

# Summary of 2011 Food Surveillance Programme

Centre for Food Safety  
Food and Environmental  
Hygiene Department



# Food Surveillance Programme in 2011

- The Centre for Food Safety (CFS) adopts the World Health Organization's "from farm to table" framework to ensure food safety in Hong Kong. Control at source includes allowing only the supply of food produced by approved farms / processing plants with audit inspections, and the requirements of health certificates for certain food animals and food products, etc. At downstream stages of the food supply chain, the food surveillance programme is a key component to ensure food safety.
- The programme monitors foods offered for sale to ensure their compliance with legal requirements and fitness for human consumption. Samples are collected at import, wholesale and retail levels for microbiological, chemical and radiation level testing.
- CFS has adopted a three-tier surveillance strategy, consisting of routine food surveillance, targeted food surveillance and seasonal food surveillance. CFS also conducts surveys on popular local food items to assess the safety of commonly consumed food items.

# 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 included pathogens and total bacterial count, etc
  - Chemical testing included food additives, contaminants and natural toxins, etc
  - Radiation level testing
- CFS announced all surveillance results of the previous month by a monthly “Food Safety Report”. The reports were announced in press releases and also presented in a user-friendly format in CFS website. Apart from announcing results, CFS also gave advice to consumers to minimise health risks posed by problem foods.

# Targeted food surveillance

- In 2011, CFS had undertaken a number of targeted food surveillance projects and published the relevant reports, including:
  - Sulphur dioxide in meat (2 phases)
  - Microbiological quality of lunch boxes
  - Microbiological quality of refrigerated pre-packaged boxed meal that required reheating before consumption
  - *Enterobacter Sakazakii* in powdered infant formula
  - Microbiological quality of ice-cream and frozen confections



# 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

- 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

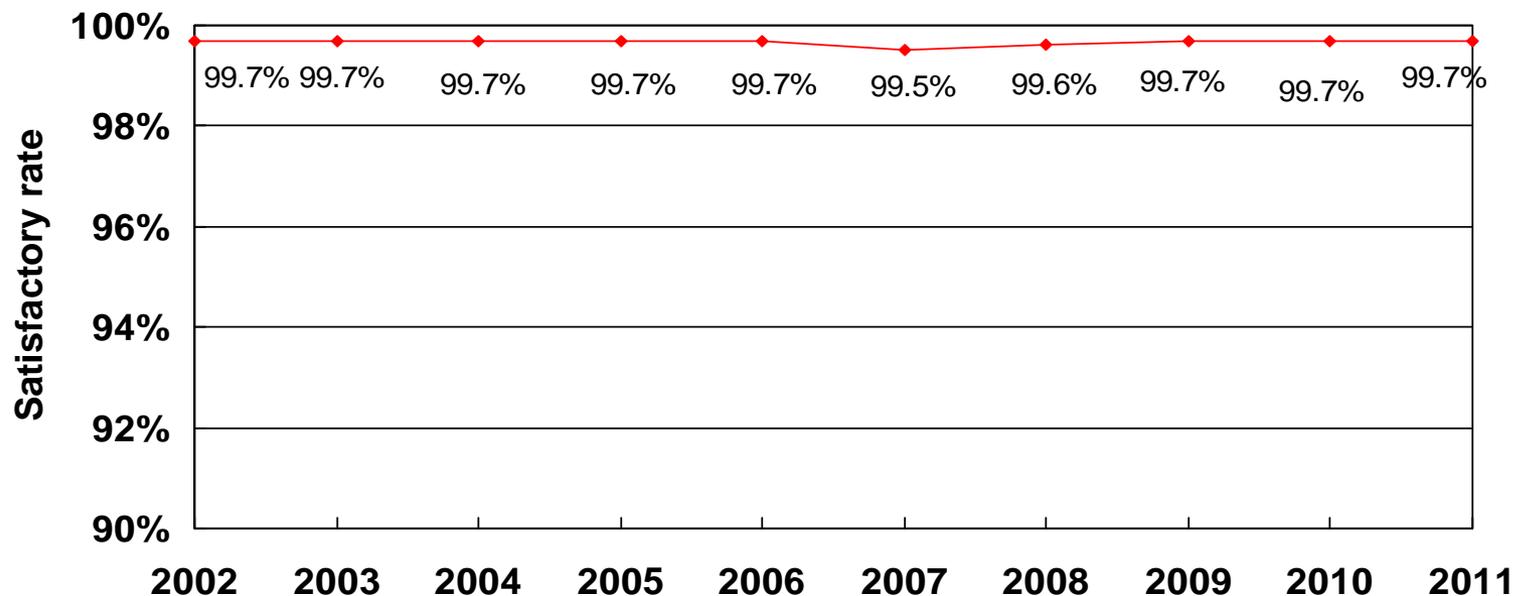
- CFS also conducted surveys on popular local food items to assess the safety of commonly consumed food items, which include:
  - Hotpot soup bases
  - Vegetarian food
  - Hong Kong style tea restaurant



# Overall satisfactory rate

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

Overall satisfactory rates of food surveillance programme  
(2002 - 2011)



# Results of different types of food

- Apart from samples of imported Japanese food taken for testing of radiation level in response to the Fukushima nuclear power plant incident in Japan, about 64,900 samples were tested by CFS in 2011. Of these, 174 samples were found unsatisfactory.

Food group	No. of samples*	Unsatisfactory samples	Satisfactory rate
Vegetables, fruits & products	27000	20	99.9%
Meat, poultry & products	6000	25	99.6%
Aquatic products	6500	19	99.7%
Milk, milk products & frozen confections	8000	39	99.5%
Cereal, grains and products	1300	3	99.8%
Others	16200	68	99.6%
<b>Total</b>	<b>64900</b>	<b>174</b>	<b>99.7%</b>

\* N.B.: Figures may not add up to total due to rounding.

# Major problems of the unsatisfactory samples

Food group	No. of unsatisfactory samples	Major problems (no. of unsatisfactory samples)
<b>Vegetables, fruits &amp; products</b>	20	Metallic contamination(11), preservatives(4), pathogens(3), pesticides(2)
<b>Meat, poultry &amp; products</b>	25	Sulphur dioxide in fresh meat(14), veterinary drug residues(7), preservatives(3), pathogens(1)
<b>Aquatic products</b>	19	Metallic contamination(6), veterinary drug residues(6), preservatives(4), toxins(2), colouring matters(1)
<b>Milk, milk products &amp; frozen confections</b>	39	Hygienic indicators(37), pathogens(1), preservatives(1)
<b>Cereal, grains and products</b>	3	Metallic contamination(3)
<b>Others</b>	68	Plasticisers(49), pathogens(9), preservatives(7), toxins(2), colouring matters(1)

# Major problems of the unsatisfactory samples (Cont'd)

- As far as the unsatisfactory samples were concerned, most of them were not serious and would not pose serious health effects to the general public.
- Some of the more concerned incidents and results are as follows:
  - The incident of food contamination with plasticisers in Taiwan
  - Excessive cadmium (a metallic contaminant) in vegetables and cereal products
  - Sulphur dioxide (a preservative) in meat
  - Veterinary drug residues in meat and aquatic products
  - Hygiene indicators for imported milk products and frozen confections

# The incident of food contamination with plasticisers in Taiwan

- Since the incident of food contamination with plasticisers in Taiwan in end-May 2011, CFS has strengthened testing on sports drinks, fruit juices, tea drinks, fruit jams and fruit syrups, as well as food products in the form of capsules, tablets or powders and taken measures to ensure that plasticiser-contaminated products would be kept off the market.
- The Taiwanese authority concerned announced in August 2011 that the incident had been under control and the results of plasticisers tests conducted by CFS had been satisfactory since end-August. Under the circumstances, CFS decided to subsume the testing of plasticisers in food, conducted previously under a targeted approach, within its routine food surveillance programme from 3 October onwards so as to continue to safeguard food safety.
- As at end of December 2011, CFS has collected about 1100 samples for plasticisers testing. Among them, 49 samples were unsatisfactory and the overall satisfactory rate was 95.6%. The unsatisfactory samples involved sports drinks, fruit juices, tea drinks, fruit syrups and other food items such as instant noodle and fruit jelly, etc.

# The incident of food contamination with plasticisers in Taiwan (Cont'd)

- The unsatisfactory results were announced timely and the affected products were immediately removed from the market.
- In addition, the Food and Environmental Hygiene Department (FEHD) issued six orders in total under section 78B of the Public Health and Municipal Services Ordinance (Cap. 132) to prohibit the import into and supply within Hong Kong plasticiser-contaminated food products that might pose risk to health and to direct the recall of such food products.

# Excessive cadmium (a metallic contaminant) in vegetables and cereal products

- In 2011, CFS detected several samples of vegetables (e.g. spinach, ceylon spinach) and cereal products (e.g. rice noodles, rolled oats) that contained levels of cadmium (a metallic contaminant) exceeding the legal limits.
- However, it is unlikely that the foods concerned with cadmium at the detected levels would pose any adverse health effect to consumers upon normal consumption.
- As metallic contaminants in food mainly come from the environment, it is more effective to control at the source of food products. As such, CFS had traced the sources of the unsatisfactory samples. For those cases with identified source, CFS had notified the authorities of the places of origin for follow-up.
- CFS also issued warning letters to the traders concerned requiring them to stop selling and to dispose of the affected food.

# Sulphur dioxide (a preservative) in meat

- In 2011, CFS continued to step up control over the use of sulphur dioxide in meat and collected more than 350 meat samples, including beef, pork and mutton, from fresh provision shops and market meat stalls for testing. Among them, 14 fresh meat samples were found to contain sulphur dioxide.
- Under the Preservatives in Food Regulation (Cap. 132, sub. leg.), selling fresh, chilled or frozen meat containing sulphur dioxide is an offence and the maximum penalty is a fine of \$50000 and 6 months' imprisonment. Upon conviction, FEHD will impose the penalty of suspension or cancellation of the concerned licence according to the "Demerit Points System". For public market stall owners, their tenancies might be terminated.
- Warning letters were immediately issued to the traders concerned and follow-up samples were taken to monitor their improvements. Prosecutions were taken against the traders when there was sufficient evidence.

# Veterinary drug residues in meat and aquatic products

- Of the meat and aquatic product samples taken in 2011, 13 were found to have unsatisfactory results related to non-permitted or excessive veterinary drug residues. Among them, 3 fish samples were found to contain malachite green, while the remaining 10 samples (e.g. frozen suckling pig, hairy crab and dried shrimp) were found containing antibiotic residues such as nitrofurans and chloramphenicol.
- However, it is unlikely that the foods concerned with veterinary drug residues at the detected levels would pose any adverse health effect to consumers upon normal consumption.
- CFS has taken follow-up actions, including issuing warning letters to the vendors concerned and asking them to stop selling and to dispose of the affected food. CFS has also reminded them to source food ingredients from reliable sources and ensure that the food complies with local regulations. CFS will continue to strengthen the surveillance of veterinary drug residues in meat and aquatic products and take samples for analysis.

# 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 and testing before entering the market for sale.
- In 2011, CFS found that the hygiene indicators (total bacterial count, coliform organisms or colony counts) of 32 samples from 6 consignments of imported milk products or frozen confections had exceeded the legal standards. All these consignments were either sealed and disposed of or returned to the countries of origin, without entering the market.
- CFS had immediately issued 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 CFS receives reports on satisfactory remedial actions from the importers or manufacturers.

# Advice for the trade

- Food manufacturers and importers should source food ingredients from reliable sources and should ensure that the food complies with local regulations.
- One of the main findings in 2011 was the detection of non-permitted preservatives in fresh meat. Some food samples were also found to contain non-permitted food additives such as colouring matters. In manufacturing food products, the trade should follow Good Manufacturing Practice (GMP), comply with legal requirements and properly keep fresh meat.
- As some samples of milk products and frozen confections were found to have hygienic indicators levels exceeding the legal limits, the trade should source food from reliable suppliers and maintain a good recording system to allow source tracing if needed.
- The Food Safety Ordinance which introduces a food tracing mechanism is now effective. Upon the expiry of the grace period on 31 January 2012, any person who does not register but carries on a food importation or distribution business; or fails to comply with the record-keeping requirement commits an offence.

# Advice for the trade (Cont'd)

- Besides, some ready-to-eat food samples were found to contain pathogens. The trade should adhere to good hygiene practices in processing food, especially to observe time and temperature (i.e. 4°C or below; above 60°C) controls, and separate raw food from ready-to-eat food.
- The trade should always take note of the information issued by CFS through its webpage, Food Alert, publications, letters and Trade Consultation Forum for the latest development on food safety.

# Advice for consumers

- With regard to some food samples containing excessive/non-permitted food additives or veterinary drug residues, most of the levels concerned were low and would not pose adverse health effects. However, consumers should still take a balanced diet so as to avoid excessive intake of certain harmful substances as a result of frequent consumption of a small range of food items.
- In respect of the sulphur dioxide levels detected in the fresh meat samples concerned, adverse health effect is unlikely upon normal consumption. Sulphur dioxide is a food preservative of low toxicity. It is also water-soluble and most of it tends to be removed through washing and cooking. Consumers should purchase meat from reliable market stalls or fresh provision shops. They should not buy or consume meat which is unnaturally red.
- Although excessive cadmium (a metallic contaminant) was found in some vegetable samples, the detected levels were low. Thorough washing and soaking of vegetables can remove cadmium adhered to their surface.

# Advice for consumers (Cont'd)

- Since some fish samples were found containing excessive mercury, appropriate consumption of a variety of fish is recommended. As pregnant women, women planning pregnancy and young children are more susceptible to the effects of mercury, they should avoid large predatory fish when choosing fish dishes.
- Since pathogens were found in some mixed dishes such as flat noodles with beef flank and fish balls, rice with BBQ pork and Vietnamese rice noodles with cattle tongue, consumers should patronise licensed restaurants and pay attention to the hygiene condition. After purchasing take-away foods, not for immediate consumption, people should keep them at appropriate temperature (i.e. 4°C or below; above 60°C) to prevent the growth of bacteria.

# Conclusion

- The food surveillance programme of 2011 revealed that the overall satisfactory rate of food products in Hong Kong was maintained at a high level, which was comparable to the results of recent years.
- For individual problem food items identified, CFS has taken prompt and effective risk management actions to safeguard public health.

# Food Surveillance Programme in 2012

- CFS will maintain the three-tier food surveillance approach i.e. routine food surveillance, targeted food surveillance and seasonal food surveillance in 2012, and collect samples at import, wholesale and retail levels for microbiological, chemical and radiation level testing.
- In planning the food surveillance programme, CFS takes into consideration various factors including the consumption level, the risk of food items, past surveillance data and local and overseas food incidents. In addition to focusing on those unsatisfactory conditions in 2011 such as the use of sulphur dioxide in meat and metallic contamination in vegetables exceeding the standards, the food surveillance programme of 2012 will continue to include various targeted and seasonal food surveillance projects. In addition, CFS will conduct targeted surveillance focusing on issues of concern such as Japanese food and the safety of some commonly-consumed food items e.g. sandwiches and salads.
- In accordance with the new development and amendment of legislations such as the proposed Regulation on Pesticide Residues in Food under the Public Health and Municipal Service Ordinance (Cap. 132), CFS will implement corresponding food surveillance.

# Food Surveillance Programme in 2012

## (Cont'd)

- In order to allow the public to obtain the latest information on food safety, CFS will continue to issue results of food surveillance via various channels on a timely basis. CFS will also closely monitor the latest international development on food safety and adjust the food surveillance programme accordingly.