



## Pest Control

Figure 1 — Number of pest control surveys conducted

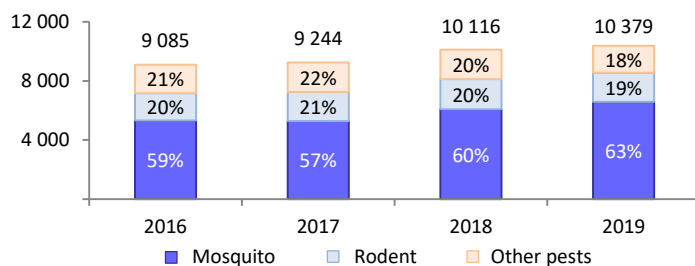


Figure 2 — Mosquito control work

	2017	2018	2019
- No. of mosquito breeding places eliminated	57 701	63 635	65 795
- No. of locations with the ovitrap index <sup>(1)</sup> exceeding the alert level of 20% (level 3 or 4) <sup>(2)</sup> for two or more consecutive months	5	6	4
- No. of locations with the ovitrap index exceeding 40% (level 4)	2	3	1
- No. of confirmed local dengue fever cases	1	29	1

Notes: (1) The ovitrap index for *Aedes albopictus* was adopted for reflecting the extensiveness of distribution of *Aedes albopictus* in the 57 surveyed locations. Since April 2020, ovitraps have been replaced by gravidtraps to enumerate the gravidtrap index.

(2) The ovitrap index is divided into four levels. Level 3 (20% to less than 40%) indicates that infestation of *Aedes albopictus* exceeds one-fifth of the area surveyed while level 4 (40% or above) indicates that almost half of the surveyed area is infested with the mosquitoes.

Figure 3 — Complaints on rodent infestation and RIR<sup>(1)</sup> by districts

	No. of complaints			RIR (%)		
	2017	2018	2019	2017	2018	2019
Wan Chai	691	909	988	5.6	2.8	11.7
Eastern	765	884	818	6.0	2.1	3.2
Southern	189	171	112	2.7	0.5	2.2
Central & Western	871	992	1 074	3.6	3.6	1.6
Kwun Tong	477	487	556	4.3	5.8	9.1
Kowloon City	865	1 128	952	2.3	6.1	6.2
Yau Tsim Mong	1 247	1 199	1 161	2.8 <sup>(2)</sup> 6.6 <sup>(3)</sup>	2.4	6.0
Sham Shui Po	1 181	1 381	1 200	6.2	6.7	5.3
Wong Tai Sin	343	338	357	1.0	1.0	4.9
Islands	331	343	359	3.3	1.4	5.3
Tsuen Wan	347	376	311	4.7	5.1	5.2
Yuen Long	795	892	776	3.5	3.9	4.8
Kwai Tsing	254	336	295	3.6	1.0	4.6
Tai Po	346	352	344	1.8	2.7	4.5
Sha Tin	530	696	711	2.6	4.7	3.4
Sai Kung	358	381	372	1.8	2.2	2.3
Tuen Mun	354	411	458	1.3	2.1	1.7
North	306	387	485	1.9	2.5	1.6
Overall	10 250	11 663	11 329	3.5	3.4	4.2

Notes: (1) RIR is the ratio of the number of baits bitten by rodent to the total number of baits collected from the selected areas.

(2) Referring to the rate measured in Yau Ma Tei and Tsim Sha Tsui.

(3) Referring to the rate measured in Mong Kok.

## Highlights

- In Hong Kong, the Food and Environmental Hygiene Department ("FEHD") is tasked with providing pest control services in public places with a view to preventing and controlling the breeding of disease vectors and arthropod pests (e.g. mosquitoes, mites and biting midges).
- FEHD conducted 10 379 pest control surveys in 2019, up by 14% from 2016, for monitoring the infestation situation of major disease vectors, and planning and evaluating its pest control work (Figure 1). Over 50% of the surveys conducted were mosquito-related, including the regular dengue vector surveillance surveys using ovitraps to understand the distribution of *Aedes albopictus* in 57 selected locations and quantify the situation using the ovitrap index. Half-yearly rodent infestation surveys were also conducted for detecting the presence of rodents in 41 selected locations as quantified by the Rodent Infestation Rate ("RIR").
- As for mosquito control work, FEHD has enhanced its prevention and control efforts including strengthening operations to eliminate mosquito breeding places before the rainy season, conducting fogging operations once the rainy season arrives to eliminate adult mosquitoes, and improving collaboration with the local communities on prevention work. Between 2017 and 2019, the number of mosquito breeding places eliminated increased by 14% to 65 795 (Figure 2). This, coupled with other control efforts, has helped improve the ovitrap index for *Aedes albopictus* and the incidence of confirmed local dengue fever cases.
- Rodent infestation is a public health challenge globally as rodents are vectors of diseases such as Hantavirus infection, leptospirosis, and rat hepatitis E virus infection. Yet, Hong Kong has seen increases in the overall number of complaints on rodent infestation and the overall RIR between 2017 and 2019 (Figure 3). Among the 18 districts, Wan Chai, Kwun Tong, Wong Tai Sin, Yau Ma Tei, Tsim Sha Tsui and Kowloon City saw marked increases in RIR during the period.

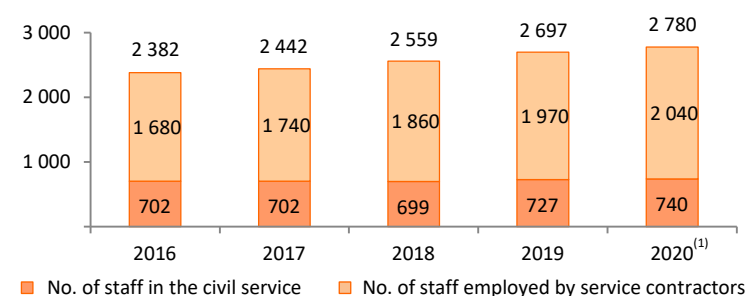
## Pest control (cont'd)

Figure 4 — Rodent Control Work<sup>(1)</sup>

	2017	2018	2019	% change from 2017 to 2019
<b>Total no. of poison treatments of rodent infestation in building blocks</b>	<b>70 121</b>	<b>93 815</b>	<b>98 322</b>	<b>+40%</b>
Wan Chai	4 900	8 446	12 544	+156%
Kwun Tong	6 390	6 587	6 302	-1%
Kowloon City	4 368	4 608	4 640	+6%
Yau Tsim Mong	387	1 510	1 482	+283%
Sham Shui Po	404	308	284	-30%
<b>Total no. of rodent trappings</b>	<b>54 438</b>	<b>60 432</b>	<b>68 490</b>	<b>+26%</b>
Wan Chai	3 668	3 760	3 569	-3%
Kwun Tong	1 291	1 876	2 927	+127%
Kowloon City	11 867	11 309	11 196	-6%
Yau Tsim Mong	8 127	8 331	10 334	+27%
Sham Shui Po	1 786	5 522	5 286	+196%
<b>Total no. of rat holes filled</b>	<b>7 958</b>	<b>9 129</b>	<b>12 963</b>	<b>+63%</b>
Wan Chai	167	163	611	+266%
Kwun Tong	241	225	432	+79%
Kowloon City	333	332	415	+25%
Yau Tsim Mong	1 189	1 050	4 653	+291%
Sham Shui Po	1 553	3 258	2 963	+91%
<b>Total no. of dead rodents collected and live rodents caught</b>	<b>41 038</b>	<b>44 378</b>	<b>53 986</b>	<b>+32%</b>
Wan Chai	1 825	2 427	2 746	+50%
Kwun Tong	2 661	3 253	6 405	+141%
Kowloon City	3 813	4 258	5 478	+44%
Yau Tsim Mong	5 567	5 581	7 203	+29%
Sham Shui Po	4 178	6 094	6 869	+64%

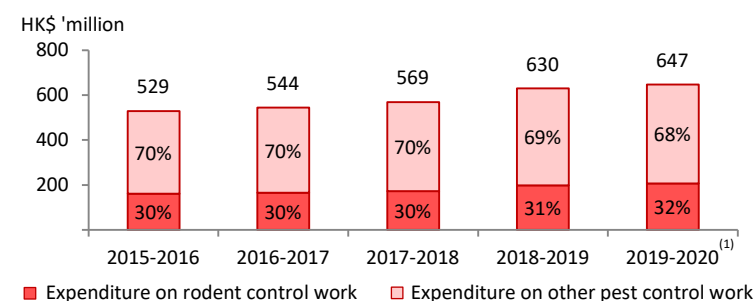
Note: (1) The total figures and the figures for the districts with the top five highest RIR and over 500 complaints on rodent infestation in 2019 were covered.

Figure 5 — Staff engaged in pest control work



Note: (1) Estimated figures.

Figure 6 — Expenditure on pest control work



Note: (1) The figures refer to the revised estimate.

Research Office  
Information Services Division  
Legislative Council Secretariat  
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Tel: 2871 2122

## Highlights

- To deal with the growing number of complaints and the deteriorating rodent infestation situation, FEHD has strengthened its rodent control work including operations in target areas to eliminate the three survival conditions of rodents, namely food, harbourage and passages by improving environmental hygiene, and stepping up rodent disinfestation and enforcement actions. Rodent disinfestation work in terms of the use of poison treatments and rodent trappings has increased by 40% and 26% respectively between 2017 and 2019 (Figure 4). The number of rat holes filled also increased by 63% during the period. The increase in rodent disinfestation efforts highly varied among the districts, probably relating to their RIR and incidence of complaint cases.
- Recently, FEHD has put on trial new technologies such as night-vision and thermal imaging cameras with artificial intelligence analytical function for rodent surveillance. The data collected from the new systems on rodent activities should help quantify and enhance the effectiveness of anti-rodent operations. The expenditure involved in the trial of the night-vision camera surveillance system and the thermal imaging camera surveillance system totalled HK\$760,000 and HK\$2.1 million respectively.
- As pest control workload increased, the total workforce engaged in pest control work increased by 17% from 2 382 in 2016 to an estimated 2 780 in 2020 (Figure 5). The increase mostly comes from outsourced service staff which accounts for 73% of the total workforce in 2020. Reflecting the increased engagement of outsourced staff, total expenditure for the 19 service contracts awarded by the Government for pest control work increased by 32% from HK\$263 million in 2015-2016 to HK\$346 million in 2019-2020.
- Amid the increase in pest control workforce, the total expenditure on pest control work increased by 22% from HK\$529 million in 2015-2016 to HK\$647 million in 2019-2020 (Figure 6). The expenditure on rodent control work increased at a higher rate of 29% during the period.

Data sources: Latest figures from Food and Environmental Hygiene Department, and Food and Health Bureau.