

Listeriosis: identification of the population at risk and consumption advices for those groups

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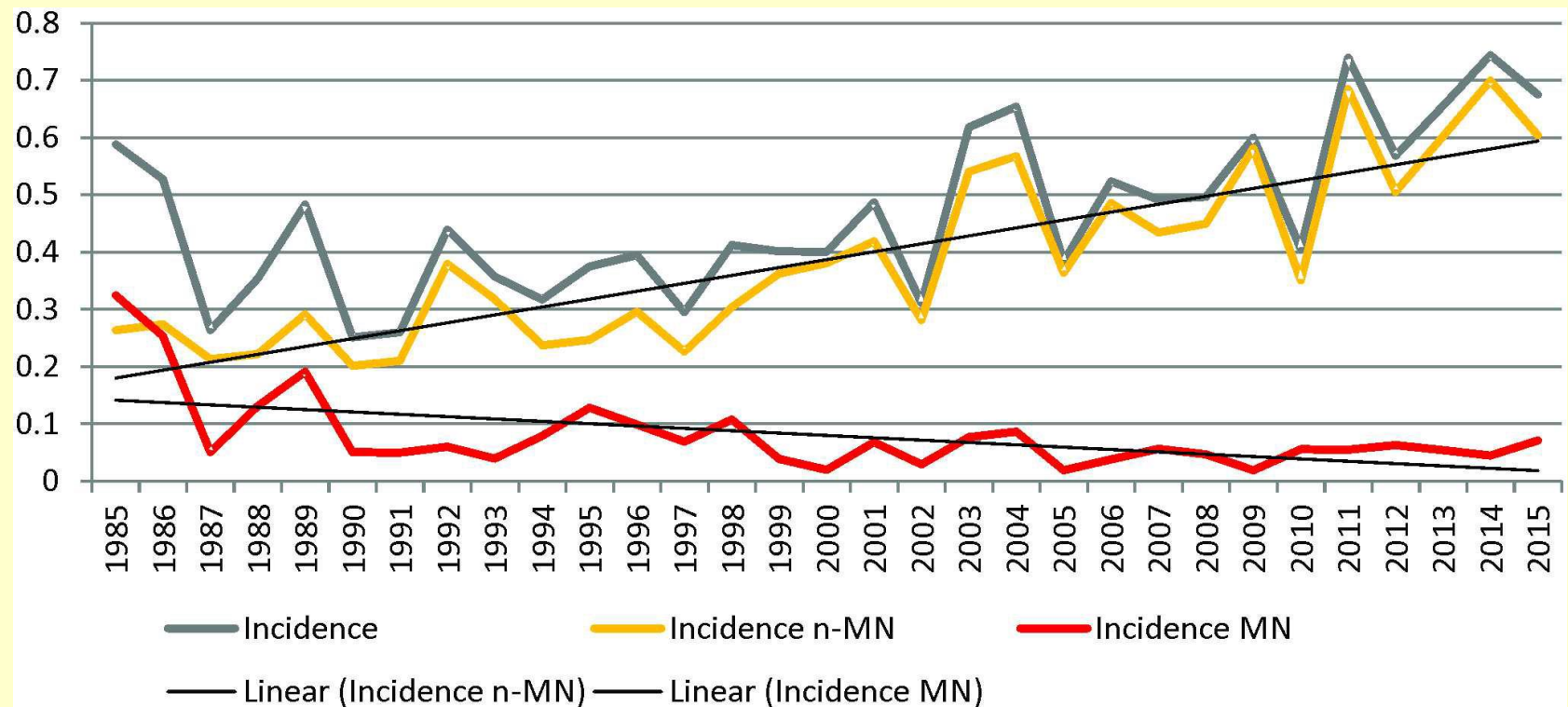
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Incidence of listeriosis cases in humans over time in EU

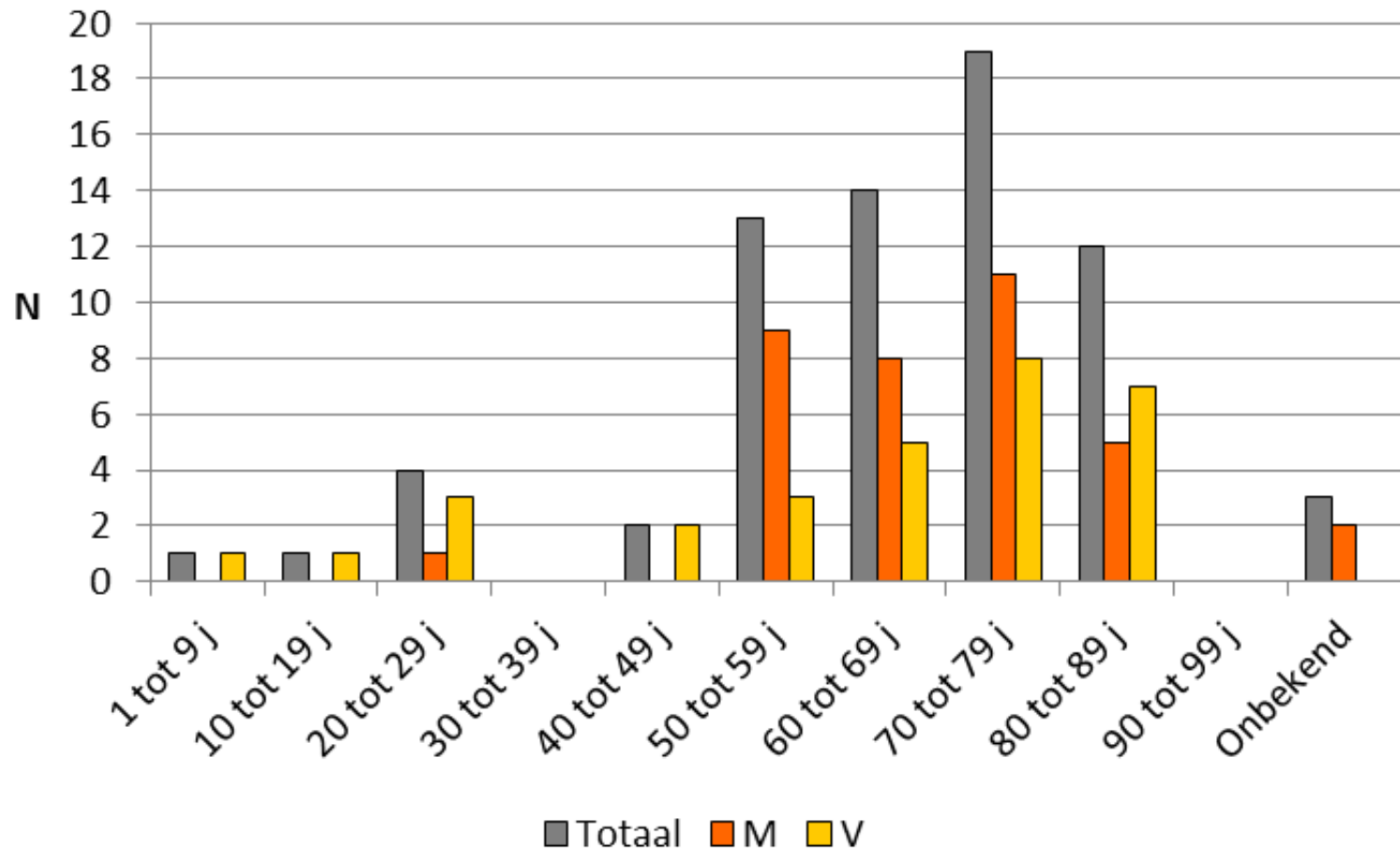
| | 2017 | 2016 | 2015 | 2014 | 2013 |
|-------------------------------|--------------|--------------|--------------|--------------|--------------|
| Number of cases | 2,480 | 2,509 | 2,183 | 2,217 | 1,883 |
| Nb/100,000 inhabitants | 0.48 | 0.47 | 0.43 | 0.46 | 0.40 |

EFSA & ECDC, 2018

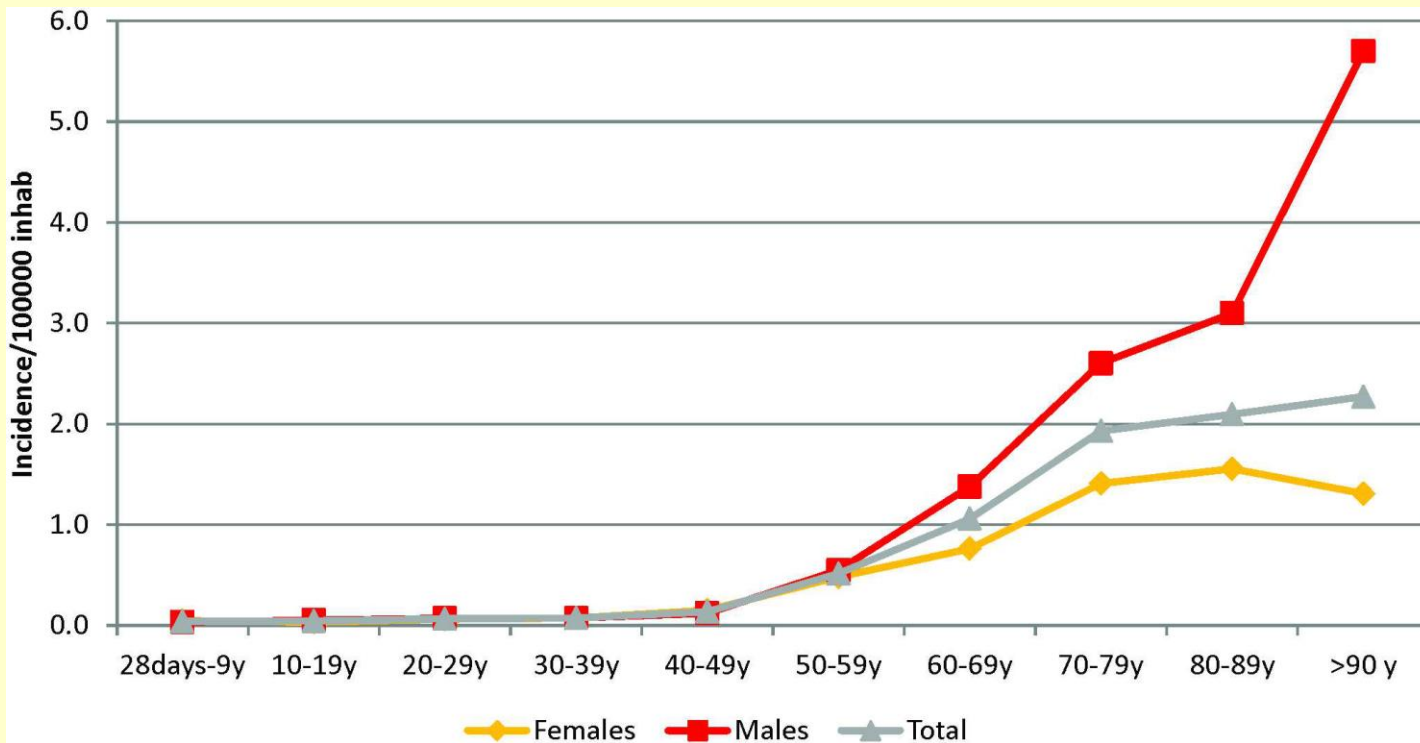
Annual incidence (/100,000 inhabitants) of listeriosis, materno-neonatal (MN) listeriosis and non-materno-neonatal listeriosis in Belgium between 1985 and 2014.



Number of listeriosis cases according to the age of patients in Belgium for 2015



Mean incidence of non-materno-neonatal listeriosis per age and gender between 2000 and 2014 in Belgium



Bertrand *et al.*, PLoSOne 2016

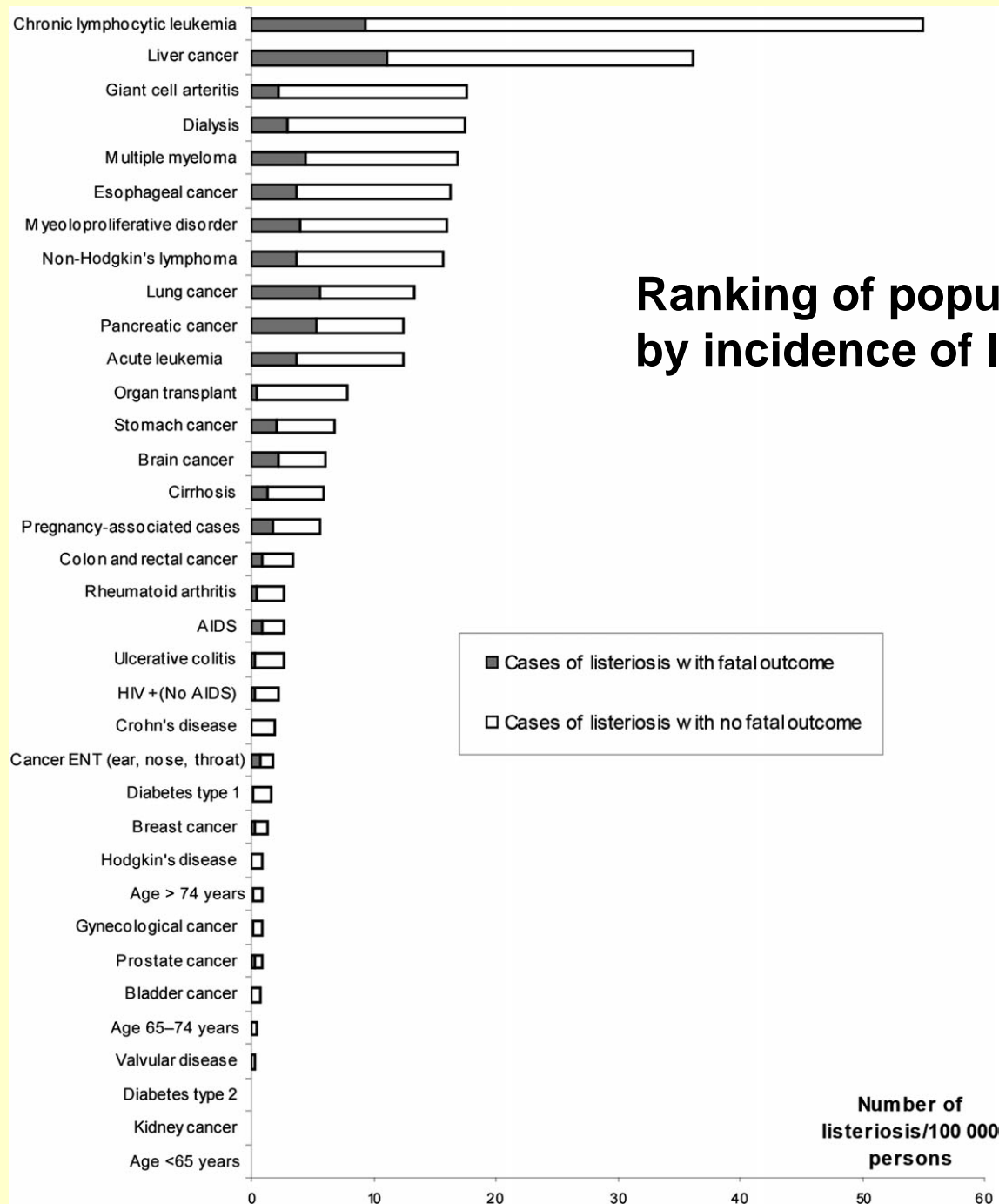
- ✓ **Human listeriosis is mostly a foodborne disease**
- ✓ **Persons belonging to the 'young, old, pregnant and immunosuppressed' persons (YOPI group) are more sensitive for infection**

Number of non-materno-neonatal listeriosis cases per associated pathologies in Belgium

| | 1985-2014 | 2015 | 2016 | 2017 | 2018 | Total |
|-------------------------------------|-----------|------|------|------|------|-------|
| Cancer | 185 | 15 | 18 | 9 | 10 | 237 |
| Digestive diseases | 52 | 4 | 2 | 6 | 1 | 65 |
| Respiratory diseases | 35 | 6 | 3 | 3 | 3 | 50 |
| Chronic kidney diseases | 33 | 2 | 3 | 2 | 2 | 42 |
| Immunosuppression | 29 | 1 | 3 | 4 | 2 | 39 |
| Heart diseases | 23 | 1 | 2 | 5 | 2 | 33 |
| Iatrogenic immunosuppression | 20 | 0 | 2 | 1 | 2 | 25 |
| Alcoholism | 20 | 3 | 7 | 1 | 4 | 35 |
| Transplantation | 14 | 2 | 1 | 0 | 1 | 18 |
| Surgery | 12 | 0 | 3 | 1 | 0 | 16 |
| Autoimmune Diseases | 2 | 0 | 1 | 1 | 2 | 6 |
| Infection/wound | 1 | 1 | 2 | 0 | 0 | 4 |
| No indication | 359 | 50 | 58 | 44 | 45 | 556 |
| Total | 785 | 85 | 105 | 77 | 74 | 1126 |

Bertrand *et al*, PLoSOne 2016

Mattheus and Van den Bossche, NRC Listeria, Sciensano
personnel communication



Request of the federal government service 'Public Health, Safety of the Food Chain and Environment' in 2015

- 1/ Identification of risk groups, other than the materno-neonatal group**
- 2/ Consumption recommendations for those groups and their care providers**

Working group

- ✓ Health Council of the Ministry of Public Health, Safety of the Food Chain and Environment**
- ✓ Scientific Committee of the Federal Agency for the Safety of the Food Chain**

Advice HGR NR 9311 published December 2016

1/ Identification of risk groups

- **persons with a number of specific underlying diseases more at risk**
- **more data needed to better define qualitatively and quantitatively the different risk groups**

2/ Consumption recommendations

Based on the YOPI definition

- **Elderly people are the group at risk**
- **Elimination of different types of food products from their menu**
- **Leading to nutritional deficiencies**

Based on underlying diseases (independent of the age)

- **Less people involved**
- **Probably for a limited period of time**

Selection of risky food products for sensitive consumer groups

based on

- 1/ Food products associated with listeriosis cases**
- 2/ *L. monocytogenes* occasionally present in the type of food products and even present in higher numbers (>10 cfu/g) within the shelf-live period of the product**
- 3/ Food products sensitive to post-contamination (slicing, prepacked)**
- 4/ Food products with a long shelf-live in which *L. monocytogenes* can grow**

Risky food products and alternatively more safe food products

| Do not eat | But eat |
|---|--|
| Fresh and soft cheeses (based on raw and pasteurized milk) | Demi-soft and hard cheeses |
| Heat treated meat products (sliced and prepacked) | Smoked, salted or dried meat products |
| Cold/hot smoked fish | Well fried, boiled or steamed fish till the core of the product |
| Sprouted seeds | - |
| Prepacked cut up melon or fruit salad containing melon | Fresh fruit (after washing and peeling) |
| Fresh meat and fish | Well fried, boiled or steamed meat and fish till the core of the product (certainly in the case of minced or composed products) |
| Mayonnaise-based sandwich spreads | Self-made spreads based on fresh prepared food products or canned products |
| Prepacked sandwiches and salades | Own prepared sandwiches and salades |

Prevention of food products containing high numbers of *L. monocytogenes* at the moment of consumption

- **Use recently produced food products**
- **Labeling the date of production, packaging**

EU regulation 2073/2005 state that

***L. monocytogenes* in a food product: max. 100 cfu/g during the whole shelf-life**

however

outbreaks in which the number of *L. monocytogenes* in the product was less than 100 cfu/g

Value of this criterium to protect sensitive consumers?

Thanks for your attention

Questions ?