

**For information
on 25 February 2003**

LegCo Panel on Food Safety and Environmental Hygiene

Anti-mosquito Campaign and Enhanced Vector Surveillance in 2003

Purpose

This paper briefs Members on the 2003 Anti-mosquito Campaign and an enhanced vector surveillance programme implemented by the Food and Environmental Hygiene Department (FEHD).

Background

2. Mosquitoes can cause annoyance and serious problems in our daily life if there are no proper prevention and control measures in place. Some species of mosquitoes are capable of transmitting diseases like dengue fever, malaria and yellow fever, thus posing threats to human health. Sustained and concerted efforts from all sectors of the community are necessary to contain the harm and nuisance that mosquitoes can bring about.

Anti-mosquito Campaign 2003

3. Since 2001, annual anti-mosquito campaigns have been organised under the stewardship of FEHD to actively engage the community and government departments concerned in reducing the risk of mosquito-borne diseases notably dengue fever¹. Control measures and publicity efforts are stepped up during the campaign period, supplementing the regular inspection and enforcement works carried out by district pest control staff. To sustain governmental and community efforts to prevent the spread of dengue fever, we will launch a new round of anti-mosquito campaign in 2003.

¹ Dengue fever is a severe viral illness transmitted by the bite of infective mosquitoes. Its symptoms include high fever, headache, rash, joint and muscular pain. It has re-emerged as a global threat in the past 30 years and has affected 2.5 billion people in over 100 countries. Hong Kong is under the constant threat of dengue fever as it is an endemic disease in our neighbouring regions including Southeast Asia, South Asia and the Pacific area.

4. The Anti-mosquito Campaign 2003 will feature three phases, each lasting 6 weeks under a general theme of “Beware of dengue fever. Act now.” Phase-specific slogans are set to heighten community awareness as follows:

Phase 1: from 24.2.2003 to 5.4.2003 under the theme of “Get prepared! Prevent dengue fever.”

Phase 2: from 26.5.2003 to 5.7.2003 under the theme of “Eliminate stagnant water! Halt mosquito breeding.”

Phase 3: from 25.8.2003 to 4.10.2003 under the theme of “Sustain our effort! Uproot mosquito problems”

5. During this territory-wide campaign, special attention will be paid to areas favourable for mosquito harbourage and those in close proximity to human residence or vulnerable to introduction of dengue vector from other areas. Intensive anti-mosquito efforts will be made at vacant government land, illegal cultivation sites, schools, construction sites, public housing estates, hospitals, waterfront cargo working areas, typhoon shelters, etc.

6. Like previous campaigns, the 2003 Campaign will seek to maximize its impact through the collaborated efforts of relevant government departments and public organisations. Members of the Inter-departmental Working Group on Pest Prevention and Control including the Department of Health, the Environmental Protection Department, the Housing Department, the Leisure and Cultural Services Department, the Agriculture, Fisheries and Conservation Department, the Marine Department, the Architectural Services Department, the Highways Department, the Social Welfare Department, the Labour Department, the Hospital Authority, the Education and Manpower Bureau, the Lands Department and the Home Affairs Department will monitor and eliminate mosquito problems in sites and venues under their charge. They will also help disseminate anti-mosquito messages and solicit community support for the campaign through their networks.

7. On the public education front, we will organize a series of publicity and health education activities including roving exhibitions at major housing estates, theme exhibitions at FEHD’s Health Education Exhibition and Resource Centre, health talks for students, social service institutions, construction sites management and workers, etc. Through

Announcement of Public Interests (API) on radio and television, posters, pamphlets, banners, FEHD's homepage and hotline, the public will be reminded of the importance of elimination of mosquito breeding places and precautions against dengue fever. A variety of anti-mosquito activities will be organized under the auspices of District Councils and Clean Hong Kong District Promotion Committees to encourage community participation at district level.

Enhanced Dengue Vector Surveillance

8. Since 2000, FEHD has put in place a dengue vector surveillance programme by placing ovitraps at selected locations to detect the presence of *Aedes albopictus* in the territory. The surveillance programme not only furnishes information on the distribution of Aedine mosquitoes in the surveyed areas but also reflects the effectiveness of mosquito prevention and control efforts made by various parties. The data obtained is essential for timely adjustment of mosquito control strategy and measures.

9. In view of the spate of local dengue fever cases detected last year, FEHD has decided to launch an enhanced vector surveillance programme which features (i) a more systematic and comprehensive ovitrap survey and (ii) a pilot ovitrap study to gauge indoor mosquito breeding situations.

10. To enable members of the public to learn about the situation of mosquito problems at different areas and at different times of the year, FEHD will make public 38 **Area Ovitrap Indices (AOI)** and a **Monthly Ovitrap Index (MOI)** on a monthly basis with effect from end February 2003. AOIs indicate the extensiveness of distribution of *Aedes albopictus* in the 38 surveyed locations while MOI is the average of all AOIs for a particular month, reflecting the territory-wide vectorial situation. The 38 locations, covering all 18 districts, include areas with high level of human activities (e.g. housing estates, hospitals, schools), areas surrounding the residence and workplaces of patients of previously reported local dengue fever cases, and other high-risk areas (e.g. waterfront cargo working areas, typhoon shelters). Around 50 ovitraps are placed in each surveyed location. The AOIs and MOI will be announced through FEHD's website and press release every month. Maps showing the distribution of the 38 surveyed locations will also be posted on FEHD's website. Members of the Inter-departmental Working Group on Pest Prevention and Control will be informed of the

surveillance results so that timely and appropriate control actions can be taken to contain mosquito problems in sites/venues under their purview.

11. To facilitate the conduct of proper mosquito control operations and to enable the public to better comprehend the extensiveness of mosquito problems, we will classify the ovitrap indices into four categories:

| Classification | Ovitrap Index (OI) |
|-----------------------|---------------------------|
| I | $OI < 5\%$ |
| II | $5\% \leq OI < 20\%$ |
| III | $20\% \leq OI < 40\%$ |
| IV | $40\% \leq OI$ |

12. Anti-mosquito efforts will be made by relevant government departments commensurate with the OI level. When higher levels of OI are recorded, educational and publicity efforts will be stepped up and assistance from district organizations such as District Councils and Area Committees will be sought to mobilize more community resources to control the mosquito problems.

13. Ovitrap traps have hitherto been placed at ground level only, providing no information on the severity of mosquito breeding at higher levels and inside flats. In mid 2003, we will pilot an ovitrap study covering about 20 high-rise residential blocks throughout the territory. Ovitrap traps will be placed inside flats at different floor levels of the blocks. The findings of this pilot study will shed light on how best to prevent mosquito bites inside homes. The study will also indicate whether *Aedes aegypti*, the most important vector for transmitting dengue fever worldwide that prefers to breed in indoor containers, has been introduced into Hong Kong.

Anti-mosquito Steering Committee

14. The Anti-mosquito Campaign 2003 and the enhanced vector surveillance programme as detailed in paragraphs 3-13 were endorsed at a recent meeting of the Anti-Mosquito Steering Committee as part of a comprehensive package of anti-mosquito measures to be taken for the coming spring and summer. The attached press release sets out the major decisions reached at that meeting, the major achievements made by various bureaux/departments in winter and highlights of their operational plans for the coming wet season.

Conclusion

15. Community involvement is a major pillar of the Administration's mosquito control strategy. The full benefits of the governmental actions outlined above cannot be achieved unless there are concerted efforts from the community. We need the partnership, support and assistance of every sector of the community to minimise the risk of mosquito-borne diseases in Hong Kong.

**Health, Welfare and Food Bureau
Food and Environmental Hygiene Department
February 2003**

Vector surveillance to step up as high season of dengue fever approaches

The Anti-mosquito Steering Committee (AMSC) today (February 13) endorsed an enhanced programme of vector surveillance to provide timely intelligence for all sectors of the community to monitor the effectiveness of their mosquito control measures and make adjustments as necessary.

The programme would also help gauge periodically the risk of mosquito bites in different localities within the territory.

The steering committee met this morning to review its vector control strategies, assess results of vector control work as well as fine-tune existing programmes to tackle the mosquito problem in the upcoming high-risk season of dengue fever.

The AMSC was formed last October following a spate of local cases of dengue fever that sparked off considerable concerns in the community. The steering committee is chaired by the Permanent Secretary for Health, Welfare and Food, Mrs Carrie Yau Tsang Ka-lai, and draws its membership from various concerned bureaux and government departments.

On the enhanced vector surveillance programme, a spokesman for the AMSC said the Food and Environmental Hygiene Department (FEHD) would announce the details of 38 Area Ovitrap Indices (AOI) and a Monthly Ovitrap Index (MOI) before end February.

The spokesman explained that the AOI would indicate the extensiveness of distribution of *Aedes Albopictus* in the surveyed localities while MOI would be the average of all AOIs for the same month.

On top of the monthly publication of AOIs and MOI, the AMSC saw the need to go a step further to assess the severity of mosquito breeding at higher levels and inside flats.

In this connection, FEHD would pilot an ovitrap study covering upper floors of high-rise buildings in mid 2003. The findings of this pilot study will shed light on how best to prevent mosquito bites inside homes.

On disease surveillance, the Department of Health (DH) would continue to monitor local and imported cases of dengue fever via a statutory notification system and reports from the Hospital Authority.

Public hospitals had been reminded to send specimens to the Public Health Laboratory Centre for rapid diagnostic and confirmatory tests. The DH would continue to promptly investigate each reported case of dengue fever through home visits and epidemiological surveys around patient's residence and workplace.

The spokesman stressed that territory-wide publicity would be important for maintaining a high level of public awareness of the risks of dengue fever and measures to prevent mosquito bites.

He noted the steering committee had endorsed a rich programme of publicity items to be launched throughout this year. New TV/radio announcements of public interest

have been aired since last December and more will come on stream in the next few months.

The spokesman noted community participation was the key to success in reducing the chance of an outbreak of dengue fever.

"The steering committee is glad to learn of the encouraging progress made by the Working Group on Community Involvement in Mosquito Control chaired by the Director of Home Affairs.

"Over the past few months, the Working Group made tremendous efforts to engage District Councils and other district organisations in the territory-wide anti-mosquito exercise," he said.

Over 100 promotional activities including seminars, roving exhibitions and distribution of PR materials involving resident associations and estate management companies had been held under the auspices of the 18 District Councils and Clean Hong Kong District Committees in the past few months. In addition, over 500 clearance operations and inspections at district hygiene blackspots and grass-cutting at rural areas had been conducted.

The spokesman said the AMSC was conscious of the need to borrow international experience and expertise in combating dengue fever and to stay in tune with international best practices.

He noted both DH and FEHD had been communicating with overseas health and entomological experts with a view to improving our surveillance and control measures in place.

A World Health Organisation entomologist visited Hong Kong late last year to study our preventive and control measures and to hold talks with local health professionals, relevant government departments and pest control companies.

"We will continue to interact with the international community to bring the best practices into Hong Kong. We are also following developments of overseas researches that harness innovative means to lower the risk of mosquito bites," he said.

Apart from the on-going vector control measures taken by DH and FEHD, other members of the AMSC had taken the initiative to set new operational targets for the coming spring and summer.

Some of these targets are as follows:-

*Lands Department will conduct grass-cutting and rubbish clearance on a total of around 600 identified black spots before this September/October, clear the sites of 20 identified hillside illegal cultivation black spots, and conduct grass-cutting and site clearance on new black spots;

*Agriculture, Fisheries and Conservation Department will step up efforts in removing flowerpots, containers and rubbish in all country parks in particular the ten parks most frequented by morning walkers;

*In consultation with District Councils and other district organisations, Home Affairs Department will organise more inspections and cleansing operations for rear lanes,

rooftops, and other hygiene black spots to minimise potential mosquito breeding places in 18 districts;

*Housing Department will carry out weekly inspections to 155 estates and 66 construction sites under its charge to eliminate mosquito breeding grounds therein;

*Leisure and Cultural Services Department will deploy special cleansing teams to carry out anti-mosquito operations for some 60 venues twice every week, and regularly inspect the circulation systems of around 80 fountains and ponds to avoid accumulation of stagnant water;

*Highways Department will conduct by end 2003 another round of inspection, and where necessary additional inspections, of road drains, roadside slopes and highways to eliminate mosquito breeding places associated with these structures; and

*Educational and Manpower Bureau will continue to work with school authorities to ensure that the school environment is not conducive to mosquito breeding.

Major achievements made by various bureaux/departments in winter and highlights of their operational plans for coming spring/summer are at Annex.

With the approach of the wet season that normally spelled high risk for dengue fever, the spokesman again called on the community to join hands with government departments to fight the vector problem.

"We'd like to underline the importance of community involvement as a major pillar of our dengue fever prevention strategy. The full benefits of the package of governmental actions just outlined cannot be achieved unless there are concerted efforts from the community."

"The Government cannot fight dengue fever alone. We need the partnership, support and assistance of every sector of community to meet this all-important goal. Do continue to give us a helping hand in minimising the risk of dengue fever here," he said.

End/Thursday, February 13, 2003

**ANTI-MOSQUITO EFFORTS: MAJOR ACHIEVEMENTS IN WINTER &
OPERATIONAL PLAN FOR THE COMING SPRING/SUMMER**

| Bureau/ Department | Major Achievements in Winter | Operational Plan for coming Spring/Summer |
|-------------------------------|---|--|
| EMB | <ul style="list-style-type: none"> • The Moral and Civic Education Section of EMB completed a teaching exemplar using “life event approach” for primary and secondary schools students. | <ul style="list-style-type: none"> • Will continue to request schools to promote students’ awareness of dengue fever and to educate them through teaching programme or extra-curricular activities. |
| ETWB(TW) | <ul style="list-style-type: none"> • Completed inspection of all road drains, roadside slopes and highways by end of Feb 2003. | <ul style="list-style-type: none"> • Will send letters to the construction industry to appeal for their cooperation in mosquito control. • Will conduct a second round of toolbox talks to raise contractors’ and workers’ awareness of mosquito problems. • Will conduct by end 2003 another round of inspection (and where necessary additional inspections) of road drains, roadside slopes and highways to eliminate mosquito breeding-places associated with these structures. |
| AFCD | <ul style="list-style-type: none"> • Some 35,000 containers in country parks were removed and about 11,000 advisory leaflets distributed to visitors from October 2002 to January 2003. • Since October 2002, around 500 signs have been erected at major entrances of hiking trails and recreation sites alerting visitors to take preventive measures against mosquito bites. | <ul style="list-style-type: none"> • Will inspect all hiking trails and recreation sites in country parks, Hong Kong Wetland Park, fish culture zones, and wholesale market premises in a bid to eliminate mosquito breeding grounds. • Will step up efforts in removing flowerpots, containers and rubbish in all country parks in particular the 10 parks most frequented by morning walkers; |

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| <p>FEHD</p> | <ul style="list-style-type: none"> • A total of 26,262 mosquito breeding places and 89,312 potential mosquito breeding places have been eliminated from October 2002 to January 2003. • A total of 7,045 warning and 64 summons have been issued against mosquito breeding detected over the same period. • 49,978 village-type and 8,486 tenement buildings have been inspected over the same period. | <ul style="list-style-type: none"> • Will publicize monthly average ovitrap index as well as area indices covering 38 strategic locations throughout the territory to facilitate government agencies and the community in implementing timely anti-mosquito measures. • Will conduct an ad-hoc ovitrap survey in high-rise blocks in mid 2003 to gauge the severity of mosquito breeding inside flats. • Will launch the Anti-Mosquito Campaign 2003 on 24.2.2003 in three phases. • Will promote a weekly inspection programme on mosquito breeding places (滅蚊週記) to schools and housing estates. • Will assess the efficacy of commercially available mosquito trapping devices in capturing mosquitoes in open areas. • Will continue to inspect each building site once weekly. |
| <p>DH</p> | <ul style="list-style-type: none"> • A territory-wide telephone survey to examine public awareness on mosquito control and evaluate the anti-dengue campaign was conducted in December 2002. • A WHO entomologist was invited to Hong Kong in November 2002 to advise on dengue fever preventive and control measures, and provide training for local health professionals, government departments and pest control companies. | <ul style="list-style-type: none"> • Will continue to monitor the situation via the statutory notification system and returns from HA for suspected and confirmed dengue fever cases. • Will remind public hospitals to send specimens to the Public Health Laboratory Centre for rapid diagnostic and confirmatory tests. • Will carry out prompt investigation and control measures jointly with FEHD for each reported case of dengue fever. • Will produce a new TV API on dengue fever. |

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| HAD | <ul style="list-style-type: none"> Promotional activities such as seminars, roving exhibitions and design competitions were jointly organized by the 18 Clean Hong Kong District Committees and HAD. | <ul style="list-style-type: none"> Will organize inspections and cleansing operations in rear lanes, hygiene and stagnant water black spots, housing estates, rooftops, villages, schools and public areas, etc. to eliminate potential mosquito breeding places. Will organize district promotional activities such as cleansing competitions, seminars, visits, roving exhibitions etc. to spread messages on prevention of mosquito bites for the wet season. |
| HD | <ul style="list-style-type: none"> Formed a special task force in each estate to carry out thorough inspection on a weekly basis to remove mosquito-breeding spots. Set up special task force inspection teams to visit all construction sites once every week. | <ul style="list-style-type: none"> Will carry out weekly inspections to 155 estates and 66 construction sites under HD's responsibility to eliminate mosquito breeding grounds. Will arrange special articles and mini games on mosquito control in estate newsletters. |
| LandsD | <ul style="list-style-type: none"> Have issued advisory letters to 4,300 short term tenancy holders and relevant term contractors and consultants, asking them to take prompt and appropriate preventive measures to eliminate possible breeding places on the tenancy and works areas. | <ul style="list-style-type: none"> Will conduct by October 2003 grass-cutting and site clearance at a total of about 600 identified black spots. Will conduct site clearance at about 20 identified hillside illegal cultivation black spots. Will conduct grass-cutting and site clearance on new black spots. Will send a further advisory letter to remind tenancy holders and term contractors of proper preventive measures to be taken. |

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| LCSD | <ul style="list-style-type: none"> • A total of 4,492 cleansing operations have been conducted from October 2002 to January 2003. • A total of 2,264 anti-mosquito operations have been conducted in LCSD venues from October 2002 to January 2003. | <ul style="list-style-type: none"> • Will ensure the proper working of circulation systems of 80 fountains and ponds to avoid stagnant water accumulation. • Will deploy district special cleansing teams to carry out anti-mosquito operations to 60 venues twice weekly. • Will liaise with Lands Department to identify vacant Government land for beautification, thereby reducing the number of potential mosquito breeding places. • Will mobilize green volunteers to help disseminate anti-mosquito messages during coming greening projects e.g. tree planting days and horticultural talks. |
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Anti-mosquito Steering Committee
February 2003