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Advisory Council on Food and Environmental Hygiene

Report on the Food Surveillance Programme for 2013

Purpose

This paper briefs Members on the Food Surveillance Programme of the Centre for Food Safety (CFS) in 2013 and reports on the major surveillance results for the period and the follow-up actions taken.

Food Surveillance Programme

2. CFS adopts the World Health Organization's "from farm to table" strategy when working to ensure food safety in Hong Kong. Control measures at source include allowing only food from approved farms/ processing plants with audit inspections to enter Hong Kong, and requiring health certificates for certain food animals and food products, etc. At the downstream end of the food supply chain, the food surveillance programme is a key component of our measures to ensure food safety.

3. CFS' Food Surveillance Programme monitors food on sale to ensure its compliance with legal requirements and fitness for human consumption. CFS takes food samples at the import, wholesale and retail levels and adopts a risk-based principle in determining the types of samples to be collected, the frequency and number of samples taken for testing, and the types of laboratory analysis to be conducted. The sampling programme is under regular review, taking into account factors such as past food surveillance results, local and overseas food incidents as well as relevant risk analysis. CFS will consult the Expert Committee on Food Safety (the Expert Committee) on food surveillance projects under the Programme, which will be implemented upon its endorsement.

4. Our three-pronged food surveillance strategy consists of routine food surveillance, targeted food surveillance and seasonal food surveillance. In addition, CFS also conducts surveys on popular food items to assess the safety of food that is commonly consumed in Hong Kong. In 2013, CFS completed 13 targeted food surveillance projects, five seasonal food surveillance projects and one survey on popular food items. Details of these projects are set out in the **Annex**.

Announcement Mechanism

5. CFS releases a monthly Food Safety Report that summarises all surveillance results of the previous month. If test results indicate that a food sample poses threats to or has immediate impact on public health, CFS will issue press releases immediately to explain the risks involved and advise the public against consuming the food in question.

6. The results of targeted food surveillance projects and surveys on popular food items are released upon completion, while the results of seasonal food surveillance projects are announced ahead of the relevant festivals and seasons to enable consumers to make informed choices.

7. Apart from press releases, the food surveillance results are also uploaded onto CFS' website and Facebook page[1]. Advice will be given to consumers on measures to minimise health risks posed by problem food.

Overall Results

8. Apart from radiation testing of samples of imported food from Japan[2], CFS conducted tests on a total of about 65 000 samples in 2013, i.e. about nine samples per 1 000 persons of the population of Hong Kong. This is a relatively high testing rate when compared with other overseas economies.

9. There were 57 unsatisfactory samples among these test results (please see **Table 1**). The overall satisfaction rate was 99.9%. The scores for certain testing parameters and food items were 100%. For instance, the results of survey on popular food items covering nuts and seeds, a number of targeted food surveillance projects[3] and several projects on seasonal food[4] were all satisfactory.

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[1] CFS launched its Facebook page in October 2013.

[2] See item VI below for details.

[3] Including projects on the microbiological quality of lunch boxes and refrigerated pre-packaged boxed meal that required reheating before consumption; nitrate and nitrite in meat, meat products and cheese; Sudan dyes in eggs and egg products; *Listeria monocytogenes* in ready-to-eat food kept under refrigeration; microbiological quality of bottled water; microbiological quality of ice-cream and frozen confections; and cooking oil.

[4] Including mooncakes, rice dumplings, hairy crabs and Poon Choi

Table 1: Major problems of unsatisfactory samples

Food group	Number of unsatisfactory samples	Major problems (number of unsatisfactory samples)
Vegetables, fruits and related products	8	Metallic contaminants(3), preservatives(3), pesticides(2)
Meat, poultry and related products	4	Preservatives(3), veterinary drug residues(1)
Aquatic products and related products	7	Metallic contaminants(3), pathogen (2), preservatives(1), veterinary drug residues(1)
Milk, milk products and frozen confections	24	Hygienic indicators(24)
Cereals and cereal products	1	Metallic contaminants(1)
Others[5]	13	Pathogen(5), colouring matters(5), preservatives(3)
Total	**57**	

10. Most of the unsatisfactory samples did not involve serious problems and would not cause adverse health effects to the general public. Cases of greater concern are given below.

I. Hygiene indicators for imported milk products and frozen confections

11. CFS has been taking samples of milk products and frozen confections at the import level for testing. In particular, milk products and frozen confections imported into Hong Kong for the first time have to be detained for testing and will only be allowed for sale in the market after passing the tests. During such operations in 2013, CFS found a total of 16 samples from six consignments of imported frozen confections with hygiene indicators (total bacterial count, coliform organisms or colony count) exceeding the legal standards of Hong Kong. It indicated that the hygienic conditions of those samples were unsatisfactory, but did not imply that the samples would pose direct adverse health effects. All these consignments were disposed of without entering the local market. CFS had instituted prosecutions against the importers concerned for 14 of the unsatisfactory samples.

[5] Coconut tart, sweetened lotus seed, green papaya salad, spicy beef, spicy shredded chicken, vegetarian fine spiced duck, pork sauce and fermented red bean curd.

12. CFS has notified the authorities of the exporting countries for follow-up. The products in question have been suspended from import into Hong Kong until CFS is satisfied with the reports of the importers or manufacturers on remedial actions.

II. Preservatives in fresh meats and dried food

13. Surveillance results of CFS in 2013 revealed that fresh meats and dried food (like bamboo fungus, white fungus, candied lotus seed and preserved pummelo, etc.) were found containing preservatives exceeding the legal standards. With normal consumption, the foods concerned with preservatives at levels detected in those samples would not pose any adverse health effects to consumers.

14. Warning letters were immediately issued to the traders concerned and samples were taken to monitor their improvements. Prosecutions have been taken against six cases with sufficient evidence and all six cases were convicted and fined.

15. Under the Preservatives in Food Regulation (Cap. 132BD), any person who sells food containing levels of preservatives exceeding the legal limits shall be guilty of an offence and liable on conviction to a maximum penalty of a fine of $50,000 and imprisonment for six months. Regarding shop operators selling fresh meats adulterated with sulphur dioxide, their licences will be subject to suspension or cancellation by the Food and Environmental Hygiene Department (FEHD) in accordance with the Demerit Points System. If the offenders are public market stall tenants, the tenancies of their stalls will also be subject to termination by FEHD.

III. Excessive metallic contaminants in vegetables and aquatic products

16. During regular food surveillance conducted last year, CFS continued to detect in samples of vegetables (such as Chinese wolfberry, baby Shanghai green and Chinese celery) and aquatic products (e.g. codfish and frozen fish fillets) levels of cadmium and mercury exceeding the legal standards respectively. For two frozen fish fillets samples detected to contain excessive mercury, the possibility of damage to the nervous system upon long-term consumption in large quantity cannot be ruled out (particularly for vulnerable groups such as pregnant women, women planning pregnancy and young children). Other than that, food samples detected to contain cadmium or mercury would not pose any adverse health effects to consumers upon normal consumption.

17. As metallic contaminants in food mainly come from the environment, it is more effective to control at source. As such, CFS has traced the sources of the unsatisfactory samples and has notified the authorities of the places of origin for follow-up. CFS has also issued warning letters to the traders concerned, requiring them to stop selling and to dispose of the affected food, and follow up with prosecution as appropriate.

18. In addition, about 6 500 to 6 800 samples of aquatic products were taken by CFS for testing each year under the regular food surveillance between 2011 and 2013. In 2013, apart from the surveillance results mentioned above, one sample of dried shrimp was detected to contain sulphur dioxide exceeding the legal standard and one sample of frozen fish fillet was found to contain prohibited veterinary drug residues. CFS has taken risk management measures in respect of all the cases, and has brought or is in the process of bringing prosecution against the traders concerned. For the two oyster samples detected to contain norovirus, please see Part V below.

IV. <u>Excessive cadmium in rice</u>

19. CFS has been monitoring the level of cadmium in rice in Hong Kong. Between January 2010 and December 2013, CFS collected over 170 rice samples for testing of metallic contaminants (including cadmium) under the Food Surveillance Programme. Test results showed that only the cadmium level in a sample mentioned in paragraph 20 below exceeded the standard of 0.1 mg/kg prescribed in the law.

20. The Consumer Council sourced 44 rice samples from the market between April and September 2013 for testing. The levels of the heavy metal cadmium of three samples imported from the Mainland were found exceeding the standard of 0.1 mg/kg prescribed in the law. In light of the above results, CFS took immediate follow-up actions by conducting checks on major local retail outlets. One of the products concerned was found to be on sale. Tests for metallic contamination (including cadmium) were conducted on the sample of that product collected, with results indicating that the cadmium level was 0.28 mg/kg, exceeding the legal standard of Hong Kong. CFS promptly issued a press release and sent warning letters to the retailer and the distributor concerned, ordering them to suspend sale of the affected batch of the product to ensure food safety and safeguard public health.

21. On the basis of the test results of CFS and the Consumer Council, CFS has liaised with the regulatory authority of the Mainland, so that relevant authorities in the Mainland may perform their gatekeeping work

at source by conducting inspections and taking follow-up actions at the exporting end.

22. Based on the level of cadmium detected in the rice sample concerned (0.28 mg/kg), risk assessment findings revealed that normal consumption is unlikely to pose any adverse health effects for average consumers. However, for consumers with high level of rice intake (with a daily consumption of about three bowls of a total of 600 grams of cooked rice), long-term consumption of the same sample may affect their kidney function. It should be noted that a conservative approach has been adopted in the above risk assessment, under which it is assumed that all cadmium presented in the samples would be ingested by the consumers. The effect of processing, such as washing and cooking, on the reduction of cadmium content in the rice has not been taken into account.

23. CFS will continue to take samples of rice and other cereal products in Hong Kong under the risk-based regular food surveillance. CFS will also remain vigilant in carrying out its gate-keeping work properly, and continue to keep in view any new developments. Appropriate follow-up actions will also be taken when necessary to ensure food safety and safeguard public health.

V. *Pathogens in cold dishes and oysters*

24. Among the samples with unsatisfactory results in pathogen testing in the 2013 Food Surveillance Programme, over 70% of them involved cold dishes (containing excessive *Salmonella* and *Bacillus cereus*) or raw oysters (containing norovirus).

25. Cold dishes may be prepared in advance and stored at room temperature for a period of time before serving. They are usually not reheated prior to consumption. These factors may affect the safety and hygienic quality of the food concerned. Moreover, raw oysters were identified as the most commonly incriminated food for foodborne norovirus outbreaks in Hong Kong.

26. CFS has issued warning letters to the traders concerned, requiring them to stop selling and to dispose of the affected foods. For cases that required control at source, CFS has also notified the authorities of the places of origin for follow-up. In addition, CFS has provided the food trade and consumers with relevant food safety information

VI. Radiation testing on food imported from Japan

27. In response to the Fukushima nuclear power plant incident in Japan in 2011, the Director of Food and Environmental Hygiene issued an order under Section 78B of the Public Health and Municipal Services Ordinance (Cap. 132) to prohibit import of certain fresh produce, milk, milk beverages and milk powder from five affected prefectures (Fukushima, Ibaraki, Tochigi, Chiba and Gunma) of Japan. Targeted radiation testing on food imported from Japan has been carried out since then.

28. More than 56 000 samples of food imported from Japan were tested in 2013. The test results of all samples had been satisfactory. All surveillance results were uploaded onto CFS' website on every working day. Of these, five samples (including four tea leaves and one dried mushroom) were detected with low radioactivity levels not exceeding the guideline levels of the Codex, which would not pose any adverse health effects. Despite that, the importers had voluntarily surrendered the related food consignments for disposal upon learning the test results. The food consignments concerned did not enter the local market.

VII. Others

29. CFS had also strengthened surveillance in response to public concerns on other food incidents and reports, such as the reported detection of paralytic shellfish poisoning (PSP) toxins and arsenic in geoduck from the United States and the ban of the import of geoduck from the western part of the United States by the Mainland, as well as maleic acid in Taiwan food products, etc. CFS had taken immediate risk management measures, including liaising with the relevant authorities and trade for more details and required information, conducting sales check to determine whether or not the affected products were sold in Hong Kong and, where necessary, taking relevant food samples from the local market for testing of relevant hazardous substances. The test results were found satisfactory in all cases.

Conclusions

30. The Food Surveillance Programme implemented by CFS in 2013 revealed that the overall satisfaction rate of the food sold in Hong Kong remained at a high level, which was comparable to that of recent years. For individual food products with problems identified, CFS has taken prompt and effective risk management actions to safeguard public health.

Advice Sought

31. Members are invited to note the Food Surveillance Programme implemented by CFS in 2013.

Food and Health Bureau
Food and Environmental Hygiene Department
Centre for Food Safety
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Annex

Projects under the 2013 Food Surveillance Programme

(A) Routine Food Surveillance

It covered major food groups such as fruits and vegetables, meat, poultry, aquatic products, milk and cereals. CFS adopted a risk-based principle in taking samples for chemical and microbiological analyses.

(B) Targeted Food Surveillance

(i) Sulphur dioxide in meat (3 phases)
(ii) Microbiological quality of lunch boxes
(iii) Microbiological quality of refrigerated pre-packaged boxed meal that required reheating before consumption
(iv) Microbiological quality of ice-cream and frozen confections
(v) Microbiological quality of Chinese cold dishes
(vi) Microbiological quality of bottled water
(vii) Sudan dyes in eggs and egg products
(viii) Nitrate and nitrite in meat, meat products and cheese
(ix) Preservatives in preserved fruits and vegetables
(x) *Listeria monocytogenes* in ready-to-eat food kept under refrigeration
(xi) Cooking oil

(C) Seasonal Food Surveillance

(i) Lunar New Year food
(ii) Rice dumplings
(iii) Mooncakes
(iv) Hairy crabs
(v) Poon Choi

(D) Survey on Popular Food Items

(i) Nuts and seeds