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# Targeted Food Surveillance on *Clostridium perfringens* in Ready-to-eat Food

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Centre for Food Safety

Food and Environmental Hygiene Department

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# Background

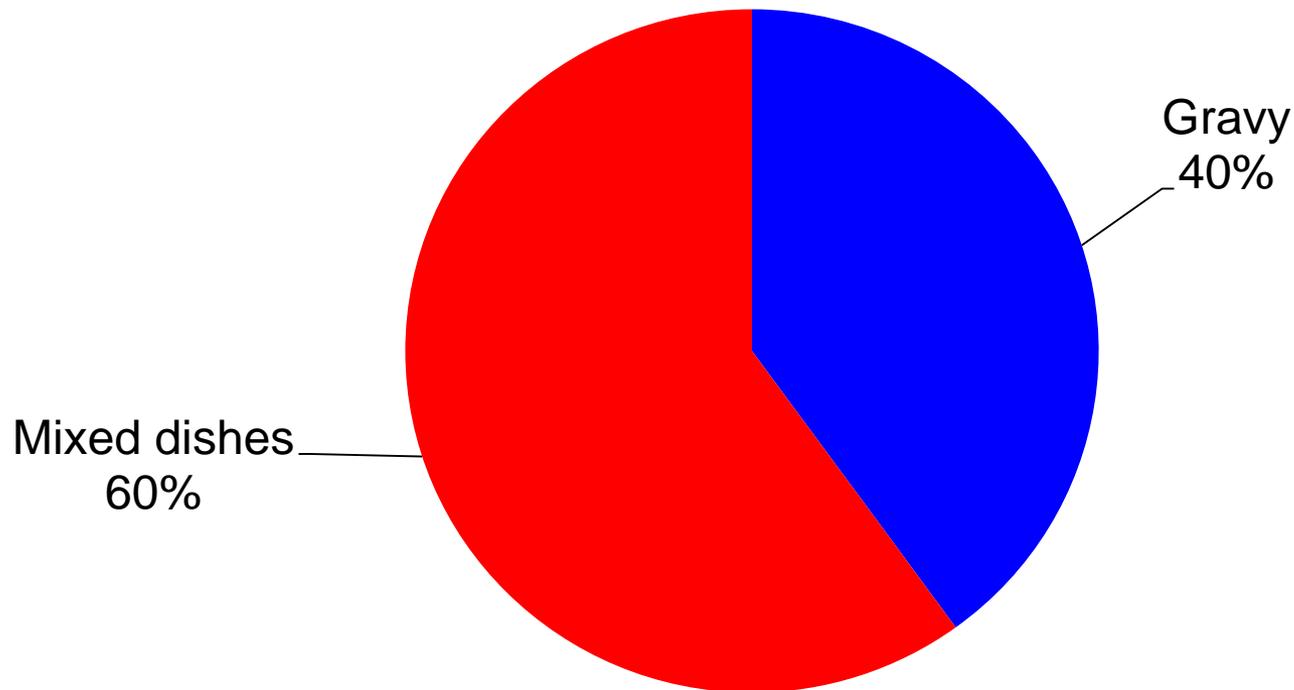
- The number of referrals from the Department of Health on suspected food poisoning outbreaks caused by *Clostridium perfringens* has increased from about 10 referrals in 2011 to about 30 in 2013. Majority of these cases involved food produced in local food premises. In view of the observation, CFS conducted a targeted surveillance on *Clostridium perfringens* in ready-to-eat food in order to better assess the situation.
- Food poisoning caused by *Clostridium perfringens* is usually associated with inadequately cooked foods or cooked foods that are cooled for prolonged period or stored under sub-optimal temperature. Foods prepared in bulk, especially cooked meat and poultry dishes, and stored at ambient temperatures with a long cooling period after cooking are at high risk.

# Background

- In food poisoning caused by *Clostridium perfringens*, common symptoms include vomiting, diarrhoea and abdominal pain, with or without fever. Recovery is usually within 24–48 hours, but prolonged and severe symptoms are more likely to appear in the junior, elderly and those with a weaker immune system.

# Types of samples

- Over 70 samples were collected from over 60 different locations, including retail outlets and food factories.



- <sup>1</sup> such as stewed meat dishes
- N.B.: Figures are rounded and may not add up to total due to rounding.

# Tests and results

- All samples were tested for *Clostridium perfringens*.
- All results were satisfactory.

# Follow-up actions

- Although all the samples tested were satisfactory, CFS will continue to enhance publicity and education to prevent food poisoning through development, production and dissemination of publications and leaflets.
- CFS will also continue the collaboration with DH in investigation of food poisoning, and take samples of suspectedly affected food for analysis when necessary.

# Advice for the trade

- Proper food handling by applying 5 keys to food safety. The following recommendations should be noted to prevent food poisoning caused by *Clostridium perfringens*:
  - ❑ Cook food thoroughly and serve cooked food as soon as possible, or keep the food at 60°C or above if it is not consumed immediately.
  - ❑ Pre-cooked food subjected to cold storage should be cooled from 60°C to 20°C within 2 hours; and from 20°C to 4°C inside a chiller within the next 4 hours.
  - ❑ Reduce the cooling time of cooked food, for example, by dividing into small portions, placing in shallow containers and/or placing in ice bath.
  - ❑ Reheat cooked food thoroughly till the core temperature reaches at least 75°C or bring it to a boil.

# Advice for consumers

- Consumers should patronize reliable premises for buying food.
- Avoid storage of food at ambient temperature for more than two hours.
- Discard leftovers or otherwise store them properly in the refrigerator at 4°C or below.
- Reheat leftovers thoroughly, till the core temperature reaches at least 75°C or bring them to a boil before consumption.

