

**For discussion on  
2 April 2004**

**LegCo Panel on Food Safety and Environmental Hygiene**

**Recent Ciguatera Poisoning Incidents**

**PURPOSE**

This paper briefs Members on the recent ciguatera poisoning incidents and the preventive measures.

**BACKGROUND**

2. Ciguatera fish poisoning is caused by the presence in the fish of toxins, ciguatoxin, which is produced by marine micro-organisms, the dinoflagellates and other algae that grow on dead coral surfaces under the sea. Fish eating the algae become toxic, and the effect is magnified through the food chain – from small fish to large predatory fish. In general, larger coral reef fish are more likely to carry a higher level of toxin. This occurs worldwide in tropical areas.

3. Ciguatoxin does not cause any harm to the marine fish but may cause gastrointestinal and neurological symptoms in man after consumption of the implicated fish. These include numbness of the mouth and the limbs, vomiting, diarrhea, reversal of sensation of coldness and hotness, pains of the joints and muscles. These symptoms are usually transient and the vast majority of people affected recover completely.

**PAST OUTBREAKS**

4. In the past four years from 2000 to 2003, there were 75 reported cases of ciguatera poisoning and 233 people were affected. As of 31 March this year, there were 25 cases of ciguatera poisoning with 100 persons affected.

**RECENT INCIDENT**

5. From 28 to 31 March 2004, there were 16 incidents of ciguatera fish poisoning, including an imported case, affecting a total of 53 persons reported to the Department of Health (DH). Upon receipt of information from DH, the

Food and Environmental Hygiene Department (FEHD) has immediately investigated into the cases. Results of investigation revealed that a number of the outbreaks were related to consumption of areolated coral grouper caught in the Southern Pacific. FEHD has collected samples and remnants of the areolated coral grouper from the premises involved. To prevent occurrence of further cases, the persons responsible for the food premises, food stalls and the suppliers are advised to stop selling and dispose of the incriminated fish.

## **PREVENTIVE MEASURES**

### Public Education

6. Given the fact that the occurrence of toxic fish is sporadic and not all fish of a given species or from a given locale will be toxic, the most effective strategy in the prevention of ciguatera poisoning is public awareness and education.

7. Posters of pictures of coral fish, common cultured fish and marine fish are displayed at market outlets and also at the website of FEHD. Health education information has also been uploaded on to the website of FEHD and disseminated through leaflets, food safety bulletin, press releases, etc., to the public and the trade. The public is advised to pay attention to the following to prevent ciguatera poisoning –

- Coral reef fish should be purchased from reputable and licensed seafood shops. Do not buy it when the source is doubtful;
- Eat less coral reef fish, especially those heavy marine fish;
- Eat small amount of coral reef fish at any one meal and avoid having a "whole fish feast" in which all the dishes come from the same big coral reef fish;
- Avoid eating the head, skin, viscera and roe of coral reef fish which usually have higher concentration of toxin;
- When eating coral reef fish, avoid consuming alcohol, peanuts or beans as they may aggravate ciguatera poisoning; and
- Seek medical treatment immediately should symptoms of ciguatera fish poisoning appear.

## **WAY FORWARD**

8. There is currently no legislation regulating the landing of live marine fish in Hong Kong. As an administrative arrangement, the FEHD advises the trade that coral fish from new fishing areas should be checked for ciguatoxin prior to importation to Hong Kong. The FEHD also conducts random sampling checks but the laboratory results would only be known after about a week's time. We share the public's concern that the existing regulatory framework and control should be improved and we have already started work on the review of the existing legislation. We shall report our preliminary proposals to this panel when they are ready.

**Health, Welfare and Food Bureau**  
**Food and Environmental Hygiene Department**  
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