

# Annual Summary of 2010 Food Surveillance Programme

Centre for Food Safety  
Food and Environmental  
Hygiene Department



# 2010 Food Surveillance Programme

- The Centre for Food Safety (CFS) adopts the World Health Organization's "from farm to table" framework to ensure food safety in Hong Kong. The CFS has in place different measures to safeguard food safety, among which Food Surveillance Programme is a major tool, in identifying potential food risk and monitoring food safety level.
- Samples of a large variety of food are taken at import, wholesale and retail levels for microbiological and chemical testing, to ensure that the foods offered for sale are fit for human consumption and comply with legal requirements.
- The CFS has adopted a three-tier surveillance strategy, consisting of routine food surveillance, targeted food surveillance and seasonal food surveillance.

# Routine food surveillance

- Routine food surveillance covers major food groups such as fruits and vegetables, meat, poultry, aquatic products, milk and cereals.
- Types of testing:
  - microbiological testing includes bacteria and viruses
  - chemical testing includes food additives, contaminants and natural toxins, etc
- The CFS announced all surveillance results by a “Food Safety Report” every month. The results were presented in a user-friendly format in the CFS website. Apart from announcing results, the CFS also gave advice to consumers to minimise health risks posed by problem food.

# Targeted food surveillance

- In 2010, the CFS had undertaken a number of targeted food surveillance projects and published the relevant reports, including:
  - *Enterobacter Sakazakii* in powdered infant formula
  - Microbiological quality of ice-cream and frozen confections
  - Microbiological quality of refrigerated pre-packaged boxed meal that required reheating before consumption
  - Microbiological quality of lunch boxes
  - Sulphur dioxide in meat (2 phases)



# Targeted food surveillance (Cont'd)



- ❑ Formaldehyde in noodlefish
- ❑ Microbiological quality of Chinese cold dishes
- ❑ Microbiological quality of bottled water
- ❑ Sudan dyes in eggs and egg products
- ❑ Nitrate and nitrite in meat, meat products and cheese
- ❑ Preservatives in preserved fruits and vegetables

# Seasonal food surveillance

- The CFS continues to monitor and assess the safety of highly popular festive and seasonal food items. The completed projects included:
  - Lunar New Year food
  - Rice dumplings
  - Mooncakes
  - Hairy crabs
  - Microbiological quality of Poon choi





# Survey on popular food

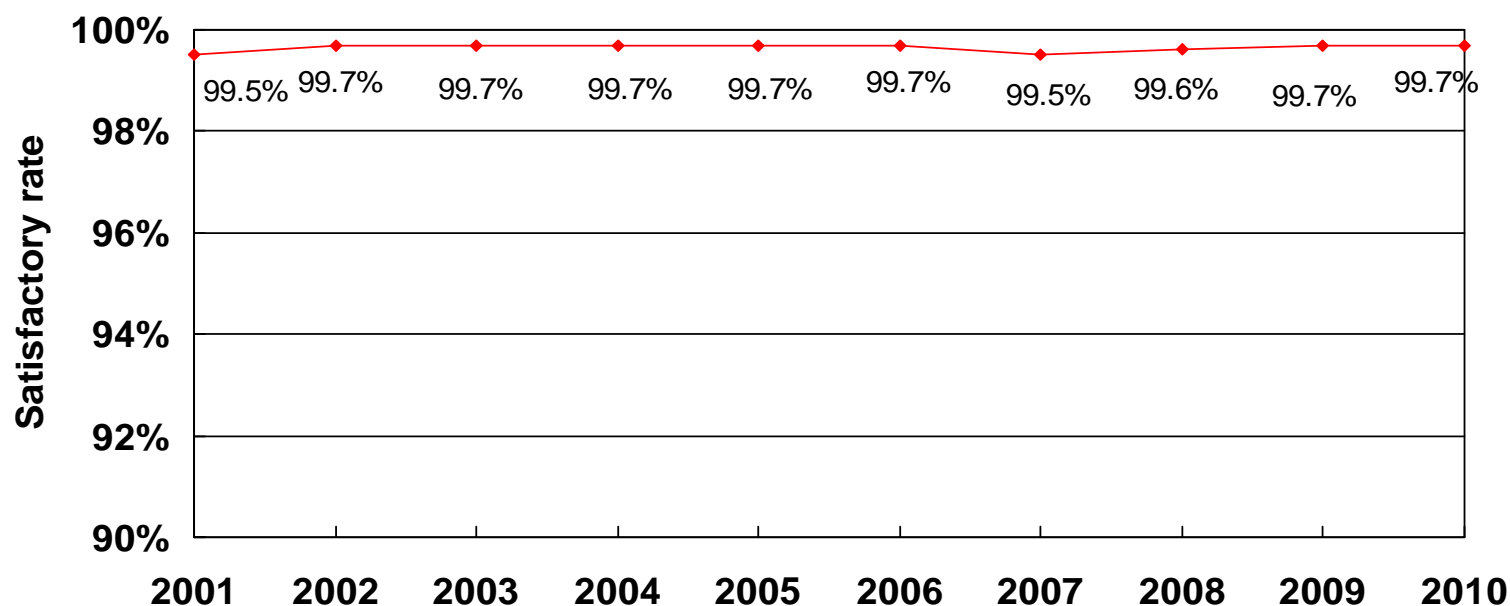
- In addition, the CFS also conducted surveys on popular local food items to assess the safety of commonly consumed food items, which include:
  - Southeast Asian food
  - Chinese regional cuisines (2 phases)



# Overall results

- The overall satisfactory rate was 99.7%, which was comparable to those of recent years.

Overall satisfactory rates of food surveillance programme  
(2001 - 2010)





# Overall results (Cont'd)

- There are totally 164 unsatisfactory samples. The results of different types of food are as follows:

Food group	No. of samples*	Unsat. samples	Satisfactory rate
Vegetables, fruits & products	25100	25	99.9%
Meat, poultry & products	5900	27	99.5%
Aquatic products	5800	41	99.3%
Milk, milk products & frozen confections	10700	49	99.5%
Cereal, grains and products	1900	1	99.9%
Others	13600	21	99.8%
<b>Total</b>	<b>63000</b>	<b>164</b>	<b>99.7%</b>

\* N.B.: Figures are rounded.

# Overall results (Cont'd)

- Major problems of the unsatisfactory samples:

Food group	No. of unsat. samples	Major problems (no. of unsat. samples)
Vegetables, fruits & products	25	Preservatives(12), metallic contamination(10), pathogens(2), colouring matters(1)
Meat, poultry & products	27	Sulphur dioxide in fresh meat(17), veterinary drug residues(5), pathogens(2), colouring matters(2), preservatives(1)
Aquatic products	41	Veterinary drug residues(15), metallic contamination(13), pathogens(6), preservatives(4), toxins(2), norovirus nucleic acid in raw oysters(1)
Milk, milk products & frozen confections	49	Hygienic indicators(48), pathogens(1)
Cereal, grains and products	1	Preservatives(1)
Others	21	Pathogens(11), preservatives(6), colouring matters(3), veterinary drug residues(1)

# Overall results (Cont'd)

- As far as unsatisfactory samples were concerned, most of them were not serious and would not pose serious health effects to the general public.
- Some highlights of the unsatisfactory samples are as follows:
  - ❑ Malachite green (a veterinary drug residue) in fish
  - ❑ Metallic contaminants in aquatic products and vegetables
  - ❑ Shellfish and paralytic shellfish poisoning
  - ❑ Hygiene indicators for imported milk products and frozen confections

# Malachite green (a veterinary drug residue) in fish

- Of the more than 1000 aquatic products tested in 2010, 12 fish samples were found to contain malachite green (MG). However, based on the levels of MG found in the affected fish samples, normal consumption was unlikely to pose adverse health effects.
- MG had been used for treating fungal diseases in fish. In some animal studies, long term exposure to MG was found to be toxic to the liver, cause anaemia and affect the foetal development. With the legislative amendments in place since August 2005, MG should not be present in any food sold in Hong Kong.
- The CFS has issued warning letters to the vendors concerned and asked them to stop selling and to dispose of the affected food. The CFS has also reminded them to source food ingredients from reliable sources and ensure that the food complies with local regulations. The CFS will continue to strengthen the surveillance of MG in fish, including taking samples for analysis.

# Metallic contaminants in aquatic products and vegetables

- In 2010, the CFS also detected samples of aquatic product and vegetable contained levels of metallic contaminants exceeding the legal limits. For instance, excessive mercury was detected in large predatory fish (e.g. swordfish), and excessive cadmium was found in bivalve shellfish (e.g. scallop), crustaceans (e.g. crab) and vegetables (e.g. watercress).
- Immediate health risk of the concerned food with the same detected levels of metallic contaminants is unlikely, although long-term consumption may cause damage to organs, particularly among vulnerable groups such as fetuses and young children.
- As metallic contaminants in food mainly come from the environment, it is more effective to control at the source of food products. The CFS had traced the sources of the unsatisfactory samples. For those cases with identified source, the CFS had notified the authorities of the places of origin for follow-up. The CFS also issued warning letters to the traders concerned requiring them to stop selling and dispose of the affected food, and advised the public to maintain a balanced diet and eat a variety of food so as to reduce food risks.

# Shellfish and paralytic shellfish poisoning

- In January and May 2010, the food surveillance programme detected unsatisfactory samples for Paralytic Shellfish Poisoning (PSP) toxin testing. For these unsatisfactory samples, the CFS had issued warning letters to the traders concerned, requested them to stop selling and dispose of the affected food, obtained follow-up samples, traced their source and distribution as far as possible. The CFS also assessed the health risk of each unsatisfactory sample, announced the results timely and reminded the public not to consume the concerned products.



# Hygiene indicators for imported milk products and frozen confections

- Samples of imported milk products and frozen confections are taken for testing at the import level. In particular, milk products and frozen confections imported into Hong Kong for the first time are detained for inspection before entering the market for sale.
- In 2010, the CFS detected that the hygiene indicators (total bacterial count and coliform organisms) of imported milk products or frozen confections exceeded legal standards. All these consignments were either sealed and disposed of or returned to the countries of origin, without entering the retail market.
- The CFS had immediately issue warning letters to the relevant importers and also notified the authorities of the exporting countries for follow-up. The products in question have been suspended from import into Hong Kong until the CFS receives satisfactory remedial actions from the importers / manufacturers.

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# Conclusion

- In general, the satisfactory rate of food tested under the programme has been maintained at over 99%.
- For individual affected food items identified, the CFS has taken prompt and effective follow-up actions to safeguard public health.
- The CFS will continue to review the risk-based food surveillance programme by taking local and international food safety issues into due consideration.