

Executive Summary

Direct Investigation Report

Effectiveness of Rodent Prevention and Control by Food and Environmental Hygiene Department

Introduction

Rodent infestation has been an issue of wide public concern as it causes nuisances to the daily life of the general public and may spread different types of serious diseases.

2. Currently, the Pest Control Steering Committee led by the Food and Health Bureau formulates anti-rodent policies and action plans to be implemented by the Food and Environmental Hygiene Department (“FEHD”) and other departments. FEHD handles rodent infestation in ordinary public places, and its duties involve three major aspects, namely rodent surveillance, rodent prevention and disinfestation, and handling of rodent-related complaints. FEHD also provides training and technical support for other government departments regarding rodent prevention and control at public venues and premises under the latter’s management.

3. There are views that FEHD’s rodent control has been ineffective and that the results of its rodent infestation surveys (“RISs”) could not reflect the actual situation of some locations. According to media reports, a number of confirmed rat Hepatitis E cases had been reported since 2018, and there were concerns about the serious rodent infestation in many markets under FEHD’s management in 2020.

4. After examining FEHD’s work, we have the following comments and recommendations.

Our Findings

RISs

5. Currently, FEHD conducts RISs in a six-month interval within 50 designated survey locations in 19 administrative districts. The RIS in each survey location lasts

for three days where 40 to 60 census baits (a piece of uncooked sweet potato) would be placed in each location based on its area. The rodent infestation rate (“RIR”), which is the percentage of baits gnawed by rodents in the survey locations, is aggregated to assess the extensiveness of rodent infestation in the public places within each survey location. The RIR is categorised into three levels. An RIR below 10% falls into Level 1 where rodent infestation is not extensive during the survey period. Level 2 ranges from 10% to below 20% reflecting slightly extensive rodent infestation during the survey period. An RIR at or above 20% falls into Level 3 where rodent infestation is extensive during the survey period.

6. While the RIR shows the percentage of rodent activity range within each survey location, it cannot reveal the actual number of rodents or the frequency of their appearances. We notice that there are occasional media reports about rodent infestation in various districts. We also received quite a number of public views about the nuisance caused by rodent infestation in various districts and particular venues. Despite a rising trend on the number of rodent-related complaints and the figures of disinfection from 2016 to 2020, the overall RIR recorded during the same period had been hovering at relatively low levels of below 5%. Although some administrative districts recorded relatively higher RIR, the highest rate among them was only at Level 2. FEHD explained that due to limitations of RIR, it would consider various factors (including rodent-related complaints, observation of frontline staff and views from members of local community) in making a comprehensive assessment on rodent infestation.

7. As seen from the preceding paragraph, there are limitations on the methodology of RISs, resulting in a possibility for RIR not truly reflecting the extent of rodent infestation. While FEHD publishes other rodent-related data (such as the number of rodent-related complaints, rodents caught and dead rodents found) in addition to RIR where necessary, RIR is undoubtedly the most important indicator of rodent infestation among the general public. In order to enhance its credibility, we believe that RIR should be formulated in a way that can reflect the severity of rodent infestation in multiple aspects (including the distribution and number of rodents). Therefore, FEHD should explore whether the methodology of RISs can be modified to reduce the constraints of RIR, and examine further whether it is appropriate to incorporate factors that may help assess the extent of rodent infestation into the calculation of RIR. FEHD may consider engaging local universities and academic institutions to participate in researches to explore the feasibility of formulating a “composite RIR” that incorporates different factors.

8. With RISs being conducted every six months only, it may render the aggregate RIR out-of-date because rodents have high reproduction rates and their breeding grounds are subject to environmental hygiene. We think that FEHD should consider conducting RISs more frequently each year to improve the validity of survey results and exploring appropriate manpower arrangements to cope with the additional workload.

9. When conducting RISs, FEHD would hang census baits with warning notices on supporting objects such as water pipes and pillars and suspend disinfestation of rodents until completion of the survey, so as to prevent interference with RISs. During our site inspections, we noticed that FEHD had failed to attach a warning notice to a census bait and continued to arrange disinfestation of rodents during the survey period. FEHD should consider introducing administrative measures to ensure that its staff conduct the surveys in an appropriate manner. Such measures may include a comprehensive review of the relevant guidelines to ensure their clarity and accuracy, regular briefings and random surprise checks during survey periods.

10. Starting from mid-2020, FEHD has required that additional rodent disinfestation be carried out at survey locations with a “relatively high” RIR of 8% or above, followed by another survey. In August 2021, FEHD revised the Pest Control Technical Circulars (“Technical Circulars”) to include the additional rodent disinfestation and survey in the follow-up actions for RIR at Level 1. Such work serves as prompt and proactive rodent control when the RIR is approaching the lower limit of Level 2 (i.e. 10%), thereby preventing rodent infestation from deteriorating into Level 2 or above.

11. We reckon that FEHD’s additional disinfestation and survey for an RIR of 8% or above do not correspond with the follow-up actions “to continue with routine rodent disinfestation” specified for an RIR at Level 1. Furthermore, if FEHD considers an RIR of 8% as “relatively high”, it should review the need for adjusting the existing three-tier classification of RIR (in particular the suitability of setting Level 1 at below 10%) and the corresponding follow-up actions to ensure effective rodent control on different levels of infestation.

Rodent Prevention and Disinfestation

12. Trapping and poisoning with baits are two major ways adopted by FEHD for rodent control. Based on its knowledge of the rodent species commonly found in Hong Kong and their habits, FEHD makes its professional judgement as to which methods

and tools should be used for rodent disinfestation. This Office has no intention to intervene. Nevertheless, our investigation revealed that some frontline staff of FEHD did not punch the packets of poisonous baits to allow the smell to emit. A contractor staff's allegation that rodents would tear the packing and take the poisonous baits reflects apparent lack of understanding about the correct use of such baits, which directly affected their effectiveness. Since April 2020, FEHD has progressively included in new contracts with pest control contractors the requirement that packets of poisonous baits must be punched before use. Violation of such requirement will be deemed as a serious default. Moreover, FEHD has produced and uploaded to its intranet a series of videos about the skills in rodent disinfestation for its staff and contractors' reference. Despite FEHD's rectification, it is difficult to tell whether such lack of understanding is only the tip of the iceberg. In our view, FEHD should strengthen the training for both frontline and supervisory staff. While frontline staff should be able to correctly use the tools and equipment for rodent disinfestation, supervisory staff should also acquire relevant knowledge for identification and rectification of misuse during routine inspections.

13. On rodent prevention, FEHD mainly relies on education, intensive cleaning and enforcement action especially for two potential hotspots of rodent activities, namely public markets and rear lanes.

14. Starting from 2020, FEHD has stepped up cleaning and disinfection in public markets, in particular the communal areas, public passageways and vacant stalls. As for rented stalls and their neighbouring areas, the stall tenants are responsible for cleaning on their own after business hours. FEHD also engages the Market Management Consultative Committees and makes use of the two monthly market cleaning days to remind the tenants to keep their stalls clean and take enforcement actions. In January 2021, FEHD issued instructions to its district offices, requiring them to seek the assistance of the Market Management Consultative Committees to remind stall tenants to properly dispose of their refuse. FEHD also stepped up its inspections and enforcement actions. Between January and November 2021, FEHD issued 51 verbal warnings to stall tenants for failure to maintain cleanliness inside and outside their stalls.

15. In our opinion, effective rodent control in public markets relies greatly on the stall tenants' effort to keep clean and maintain good hygiene both inside and outside their stalls for elimination of rodents' food sources. Otherwise, rodent control would remain ineffective however hard FEHD steps up cleaning and disinfection of common

areas. Although FEHD indicated that it had stepped up enforcement actions since January 2021, we still found different degrees of hygiene problems during our inspections at individual markets later in the same year, including refuse accumulation outside some market stalls, and refuse, articles and seafood residues around sewage drains outside seafood stalls after business hours. Such refuse and articles were most likely left behind and discarded by the stall tenants who, by doing so, had shifted their responsibilities for cleaning the stalls to FEHD's contractors. As regards FEHD's enforcement actions, they were simply verbal warnings issued to stall tenants who had failed to maintain cleanliness and hygiene. The effectiveness of FEHD's monitoring is, therefore, questionable.

16. We reckon that FEHD should conduct intensive surprise inspections to ensure the effectiveness of its enhanced efforts on cleaning and disinfection. Where irregularities are found, FEHD should strictly enforce the tenancy terms against the stall tenant concerned and even consider invoking other applicable legislation to compel the tenant to clean the stall and neighbouring area every day. Intensive inspections will definitely require additional manpower. Hence, FEHD should actively explore how to empower the management staff of contractors to enhance the effectiveness of enforcement actions and ensure that inspections can serve their purpose. For districts with more public markets and hence insufficient resources, FEHD should adopt a risk-based approach to focus its inspection and enforcement on those markets in poorer hygiene condition. Besides, FEHD should continue its efforts to educate stall tenants on environmental hygiene and step up cleaning of public markets where necessary. FEHD should also consider such possible ways as establishing guidelines to set out objective standards for the cleanliness of stalls to facilitate stall tenants' understanding of its requirements and frontline staffs' inspection and monitoring.

17. FEHD mainly relies on frontline staff's observation and assessment to determine whether there is need for stepping up cleaning and anti-rodent work for particular public markets. However, the assessment criteria and weighting of each criterion may vary among staff from different districts, leading to variations in follow-up actions taken. Given the large number of markets, it may be difficult for FEHD to grasp accurately the conditions of each public market and perform overall monitoring and management without objective standards and guidelines. Hence, FEHD should consider introducing a review mechanism setting out appropriate factors for consideration and standards under a risk-based approach in order to work out systematically a list of markets requiring stepped-up cleanliness and anti-rodent control. FEHD should in parallel review the effectiveness of a targeted intensive cleaning

programme started at Tai Shing Street Market and the intensive anti-rodent operation being piloted in 73 markets. Subject to the results and resources, FEHD should consider extending the schemes to other markets in need.

18. In combating rodent infestation in rear lanes, FEHD has from time to time launched thematic, special operations in recent years and strengthened enforcement action against irregularities found in the interior and exterior of restaurants during opening hours. We have arranged site inspections to three administrative districts, namely Sham Shui Po, Wan Chai and Yuen Long. While acknowledging FEHD's efforts in rodent disinfection, we still observed serious environmental hygiene problems in some rear lanes including disposal of various articles and refuse, as well as outflow of sewage with offensive smell. We even found restaurant staff allegedly cleaning utensils and preparing food at rear lanes.

19. Rear lanes as public places are understandably more difficult to monitor than public markets under FEHD's management. Nevertheless, we notice that the environmental hygiene problems are likely related to shops adjoining rear lanes. In this regard, we consider that FEHD should first examine whether the existing mechanism for monitoring the cleanliness of shops adjoining rear lanes (especially restaurants) is effective. Where necessary, FEHD should implement enhanced measures including regularising its special operations, arranging more frequent inspections and taking more stringent enforcement actions.

20. Moreover, while FEHD's special operations focus on restaurants in business, there are plenty of food sources inside food shops; be it open or closed, they should maintain cleanliness and hygiene at all times to avoid rodent infestation. As such, we find FEHD's current practice of monitoring the operation of shops and conducting inspections only during business hours inadequate. FEHD should explore ways to handle the after-hours cleanliness problem that may arise. It is understandably difficult for FEHD to gain entry to restaurants for inspections and investigations outside their business hours. The Department may explore other feasible ways such as conducting inspections when the restaurants are preparing for business or to close, thereby ensuring good cleanliness and hygiene outside business hours.

21. To enhance the effectiveness of its anti-rodent work, FEHD should broaden its channels for acquiring pest control knowledge and more proactively engage local universities and academic institutions to conduct relevant researches including the calculation of RIR, habits of active species of rodents in Hong Kong, as well as

preventive measures and tools suitable for curbing rodent infestation.

22. There may be room for improvement in FEHD's rodent prevention and disinfestation, but its efforts and achievements should not be denied. In responding to our request for information, all the four selected departments namely the Agriculture and Fisheries Conservation Department, Home Affairs Department, Housing Department and Leisure and Cultural Services Department made positive comments on the training and technical support provided by FEHD. Besides, FEHD has strengthened inter-departmental coordination in launching territory-wide and district anti-rodent operations and introduced targeted rodent prevention and control measures at district level. Members of the public would be pleased to see the increase in overall rodent disinfestation in recent years.

23. Undoubtedly, it is essential for the Government to formulate and implement effective strategies and measures to combat rodent infestation, but the role of the public in maintaining good environmental hygiene is equally important. Otherwise, however hard cleaning and pest control workers maintain cleanliness of public places and combat rodent infestation, if members of the public and shop operators fail to observe the rules and leave the environmental hygiene in poor condition, nuisances arising from rodent infestation would persist and society as a whole would suffer the consequence. Therefore, it is incumbent upon the Government and the public to make coordinated efforts for effective rodent prevention and control.

Use of Data on Rodent-related Complaints

24. Information revealed that FEHD has received an annual average of more than 10,000 rodent-related complaints in recent years, reflecting the public's great concern on rodent infestation. This Office has requested FEHD to provide analyses on the details of and locations involved in rodent-related complaints regarding the three administrative districts with a relatively higher number of complaints (namely Sham Shui Po, Central and Western District and Kowloon City). Yet, FEHD could only give a brief account of the situation. It also indicated that the number of rodent-related complaints was subject to such factors as the geographical location and demographics, and therefore it would not assess rodent infestation in individual administrative districts by considering complaint figures alone. FEHD is seemingly not well aware of the trend of complaints and the public's concern.

25. In our opinion, the number of rodent-related complaints is no doubt an important

indicator as to whether rodent infestation has generally affected the public's daily life. Meanwhile, the details of complaints can reflect which locations are hotspots of rodent activities that attract wide public concerns and carry higher risks. Hence, FEHD should allocate more resources to collate and analyse rodent-related complaints for more effective deployment of manpower and resources to venues requiring more intensive cleaning and better planning for rodent prevention and disinfestation. With the introduction of a "composite RIR" as stated in **paragraph 7** above, together with analyses of the details of complaints, FEHD should be able to better understand the extent of rodent infestation and adopt more targeted measures.

26. According to FEHD, it has since October 2021 included analysis of hotspots in its Complaints Management Information System ("CMIS") to facilitate more effective deployment of manpower and resources in anti-rodent work. We will follow up with FEHD to ensure that the upgraded CMIS will achieve administrative effectiveness to our expectation and be able to address public concerns about rodent infestation.

Recommendations

27. We recommend that FEHD:

RISs

- (1) review the existing methodology of RISs and examine whether factors which may help assess the extent of rodent infestation can be incorporated in the calculation of RIR for formulation of a "composite RIR". Where necessary, FEHD may engage local universities and academic institutions to participate in relevant researches;
- (2) consider conducting RISs more frequently each year to improve the validity of survey results and exploring appropriate manpower arrangements to cope with the additional workload;
- (3) introduce administrative measures, including a comprehensive review of relevant guidelines, regular briefings and random surprise checks during survey periods, to ensure that frontline staff conduct RISs in an appropriate manner;

- (4) review the existing classification of RIR and contents of the prevailing Technical Circulars, and make appropriate adjustments and amendments as necessary;

Rodent Prevention and Disinfestation

- (5) strengthen the training for frontline and supervisory staff on the correct use of tools and equipment for rodent disinfestation;
- (6) conduct intensive surprise inspections, strictly enforce the tenancy terms and actively explore invoking applicable legislation to step up enforcement actions to urge market stall tenants to properly clean their stalls and the surrounding areas. On manpower deployment, FEHD should explore how to empower the management staff of contractors to enhance the effectiveness of enforcement actions. For districts without sufficient resources for intensive inspections, FEHD should adopt a risk-based approach and take targeted enforcement action at public markets in poorer hygiene condition;
- (7) strengthen the education for market stall tenants and consider exploring such possible ways as establishing guidelines to set objective standards for the cleanliness of stalls;
- (8) consider introducing a review mechanism setting out factors for consideration and standards under a risk-based approach in order to work out systematically a list of markets requiring stepped-up cleanliness and anti-rodent control. FEHD should in parallel review the effectiveness of the district intensive cleaning programme and the intensive anti-rodent operations being piloted. Subject to the results and resources, FEHD should consider extending the schemes to markets in need;
- (9) examine whether the existing mechanism for monitoring the cleanliness of shops adjoining rear lanes (especially restaurants) is effective, and explore ways to handle the after-hours cleanliness problem that may arise. Where necessary, FEHD should implement enhanced measures including regularising the special operations to combat rodent infestation at rear lanes, arranging more frequent inspections and taking

more stringent enforcement actions;

- (10) strengthen the cooperation with local universities and academic institutions in conducting researches to enhance the effectiveness of anti-rodent work. Research topics may include the calculation of RIR, habits of active species of rodents in Hong Kong, and preventive measures and tools suitable for curbing rodent infestation; and

Use of Data on Rodent-related Complaints

- (11) allocate more resources to collate and analyse rodent-related complaints for more effective deployment of manpower and resources to venues requiring more intensive cleaning and better planning for rodent prevention and disinfestation.

Office of The Ombudsman

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