis                 | Sweets                  | Private home              | Private home              | Unknown                     |
|         | 15 cases            | S.Enteritidis                 | Sweets                  | •                         | Confectionery             | -                           |
|         | 38 cases            | S.Enteritidis                 | Ice cream               | •                         | Confectionery             | Unknown                     |
|         | 56 cases            | S.Virchow                     | Meat                    | Home for elderly people   | Home for elderly people   | Unknown                     |
|         | 79 cases            | E. coli(ETEC)                 | No data                 | Canteen                   | Canteen                   | Unknown                     |
|         | 46 cases            | E. coli                       | Meat and vegetables     | Canteen                   | Canteen                   | Poor hygiene                |
|         | 30 cases            | Staph.aureus                  | No data                 | Hotel                     | Hotel                     | Infect.pers.                |
|         | 46 cases            | Bac.cereus                    | No data<br>Turkey and   | Hotel<br>Home for         | Hotel<br>Home for         |                             |
|         | 7 cases             | Staph.aureus                  | beef                    | elderly people            | elderly people            | Unknown                     |
|         | 9 cases<br>16 cases | Staph.aureus Y.enterocolitica | No data                 | Restaurant<br>Canteen     | Restaurant<br>Canteen     | Infect.pers. Infect.pers.   |
|         |                     |                               | Fresh veget.            |                           | Mass cat. For             | •                           |
|         | 30 cases            | Unknown                       | No data                 | Canteen                   | spec.groups               | Unknown                     |
|         | 17 cases            | "                             | Sausages                | Restaurant                | Restaurant                | Inappropriate storage       |
|         | 13 cases            | "                             | No data                 | Home for elderly people   | Home for elderly people   | Unknown                     |
|         | 38 cases            | "                             | Meat                    | Restaurant                | Restaurant                | Prep.too large quantities   |
|         | 17 cases            | "                             | Minced meat and chicken | Elementary school picnic  | Picnic                    | Inadeq.<br>Cooking          |
|         | 8 cases             | "                             | Meat                    | Home for elderly people   | Home for elderly people   | Unknown                     |
| 1995    | 18 cases            | S.Enteritidis                 | Eggs                    | Private home              | Private home              | Unknown                     |
|         | 8 cases             | S.Enteritidis                 | No data                 | Canteen                   | Canteen                   | Unknown                     |
|         | 5 cases             | S.Enteritidis                 | No data                 | Restaurant                | Restaurant                | Infect.pers.                |
|         |                     |                               |                         |                           |                           |                             |

| Year    | Cases in outbreaks   | Causative<br>Agent           | Incriminated food        | Place of consumption         | Origin of food               | Contributory factors  |
|---------|----------------------|------------------------------|--------------------------|------------------------------|------------------------------|-----------------------|
| 1995    | 15 cases             | S.Enteritidis                | No data                  | Kindergarten                 | Kindergarten                 | Unknown               |
| (cont.) | 34 cases             | S.Enteritidis                | Sweets                   | Retail store                 | Retail store                 | Poor hygiene          |
|         | 40 cases             | S.Enteritidis                | Cake                     | Private home                 | Private home                 | Unknown               |
|         | 20 cases             | S.Enteritidis                | Meat                     | Canteen                      | Canteen                      | Improper<br>storage   |
|         | 20 cases             | S.bredeny, S. typhimurium    | No data                  | Medical care facility        | Medical care facility        | Infec.pers.           |
|         | 9 cases              | Staph.aureus                 | Ice cream                | Various places               | Various places               | Poor hygiene          |
|         | 20 cases<br>40 cases | Staph.aureus<br>Staph.aureus | Sweets<br>Meat           | Camping<br>Canteen           | Camping<br>Canteen           | Unknown Infec.pers.   |
|         | 27 cases             | Rotavirus                    | Meat prod.<br>Mayonnaise | Restaurant                   | Restaurant                   | Poor hygiene          |
|         | 14 cases             | Rotavirus                    | Fresh fruit              | Camping                      | Camping                      | Unknown               |
|         | 14 cases             | Virus                        | No data                  | Home for elderly people      | Home for elderly people      | Unknown               |
|         | 117 cases            | Virus                        | No data                  | Medical care facility        | Medical care facility        | Unknown               |
|         | 30 cases             | Unknown                      | Vegetables               | Canteen                      | Canteen                      | Inadeq.cooling        |
|         | 32 cases             | "                            | No data                  | Home for elderly people      | Home for elderly people      | Unknown               |
|         | 30 cases             | "                            | No data                  | Home for elderly people      | Home for elderly people      | Unknown               |
|         | 78 cases             | "                            | No data                  | Elementary school            | Elementary school            | Unknown               |
|         | 28 cases             | "                            | No data                  | Kindergarten                 | Kindergarten                 | Unknown               |
|         | 61 cases             | "                            | Meat prod.               | School                       | School                       | Inadeq. refrigeration |
|         | 26 cases             | "                            | Meat                     | Home for elderly people      | Home for elderly people      | Unknown               |
|         | 43 cases             | "                            | Various food             | Medical care facility        | Medical care facility        | Poor hygiene          |
|         | 71 cases             | Unknown                      | Fish                     | Home for elderly people      | Home for elderly people      | Unknown               |
| 1996    | 12 cases             | S.Enteritidis                | Cakes                    | Private home                 | Private home                 | Infec.pers.           |
|         | 30 cases             | S.Enteritidis                | Puddings                 | Home for disabled people     | Home for disabled people     | Inadeq. cooking       |
|         | 9 cases              | S.Enteritidis                | Chicken                  | Restaurant                   | Restaurant                   | Infec.pers.           |
|         | 253 cases            | S.Enteritidis                | Meat                     | Canteen                      | Canteen                      | Improper storage      |
|         | 8 cases<br>21 cases  | S.Enteritidis S.Enteritidis  | Cakes<br>Cakes           | Private home<br>Private home | Private home<br>Private home | Unknown<br>Unknown    |
|         | 15 cases             | Staph.aureus                 | Meat                     | Home for elderly people      | Home for elderly people      | Infec.pers.           |
|         | 8 cases              | <i>Trichinella</i> spiralis  | Pork sausages            | Private home                 | Private home                 | Unknown               |
|         | 34 cases             | Enteroviruses                | No data                  | Canteen                      | Canteen                      | Unknown               |
|         | 47 cases             | Cryptosporidium sp.          | No data                  | Home for elderly people      | Home for elderly people      | Infec.pers.           |
|         | 139 cases            | Yersinia<br>enterocolitica   | Meat, yogurt             | School                       | School                       | Unknown               |

| Year    | Cases in outbreaks   | Causative<br>Agent          | Incriminated food   | Place of consumption      | Origin of food            | Contributory factors              |
|---------|----------------------|-----------------------------|---------------------|---------------------------|---------------------------|-----------------------------------|
| 1996    | 121 cases            | Strept. Pyogenes            | Mayonnaise          | School                    | School                    | Unknown                           |
| (cont.) | 58 cases             | Unknown                     | Various food        | Hotel                     | Hotel                     | Inadeq.re-<br>heating             |
|         | 19 cases<br>33 cases | "                           | No data<br>Meat     | Hotel<br>Restaurant       | Hotel<br>Restaurant       | Unknown<br>Unknown                |
|         | 22 cases             | "                           | Fresh<br>vegetables | Restaurant                | Restaurant                | Prep.food in advance              |
|         | 96 cases             | "                           | Chicken, mayonnaise | Canteen                   | canteen                   | Prep.food in advance              |
|         | 15 cases             | "                           | Sweets              | Restaurant                | Restaurant                | Unknown                           |
|         | 24 cases             | "                           | Drinking water      | Camping                   | camping                   | Unknown                           |
|         | 98 cases             | "                           | Veget. prod         | Medical care fac.         | Medical care fac.         | Unknown                           |
|         | 27 cases             | "                           | Vegetable           | Restaurant                | Restaurant                | Unknown                           |
|         | 8 cases<br>110 cases | "                           | No data<br>No data  | Picnic<br>Canteen         | Picnic<br>Canteen         | Unknown<br>Unknown                |
|         | 69 cases             | "                           | No data             | Mass cat.for              | Mass cat.for              | Cross                             |
|         | 68 cases             | "                           | Sandwiches          | spec.groups<br>Canteen    | spec. groups<br>Canteen   | contamination<br>Unknown          |
|         | 27 cases             | "                           | Meat,               | Canteen                   | Canteen                   | Improper                          |
|         | 27 cases             |                             | vegetables          | Canteen                   | Cunteen                   | storage                           |
| 1997    | 30 cases<br>17 cases | S.Enteritidis S.Enteritidis | Unknown<br>Unknown  | Canteen<br>Canteen        | Canteen<br>Canteen        | Unknown                           |
|         | 11 cases             | S.Enteritidis               | Cakes               | Private home              | Private home              | Raw material contaminated         |
|         | 17 cases             | Staph.aureus                | Meat, cereals       | School                    | School                    | Use of left-<br>overs             |
|         | 5 cases              | Staph.aureus                | Unknown             | Restaurant                | Restaurant                | Infec. pers.                      |
|         | 20 cases             | Staph.aureus                | Various food        | Canteen                   | Canteen                   | Cross                             |
|         | 20 cases             | Staph.aureus                | Unknown             | Home for disabled people  | Home for disabled people  | contamination Cross contamination |
|         | 24 cases             | Staph.aureus                | Various food        | Restaurant                | Restaurant                | Infec. pers.                      |
|         | 49 cases             | Clostridium perfringens     | Meat,<br>vegetables | Canteen                   | Canteen                   | Prepared too far in advance       |
|         | 22 cases             | E. coli                     | Ice cream           | Hotel                     | Hotel                     | Inadeq.refriger ation             |
|         | 194 cases            | Coronavirus                 | Vegetables          | School                    | School                    | Infec.pers.                       |
|         | 195 cases            | B.cereus                    | Soft cheese         | School                    | School                    | Raw material contaminated         |
|         | 19 cases<br>18 cases | Unknown<br>"                | Meat<br>Unknown     | Restaurant<br>School      | Restaurant<br>School      | Poor hygiene                      |
| 6 ca    | 40 cases             | "                           | Veget, meat         | Home for elderly people   | Home for elderly people   | Unknown                           |
|         | 6 cases              | "                           | Sausages            | Mass cat.for spec. groups | Mass cat.for spec. groups | Storage inappropriate             |
|         | 25 cases             | "                           |                     | Medical care              | Medical care fac.         | Unknown                           |
|         | 13 cases             | "                           | Unknown             | Kindergarten              | Kindergarten              | Unknown                           |
|         | 10 cases             | "                           | Meat                | Canteen                   | Canteen                   | Unknown                           |
|         |                      |                             |                     |                           |                           |                                   |

| Year    | Cases in outbreaks             | Causative<br>Agent                    | Incriminated food            | Place of consumption                     | Origin of food                           | Contributory factors                 |
|---------|--------------------------------|---------------------------------------|------------------------------|--|--|--------------------------------------|
| 1997    | 8 cases                        | "                                     | Meat,<br>vegetabled          | Restaurant                               | Restaurant                               | Unknown                              |
| (cont.) | 36 cases                       | "                                     | Unknown                      | Kindergarten                             | Kindergarten                             | Unknown                              |
| 1998    | 73 cases                       | S.Enteritidis                         | Vegetables                   |  | Restaurant                               | Unknown                              |
|         | 50 cases                       | S.Enteritidis                         | Egg product                  | Hotel                                    | Hotel                                    | Infec.pers,,<br>poor hygiene         |
|         | 13 cases                       | S.Enteritidis                         | Unknown                      | Home for elderly people                  | Home for elderly people                  | Infec. Person                        |
|         | 20 cases                       | S.Enteritidis                         | Unknown                      | Restaurant                               | Restaurant                               | Cross contamination                  |
|         | 4 cases<br>31 cases<br>4 cases | S.Enteritidis S.Bredeny S. Heidelberg | Sweets<br>Unknown<br>Unknown | Private home<br>Restaurant<br>Restaurant | Private home<br>Restaurant<br>Restaurant | Inadeq.cooking<br>Unknown<br>Unknown |
|         | 51 cases                       | Staph.aureus                          | Sausages                     | Canteen                                  | Canteen                                  | Improper<br>storage                  |
|         | 66 cases                       | Staph.aureus                          | Meat                         | Canteen                                  | Canteen                                  | Inf.pers., poor hygiene              |
|         | 16 cases                       | Staph.aureus                          | Pork, fresh vegetables       | Restaurant                               | Restaurant                               | Infec.pers.                          |
|         | 5 cases                        | Staph.aureus                          | Pork, fresh vegetables       | Private home                             | Private home                             | Cross contamination                  |
|         | 350 cases                      | Strept.pyo-genes                      | Potato salad                 | Mass cat. For spec.g.                    | Mass cat. For soec.g.                    | Infec. pers.,<br>poor hygiene        |
|         | 14 cases                       | Clostridium<br>perfringens            | Sausages                     | Canteen                                  | Canteen                                  | Other                                |
|         | 60 cases                       | Bac. cereus,<br>Staph.aureus          | unknown                      | Canteen                                  | Canteen                                  | Unknown                              |
|         | 21 cases                       | DSP<br>(diar.sh.pois)                 | Shellfish                    | Various places                           | Various places                           | Other                                |
|         | 81 cases                       | C. jejuni                             | Pizza                        | School                                   | School                                   | Infec. pers.,<br>poor hygiene        |
|         | 247 cases                      | Norwalk virus                         | Fresh<br>vegetables          | Medical care facility                    | Medical care facility                    | Cross contamination                  |
|         | 11 cases                       | Unknown                               | Unknown                      | Restaurant                               | Restaurant                               | Infec. pers., poor hygiene           |
|         | 4 cases                        | "                                     | Chicken                      | Private home                             | Private home                             | Inadeq. cooking                      |
|         | 98 cases                       | "                                     | Unknown                      | Home for elderly people                  | Home for elderly people                  | Unknown                              |
|         | 42 cases                       | "                                     | Various food                 | Hotel                                    | Hotel                                    | Unknown                              |
|         | 12 cases                       | "                                     | Unknown<br>Meat,             | Canteen                                  | Canteen                                  | Unknown<br>Cross                     |
|         | 9 cases                        |                                       | vegetables                   | Restaurant                               | Restaurant                               | contamination                        |
|         | 32 cases                       | "                                     | Unknown                      | Home for elderly people                  | Home for elderly people                  | Poor hygiene                         |
|         | 11 cases                       | "                                     | Unknown                      | Restaurant                               | Restaurant                               | Unknown                              |
|         | 60 cases                       | "                                     | Potato salad, cheese         | School                                   | School                                   | Improper storage                     |

Figure SL 2

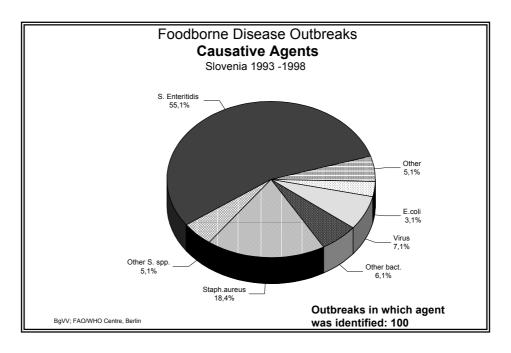


Figure SL 3

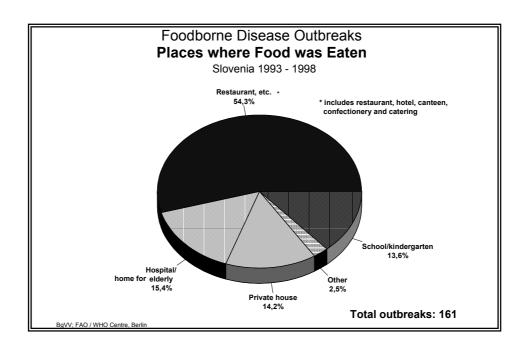


Figure SL 4

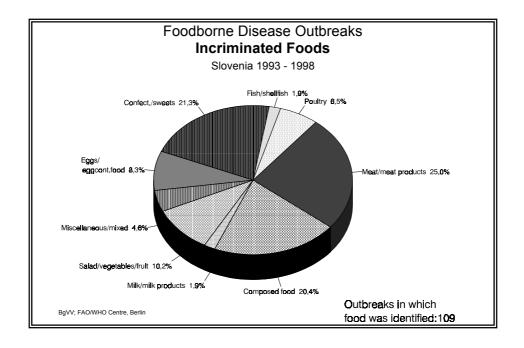


Figure SL 5

