For discussion
on 8 April 2008

LegCo Panel on Food Safety and Environmental Hygiene

Anti-mosquito Campaign 2008

Purpose

This paper briefs Members on the Anti-mosquito Campaign 2008 launched in early February by the Food and Environmental Hygiene Department (FEHD) to prevent and control mosquito problems.

Background

2. Apart from causing nuisance to human being, some species of mosquitoes may pose threat to public health as vectors of diseases, such as dengue fever, Japanese encephalitis and chikungunya. FEHD takes stewardship in organizing anti-mosquito campaigns annually on a territory-wide basis to heighten public awareness of the potential risk of mosquito-borne diseases, encourage community participation and promote cooperation among government departments concerned in anti-mosquito work.

Anti-mosquito Campaign 2007

3. To this end, FEHD launched the Anti-mosquito Campaign 2007, which had encouraging results. Under this campaign, some 127,713 breeding places or potential breeding places of mosquitoes including those of *Aedes albopictus* and the vector of Japanese encephalitis were identified and eliminated by our pest control staff. A total of 189 warning letters, statutory notices and summonses were issued. We also organised a variety of publicity and educational activities on mosquito prevention and control targeted at schools, property management companies, construction companies, housing estates and building residents etc. Enactment of the Public Health and Municipal Services (Amendment) Ordinance in May 2006 has also helped in raising the awareness of property owners and property management companies about

mosquito prevention and control as well as the need for swift actions against mosquito breeding. Since implementation of the Ordinance, 70 prosecutions had been taken against property management companies. The annual average ovitrap index (please refer to paragraphs 4 and 5 for details) has been maintained at a relatively low level of 7.8% in 2007, indicating that the breeding of *Aedes albopictus* has been under control.

Findings of Dengue Vector Surveillance Programme in 2007

4. Since 2000, FEHD has put in place a dengue vector surveillance programme by the use of ovitraps to monitor the distribution of *Aedes albopictus* at selected locations and provide surveillance information for making timely adjustments to our mosquito control strategies and measures. Ovitraps are small plastic containers placed at selected locations for detecting the larval breeding rate of mosquitoes. Ovitrap index is the percentage of ovitraps that are found to have positive larval breeding result. Under the surveillance programme, two different indices, namely, Area Ovitrap Index (AOI) and Monthly Ovitrap Index (MOI) are recorded. AOI indicates the extensiveness of the distribution of Aedine mosquitoes in the surveyed area while the MOI is the average of all AOIs of the same month, which reflects the distribution and activity of *Aedes albopictus* in the territory.

5. The records of 2007 revealed that except for July, the MOIs were in general lower than those in previous years (**Appendix 1**). The variations in MOIs were also found to be similar to those in previous years. The MOI reached its peak of 23.1% in July, with the highest AOI of 70.9% recorded in the same month at Diamond Hill. During the year, a total of 58 AOIs exceeding 20% were recorded and under such circumstances, the District Anti-mosquito Task Forces stepped up the co-ordination of governmental efforts in combating mosquito problem and mobilise community participation in anti-mosquito activities in accordance with established practices.

6. In addition to ovitrap surveys conducted in different districts, FEHD also carries out dengue vector surveillance in port areas. In 2007, the ovitrap indices of all groups of port areas were below 20.0%. An index of 13.8% was recorded in June in the port group of Boundary Control Points. Port Monthly Ovitrap Indices (PMOIs) in 2007 ranged from 0.0% (January to February) to the highest of 3.2% (June). The variation in PMOIs was in line with the

trends in previous years. For areas with positive indices, government departments and other relevant organizations such as the Airport Authority, the MTR Corporation and freight forwarding companies would act jointly in strengthening the anti-mosquito work.

7. Furthermore, FEHD has continued its efforts in research in the prevention and control of mosquitoes. We have since 2004 joined with the Hong Kong Observatory in a collaboration study to investigate the relationship between mosquito breeding and different weather parameters. The preliminary findings indicated that breeding of *Aedes albopictus* was closely related to the rainfall and average air temperature before and during the periods of the setting of ovitraps. Analysis of the data suggested that rainfall has a stronger effect on the breeding of the mosquito than the average air temperature.

Anti-mosquito Campaign 2008

8. As effective mosquito control requires sustained efforts, we have launched the 2008 Anti-mosquito Campaign in collaboration with other government departments to maintain the momentum. The campaign will be implemented in three phases under the banner of "Prevent Japanese encephalitis and Dengue Fever Act Now!". Details are as follows :

Phase 1: 25 February 2008 to 20 March 2008
Phase 2: 28 April 2008 to 4 July 2008
Phase 3: 11 August 2008 to 3 October 2008

9. During the above periods, FEHD's pest control staff will step up inspection and control actions in line with our publicity work. All the identified breeding places and potential breeding places for mosquitoes will be treated. In addition to routine inspections, district pest control staff will target special effort at troubled spots. Special attention will be paid to areas in close proximity to human residence, schools, construction sites, hospitals, waterfront public and private cargo working areas, boundary control points, typhoon shelters and piers.

10. Community support is vital to the success of the campaign. We will make use of the FEHD's website to publish a book with illustrations on potential breeding places of *Aedes albopictus* and methods to eliminate them. We will also develop posters, leaflets, Announcements of Public Interests and

VCDs, and send letters to community groups to encourage public participation in our campaign. Besides, activities including roving exhibitions at major shopping malls of housing estates, outreaching health talks and theme exhibition at the Health Education Exhibition and Resource Centre will be held.

11. During the campaign, we will also strengthen efforts for controlling the breeding of the vectors of Japanese encephalitis, particularly around pig farms and areas with aggregation of migratory birds.

12. Relevant government departments will also play an active role in the campaign through eliminating mosquito problem in places under their charge and enlisting community support for the campaign through their network. District Councils and community groups will be invited to participate in the campaign through organising anti-mosquito activities at the district level.

Advice Sought

13. Members are invited to note and comment on the paper.

Food and Health Bureau
Food and Environmental Hygiene Department
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Appendix 1

2000-06年與2007年白紋伊蚊誘蚊產卵器指數比較
Comparison of Monthly Average Ovitrap Index (2000-06 and 2007)