

LCQ4: Rodent infestation and human infection of rat Hepatitis E

Following is a question by the Hon Ho Kai-ming and a reply by the Secretary for Food and Health, Professor Sophia Chan, in the Legislative Council today (June 5):

Question:

The Rodent Infestation Rate (RIR) of the Wong Tai Sin (WTS) district for the whole of last year stood at 1 per cent, which was the second lowest among 19 districts in Hong Kong. However, quite a number of residents in that district have pointed out that rodent infestation in the district is serious, with rats frequently spotted in markets and public housing estates. Furthermore, the world's first two cases of human infection of rat Hepatitis E were found in Hong Kong last year, whose patients were both residing in the WTS district. In this connection, will the Government inform this Council:

(1) given that when the RIR of a district reaches 10 per cent or higher, the Food and Environmental Hygiene Department (FEHD) will step up rodent disinfection work in the district, and when the district's RIR reaches 20 per cent or higher, the relevant government departments will form a joint task force and launch a special rodent control operation, of the criteria adopted by FEHD for setting such levels for triggering strengthened rodent disinfection work;

(2) as FEHD has admitted that RIRs cannot fully reflect the actual situations of rodent infestation in individual districts, whether FEHD will review RIR, and work with scientific research institutions to devise a new index with a higher reference value; if FEHD will, of the details; if not, the reasons for that; and

(3) given that a total of five cases of human infection of rat Hepatitis E have so far been recorded in Hong Kong, how the Department of Health ascertains that there is no unreported case in the community, and what measures are in place to stop the disease from spreading and becoming an endemic disease?

Reply:

President,

My reply to the Member's question is as follows:

(1) At present, there is no internationally adopted rodent infestation index. The Food and Environmental Hygiene Department (FEHD) has devised the Rodent Infestation Rate (RIR) and the corresponding actions at different levels with reference to overseas practices and the actual situation and

experience of Hong Kong.

The RIR is divided into three levels. Level 1 (below 10 per cent) indicates that rodent infestation is not extensive during the survey period. FEHD staff will carry out routine rodent prevention and control work and conduct targeted anti-rodent operations at locations where rodent activities are detected. Level 2 (10 per cent to below 20 per cent) indicates that rodent infestation is slightly extensive during the survey period. FEHD's anti-rodent operations will cover the activity areas of an entire rodent population. Level 3 (20 per cent or above) indicates that rodent infestation is extensive during the survey period and rodent colonies may have been formed. FEHD will set up an inter-departmental working group to be chaired by a District Environmental Hygiene Superintendent to co-ordinate anti-rodent operations at district level, including strengthening cleansing services, assisting other departments in carrying out anti-rodent work in areas under their purview and promoting rodent prevention and control in the community.

(2) The RIR assesses the distribution of rodent infestation in public places within the survey areas. It is used to reflect the extensiveness of rodent infestation but not the rodent problem in a whole district. The main purpose of conducting the RIR survey is to identify problematic areas which require allocation of targeted resources for carrying out anti-rodent operations.

In formulating rodent prevention and control work, FEHD will take into account, in addition to the RIR, factors such as the complaint figures and reports, views of the local community and trails left by rodents found during inspections, in order to have a comprehensive assessment of the rodent problem in the district concerned and devise targeted anti-rodent operations at problematic areas.

To increase the sensitivity of the surveys for a more accurate assessment of rodent problem, FEHD is conducting tests on different rodent baits to identify the most suitable one for the latest situation in Hong Kong. In addition, FEHD will annually review the locations and coverage of baiting points in all districts. The number of survey areas will be increased from 41 (around 2 300 baiting points) to 50 (around 2 650 baiting points) this year.

Apart from the RIR survey, FEHD is exploring other methods to monitor rodent infestation, including the use of night vision and thermal imaging cameras with artificial intelligence to detect and analyse the presence of rodents. Besides, FEHD will regularly review the latest measures adopted by the World Health Organization (WHO) and other cities for rodent surveillance, and work out suitable measures for Hong Kong having regard to our actual situation. FEHD is inviting WHO experts to visit Hong Kong and give us advice in this respect, while exploring the possibilities of inviting other overseas experts to Hong Kong.

(3) 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. The DH's epidemiological investigations have yet to determine the source and the route

of infection. There is also no scientific evidence of direct human-to-human transmission of rat HEV at the moment. Since November 2018, the DH has enhanced the surveillance of HEV by conducting further testing on rat HEV in the samples collected from HEV patients, in addition to regular testing on human HEV types. The DH will continue to enhance its surveillance of HEV, including conducting testing on human and rat HEVs in clinical specimens. The DH will also conduct further analysis on samples collected from patients with rat HEV infection, in collaboration with the Department of Microbiology of the University of Hong Kong. Furthermore, the DH issued a letter to all local doctors and hospitals on May 17 to inform them of relevant situation and preventive measures and remind them to pay special attention to immunocompromised persons with liver function derangement. The DH will continue to closely monitor the situation in Hong Kong.

The Government has attached great importance to anti-rodent work. In view of the recent cases of human infection of rat HEV, the Government has launched a territory-wide cleaning campaign on May 20, targeting areas such as rear lanes, housing estates, food premises and public markets. Cleaning work and enhanced enforcement actions have been carried out and public education and publicity in this regard have also been strengthened. All departments will remain vigilant and work together for effective rodent prevention and control. For instance, the Highways Department has stepped up its inspection work at rear lanes with serious rodent problems in all districts, carried out instant repairs to damaged road surface or nullahs, improved road conditions and filled rat holes. The Housing Department has also been examining whether the rodent-proof devices installed in over 180 public housing estates function well, and will repair, reinforce or add devices at once if needed to eliminate rodents and their harbourage points. FEHD will enhance street cleaning, carry out publicity and public education work on rodent prevention and control, and step up enforcement actions against illegal dumping of waste by food premises. All District Offices of the Home Affairs Department and FEHD will also strengthen liaison with property management companies, District Councils (DCs) and local communities in order to raise public awareness of the importance of maintaining personal and environmental hygiene in preventing rodent infestation in private places, including people's homes and housing estates, through carrying out publicity at the district level.

Apart from government efforts, the collaboration between the public and private sectors (food premises in particular) to eliminate the conditions for rodents to survive at source is of paramount importance to effective prevention of rodent infestation. The Government will consolidate the experience it has gained from this three-month territory-wide cleaning campaign, continue with its on-going rodent prevention and control work, and strengthen its collaboration with various DCs.