Summary of 2012 Food Surveillance Programme

Centre for Food Safety

Food and Environmental Hygiene Department

食物環境衞生署
Food and Environmental Hygiene Department

食物安全中心
Centre for Food Safety

Food Surveillance Programme in 2012

- 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 2012, 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
  - Microbiological quality of ice-cream and frozen confections
  - Microbiological quality of Chinese cold dishes

Targeted food surveillance (Cont'd)

- 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
- Used oil

Seasonal food surveillance

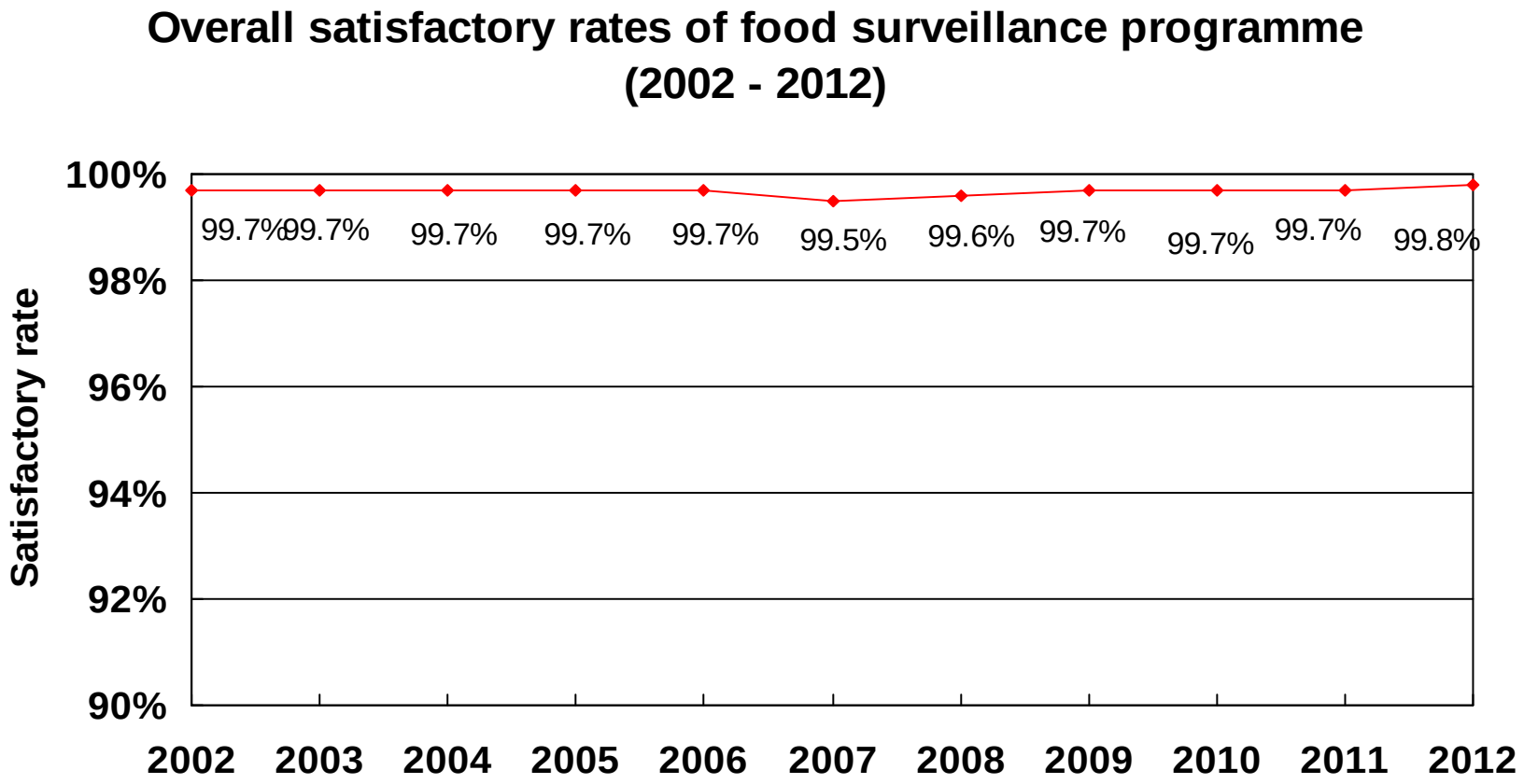
- CFS continues to monitor and assess the safety of highly popular festive and seasonal food items. The completed projects included:
  - Lunar New Year food
  - Rice dumplings
  - Mooncakes
  - Hairy crabs
  - Microbiological quality of Poon Choi

Survey on popular food

- CFS also conducted surveys on popular local food items to assess the safety of commonly consumed food items, which include:
  - Sashimi and Sushi
  - Sandwiches and salads

Overall satisfactory rate

- The overall satisfactory rate was 99.8%, which was comparable to those of recent years.



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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 65000 samples were tested by CFS in 2012. Of these, 132 samples were found unsatisfactory.

Food group	No. of samples*	Unsatisfactory samples	Satisfactory rate
Vegetables, fruits & products	26300	19	99.9%
Meat, poultry & products	6900	28	99.6%
Aquatic & related products	6900	20	99.7%
Milk, milk products & frozen confections	8600	42	99.5%
Cereal, grains and products	1300	0	100%
Others	14900	23	99.9%
Total	*65000*	*132*	*99.8%*

* 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)
Vegetables, fruits & products	19	Metallic contamination(11), preservatives(3), pathogens(3), pesticides(2)
Meat, poultry & products	28	Sulphur dioxide in fresh meat(23), pathogens(4), preservatives(1)
Aquatic & related products	20	Metallic contamiation(9), veterinary drug residues(5), toxins(5), pathogens(1)
Milk, milk products & frozen confections	42	Hygienic indicators(24), nutrition labelling (17), preservatives(1)
Cereal, grains and products	0	
Others	23	Preservatives(7), pathogens(7), plasticisers(3), polycyclic aromatic hydrocarbons(3), colouring matters(1), hygienic indicators(1), antioxidant(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:
  - Sulphur dioxide (a preservative) in meat
  - Hygiene indicators for imported milk products and frozen confections
  - Excessive metallic contaminants in vegetables and aquatic products
  - Infant formula not complying with standards on nutrient contents

Sulphur dioxide (a preservative) in meat

- In 2012, CFS continued to step up control over the use of sulphur dioxide in meat and collected more than 920 meat samples, including beef, pork and mutton, from fresh provision shops and market meat stalls for testing. Among them, 23 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.

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 2012, CFS found that the hygiene indicators (total bacterial count, coliform organisms or colony counts) of 18 samples from 4 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.

Excessive metallic contaminants in vegetables and aquatic products

- In 2012, CFS detected several samples of vegetables (e.g. spinach, winter mushrooms) and aquatic products (e.g. tuna, swordfish, ling fish) that contained levels of cadmium and mercury (both metallic contaminants) exceeding the legal limits, respectively.

- However, it is unlikely that the foods concerned with cadmium or mercury 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.

Testing of nutrient content in infant formula milk powder

- CFS has completed the assessment of the nutrition composition of infant formulae available in local market in 2012 and found that 7 samples of milk powder contained a low level of iodine which would potentially affect infants' thyroid function. In addition, 3 products were also found to have suboptimal levels of biotin and 1 product with excessive protein and potassium, all of which could potentially pose health risk.

- CFS issued warning letters to the traders concerned requiring them to stop selling and to dispose of the affected food.

- The testing of follow-up formulae catered for children aged between 6 and 36 months has been stepped up as a result, for which final report is expected to be available by mid-2013.

Cooking oils alleged to have quality issue

- In response to media reports of the supply of edible oil with carcinogens to local restaurants by an unlicensed food factory, CFS immediately carried out investigation and took samples for testing, identifying that 3 samples belonging to the same brand and same batch contained benzo(a)pyrene (BaP) at level exceeding the action limit of 10 mcg/kg. The other samples taken were satisfactory.

- In addition to announcing the assessment result, the CFS also requested the cooking oil supplier concerned to stop selling and recall the affected product.

- To further allay public concerns, the CFS will embark on an additional targeted food surveillance project on cooking oil. Samples will be taken for testing of BaP, metallic contaminants and aflatoxins to ensure that the products are in compliance with the legal requirements in Hong Kong and are fit for human consumption.

Advice for the trade

- Food manufacturers and importers should source food ingredients from reliable sources and ensure that the food complies with local regulations.

- One of the main findings in 2012 was the detection of non-permitted preservatives in fresh meat. In manufacturing food products, the trade should follow Good Manufacturing Practice (GMP), comply with legal requirements and properly keep fresh meat.

- The trade should also maintain a good recording system in accordance with the Food Safety Ordinance to allow source tracing if needed.

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 can be removed readily 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. Soaking and thorough washing of vegetables before consumption can remove contaminants adhered to the 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 soy milk, sweet soup, salads, rice with BBQ pork and poached chicken and Vietnamese rice roll, 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 2012 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 2013

- CFS will maintain the three-tier food surveillance approach i.e. routine food surveillance, targeted food surveillance and seasonal food surveillance in 2013, 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 2012 such as the use of sulphur dioxide in meat and metallic contamination in vegetables exceeding the standards, the food surveillance programme of 2013 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 safety of cooking oil and some commonly-consumed food items e.g. seeds and nuts.

- 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.