

**CONTROLLING OFFICER'S REPLY**

**CSTB309**

**(Question Serial No. 0148)**

Head: (95) Leisure and Cultural Services Department

Subhead (No. & title): ()

Programme: (1) Recreation and Sports

Controlling Officer: Director of Leisure and Cultural Services (Vincent LIU)

Director of Bureau: Secretary for Culture, Sports and Tourism

Question:

To strengthen lifesaving services at public swimming pools, the Leisure and Cultural Services Department (LCSD) has commenced the trial of an artificial intelligence drowning detection system (the system) developed by the University of Hong Kong's Sports Artificial Intelligence Laboratory at the outdoor secondary pool of Kwun Tong Swimming Pool since July 2023. In this connection, would the Government inform this Committee of the following:

- (1) a breakdown of the number of drowning cases by public swimming pools in each of the past 5 years;
- (2) whether information on the number of drowning cases in places other than public swimming pools has been compiled; if so, the details in each of the past 5 years; if not, the reasons for that;
- (3) the amount of funding for the system from the Innovation and Technology Fund of the Innovation and Technology Commission;
- (4) the expenditure involved in the trial of the system; and
- (5) whether a review of the effectiveness of the system has been carried out; if so, the results of the review; if not, the time to conduct such a review.

Asked by: Hon LAI Tung-kwok (LegCo internal reference no.: 35)

Reply:

- (1) & (2) At present, the Leisure and Cultural Services Department (LCSD) is responsible for managing 45 public swimming pools across Hong Kong. The record of the numbers of drowning cases at public swimming pools in the past 5 years is set out at **Annex**. The LCSD does not maintain a record of the number of drowning cases at facilities other than public swimming pools (e.g. the swimming pools of private residences or clubhouses).

(3), (4) & (5) To strengthen lifesaving services at public swimming pools, the LCSD has commenced the trial of an artificial intelligence (AI) drowning detection system (the system) at the outdoor secondary pool of Kwun Tong Swimming Pool starting from 31 July 2023. The system is developed by the Sports Artificial Intelligence Laboratory of the University of Hong Kong, and is allocated funding support of about \$920,000 from the Innovation and Technology Fund of the Innovation and Technology Commission for the trial of the system. Hence, no additional manpower and resources are involved on the LCSD's part. With the use of AI detection technology, the system calculates the probability of drowning by analysing the videos and images captured by the camera. If drowning is detected, the system will alert lifeguards with a warning signal. According to the information provided by the research and development team, during the trial period from August to October 2023, the effectiveness of the detection system is satisfactory, with an overall accuracy of 95%. To enhance lifesaving services at swimming pools, the LCSD is working with the research and development team to further improve the existing system and extend the detection range.

In addition, the LCSD will install another AI drowning detection system developed overseas at the Sun Yat Sen Memorial Park Swimming Pool. It is expected that the trial will commence during the 2024 swimming season.

**Record of the numbers of drowning cases at public swimming pools  
in the past 5 years<sup>(1)</sup>**

<b>Swimming Pool<sup>(2)</sup></b>		<b>2019</b>	<b>2020<sup>(3)</sup></b>	<b>2021<sup>(3)</sup></b>	<b>2022<sup>(3)</sup></b>	<b>2023</b>
1	Kennedy Town Swimming Pool	1	0	1	0	1
2	Sun Yat Sen Memorial Park Swimming Pool	2	0	0	2	0
3	Chai Wan Swimming Pool	0	0	0	1	0
4	Island East Swimming Pool	0	0	1	0	0
5	Siu Sai Wan Swimming Pool	1	0	2	0	3
6	Pao Yue Kong Swimming Pool	3	0	0	0	0
7	Morrison Hill Swimming Pool	2	0	0	0	1
8	Victoria Park Swimming Pool	1	0	1	1	1
9	Wan Chai Swimming Pool	1	0	0	0	0
10	Kowloon Tsai Swimming Pool <sup>(4)</sup>	1	2	Not Applicable		
11	Jordan Valley Swimming Pool	0	0	1	1	2
12	Kwun Tong Swimming Pool	10	0	3	4	15
13	Lai Chi Kok Park Swimming Pool	0	0	0	0	2
14	Lei Cheng Uk Swimming Pool	0	0	1	0	0
15	Sham Shui Po Park Swimming Pool	1	2	6	4	1
16	Hammer Hill Road Swimming Pool	0	0	0	0	1
17	Morse Park Swimming Pool <sup>(5)</sup>	0	0	1	Not Applicable	1
18	Kowloon Park Swimming Pool	2	0	1	1	1
19	Kwai Shing Swimming Pool	5	0	0	0	0
20	North Kwai Chung Jockey Club Swimming Pool	7	3	0	0	0
21	Tsing Yi Swimming Pool	0	0	3	1	1
22	Fanling Swimming Pool	0	0	1	0	0
23	Hin Tin Swimming Pool	0	0	0	1	2
24	Ma On Shan Swimming Pool	1	0	0	0	1
25	Sha Tin Jockey Club Swimming Pool	0	0	0	1	0
26	Tai Po Swimming Pool	1	0	0	0	3
27	Tung Cheong Street Swimming Pool <sup>(6)</sup>	Not Applicable			0	2
28	Shing Mun Valley Swimming Pool	2	0	0	1	2
29	Tuen Mun North West Swimming Pool	1	0	1	0	1
30	Tuen Mun Swimming Pool	1	0	1	0	0
	<b>Total</b>	<b>43</b>	<b>7</b>	<b>24</b>	<b>18</b>	<b>41</b>

## Notes

- (1) Including all rescue and drowning cases.
- (2) Public swimming pools with no drowning incident in the past 5 years are not listed in the above table.
- (3) In view of the situation of COVID-19, all public swimming pools were closed during the following periods:
  - (i) from 29 January to 20 May, from 15 July to 17 September and from 2 to 31 December 2020;
  - (ii) from 1 January to 1 April 2021; and
  - (iii) from 7 January to 11 or 15 May 2022.
- (4) Kowloon Tsai Swimming Pool has been closed since 2020 for redevelopment works.
- (5) Morse Park Swimming Pool had been closed since 2022 for conversion works, and was reopened on 22 March 2023.
- (6) Tung Cheong Street Swimming Pool was opened on 22 August 2022.

- End -