

# LCQ22: Rodent infestation and environmental hygiene issues

Following is a question by Dr the Hon Elizabeth Quat and a written reply by the Secretary for Food and Health, Professor Sophia Chan, in the Legislative Council today (June 5):

Question:

Some members of the public have relayed that rodent infestation is serious in various districts across the territory, and that the discovery of a total of five cases of human infection of rat Hepatitis E (rat Hep E) in Hong Kong since September last year has made them worried. In this connection, will the Government inform this Council:

(1) given that the public litter containers in some public housing estates (e.g. Chung On Estate) do not have covers and the rubbish bags inside them are supported merely by iron bars at the bottom of the containers, which makes it easy for rodents to crawl into the containers to forage for food and leave the containers by biting a hole in the bags, whether the Government will replace such litter containers with those of a fully-enclosed design, and comprehensively improve the design of litter containers in public housing estates; if so, of the details and timetable; if not, the reasons for that;

(2) as it is learnt that at present, litter containers provided in quite a number of rural areas and country parks are without covers, which enables rodents to crawl into the containers (while larger animals can even topple such litter containers) to forage for food, whether the Government will introduce fully-enclosed smart litter containers in such areas and country parks; if so, of the details and timetable; if not, the reasons for that;

(3) as it has been reported that the facts that (i) the surveillance areas of the Internet Protocol (IP) cameras installed at illegal refuse dumping black spots having blind spots, (ii) quite a number of black spots not having IP cameras installed and (iii) a lack of coordination among government departments have contributed to the poor environmental hygiene conditions, of the Government's measures to tackle such problems and the implementation timetables;

(4) as the rodent disinfestation work of the Food and Environmental Hygiene Department (FEHD) is mainly performed by the cleansing workers of its contractors at present, whether FEHD has (i) required its contractors to provide their workers with sufficient rodent disinfestation training, and (ii) regularly reviewed the effectiveness of the rodent disinfestation approaches and the baits used by its contractors; if so, of the details; if not, the reasons for that;

(5) as the medical sector is currently unclear about the mode of transmission

for human infection of rat Hep E, whether the Government will expeditiously allocate funds to local medical research institutions for conducting studies in this regard; if so, of the details; if not, the reasons for that;

(6) as tests for rat Hep E virus are currently provided only by the Department of Health and Queen Mary Hospital, whether the Government will immediately extend the relevant test services to all public hospitals; if so, of the details; if not, the reasons for that;

(7) whether it will step up efforts in educating the public about the ways to deal with the live rodents they have caught and the rodent carcasses found, as well as set up a hotline to answer the relevant enquiries from the public; if so, of the details; if not, the reasons for that; and

(8) whether the poisonous baits currently used by FEHD for rodent disinfestation are hazardous to the health of other animals (e.g. cats and dogs); if so, whether it has informed members of the public that they should guard against their pets mistakenly eating such poisonous baits; if it has not, of the reasons for that?

Reply:

President,

My reply, prepared in consultation with the Transport and Housing Bureau and the Environment Bureau, to the Member's question is as follows:

(1) To prevent refuse and food remnants from spilling and keep housing estates clean and hygienic, staff of the Estate Offices of the Housing Authority will replace any refuse bins that are found damaged when performing their daily duties.

The Housing Department has been examining whether the rodent-proof devices installed in over 180 public housing estates across the territory function well and will repair, reinforce or add devices at once if needed to eliminate rodents and their harbourage points.

(2) The Food and Environmental Hygiene Department (FEHD) has conducted a trial use of solar-powered compacting refuse bins for household waste collection since February 2018 to increase the capacity of the compacting bins and discourage unscrupulous dumping resulting from overloaded refuse bins. In the light of the initial trial results, FEHD has rectified the defects of the compacting bins by employing a more effective waste compaction system, enhancing inlet design, as well as strengthening the components of the compacting bins and improving the components' durability. FEHD is carrying out internal testing on the enhanced compacting bins and will conduct field trials at suitable sites shortly.

In addition, the Agriculture, Fisheries and Conservation Department (AFCD) has commissioned a study in collaboration with FEHD and the Environmental Protection Department (EPD) with a view to devising designs of

litter containers and rubbish bins against the scavenging of wild animals such as wild pigs and monkeys, and improving the refuse collection procedures in nuisance black spots with concerned departments to prevent wild animals from foraging in litter containers and rubbish bins near residential or public areas. The contractor of the study has come up with three designs of litter containers and rubbish bins against nuisance of monkeys or wild pigs, and field trials will be conducted in selected black spots of wild animal nuisance in mid 2019.

To promote the public education campaign "Take Your Litter Home", AFCD has removed all rubbish bins along hiking trails within country parks by 2017. AFCD has embarked on the trial use of a number of animal-proof rubbish bins at various locations within country parks, such as barbecue sites and camping areas, where rubbish bins are still provided. With sealed design and suitable ground fixture, these rubbish bins have demonstrated a generally effective guard against scavenging by large animals such as wild cows and wild pigs so far. AFCD would extend the use of these rubbish bins with sealed design in country parks gradually.

(3) From June 2018 to May 2019, FEHD installed Internet Protocol (IP) cameras at 118 illegal refuse dumping blackspots across the territory. The cameras are used in conjunction with other enforcement strategies, including preliminary public education and targeted blitz operations, to deter repeated offenders. FEHD reviews from time to time its enforcement approach in tackling illegal refuse dumping blackspots in various districts. If frequent illegal refuse dumping is detected in the vicinity of the blackspots with IP cameras installed, blitz operations will be conducted. If the actual circumstances of individual spots warrant adjustments, contractor will be asked to relocate the cameras or change the shooting angles so as to enhance the deterrent and enforcement effects.

FEHD intends to extend the IP camera scheme for two years starting from the third quarter of 2019 in consultation with the District Councils (DCs). IP cameras will be installed at another some 150 illegal refuse dumping blackspots in phases according to the locations and priorities proposed by DCs. If the hygiene conditions of a particular blackspot show significant improvement after the installation of cameras, FEHD will relocate the cameras to other blackspots and gradually extend the scope of the scheme to cover more than 300 locations.

To combat fly-tipping of construction waste, the Government has strengthened inter-departmental collaboration. EPD and relevant departments will maintain close communication, share intelligence, update blackspots, streamline procedures and plan joint operations and enforcement strategy. FEHD will continue to combat illegal refuse dumping with a multi-pronged approach. Members of the public are urged to observe the laws, be civic-minded and dispose of refuse properly. FEHD has set up 21 dedicated teams to step up enforcement actions against various public cleanliness offences including illegal refuse dumping.

(4) FEHD's pest control contract requires contractors' staff, including

contract consultants, contract managers, foremen and workers, to meet specific qualifications and complete training courses on pest control approved by FEHD or the Education Bureau. Management staff are also required to have experience in the prevention and control of mosquitoes, rodents or other pests to ensure the quality of pest control services. With a stringent contract management system in place, FEHD conducts regular and surprise inspections to ensure that the performance of contractors fulfils contract requirements. If a contractor's performance is found to be unsatisfactory during on-site inspections, FEHD will take actions in accordance with the current sanction mechanism, including the issuance of verbal warnings, written warnings and default notices, and withholding/deducting monthly payment of service charge.

FEHD reviews from time to time the effectiveness of the rodent disinfestation approaches and the baits used by its contractors. If a more effective approach or bait is found, the contractors will be informed accordingly for adoption.

(5) A total of five cases of human infection of rat Hepatitis E virus (HEV) have been recorded by the Department of Health (DH) since 2018 (as at May 26 this year). Investigations by DH revealed that they were all sporadic cases, with no epidemiological linkage so far. The patients' home contacts have remained asymptomatic. There is no scientific information to determine the exact route of transmission of rat HEV to humans at the moment. Possible routes of transmission include ingestion of food or water contaminated by rodents or their excreta, exposure to environments or objects contaminated by rodents or their excreta, and direct contact with rodents or their excreta.

The Health and Medical Research Fund under the Food and Health Bureau aims to fund local health and medical research. Vector-borne diseases (including rodent-borne diseases) were included as one of the thematic priorities for the investigator-initiated research projects in 2018. The priorities of the research covers developing and testing novel molecular biology-based diagnostic assays to rapidly identify locally acquired cases of vector-borne diseases, as well as developing and evaluating strategies to minimise the risk of vector-borne diseases from establishing endemic transmission within Hong Kong.

(6) Regarding the laboratory tests of infectious diseases, DH has been working in close collaboration with the Hospital Authority and universities. DH has enhanced the surveillance of HEV since November last year by conducting further testing on rat HEV in the samples collected from HEV patients, in addition to regular testing on human HEV types. DH will also continue to work with the Department of Microbiology of the University of Hong Kong to conduct further analysis on samples collected from rat HEV patients, and improve the method for detecting rat HEV.

(7) To assist the public in handling live rodents caught in private and public places, FEHD provides round-the-clock live rodent collection service. For buildings with property management companies, the public can ask the property management company concerned or pest control company to handle

the live rodents caught.

FEHD has published a pamphlet on ["How to handle trapped live rodents/dispose of dead rodents"](#) to teach the public how to properly handle trapped live rodents and dispose of dead rodents.

For enquiries, the public may also call FEHD's hotline at 2868 0000 or contact the concerned FEHD District Environmental Hygiene Office.

(8) The poisonous rodent baits used by FEHD are anti-coagulant products available in Hong Kong and registered with AFCD. Anti-coagulant rodenticides are widely used internationally as they are safer than traditional acute rodenticides and vitamin K can serve as an antidote. Anti-coagulants have effects on other mammals such as cats and dogs. Under normal circumstances, large cats and dogs will only be affected by the poisonous baits after ingesting a high dose. The anti-coagulants take a longer time to take effect and will not cause immediate death. Their effects can be neutralised by vitamin K. When carrying out anti-rodent operations, FEHD will post warning notices at prominent places near baiting points to alert people of the rodenticide placed. Bait boxes will be used whenever necessary to prevent accidental poisoning of non-target animals.