CHAPTER 8

Health Bureau
Department of Health

Student Health Service

Audit Commission
Hong Kong
31 March 2023

This audit review was carried out under a set of guidelines tabled in the Provisional Legislative Council by the Chairman of the Public Accounts Committee on 11 February 1998. The guidelines were agreed between the Public Accounts Committee and the Director of Audit and accepted by the Government of the Hong Kong Special Administrative Region.

Report No. 80 of the Director of Audit contains 8 Chapters which are available on our website at https://www.aud.gov.hk

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STUDENT HEALTH SERVICE

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STUDENT HEALTH SERVICE

Executive Summary

1. The Department of Health (DH) is the Government's health adviser and agency to execute healthcare policies and statutory functions. It safeguards the community's health through a range of promotive, preventive, curative and rehabilitative services. DH delivers healthcare services using a life-course approach through its various areas of work with emphasis on preventive care, including providing community-based health assessments, and preventive and education services to specific population groups (e.g. students). The Student Health Service (SHS) of DH provides comprehensive, promotive and preventive health programmes for primary and secondary school students according to their needs at various stages of development. It aims to safeguard the physical and psychological health of school children, and enable them to gain the maximum benefit from the education system and to develop their potentials. SHS comprises centre-based services (including annual health assessments, further assessments, other referrals and health education) and school-based services (including the Adolescent Health Programme (AHP) and the Health Promoting School Programme (HPSP)). In 2021-22, the expenditure incurred by DH for SHS amounted to about $305 million. The Audit Commission (Audit) has recently conducted a review of SHS.

Annual health assessment

2. Centre-based services are provided to both primary and secondary school students with the aim to identify students with health problems at an early stage for timely advice and intervention. Primary and secondary school students may enrol in the annual health assessments on a voluntary basis in every school year. Enrolled students attend the Student Health Service Centres (SHSCs) for various health assessment activities to meet their needs at various stages of development (as of February 2023, there were 13 SHSCs). Students with certain health problems identified during the annual health assessments are referred for further assessments provided under SHS, including audiological assessments, dietetic assessments, further spinal assessments, optometric assessments and psychological assessments (as of February 2023, there were 4 Special Assessment Centres (SACs) providing all types of further assessments and 5 SHSCs providing some types of further assessments). Students in need of other further assessments and/or treatments are referred to other

institutions (e.g. clinics of DH and the Hospital Authority) for follow-up (paras. 1.5 and 1.6).

3. ***Need to digitalise the enrolment process.*** Parents/guardians are required to complete the enrolment forms in paper format and return them to DH for arranging appointments for annual health assessments. DH uses a computer system, namely, the System for Managing the Assessment of Student Health (SMASH), to record students' particulars and manage appointments under SHS. According to DH, in general, two to four minutes were used to input data for a newly enrolled student, and one to five minutes were used to check and update SMASH records for a student who had enrolled in annual health assessments previously. Audit estimated that, for the 587,261 students enrolled in annual health assessments in 2021/22, a total of 10,662 man-hours had been used to input data and check/update SMASH records. According to DH, it has been developing a new system which will provide, among other features, electronic enrolment service by the end of 2024 (paras. 1.6, 2.3 and 2.4).

4. ***Need to maintain appropriate intervals between annual health assessments.*** According to SHS operation manual, student appointments in two consecutive years should not be too close (i.e. less than 180 days). Audit analysis of appointments of annual health assessments found that for 2017/18 to 2021/22, the intervals between the appointments in the respective years and the last assessments of 177 to 730 students were 90 days or less, and that of 3,428 to 5,305 students were between 91 to 180 days. According to DH, there might be circumstances where appointments were arranged with an interval less than 180 days (e.g. a student transferred from one school to another in the middle of the year or rescheduling of appointments) (paras. 2.5 to 2.7).

5. ***Need to monitor attendance rates of some grades.*** Audit analysis found that the overall attendance rates of annual health assessments in 2017/18 to 2021/22 ranged from 30% to 70%, of which the attendance rates of secondary school students were lower than those of primary school students. Audit further analysis found that the attendance rates of Primary 1, Secondary 1 and 6 students were 79%, 64% and 30% respectively in 2021/22. According to DH, it has taken various measures to improve the attendance rates (e.g. providing school bus service). However, the attendance rates of students of some grades were still not high, in particular for secondary schools (paras. 2.16 to 2.18).

6. ***Need to improve procedures in collecting feedback on SHS.*** In February 2020, DH launched an online questionnaire on the SHS website to collect feedback on SHS. Audit examination of the records of the online questionnaires of February 2020 to October 2022 found that:

(a) the online questionnaire was just put on the SHS website and no invitation for completing the questionnaire was sent to parents/guardians. In the period, only 87 questionnaires were completed; and

(b) the major reasons for non-attendance of annual health assessments included "forgot the appointment time" (21%), "unable to change to an ideal appointment time" (19%) and "appointment time crashed with other activity" (15%) (paras. 2.19 and 2.20).

7. ***Need to provide health assessment activities as scheduled.*** Different health assessment activities are provided for students when they attend the annual health assessments. Some of these activities are scheduled for students of specific grades. Audit examined the provision of colour vision tests (only provided to Primary 6 students) and hearing tests (only provided to Primary 1 and Secondary 2 students) in 2019/20 to 2021/22 and found that 325 students had attended the annual health assessments but were not provided with the tests. Audit further examined records of 30 of the 325 students and found that for 11 (37%) students, the reasons for not providing the tests were not recorded (paras. 2.28 to 2.30).

8. ***Need to provide health assessment activities timely for students missing activities in the preceding year.*** According to DH, a student who missed a health assessment activity in a specific year is provided with the missed activity at the student's annual health assessment in the year after (i.e. make-up test). For example, if a student missed the hearing test in Primary 1 (see para. 7), he/she will be provided with a make-up hearing test in Primary 2. Audit examination of the relevant records revealed that no make-up colour vision tests or hearing tests were provided to 938 students in 2020/21 and 2021/22 who had missed the colour vision tests or the hearing tests in the preceding year, and there was no documentation on the justifications for not providing the make-up tests (paras. 2.31 and 2.32).

9. ***Need to follow up non-attendance cases of further assessments provided under SHS.*** Audit noted that for the further assessments provided under SHS (see para. 2) in 2017/18 to 2021/22:

(a) the overall attendance rates ranged from 42% to 79%; and

(b) the 5-year average attendance rates ranged from 48% to 84%, among which the dietetic assessments was the lowest. Of the 2,872 to 14,773 students referred for dietetic assessments each year, 126 and 5 students had not attended the assessments for 3 and 4 consecutive years respectively (paras. 2.39 and 2.40).

10. ***Need to make use of new information technology system to follow up cases referred to medical institutions.*** Students in need of further assessments (other than those provided under SHS) and/or treatments are referred to other institutions for follow-up (see para. 2). DH has been implementing a departmental-wide information technology enhancement plan. Under the plan, the Clinical Information Management System (CIMS) of DH will be enhanced and SMASH will be replaced by the enhanced system. According to DH, the enhanced CIMS will be interfaced with the Electronic Health Record Sharing System (eHRSS) of the Health Bureau for record sharing with eHRSS with patients' consent. With the new system, which was scheduled for implementation in SHS by the end of 2024, DH would be able to access the clinical records of students referred to other medical institutions through eHRSS with students or their parents'/guardians' consent (paras. 2.44 and 2.46).

Adolescent Health Programme

11. AHP is a school-based outreach programme launched in 2001 for secondary school students, their parents and teachers, for promoting students' psychosocial health, and enhancing parents' and teachers' knowledge on adolescents' psychosocial health. It comprises two programmes, namely, the Basic Life Skills Training (BLST) for Secondary 1 to 3 students, and the Topical Programme (TP) for Secondary 1 to 6 students, and their parents and teachers (paras. 1.9 and 1.10).

12. ***Need to review basis of inviting schools to participate in AHP.*** In May each year, DH sends letters and information about AHP to secondary schools inviting them to enrol in the programme in the coming school year. Audit noted that: (a) in

2017/18 to 2021/22, 172 (34%) of 506 secondary schools had not enrolled in AHP for at least five years; and (b) since DH only invited schools that had previously enrolled in AHP to enrol in the programme for the coming school year, these 172 schools might not receive any invitation for participating in AHP. According to DH, interested schools without the invitation letters could approach the Department for enrolment. With the current manpower capacity, DH maintained the AHP service level at about 300 schools each year (paras. 3.4 to 3.6).

13. ***Need to review programme provided to parents and teachers.*** TP for parents and teachers aims to enhance their knowledge on adolescents' psychosocial health and equip them with the appropriate skills to assist their children/students throughout the adolescence. Schools may select topics under TP for parents and/or teachers to participate. Audit examined the records of TP of 2017/18 to 2021/22 and noted that the participation of teachers and parents was on the low side. For example, of the 217 schools only enrolled in TP in 2021/22, 3 schools selected topics for parents and/or teachers to participate (involving 3 programme sessions and a total of 85 parents and 32 teachers) (para. 3.7).

14. ***Need to keep under review the need to adjust AHP in light of impacts brought by coronavirus disease (COVID-19) epidemic.*** DH prepares bi-monthly reports on the commencement of programmes under BLST and TP for monitoring purpose. Audit noted that in 2019/20 to 2021/22, scheduled programmes for some grades in some schools had not commenced. According to DH, in 2019/20 to 2021/22, the outreach services of AHP were severely affected by the outbreak of the COVID-19 epidemic due to the intermittent suspension of face-to-face classes/temporary closure of schools, the half-day school arrangement, and the deployment of DH staff to assist in anti-epidemic duties. On the other hand, Audit noted that in the midst of the epidemic, due to class suspension and the lack of regular social activities, students' emotions could be easily affected (paras. 3.11 and 3.12).

15. ***Need to step up monitoring of performance of non-governmental organisations (NGOs).*** DH engages NGOs to deliver AHP collaboratively. Each programme session under BLST/TP is delivered by two DH staff from an AHP regional office (e.g. nurses, dietitians and clinical psychologists), or one staff from an AHP regional office and a registered social worker of NGO as facilitator (para. 3.23). Audit noted the following issues:

(a) ***Provision of facilitators.*** According to the contracts signed between DH and NGOs, NGOs should provide facilitators upon request. Audit noted that in 2019/20 to 2021/22, NGOs could not provide the facilitators on a number of occasions. According to NGOs, there were problems of staff shortage from time to time, hence, they were not able to provide facilitators requested by DH on some occasions. According to DH, when no NGO facilitators were provided, it had redeployed its staff to replace the NGO facilitators (paras. 3.24 and 3.25); and

(b) ***Supervisory observations.*** According to the contracts signed between DH and NGOs, NGOs should conduct observations on facilitators' performance around one month after a facilitator has commenced conducting the programme under AHP (i.e. supervisory observations). Audit noted that in 2019/20 to 2021/22, no supervisory observations were conducted for most facilitators engaged in each year. For the remaining facilitators, about half of the supervisory observations were conducted more than one month (up to 10 months) after they had commenced providing services (para. 3.26).

Other related issues

16. ***Areas for improvement in implementation of pilot HPSP.*** DH engaged 30 schools to participate in a pilot HPSP from 2019/20. Under the programme, DH assists participating schools to identify specific health priorities and develop tailor-made school-based health promotion action plans. In implementing the pilot HPSP, DH and the participating schools collaborated and exchanged various information in order to work towards the goal of building a healthy campus (paras. 4.2 and 4.3). Audit noted the following issues:

(a) ***Health profile reports not timely provided to schools.*** School-specific health profile reports (providing an overview of the health problems and health-related behaviours of students of the participating schools) would be provided to the participating schools every year. Audit noted that DH had provided the 2017/18 health profile reports to all 30 participating schools between May and July 2019. According to DH, due to the outbreak of the COVID-19 epidemic, the reports had not been provided since 2020. It would provide the 2021/22 health profile reports to schools between March and April 2023 (para. 4.3(a)); and

(b) ***Self-assessment checklists not submitted by some schools.*** To evaluate the readiness of schools as health-promoting schools and the implementation progress of HPSP, schools were advised to submit the self-assessment checklists to DH when the programme was launched in 2019 (i.e. baseline self-assessment) and by the end of each school year (i.e. yearly self-assessment). Audit noted that as of January 2023, of the 30 participating schools, 4 (13%) had not submitted the baseline self-assessment checklists and all yearly self-assessment checklists for 2019/20 to 2021/22, and 29 (97%), 24 (80%) and 27 (90%) schools had not submitted the yearly self-assessment checklists for 2019/20, 2020/21 and 2021/22 respectively (para. 4.3(b)).

According to DH, it was planning to revamp HPSP. Hence, the content and approach of the programme might be different from the current mode (para. 4.3).

17. ***Need to review provision of special health talks.*** Special health talks are provided by nurses and allied health staff (i.e. audiologists, clinical psychologists, dietitians and optometrists) for students with related needs. In 2017/18, 2018/19 and 2019/20, 287, 100 and 17 special health talks were conducted for 1,791, 961 and 138 participants respectively (i.e. 6, 10 and 8 participants per talk respectively). While the target number of special health talks provided has been reduced from 2018/19, Audit noted that from 2017/18 to 2018/19, the number of students with health problems identified in vision, growth and psychological health slightly increased by 2.2% (from 151,256 to 154,547), 6.7% (from 132,996 to 141,869) and 3.4% (from 13,600 to 14,066) respectively. In addition, according to an analysis conducted in September 2021 by DH on the health status of children and adolescents in Hong Kong amid the COVID-19 epidemic, the detection rates of overweight and obesity (for Primary 1 and 2, and Secondary 1 students) and visual problems (for Primary 1 students) had increased (paras. 4.8(b) and 4.9(a)).

18. ***Need to review provision of outreach health talks.*** DH had targets of providing outreach health talks on "Diet and Health" to 100 primary schools and 50 secondary schools with a high percentage of students attending the annual health assessments and a high detection rate for overweight. Audit examination of the number of outreach health talks provided in 2017/18 to 2019/20 found that DH had failed to meet the targets set and the rejection rates for such service were high (e.g. about 60% and 77% of the invited primary and secondary schools respectively rejected the invitations) (paras. 4.8(c) and 4.9(b)).

19. ***Need to closely monitor the fitting-out works at the West Kowloon Government Offices SHSC and SAC.*** The West Kowloon Government Offices SHSC and SAC commenced operation in November 2019. According to DH, the SHSC and SAC were developed to strengthen service provision in Kowloon. Due to the outbreak of the COVID-19 epidemic, in late January 2020, services of the SHSC and SAC were suspended. Between March 2020 and May 2022, the West Kowloon Government Offices SHSC and SAC were converted temporarily into a DH call centre/office for handling matters relating to COVID-19 (e.g. answering public enquires and contact tracing for COVID-19 confirmed cases). In June 2022, the DH call centre/office ceased operation. According to DH, fitting-out works were required before resumption of services in November 2023 and the works had commenced on 20 March 2023 (paras. 4.12, 4.13 and 4.15).

20. ***Need to ensure timely implementation of the new system and take into account the audit findings and recommendations in this Audit Report in developing and promoting the online services.*** The Internet Service for the System for Managing the Assessment of Student Health (wSMASH) was developed by DH to facilitate parents/guardians to make enquiries and reschedule appointments, view findings of annual health assessments and recommendations, and fill in the health assessment questionnaires of students. E-mails are sent to wSMASH users to remind them of the annual health assessment appointments. Audit examined the usage of wSMASH and noted that as of October 2022, there were 129,414 active wSMASH user accounts, representing about 22% of 575,580 average number of students enrolled in annual health assessments per year from 2017/18 to 2021/22, and the number of newly registered wSMASH user accounts decreased by 6,839 (45%) from 15,165 in 2017/18 to 8,326 in 2021/22. According to DH, SMASH (including wSMASH) will be replaced by the enhanced CIMS under the departmental-wide information technology enhancement plan (see para. 10). Among other features, the enhanced system will provide more online services, such as electronic enrolment and one-stop portal for appointment scheduling. As of February 2023, the new system was scheduled for implementation by the end of 2024 (paras. 4.16 to 4.19).

Audit recommendations

21. **Audit recommendations are made in the respective sections of this Audit Report. Only the key ones are highlighted in this Executive Summary. Audit has *recommended* that the Director of Health should:**

Annual health assessment

(a) **take measures to ensure that electronic enrolment service is provided as soon as practicable (para. 2.13(a));**

(b) **take measures to ensure that an appropriate interval is maintained between annual health assessments for students as far as practicable (para. 2.13(b));**

(c) **monitor the attendance rates of annual health assessments and explore further measures to improve the attendance, in particular secondary school students (para. 2.26(a));**

(d) **take measures to improve the procedures in collecting feedback on SHS (e.g. invite parents/guardians to complete the online questionnaires) with a view to further improving SHS (para. 2.26(b));**

(e) **take measures to ensure that health assessment activities for students of specific grades are provided as scheduled and justifications are documented for not doing so (para. 2.36(a));**

(f) **take measures to ensure that make-up health assessment activities are provided timely to students who have missed the activities in the preceding year and justifications are documented for not doing so (para. 2.36(b));**

(g) **take prompt follow-up actions on non-attendance cases of further assessments (para. 2.47(a));**

(h) **in the long run, explore the feasibility of using the new system to follow up cases referred from SHS to medical institutions when the enhanced CIMS is interfaced with eHRSS (para. 2.47(d));**

Adolescent Health Programme

(i) **review the basis of inviting schools to participate in AHP and take measures to ensure that AHP is provided to schools as appropriate (para. 3.9(a));**

(j) **conduct a review of the programme provided to parents and teachers under TP, including ascertaining the reasons for the low participation, and take measures to improve the programme (para. 3.9(b));**

(k) **keep under review the need to suitably adjust AHP (e.g. programme content and schedule) taking into account the impacts brought by the COVID-19 epidemic (para. 3.21(a));**

(l) **step up monitoring of NGOs' performance to ensure that facilitators are provided upon request as far as possible and supervisory observations on facilitators' performance are conducted as appropriate (para. 3.29(a));**

Other related issues

(m) **take measures to ensure that health profile reports are provided to schools and self-assessment checklists are submitted by schools in a timely manner as appropriate in future (para. 4.5(a));**

(n) **review the provision of special health talks, taking into account the needs of students, attendance rates and participants' feedback on the services (para. 4.10(a));**

(o) **review the provision of outreach health talks, taking into account the attendance rates, participants' feedback on the services and the reasons for rejecting the services (para. 4.10(b));**

(p) **closely monitor the progress of the fitting-out works to ensure the resumption of services at the West Kowloon Government Offices SHSC and SAC in November 2023 (para. 4.14); and**

(q) **take into account the audit findings and recommendations in this Audit Report in developing and promoting the online services under the new system for replacing wSMASH, and take measures to ensure that the new system is timely implemented (para. 4.20).**

Response from the Government

22. The Director of Health agrees with the audit recommendations.

PART 1: INTRODUCTION

1.1 This PART describes the background to the audit and outlines the audit objectives and scope.

Background

1.2 In view of the rapidly ageing population and increasing prevalence of chronic diseases, the Government is committed to actively promoting primary healthcare to tackle the increasing healthcare needs as well as to establish a sustainable public healthcare system. According to the Government, primary healthcare is the first point of contact for individuals and families in a continuous healthcare process which entails the provision of accessible, comprehensive, continuing, coordinated and person-centred care in the community. The Department of Health (DH) is the Government's health adviser and agency to execute healthcare policies and statutory functions. It safeguards the community's health through a range of promotive, preventive, curative and rehabilitative services. DH delivers healthcare services using a life-course approach through its various areas of work with emphasis on preventive care, including providing community-based health assessments, and preventive and education services to specific population groups (i.e. students, women and the elderly).

Student Health Service

1.3 The Student Health Service (SHS) of DH provides comprehensive, promotive and preventive health programmes for primary and secondary school

students according to their needs at various stages of development (Note 1). It aims to safeguard the physical and psychological health of school children, and enable them to gain the maximum benefit from the education system and to develop their potentials. According to DH, the objectives of SHS are as follows:

(a) promotion of self-reliance and self-care in prevention of ill health and maintenance of health;

(b) prevention of ill health and early detection of diseases through regular health screening and physical examination;

(c) provision of facilities for further assessment of disorders, and referral for early treatments and rehabilitation services; and

(d) identification and monitoring of health problems among students to facilitate the planning of health services.

1.4 SHS comprises:

(a) centre-based services which include annual health assessments, further assessments, other referrals and health education (see paras. 1.5 to 1.8); and

(b) school-based services which include:

Note 1: *In addition to SHS, DH also provides preventive healthcare services to children, women and the elderly as follows:*

(a) the Family Health Service, which operates through its Woman Health Centres and the Maternal and Child Health Centres, provides a range of health promotion and disease prevention services to children from birth to 5 years of age and to women aged 64 years and below; and

(b) the Elderly Health Service, which operates through its Elderly Health Centres and Visiting Health Teams, aims to enhance primary healthcare to elderly people living in the community, improve their self-care ability, encourage healthy living and strengthen family support so as to minimise illness and disability.

(i) the Adolescent Health Programme (AHP — see paras. 1.9 and 1.10); and

(ii) the Health Promoting School Programme (HPSP — see paras. 1.11 and 1.12).

Centre-based services

1.5 ***Services.*** Centre-based services are provided to both primary and secondary school students (Note 2) with the aim to identify students with health problems at an early stage for timely advice and intervention (Note 3). The services are provided at the Student Health Service Centres (SHSCs) and the Special Assessment Centres (SACs), which include:

(a) ***Annual health assessment.*** Students attend SHSCs annually for various health assessment activities to meet their needs at various stages of development. For example, body weight and height measurements, visual acuity tests, individual health counselling, hearing tests, spinal assessments and blood pressure measurements. The major health assessment activities provided at SHSCs are shown at Appendix A. As of February 2023, there were 13 SHSCs (see Table 1);

(b) ***Further assessments.*** Students with certain health problems identified during the annual health assessments are referred for further assessments. Further assessments provided under SHS include audiological assessments,

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Note 2: *According to DH, students of primary and secondary day schools are the target groups of centre-based services.*

Note 3: *According to DH, SHS is a preventive and promotive health programme instead of a therapeutic or rehabilitative one. Students with health and other problems are advised to seek further treatment, for example:*

(a) medical treatment at clinics of DH, the Hospital Authority or private practitioners for illnesses;

(b) advice from teachers or student guidance officers from the pertinent schools for academic problems; and

(c) social welfare services from the Social Welfare Department or non-governmental organisations for family problems.

dietetic assessments, further spinal assessments (Note 4), optometric assessments and psychological assessments. As of February 2023, there were 4 SACs providing all types of further assessments and 5 SHSCs providing some types of further assessments (see Table 2);

(c) ***Other referrals.*** Students in need of further assessments (other than those provided under SHS) and/or treatments are referred to clinics of DH or the Hospital Authority (HA), or other institutions for follow-up (see Note 3 above); and

(d) ***Health education.*** General health talks and workshops are provided for students attending the annual health assessments. Special health talks are provided to students with specific needs, and outreach health talks on "Diet and Health" are provided to schools with a high percentage of students attending the annual health assessments and schools with a high detection rate for overweight. To reinforce health messages, pamphlets and booklets are also distributed to students.

Note 4: *According to DH, for further spinal assessment, Moiré topography (a non-invasive and radiation-free procedure) is adopted for screening of suspected scoliosis. Depending on the conditions of the students, further follow-up by SHS and/or referral for X-ray examination may be arranged.*

Table 1

List of SHSCs
(February 2023)

SHSC
1. Chai Wan SHSC
2. Western SHSC (Note 1)
3. Lam Tin SHSC
4. Kowloon Bay SHSC
5. Kowloon City Lions Clubs SHSC
6. Tsz Wan Shan Wu York Yu SHSC
7. West Kowloon Government Offices SHSC (Note 1)
8. Sha Tin SHSC
9. Tai Po SHSC
10. Shek Wu Hui SHSC (Note 2)
11. South Kwai Chung SHSC
12. Tuen Mun SHSC
13. Yuen Long SHSC

Source: *DH records*

Note 1: *The Western SHSC and the West Kowloon Government Offices SHSC are located in Sheung Wan and Yau Ma Tei respectively.*

Note 2: *According to DH, the Shek Wu Hui SHSC would be reprovisioned in a new site in the North District with a target to commence operation in the third quarter of 2024.*

Table 2

List of SACs and SHSCs with further assessment services (February 2023)

SAC/SHSC	Assessment service				
	Audiological assessment	**Dietetic assessment**	**Further spinal assessment**	**Optometric assessment**	**Psychological assessment**
SACs with all types of further assessments					
1. Chai Wan SAC	✓	✓	✓	✓	✓
2. Western SAC	✓	✓	✓	✓	✓
3. Lam Tin SAC	✓	✓	✓	✓	✓
4. West Kowloon Government Offices SAC	✓	✓	✓	✓	✓
SHSCs with some types of further assessments					
1. Sha Tin SHSC	×	✓	✓	✓	✓
2. Tai Po SHSC	×	×	✓	×	×
3. Shek Wu Hui SHSC (Note)	×	×	✓	×	×
4. South Kwai Chung SHSC	×	✓	✓	×	×
5. Tuen Mun SHSC	✓	✓	×	✓	✓

Legend: ✓ Assessment available
× Assessment not available

Source: *Audit analysis of DH records*

Note: *According to DH, the Shek Wu Hui SHSC would be reprovisioned in a new site in the North District with a new SAC for providing all types of further assessments under SHS with a target to commence operation in the third quarter of 2024.*

1.6 ***Enrolment.*** Primary and secondary school students may enrol in the annual health assessments of SHS on a voluntary basis in every school year (Note 5) through the following means:

(a) ***Enrolment through schools.*** At the beginning of a school year, DH sends invitation letters and enrolment forms for annual health assessment of SHS to all schools (Note 6). Parents/guardians are required to complete the enrolment forms to indicate their consent for the students to join the service. Schools collect the completed forms and return them to DH for arranging appointments; and

(b) ***Direct enrolment.*** For students not enrolled at the beginning of the school year through schools, the enrolment form is available for collection at SHSCs or download on the SHS website. Parents/guardians are required to complete the enrolment forms to indicate their consent for the students to join the service, and send the completed forms directly to SHSCs on or before the last working day in August for arranging appointments before 31 October of the year (see para. 1.7).

1.7 ***Appointment and referral.*** An appointment for annual health assessment is scheduled for each enrolled student from 1 November of a year to 31 October of the following year (Note 7) in 1 of the 13 SHSCs according to the school's location. After the annual health assessments, students in need of further assessments provided under SHS (see para. 1.5(b)) are given appointments as appropriate. Table 3 shows the number of students with appointments for annual health assessments and the number of referrals for further assessments provided under SHS in 2017/18 to 2021/22.

Note 5: *Unless otherwise specified, all years mentioned in this Audit Report refer to school years, which start on 1 September of a year and end on 31 August of the following year.*

Note 6: *According to DH, invitation letters are sent according to a school list provided by the Education Bureau every year. In 2017/18 to 2021/22, invitation letters had been sent to about 1,200 schools per year.*

Note 7: *Unless otherwise specified, centre-based services (including annual health assessments, further assessments, and health talks and workshops) provided in a school year mentioned in this Audit Report refer to services provided from 1 November of a year to 31 October of the following year.*

Table 3

Numbers of students with appointments for annual health assessments and referrals for further assessments provided under SHS (2017/18 to 2021/22)

Year	Number of students with appointments	Number of referrals for further assessments provided under SHS
2017/18	633,430	73,952
2018/19	639,011	76,103
2019/20	376,363	19,470
2020/21	72,492	15,714
2021/22	284,404	43,007

Source: *Audit analysis of DH records*

Remarks: *According to DH, SHSCs were closed intermittently in 2019/20, 2020/21 and 2021/22 due to the outbreak of coronavirus disease (COVID-19) epidemic. In particular, in 2020/21, while the majority of SHSCs were closed most of the time, when they were open, annual health assessments were only provided to students of several grades (e.g. Primary 1, 2 and/or Secondary 1). Hence, the number of students with appointments and the number of referrals for further assessments provided under SHS in the period were significantly lower than those in other years.*

1.8 ***Service charge.*** SHS is free of charge for students holding valid identity documents, such as the Hong Kong Permanent Identity Card, Hong Kong Birth Certificate with permanent resident status and Hong Kong Special Administrative Region passport (i.e. eligible persons). Non-eligible persons, such as holders of travel documents (e.g. foreign passport and the Two-way Permit) showing their status as visitors, and holders of the Form of Recognizance, have to pay on the appointment day an annual fee (e.g. $535 for 2022/23).

AHP

1.9 ***Objectives.*** According to DH, adolescence is a period of transition with significant physical, psychological and social development. To empower adolescents

to face the challenges of growing up, DH launched AHP in 2001. AHP is a school-based outreach programme for secondary school students, their parents and teachers, and is implemented through psychological and physical health promotional activities. The programme is provided by a multi-disciplinary team comprising doctors, nurses, social workers, dietitians and clinical psychologists. The objectives are:

(a) promoting students' psychosocial health such as self-understanding and acceptance, emotion and stress management as well as harmonious interpersonal and problem-solving skills; and

(b) enhancing parents' and teachers' knowledge on adolescents' psychosocial health and equipping them with the appropriate skills to assist their children/students throughout the adolescence.

1.10 ***Programme features and enrolment.*** AHP adopts an interactive mode of training and experiential learning to deliver preventive programmes to the target audiences. In May each year, DH sends letters to secondary schools inviting them to enrol in AHP in the coming school year (Note 8). Schools may join either one or both of the following programmes (Note 9):

(a) ***Basic Life Skills Training (BLST).*** BLST is provided to Secondary 1 to 3 students to equip them with knowledge, attitude and skills that can empower them to face the challenges of growing up. Examples of skills covered in BLST are healthy living, self-acceptance and stress management; and

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Note 8: *Unless otherwise specified, programmes under AHP conducted in a school year mentioned in this Audit Report refer to programmes conducted from 1 August of a year to 31 July of the following year.*

Note 9: *According to DH, the outreach services of AHP have been severely affected by the COVID-19 epidemic due to the intermittent suspension of face-to-face classes/temporary closure of schools, the half-day school arrangement, and the deployment of DH staff to assist in anti-epidemic duties. As such, for 2020/21 to 2022/23, schools were only allowed to enrol in either one but not both programmes (see para. 1.10(a) and (b)). Subject to the manpower and resources of DH for AHP, both programmes may be offered upon requests from schools.*

(b) ***Topical Programme (TP).*** TP is provided to Secondary 1 to 6 students, and their parents and teachers. A wide range of topics are covered to meet the students' needs in different stages of their development, for example:

(i) for students — anxiety and adversity management, correct attitude and skills in learning, goal setting, sex education, and prevention on smoking, drinking and drug abuse; and

(ii) for parents and teachers — stress and emotion management, understanding adolescents, healthy use of the Internet, conflict management with adolescents, and handling of adolescent dating and love affairs.

Enrolled schools may select appropriate topics under BLST and/or TP for their participants, and work with DH to fit the programmes into their school schedules. Of the 508 secondary schools (except special schools) in 2021/22, 300 (59%) enrolled in AHP.

HPSP

1.11 ***The "health-promoting school" framework.*** The World Health Organization has been promoting a "health-promoting school" framework globally with a view to improving the health of students, school personnel, families and other members of the community through schools, and making every school a health-promoting school. In May 2018, DH set up a Working Group on Health Promoting School (Note 10) to explore the feasibility of extending the "health-promoting school" framework in Hong Kong.

1.12 ***Pilot HPSP.*** In March 2019, DH engaged 30 schools (including 18 primary schools, 11 secondary schools and 1 secondary-cum-primary school) to participate in a two-year pilot HPSP from 2019/20 to 2020/21 with the aim of assisting the participating schools in working towards becoming a health-promoting school, and helping DH to explore the feasibility of extending the "health-promoting school"

Note 10: *The Working Group on Health Promoting School is chaired by the head of the Family and Student Health Branch of DH (see para. 1.14), and comprises representatives from DH, the Education Bureau, a tertiary institution as well as school principals and parents.*

framework in Hong Kong. Under the programme, DH assists participating schools to identify specific health priorities and develop tailor-made school-based health promotion action plans by making reference to the health needs of their students to work towards the goal of building a healthy campus. According to DH, the pilot HPSP covers four health priority areas (i.e. physical activity, healthy eating, mental health and psychological health) with a focus on the following six key factors:

(a) healthy school policies (i.e. to establish and document policies and practices that promote health such as physical activity, healthy eating, mental health and anti-bullying);

(b) school's physical environment (i.e. to provide a safe, hygienic and healthy environment for learning);

(c) school's social environment (i.e. to create a caring, respectful and supportive ambience);

(d) community links (i.e. to link with different stakeholders and work proactively in partnership for health promotion in the community);

(e) action competencies for healthy living (i.e. to adopt a comprehensive curriculum that helps students acquire knowledge and skills for healthy living); and

(f) school health care and promotion services (i.e. to provide basic disease prevention, protection and health promotion services).

Due to the outbreak of the COVID-19 epidemic, the pilot HPSP was extended to 2022/23.

The Primary Healthcare Blueprint

1.13 In December 2022, the Government released the Primary Healthcare Blueprint to formulate the direction of development and strategies for strengthening Hong Kong's primary healthcare system in a bid to shift the emphasis of the present healthcare system and people's mindset from treatment-oriented to prevention-oriented for addressing the challenges brought about by an ageing

population and the increasing prevalence of chronic diseases, with a view to enhancing the overall health and quality of life of citizens. The Blueprint puts forward the major directions of primary healthcare reform, including, among others, to progressively migrate primary healthcare services under DH to a district-based community health system. The migration will be implemented in two phases. Phase I includes the Elderly Health Centres, the Woman Health Centres (see Note 1 to para. 1.3), and the various public-private partnership programmes under DH. Phase II includes SHSCs, and Maternal and Child Health Centres (see Note 1 to para. 1.3). According to DH, as of January 2023, it was working on the migration plan with the Health Bureau.

Responsible branch

1.14 SHS is provided through the Family and Student Health Branch under the service area of the Health Services and Administration of DH (Note 11). The Branch is headed by a Consultant and supported by doctors, nurses, allied health staff (e.g. clinical psychologists and dietitians), and administrative and supporting staff of SHS. As at 31 March 2022, the staff establishment of SHS was 437, including 40 doctors, 248 nurses, 22 allied health staff, and 127 administrative and supporting staff (Note 12). An extract of the organisation chart of DH as at 31 October 2022 is at Appendix B. In 2021-22, the expenditure incurred by DH for SHS amounted to about $305 million (Note 13).

Note 11: *Apart from SHS, the Family and Student Health Branch is also responsible for the Family Health Service (see Note 1(a) to para. 1.3).*

Note 12: *According to DH:*

(a) as at 31 March 2022, the strength of SHS was 391, including 30 doctors, 221 nurses, 21 allied health staff, and 119 administrative and supporting staff, representing 75%, 89%, 95% and 94% of the establishment respectively; and

(b) between 2020 and 2022, due to the impact of the COVID-19 epidemic, a significant proportion of SHS staff was deployed to assist in anti-epidemic duties. Moreover, there were many vacancies in these few years.

Note 13: *The expenditure for SHS increased by $15 million (5%) from $290 million in 2017-18 to $305 million in 2021-22.*

Audit review

1.15 In November 2022, the Audit Commission (Audit) commenced a review of SHS. The audit review has focused on the following areas:

(a) annual health assessment (PART 2);

(b) AHP (PART 3); and

(c) other related issues (PART 4).

Audit has found room for improvement in the above areas and has made a number of recommendations to address the issues.

General response from the Government

1.16 The Director of Health agrees with the audit recommendations. He appreciates Audit's efforts in conducting the audit review of SHS and putting forward recommendations which provide useful reference for improving the services. He has said that:

(a) between 2020 and 2022, due to the impact of the COVID-19 epidemic, a significant proportion of SHS staff was deployed to assist in anti-epidemic duties. For example, in February 2020, 19 doctors, more than 180 nurses, and more than 50 supporting staff from SHS were deployed. Also, the provision of centre-based services and delivery of school programmes of SHS were seriously affected by the COVID-19 epidemic, including closure of health centres and class suspension in schools. For instance, all annual health assessment services at SHSCs and all school outreach services of AHP had been suspended intermittently for 17 months and 15 months respectively in the past 3 years. Some of the findings in this audit review, in particular the figures for 2019/20 to 2021/22, reflected the impact of the epidemic on service provision; and

(b) there has been a serious problem of manpower shortage in recent years, in particular for doctors and nurses, in SHS as well as in the whole Department. As at 31 March 2022, the vacancy for doctors and nurses in

SHS were 25% and 11% of the respective staff establishments, while the vacancy figures for doctors and nurses were 30% and 10% respectively as at 1 March 2023. DH will take into account the findings and recommendations of this audit review as well as manpower constraints to continue implementing measures to provide quality health services and programmes for students.

Acknowledgement

1.17 Audit would like to acknowledge with gratitude the full cooperation of the staff of DH during the course of the audit review.

PART 2: ANNUAL HEALTH ASSESSMENT

2.1 This PART examines the provision of the annual health assessment services under SHS, focusing on the following areas:

(a) enrolment and appointment of annual health assessments (paras. 2.2 to 2.14);

(b) attendance of annual health assessments (paras. 2.15 to 2.27);

(c) health assessment activities (paras. 2.28 to 2.37); and

(d) referrals and follow-ups (paras. 2.38 to 2.48).

Enrolment and appointment of annual health assessments

2.2 Primary and secondary school students may enrol in the annual health assessments on a voluntary basis in every school year. According to DH, an appointment for annual health assessment is scheduled for each enrolled student in a school year in one of the SHSCs according to the school's location.

Need to digitalise the enrolment process

2.3 ***Enrolment forms.*** At the beginning of a school year, DH sends invitation letters and enrolment forms for annual health assessment to all schools. The forms are also available for collection at SHSCs and for download on the SHS website. Parents/guardians are required to complete the enrolment forms in paper format and return them through schools at the beginning of a school year or directly to DH on or before the last working day in August of the school year (see para. 1.6). Different forms are used for primary and secondary school students. By completing the form, primary school students may enrol in DH's School Dental Care Service (SDCS) at the same time.

2.4 ***Data input.*** DH uses a computer system, namely, the System for Managing the Assessment of Student Health (SMASH), to record students' particulars (e.g. personal information, assessment results and health history) and manage appointments under SHS. Depending on the school locations of the enrolled students, the enrolment forms are sent to the responsible SHSCs for data input into SMASH (Note 14) or checking and updating records of SMASH (Note 15). Audit noted that:

(a) according to DH, in general, two to four minutes were used to input data for a newly enrolled student (e.g. Primary 1 student), and one to five minutes were used to check and update SMASH records for a student who had enrolled in annual health assessments previously. Audit estimated that a total of 10,662 man-hours had been used to input data and check/update SMASH records for the 587,261 students enrolled in annual health assessments in 2021/22 (Note 16); and

(b) an internal review conducted by DH in 2017 for improving SHS's efficiency recommended the digitalisation of annual health assessment enrolment process to save time costs and improve accuracy.

According to DH, it has been developing a new system which will provide, among other features, electronic enrolment service by the end of 2024 (see para. 4.18). Audit considers that DH needs to take measures to ensure that electronic enrolment service is provided as soon as practicable with a view to saving the data entry costs and improving efficiency.

Note 14: *For primary school students, staff of SHS and SDCS collaborate for the data input (staff of SHS is responsible for data input for Primary 1 students, and staff of SDCS is responsible for data input for Primary 2 to 6 students). For secondary school students, staff of SHS is responsible for the data input.*

Note 15: *For Primary 2 to 6 students, upon receiving the data from SDCS (see Note 14), staff of SHS will check and update the SMASH records with the data received. For students of other grades who had enrolled in annual health assessments previously, staff of SHS will check and update the SMASH records with the paper forms.*

Note 16: *In 2021/22, of the 587,261 students enrolled in annual health assessments, 52,436 were Primary 1 students and 534,825 were students other than Primary 1. Assuming 2 minutes were used for data input for each Primary 1 student, 1,748 man-hours (52,436 students × 2 minutes ÷ 60 minutes) had been used. Assuming 1 minute was used for checking and updating SMASH record for each student other than Primary 1, 8,914 man-hours (534,825 students × 1 minute ÷ 60 minutes) had been used. Hence, a total of 10,662 (1,748 + 8,914) man-hours had been used.*

Need to maintain appropriate intervals between annual health assessments

2.5 According to SHS operation manual:

(a) students from the same school and grade are scheduled to attend the annual health assessment together as far as possible;

(b) in general, all schools are segregated into two groups of comparable size for appointment scheduling. Students of the first and the second school groups are given appointments in the first half (from November to April) and second half (from May to October) of a school year respectively; and

(c) schools should remain in the same group as far as possible so that student appointments in two consecutive years are not too close (i.e. less than 180 days).

2.6 Audit analysed the interval between the date of appointment of annual health assessment in a year and the date of the last annual health assessment and found that for 2017/18 to 2021/22, the intervals between the appointments in the respective years and the last assessments of 177 to 730 students were 90 days or less (see Table 4).

Table 4

Intervals between appointments of annual health assessment in respective years and last annual health assessments (2017/18 to 2021/22)

Interval	Number of students				
	2017/18	**2018/19**	**2019/20**	**2020/21**	**2021/22**
90 days or less	730	718	523	0	177
91 to 180 days	5,305	5,026	5,130	0	3,428
More than 180 days (Note 1)	627,395	633,267	370,710	72,492 (Note 2)	280,799
Total	633,430	639,011	376,363	72,492	284,404

Source: *Audit analysis of DH records*

Note 1: *These figures included students enrolled in SHS for the first time and students not enrolled in SHS in consecutive school years.*

Note 2: *Due to the outbreak of the COVID-19 epidemic, SHSCs were closed between February and October 2020. Hence, the intervals between the appointments in 2020/21 and the last appointments were all more than 180 days (the shortest interval was 284 days).*

2.7 According to DH, there might be circumstances where appointments for annual health assessments were arranged with an interval less than 180 days, for example:

(a) when a student was promoted from Primary 6 to Secondary 1, and the primary and secondary schools concerned were in the second school group and the first school group respectively (see para. 2.5(b));

(b) when a student was transferred from one school to another in the middle of the year; or

(c) when the appointments for annual health assessments were rescheduled.

In Audit's view, the appointments of two consecutive annual health assessments of a student should not be too close. Otherwise, it might not make the most of the assessments in monitoring students' health at various stages of their development, and identifying students' needs for health advice and timely intervention (see para. 1.5). Audit considers that DH needs to take measures to ensure that an appropriate interval is maintained between annual health assessments for students as far as practicable.

Need to record reasons for cancelling appointments

2.8 According to DH, an appointment is provided to each enrolled student in a school year. Audit analysis of the number of students enrolled and the number of appointments provided in 2017/18 to 2021/22 found that some enrolled students were not provided with appointments (see Table 5).

Table 5

Number of enrolled students not provided with appointments (2017/18 to 2021/22)

Year	Number of students		
	Enrolled (a)	Enrolled and provided with appointments (b)	Enrolled and not provided with appointments (c) = (a) − (b)
2017/18	633,705	633,430	275
2018/19	639,234	639,011	223
2019/20	632,842	376,363	256,479
2020/21	384,856	72,492	312,364
2021/22	587,261	284,404	302,857

Source: Audit analysis of DH records

2.9 Upon enquiry about the reasons for not providing appointments to some enrolled students, DH informed Audit in January 2023 that:

(a) in 2017/18 and 2018/19, DH had provided an appointment to each enrolled student. However, some appointments had been cancelled and not rescheduled due to various reasons. For example, for rescheduling an appointment to a date beyond two months (Note 17), DH would cancel the original appointment and request the parent/guardian to contact DH within two months of the preferred date for making another appointment. Since some parents/guardians did not contact DH, no appointment was arranged; and

(b) in 2019/20 to 2021/22, due to the outbreak of the COVID-19 epidemic, SHSCs were closed intermittently. A significant number of enrolled students was not provided with any appointments for annual health assessments or had cancelled their appointments. DH did not maintain statistics on the number of students not provided with an appointment due to the temporary closure of SHSCs and the number of students who cancelled their appointments for other reasons.

2.10 To ensure that more students can benefit from the annual health assessments, Audit considers that DH needs to record the reasons for cancelling the appointments of annual health assessments and take follow-up actions as appropriate (e.g. remind parents/guardians to make appointments in case the preferred date of appointment is beyond two months).

Need to review rescheduling arrangements

2.11 ***Types of appointments relating to annual health assessments.*** In addition to appointments for annual health assessments, the following appointments may also be provided to students:

(a) ***Follow-up appointments of annual health assessments.*** Follow-up appointments of annual health assessments are arranged for students who have not completed all required health assessment activities in the annual health assessments due to various reasons (e.g. students who need to wear glasses but have not brought the glasses) or students with health conditions

Note 17: *According to DH, rescheduling of appointment could only be arranged within two months.*

that need short-term follow-up (e.g. blood pressure, growth and puberty issues); and

(b) ***Rescheduling of appointments for annual health assessments.*** Upon parents'/guardians' requests, rescheduling of appointments for annual health assessments can be arranged in the same school year for students who have not attended the annual health assessments (i.e. non-attendance).

2.12 ***Limitations in rescheduling appointments.*** Parents/guardians may reschedule appointments by calling individual SHSCs, calling the SHS central call centre (Note 18) or through a registered account for using the online service (i.e. Internet Service for the System for Managing the Assessment of Student Health — wSMASH). Audit noted the following limitations in the rescheduling arrangements:

(a) ***Rescheduling means not applicable to all types of appointments.*** The means for rescheduling appointments vary. For example, appointments for annual health assessments could only be rescheduled by calling individual SHSCs directly or through wSMASH but not by calling the SHS central call centre. On the other hand, follow-up appointments of annual health assessments (see para. 2.11(a)) could be rescheduled only by calling individual SHSCs; and

(b) ***Inadequacies of wSMASH.*** 24 daily quotas for each SHSC were set for rescheduling appointments through wSMASH regardless of the actual availability of appointments. If the quotas were used up, no rescheduling could be arranged.

According to the survey conducted by DH, being "unable to change to an ideal appointment time" was one of the major reasons for non-attendance of annual health assessments (see para. 2.19(b)(ii)). In light of the audit findings, Audit considers that DH needs to review the rescheduling arrangements with a view to facilitating parents/guardians in making appointments.

Note 18: *The SHS central call centre, which commenced operation in September 2019, is mainly for rescheduling appointments for non-attendance cases (see para. 2.11(b)).*

Audit recommendations

2.13 **Audit has *recommended* that the Director of Health should:**

(a) **take measures to ensure that electronic enrolment service is provided as soon as practicable;**

(b) **take measures to ensure that an appropriate interval is maintained between annual health assessments for students as far as practicable;**

(c) **record the reasons for cancelling the appointments of annual health assessments and take follow-up actions as appropriate; and**

(d) **review the rescheduling arrangements with a view to facilitating parents/guardians in making appointments.**

Response from the Government

2.14 The Director of Health agrees with the audit recommendations and will follow up accordingly.

Attendance of annual health assessments

2.15 Appointment letters, with information on the SHSC allocated, and the appointment date and time of the annual health assessment, are sent to enrolled students about one month before the appointment date or before the commencement of summer holiday. Parents/guardians are encouraged to accompany the students to attend the annual health assessments.

Need to monitor attendance rates of some grades

2.16 ***Attendance rates.*** Audit analysis of the attendance rates of annual health assessments in 2017/18 to 2021/22 found that the overall attendance rates for the period ranged from 30% to 70%, of which the attendance rates of secondary school students were lower than those of primary school students (see Table 6).

Table 6

Attendance rates of annual health assessments (2017/18 to 2021/22)

	2017/18	2018/19	2019/20	2020/21	2021/22
Number of students with appointments					
Primary school (a)	345,208	356,163	196,277	44,138	151,524
Secondary school (b)	288,222	282,848	180,086	28,354	132,880
Total (c) = (a) + (b)	633,430	639,011	376,363	72,492	284,404
Number of students who attended the assessments					
Primary school (d)	286,039	299,814	71,256	31,698	94,204
Secondary school (e)	141,311	147,023	42,995	19,072	62,317
Total (f) = (d) + (e)	427,350	446,837	114,251	50,770	156,521
Attendance rate					
Primary school (g) = (d) ÷ (a) × 100%	83%	84%	36%	72%	62%
Secondary school (h) = (e) ÷ (b) × 100%	49%	52%	24%	67%	47%
Overall (i) = (f) ÷ (c) × 100%	67%	70%	30%	70%	55%

Source: *Audit analysis of DH records*

Remarks: *According to DH, SHSCs were closed intermittently in 2019/20, 2020/21 and 2021/22 due to the outbreak of the COVID-19 epidemic. In particular, in 2020/21, while the majority of SHSCs were closed most of the time, when they were open, annual health assessments were only provided to students of several grades (e.g. Primary 1, 2 and/or Secondary 1). Hence, the appointment and attendance figures in the period were significantly lower than those in other years.*

2.17 ***Lower attendance rates of students of higher grades.*** Audit further analysed the attendance rates of students of different grades in 2021/22 and found that:

(a) for primary school students, while the attendance rate of Primary 1 students was 79%, the attendance rates of Primary 2 to 6 students ranged from 52% to 59%; and

(b) for secondary school students, the attendance rates were lower for higher grades (attendance rates of Secondary 1 to 6 students were 64%, 48%, 46%, 39%, 34% and 30% respectively).

2.18 According to DH, it has taken various measures to improve the attendance rates, including:

(a) providing school bus service (see paras. 2.21 to 2.23);

(b) sending mobile phone short message service (SMS) messages and e-mails to parents/guardians for reminding students to attend the annual health assessments (Note 19); and

(c) sending mobile phone SMS messages to remind parents/guardians to reschedule appointments in cases of non-attendance of the annual health assessments (see para. 2.11(b)) (Note 20).

Despite the above measures, Audit noted that the attendance rates of students of some grades were still not high, in particular for students of higher grades (see Table 6 in para. 2.16 and para. 2.17). Audit considers that DH needs to monitor the attendance

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Note 19: *Mobile phone SMS messages are sent to all parents/guardians and e-mails are sent to all wSMASH users to remind students to attend the annual health assessments.*

Note 20: *DH started to send mobile phone SMS messages on 4 September 2019. Due to the outbreak of the COVID-19 epidemic, DH suspended such practice between 29 January 2020 and 31 October 2022. In the period between 4 September 2019 and 28 January 2020, DH sent messages to parents/guardians of 53,498 students and rescheduled appointments for 8,380 (16%) of them.*

rates of annual health assessments and explore further measures to improve the attendance, in particular secondary school students.

Need to improve procedures in collecting feedback on SHS

2.19 To ascertain the reasons for non-attendance of annual health assessments, DH has taken the following measures:

(a) ***Telephone surveys conducted in 2018 and 2019.*** DH conducted telephone surveys in December 2018 and December 2019 with parents/guardians of students who had not attended the annual health assessments in August 2018 and August 2019 respectively. In both years, 288 telephone surveys were conducted (Note 21). According to the survey results, the major reasons for non-attendance were as follows:

(i) for the December 2018 survey, the major reasons for non-attendance were "forgot the appointment time" (58%), "not in Hong Kong on the appointment date" (15%) and "no spare time" (8%); and

(ii) for the December 2019 survey, the major reasons for non-attendance were "forgot the appointment time" (53%), "not in Hong Kong on the appointment date" (19%) and "appointment time crashed with other activity" (10%); and

(b) ***Online questionnaire.*** In February 2020, DH launched an online questionnaire on the SHS website to collect feedback on SHS, including the reasons for non-attendance. Audit examination of the records of the online questionnaires of February 2020 to October 2022 found that:

(i) 55, 21 and 11 questionnaires were completed in 2019/20 (about nine months from February 2020 to October 2020), 2020/21 and 2021/22 respectively; and

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Note 21: *According to DH, the surveys were conducted on a sample basis, 24 samples were selected from each of the 12 SHSCs at that time (the West Kowloon Government Offices SHSC commenced operation in November 2019), therefore, 288 (12 × 24) telephone surveys were conducted each year.*

(ii) the major reasons for non-attendance were "forgot the appointment time" (21%), "unable to change to an ideal appointment time" (19%), "appointment time crashed with other activity" (15%), and "no appointment letter/lost appointment letter" (13%).

2.20 Audit noted that the online questionnaire was just put on the SHS website and no invitation for completing the questionnaire was sent to parents/guardians. As a result, only 87 (55 + 21 + 11) questionnaires were completed in three years (see para. 2.19(b)(i)). Audit considers that DH needs to take measures to improve the procedures in collecting feedback on SHS (e.g. invite parents/guardians to complete the online questionnaires), in particular the reasons for non-attendance, with a view to further improving SHS.

Need to review provision of school bus service

2.21 To facilitate students attending the annual health assessments, DH has provided free school bus service for students and their parents/guardians from schools to SHSCs since 2006. In June each year, DH invites schools to enrol in the school bus service for the next school year. Schools need to return a reply slip to DH for enrolling in the school bus service (Note 22). DH will then request further details from individual schools (e.g. the grades enrolling in the service, and the number of students and parents/guardians involved) for arranging the school bus service on the appointment dates of annual health assessments.

Note 22: *DH engaged service providers to provide the school bus service every year by quotation. The payment to the service providers was based on the number of bus trips provided with fixed prices on single trip and round trips. Audit analysis of payment records revealed that:*

(a) in 2017/18 and 2018/19, 5,246 and 5,198 bus trips were provided respectively. The expenditure was about $2.55 million per year; and

(b) due to the outbreak of the COVID-19 epidemic, SHSCs were closed intermittently in 2019/20, 2020/21 and 2021/22, and 1,726, 0 and 1,125 bus trips were provided to schools respectively. The expenditures in 2019/20 and 2021/22 were $0.87 million and $0.47 million respectively.

2.22 Upon enquiry, DH informed Audit in February 2023 that there was no readily available information on the schools and grades enrolled in the school bus service as well as the number of students and parents/guardians involved. Based on the bus trip records and attendance records of annual health assessments in 2018/19 (Note 23), Audit found that:

(a) students of 1,190 schools enrolled in the annual health assessments, of which 263 (22%) schools enrolled in the school bus service; and

(b) the average attendance rate of the 263 schools enrolled in school bus service (83%) was generally higher than that of the 927 (1,190 less 263) schools not enrolled in the service (63%).

2.23 While the analysis in paragraph 2.22(b) showed that the attendance rates of annual health assessments were generally higher for schools enrolled in the school bus service, the enrolment rate in such service was not high (see para. 2.22(a)). In this connection, Audit considers that DH needs to compile management information (e.g. the number of schools and grades enrolled, the number of students and parents/guardians involved and feedback from schools) for reviewing the provision of school bus service including the effectiveness, and take follow-up actions as appropriate (e.g. further promoting or improving the service).

Need to consider compiling management information on number of students accompanied by parents/guardians in annual health assessments

2.24 Parents/guardians are encouraged to accompany students to attend annual health assessments (see para. 2.15) and they can also use the free school bus service provided by DH with the students (see para. 2.21). Upon enquiry, DH informed Audit in January 2023 that:

(a) it did not maintain statistics on the number of students accompanied by parents/guardians in their annual health assessments;

Note 23: *Audit selected the records of 2018/19 to further examine the provision of school bus service without the impact of the COVID-19 epidemic.*

(b) as parents/guardians of Primary 2, 4 and 6 students were required to complete health assessment questionnaires of the students (see Appendix A), the number of questionnaires completed could be taken as the number of students accompanied by parents/guardians. In 2017/18 to 2021/22, the percentage of Primary 2, 4 and 6 students attending annual health assessments with parents/guardians ranged from 69% to 93%; and

(c) from November 2022, parents/guardians could fill in the questionnaires online through wSMASH. The number of questionnaires completed could not be taken as the number of students accompanied by parents/guardians in their annual health assessments since 2022/23.

2.25 Although DH will issue reports on students' assessment results to parents/guardians, direct and two-way communications between DH staff and parents/guardians facilitate the monitoring of the students' health conditions. Audit considers that DH needs to consider compiling management information on the number of students attending the annual health assessments with parents/guardians, and explore measures to encourage and facilitate parents'/guardians' attendance as appropriate.

Audit recommendations

2.26 **Audit has *recommended* that the Director of Health should:**

(a) **monitor the attendance rates of annual health assessments and explore further measures to improve the attendance, in particular secondary school students;**

(b) **take measures to improve the procedures in collecting feedback on SHS (e.g. invite parents/guardians to complete the online questionnaires), in particular the reasons for non-attendance, with a view to further improving SHS;**

(c) **compile management information (e.g. the number of schools and grades enrolled, the number of students and parents/guardians involved and feedback from schools) for reviewing the provision of**

school bus service including the effectiveness, and take follow-up actions as appropriate; and

(d) **consider compiling management information on the number of students attending the annual health assessments with parents/guardians, and explore measures to encourage and facilitate parents'/guardians' attendance as appropriate.**

Response from the Government

2.27 The Director of Health agrees with the audit recommendations and will follow up accordingly.

Health assessment activities

2.28 According to DH, annual health assessments help identify students with health problems at an early stage for timely advice and intervention. Different health assessment activities are provided for students to meet their needs at various stages of development when they attend the annual health assessments (see para. 1.5(a)).

Need to provide health assessment activities as scheduled

2.29 Some health assessment activities are scheduled for students of specific grades in the annual health assessments, for example, colour vision tests are only provided to Primary 6 students and hearing tests are only provided to Primary 1 and Secondary 2 students (see Appendix A). Audit examined the provision of colour vision tests and hearing tests in 2019/20 to 2021/22 and found that 325 students had attended the annual health assessments but were not provided with the tests (see Table 7).

Table 7

Students who attended annual health assessments not provided with colour vision tests or hearing tests (2019/20 to 2021/22)

Type of test not provided	Number of students			
	2019/20	2020/21	2021/22	Total
Colour vision test in Primary 6	72	1	70	143
Hearing test in Primary 1	11	47	60	118
Hearing test in Secondary 2	34	1	29	64
Total	117	49	159	325

Source: Audit analysis of DH records

2.30 Audit further examined records of 30 of the 325 students not provided with the colour vision tests or hearing tests as scheduled and noted that:

(a) for 11 (37%) students, the reasons for not providing the tests were not recorded (Note 24); and

(b) for the remaining 19 (63%) students, the reasons for not providing the tests varied, for example, the students concerned had known colour vision/hearing problems and/or were followed up by specialists or follow-up appointments (see para. 2.11(a)) had been arranged.

As some health assessment activities are only for students of specific grades (e.g. colour vision tests are only provided to Primary 6 students), Audit considers that DH needs to take measures to ensure that such health assessment activities are provided to students as scheduled and justifications are documented for not doing so.

Note 24: *According to DH, make-up tests had been provided to 7 of these 11 students during subsequent annual health assessments.*

Need to provide health assessment activities timely for students missing activities in the preceding year

2.31 According to DH, a student who missed a health assessment activity in a specific year is provided with the missed activity at the student's annual health assessment in the year after (i.e. make-up test). For example, if a student missed the hearing test in Primary 1 (see para. 2.29), he/she will be provided with a make-up hearing test in Primary 2. Audit examination of the relevant records revealed that no make-up colour vision tests or hearing tests were provided to 938 students in 2020/21 and 2021/22 who had missed the colour vision tests or the hearing tests in the preceding year (see Table 8).

Table 8

Students who missed colour vision tests or hearing tests in preceding year not provided with make-up tests in respective years (2020/21 and 2021/22)

Type of make-up test not provided	Number of students		
	2020/21	2021/22	Total
Colour vision test in Secondary 1	275	360	635
Hearing test in Primary 2	81	49	130
Hearing test in Secondary 3	1	172	173
Total	357	581	938

Source: *Audit analysis of DH records*

Remarks: *The number of students who were not provided with the make-up tests in a year also included students who had not enrolled in the annual health assessments in the preceding year.*

2.32 Audit noted that there was no documentation on the justifications for not providing the make-up tests. As SHSCs were closed intermittently in 2019/20 to 2021/22 due to the outbreak of the COVID-19 epidemic and annual health assessments were only provided to several grades (e.g. Primary 1, 2 and/or Secondary 1) in some periods, it was not uncommon for some students missing the health assessment activities scheduled for a specific grade. Audit considers that DH needs to take measures to ensure that make-up health assessment activities are provided timely to

students who have missed the activities in the preceding year and justifications are documented for not doing so.

Need to review arrangements for health assessment questionnaires

2.33 According to DH, the health assessment questionnaire is a screening tool which helps assess the lifestyle, physical and psychosocial health of students. The results of the health assessment questionnaires are combined with information collected during individual health counselling for giving appropriate health advice to students. Students of Primary 4 and 6, and Secondary 2, 4 and 6 are required to complete the health assessment questionnaires when they attend the annual health assessments (see Appendix A).

2.34 According to DH, to allow flexibility, individual SHSCs could decide the arrangements on the distribution of questionnaires. Audit noted that:

(a) staff of the SHSCs might distribute the questionnaires upon students' registration or right before students attending the individual health counselling;

(b) students might make use of the waiting time in between different health assessment activities to complete the questionnaires. There were 88 questions in the questionnaires for Primary 4 and 6 students, and 30 and 143 questions (including 1 open-ended question) in the questionnaires for Secondary 2, and Secondary 4 and 6 students respectively;

(c) in December 2015, DH revised the health assessment questionnaires for improving the effectiveness of the questionnaires in assessing students' behaviours; and

(d) in a DH meeting held in November 2021, concerns had been raised about the difficulties for students to complete the questionnaires within a short period of time. It was agreed that further review would be conducted as deemed necessary. As of February 2023, the review had not been conducted.

2.35 Given the large number of questions involved, students may not be given sufficient time to complete the health assessment questionnaires, in particular for younger students (see para. 2.34(b)). Audit considers that DH needs to review the arrangements for the health assessment questionnaires, including the number of questions and the time available for students to complete the questionnaires.

Audit recommendations

2.36 **Audit has *recommended* that the Director of Health should:**

(a) **take measures to ensure that health assessment activities for students of specific grades are provided as scheduled and justifications are documented for not doing so;**

(b) **take measures to ensure that make-up health assessment activities are provided timely to students who have missed the activities in the preceding year and justifications are documented for not doing so; and**

(c) **review the arrangements for the health assessment questionnaires, including the number of questions and the time available for students to complete the questionnaires.**

Response from the Government

2.37 The Director of Health agrees with the audit recommendations and will follow up accordingly.

Referrals and follow-ups

2.38 Students with certain health problems identified during annual health assessments are referred for further assessments. Further assessments provided under SHS include audiological assessments, dietetic assessments, further spinal assessments, optometric assessments and psychological assessments (see para. 1.5(b)). For further assessments other than those provided under SHS and/or treatments, students are referred to clinics of DH or HA, or other institutions for follow-up (see para. 1.5(c)).

Need to follow up non-attendance cases

2.39 ***Attendance rates of further assessments provided under SHS.*** Audit analysis of the attendance rates of the further assessments provided under SHS in 2017/18 to 2021/22 revealed that the overall attendance rates of the assessments ranged from 42% to 79% and the 5-year average attendance rates of the assessments ranged from 48% to 84% (see Table 9).

Table 9

Attendance rates of further assessments provided under SHS (2017/18 to 2021/22)

Further assessment	2017/18	2018/19	2019/20	2020/21	2021/22	5-year average
Audiological assessment	80%	83%	51%	90%	83%	78%
Dietetic assessment	50%	49%	32%	70%	54%	48%
Further spinal assessment	88%	91%	61%	84%	87%	84%
Optometric assessment	66%	62%	29%	75%	72%	59%
Psychological assessment	79%	81%	34%	84%	79%	68%
Overall	71%	72%	42%	79%	74%	67%

Source: Audit analysis of DH records

2.40 ***Non-attendance of dietetic assessments in consecutive years.*** Among the further assessments provided under SHS, the 5-year average attendance rate of dietetic assessments (48%) was the lowest (see Table 9 in para. 2.39). Audit's further examination of the attendance records of dietetic assessments provided in 2017/18 to 2021/22 found that:

(a) 2,872 to 14,773 students were referred for dietetic assessments after their annual health assessments each year; and

(b) 126 and 5 students referred for dietetic assessments had not attended the assessments for 3 and 4 consecutive years respectively.

2.41 Audit noted that students who had been referred for further assessments in a year would be followed up in their next annual health assessment regardless of whether they had attended the appointments for further assessments or not. As students' health problems might worsen over the years if they are not followed up timely, Audit considers that DH needs to take prompt follow-up actions (i.e. before the next annual health assessment) on non-attendance cases of further assessments (e.g. sending reminders to parents/guardians to reschedule appointments — see para. 2.18(c)).

Need to closely monitor waiting time for further assessments

2.42 Audit examination of the waiting time for further assessments provided under SHS in 2017/18 to 2021/22 revealed that there was no waiting time for further spinal assessments. The average waiting time for audiological assessments, dietetic assessments, optometric assessments and psychological assessments ranged from 1 to 30 weeks during the period (see Table 10).

Table 10

Average waiting time for audiological, dietetic, optometric and psychological assessments (Note)
(2017/18 to 2021/22)

Further assessment	Average waiting time (Week)				
	2017/18	**2018/19**	**2019/20**	**2020/21**	**2021/22**
Audiological assessment	5	4	4	1	2
Dietetic assessment	16	13	5	5	7
Optometric assessment	24	30	17	13	4
Psychological assessment	26	24	7	1	2

Source: *Audit analysis of DH records*

Note: *There was no waiting time for further spinal assessments in 2017/18 to 2021/22.*

2.43 As shown in Table 10 in paragraph 2.42, in 2017/18 and 2018/19, the waiting time for the four further assessments provided under SHS ranged from 4 to 30 weeks, and the waiting time had generally been shortened from 2019/20. According to DH, while SHSCs have been closed intermittently since early 2020 due to the outbreak of the COVID-19 epidemic, further assessments under SHS were still provided during most of the time and as a result, the waiting time had been shortened. With the resumption of annual health assessments, the number of referrals for further assessments is expected to increase. Audit considers that DH needs to closely monitor the waiting time for the further assessments provided under SHS and take follow-up actions as appropriate (e.g. deployment of resources to meet the demand).

Need to improve follow-up of referrals to medical institutions

2.44 Students in need of further assessments (other than those provided under SHS) and/or treatments are referred to clinics of DH or HA, or other institutions for follow-up (see para. 1.5(c)). For referrals from SHS, according to SHS operation manual:

(a) DH will provide the student concerned with a referral letter with clinical information and a reply slip with a return envelope;

(b) the referred specialist/institution is expected to complete the reply slip with details of actions taken/planned actions (e.g. diagnosis and management plan) and return the slip to DH (by using the return envelope or other means (e.g. fax)); and

(c) upon receipt of the reply slip, DH will record the conditions in the clinical records of the student concerned and follow up the case in the next annual health assessment.

2.45 Audit noted that DH did not have readily available information on the return rates of the reply slips of 2017/18 to 2021/22. Upon enquiry, DH informed Audit in March 2023 that:

(a) for referrals to non-medical institutions (e.g. schools for advice from teachers or student guidance officers for academic problems — see Note 3 to para. 1.5), if the institutions concerned did not return the reply slips, DH had called the institutions to follow up the cases;

(b) for referrals to psychiatrists of HA, since March 2021, DH has ceased to request for the reply slips (see para. 2.44(b)) and taken other measures (Note 25) as follows:

(i) between March 2021 and January 2023, it had sent lists of referrals to HA regularly requesting for update of the students' status and the dates of psychiatry appointments; and

(ii) for cases without HA psychiatry appointments reported on the lists (see (i) above), it had called the parents/guardians of the students concerned to remind them to arrange appointments with the psychiatrists and followed up the students' conditions; and

(c) for referrals to medical institutions (other than those to psychiatrists of HA), no follow-up actions had been taken for cases without receiving the reply slips.

In Audit's view, DH needs to explore measures to follow up referrals to medical institutions (other than those to psychiatrists of HA) if the reply slips for the referred cases were not returned.

2.46 ***Need to make use of new information technology system to follow up cases referred to medical institutions.*** DH has been implementing a departmental-wide information technology enhancement plan. Under the plan, the Clinical Information Management System (CIMS) of DH will be enhanced and SMASH will be replaced by the enhanced system. According to DH, the enhanced CIMS will be interfaced with the Electronic Health Record Sharing System (eHRSS — Note 26) of the Health Bureau for record sharing with eHRSS with patients' consent. As of February 2023, the new system was scheduled for implementation in SHS by the end of 2024. With the new system, DH would be able to access the clinical records of students referred to other medical institutions through eHRSS with students or their parents'/guardians'

Note 25: *According to DH, with increasing awareness and emphasis on the mental well-being of students, SHS is committed to enhance the service for psychosocial health of students.*

Note 26: *eHRSS is an information infrastructure which enables registered healthcare providers to view and share the electronic health records of registered patients with the patients' consent.*

consent. Audit considers that in the long run, DH needs to explore the feasibility of using the new system to follow up cases referred from SHS to medical institutions when the enhanced CIMS is interfaced with eHRSS.

Audit recommendations

2.47 **Audit has *recommended* that the Director of Health should:**

(a) **take prompt follow-up actions on non-attendance cases of further assessments;**

(b) **closely monitor the waiting time for the further assessments provided under SHS and take follow-up actions as appropriate;**

(c) **explore measures to follow up referrals to medical institutions (other than those to psychiatrists of HA) if the reply slips for the referred cases were not returned; and**

(d) **in the long run, explore the feasibility of using the new system to follow up cases referred from SHS to medical institutions when the enhanced CIMS is interfaced with eHRSS.**

Response from the Government

2.48 The Director of Health agrees with the audit recommendations and will follow up accordingly. He has said that in the long run, enrolment of students into eHRSS will be built into the enrolment process for SHS and all health data captured (including issues identified requiring follow-up) should be uploaded to the students' personal eHRSS records for reference by all other healthcare providers including family doctors.

PART 3: ADOLESCENT HEALTH PROGRAMME

3.1 This PART examines the implementation of AHP, focusing on the following areas:

(a) enrolment and participation (paras. 3.2 to 3.10);

(b) programme delivery (paras. 3.11 to 3.22); and

(c) on-site facilitator services provided by non-governmental organisations (NGOs) (paras. 3.23 to 3.30).

Enrolment and participation

3.2 ***Background.*** According to DH, AHP aims to empower adolescents to face the challenges of growing up. It is a school-based outreach programme for secondary school students, their parents and teachers (see para. 1.9). AHP comprises:

(a) ***BLST for Secondary 1 to 3 students.*** DH offers a series of topics for schools to select for each grade. Schools are recommended to select a minimum of 6 out of 10, 6 out of 9 and 5 out of 9 topics for students of Secondary 1, 2 and 3 respectively. A participating school indicates on the enrolment form the grades to enrol and the topics selected, and DH will arrange one programme session for each topic selected; and

(b) ***TP for secondary school students of all grades, and their parents and teachers.*** DH offers a series of topics for students, and their parents and/or teachers (Note 27). A participating school indicates on the enrolment form the topics selected and the target participants (i.e. grades of students, parents and/or teachers), and DH will arrange one programme session for each topic selected.

Note 27: *For TP, 33, 8 and 3 topics are available for students, parents only, and parents and teachers respectively.*

Table 11 shows the numbers of programme sessions conducted for BLST/TP and the student attendance of the programmes in 2017/18 to 2021/22.

Table 11

Numbers of programme sessions conducted for BLST/TP and student attendance (2017/18 to 2021/22)

Year	Number of programme sessions		Number of student attendance	
	BLST	TP	BLST	TP
2017/18	1,588	509	139,766	46,688
2018/19	1,591	510	137,564	45,594
2019/20	622	243	59,586	20,915
2020/21	184	90	16,968	8,477
2021/22	327	203	29,631	19,617

Source: *DH records*

Remarks: *According to DH, in 2019/20, 2020/21 and 2021/22, the outreach services of AHP were severely affected by the COVID-19 epidemic due to the intermittent suspension of face-to-face classes/temporary closure of schools, the half-day school arrangement, and the deployment of DH staff to assist in anti-epidemic duties. In particular, in 2020/21, the outreach services were suspended for about six months. Hence, the numbers of programme sessions conducted and the student attendance were significantly lower than those in other years.*

3.3 ***AHP offices.*** The AHP coordination office is responsible for the overall planning and implementation of AHP. Four AHP regional offices, namely the Hong Kong AHP Office, the Kowloon AHP Office, the New Territories East AHP Office, and the New Territories West AHP Office, are responsible for the planning and implementation of the programme in secondary schools on Hong Kong Island, and in Kowloon, the New Territories East and the New Territories West respectively.

Need to review basis of inviting schools to participate in AHP

3.4 In May each year, DH sends letters and information about AHP (Note 28) to secondary schools inviting them to enrol in the programme in the coming school year. Audit noted that in 2017/18 to 2021/22:

(a) on average, DH invited 314 (62%) of 506 secondary schools to enrol in AHP each year. Of these 314 schools, 305 (97%) enrolled in the programme (see Table 12); and

Table 12

Numbers of schools invited and enrolled in AHP
(2017/18 to 2021/22)

Year	Total number of schools (a)	Invited		Enrolled	
		Number of schools (b)	Percentage to total number of schools (c) = $\frac{(b)}{(a)} \times 100\%$	Number of schools (d)	Percentage to number of schools invited (e) = $\frac{(d)}{(b)} \times 100\%$
2017/18	506	315	62%	310	98%
2018/19	506	319	63%	307	96%
2019/20	504	313	62%	310	99%
2020/21	506	312	62%	300	96%
2021/22	508	313	62%	300	96%
Average	506	314	62%	305	97%

Source: Audit analysis of DH records

Note 28: *Information sent to schools included invitation letters from SHS and the Education Bureau, AHP leaflets, programme outlines and available topics, enrolment forms, and information on the scheduling arrangement.*

(b) in the 5-year period:

(i) 334 schools had enrolled in AHP at least once. Of these schools, 268 (80%) had enrolled every year (see Table 13); and

(ii) of the 506 secondary schools on average (see Table 12 in (a) above), 172 (506 less 334) (34%) schools had not enrolled in AHP for at least five years.

Table 13

Frequency of enrolment in AHP in 5-year period from 2017/18 to 2021/22

Frequency of enrolment	Number of schools enrolled
1	17 (5%)
2	9 (3%)
3	8 (2%)
4	32 (10%)
5	268 (80%)
Total	334 (100%)

Source: Audit analysis of DH records

3.5 Upon enquiry, DH informed Audit in December 2022 and February 2023 that:

(a) under the current practice, each year DH would send invitation letters to schools that had previously enrolled in AHP to enrol in the programme for the coming school year;

(b) interested schools without the invitation letters could approach DH for enrolment;

(c) subject to the availability of manpower and resources, DH would also call other schools to engage their interest in enrolling in the programme; and

(d) with the current manpower capacity, DH maintained the AHP service level at about 300 schools each year.

3.6 For 2017/18 to 2021/22, DH did not invite all secondary schools to enrol in AHP. Audit noted that while in the period 2017/18 to 2021/22, on average 305 (97%) of 314 schools invited had enrolled in AHP (see Table 12 in para. 3.4(a)), 172 (34%) of 506 secondary schools in Hong Kong had not enrolled in AHP for at least five years (see para. 3.4(b)(ii)). Since DH only invited schools that had previously enrolled in AHP to enrol in the programme for the coming school year, these 172 schools might not receive any invitation for participating in AHP. Audit considers that DH needs to review the basis of inviting schools to participate in AHP and take measures to ensure that AHP is provided to schools as appropriate.

Need to review programme provided to parents and teachers

3.7 TP for parents and teachers aims to enhance their knowledge on adolescents' psychosocial health and equip them with the appropriate skills to assist their children/students throughout the adolescence (see para. 1.9(b)). Schools may select topics under TP for parents and/or teachers to participate (see para. 3.2(b)). Audit examined the records of TP of 2017/18 to 2021/22 and noted that the participation of parents and teachers was on the low side (see Table 14).

Table 14

Parents'/teachers' participation in TP
(2017/18 to 2021/22)

Year	School enrolled in TP only (Note) (No.)	School selected topics for parents and/or teachers (No.)	Programme session provided		Parent participated (No.)	Teacher participated (No.)
			For parents (No.)	For teachers (No.)		
2017/18	193	8	8	0	220	0
2018/19	190	7	7	0	245	0
2019/20	200	6	6	0	194	0
2020/21	193	1	1	0	52	0
2021/22	217	3	2	1	85	32

Source: *Audit analysis of DH records*

Note: *According to DH, it only maintained statistics on the number of schools enrolled in BLST or BLST with TP, and TP only. Hence, the schools enrolled in TP only were included in this analysis.*

3.8 In view of the low parents'/teachers' participation in TP, Audit considers that DH needs to conduct a review of the programme, including ascertaining the reasons for the low participation, and take measures to improve the programme.

Audit recommendations

3.9 **Audit has *recommended* that the Director of Health should:**

(a) **review the basis of inviting schools to participate in AHP and take measures to ensure that AHP is provided to schools as appropriate; and**

(b) **conduct a review of the programme provided to parents and teachers under TP, including ascertaining the reasons for the low participation, and take measures to improve the programme.**

Response from the Government

3.10 The Director of Health agrees with the audit recommendations and will follow up accordingly.

Programme delivery

3.11 Enrolled schools select appropriate topics under BLST and/or TP for their participants. One programme session is arranged for each topic enrolled. DH will work with the enrolled schools to fit the programme sessions into the schools' schedules. Programmes are delivered by DH according to the agreed schedules. DH prepares bi-monthly reports on the commencement of programmes under BLST and TP for monitoring purpose. Audit analysed the bi-monthly reports of 2017/18 to 2021/22 and noted that in 2019/20 to 2021/22, scheduled programmes for some grades in some schools had not commenced (i.e. no programmes had been delivered in the whole school year) (see Table 15).

Table 15

Commencement of programmes in schools by grades under BLST and TP (2017/18 to 2021/22)

Grade	Number of schools with programmes commenced / Number of schools enrolled				
	2017/18	**2018/19**	**2019/20**	**2020/21**	**2021/22**
BLST					
Secondary 1	107 / 107 (100%)	109 / 109 (100%)	94 / 101 (93%)	47 / 85 (55%)	57 / 66 (86%)
Secondary 2	79 / 79 (100%)	74 / 74 (100%)	67 / 68 (99%)	8 / 18 (44%)	11 / 12 (92%)
Secondary 3	37 / 37 (100%)	37 / 37 (100%)	26 / 31 (84%)	3 / 6 (50%)	5 / 5 (100%)
TP					
Secondary 1	99 / 99 (100%)	105 / 105 (100%)	59 / 109 (54%)	27 / 75 (36%)	54 / 84 (64%)
Secondary 2	72 / 72 (100%)	80 / 80 (100%)	36 / 80 (45%)	11 / 32 (34%)	31 / 44 (70%)
Secondary 3	87 / 87 (100%)	82 / 82 (100%)	43 / 86 (50%)	10 / 38 (26%)	23 / 35 (66%)
Secondary 4	85 / 85 (100%)	75 / 75 (100%)	26 / 76 (34%)	20 / 48 (42%)	33 / 50 (66%)
Secondary 5	62 / 62 (100%)	57 / 57 (100%)	24 / 56 (43%)	10 / 27 (37%)	29 / 35 (83%)
Secondary 6	16 / 16 (100%)	12 / 12 (100%)	11 / 14 (79%)	2 / 10 (20%)	10 / 15 (67%)

Legend: Scheduled programmes of some schools not commenced

Source: Audit analysis of DH records

Need to keep under review the need to adjust AHP in light of impacts brought by COVID-19 epidemic

3.12 As shown in Table 15 in paragraph 3.11, the numbers of enrolled schools and schools with programmes commenced in 2019/20 to 2021/22 were generally lower than those in 2017/18 and 2018/19. According to DH, in 2019/20 to 2021/22, the outreach services of AHP were severely affected by the outbreak of the COVID-19 epidemic due to the intermittent suspension of face-to-face classes/temporary closure

of schools, the half-day school arrangement, and the deployment of DH staff to assist in anti-epidemic duties. On the other hand, Audit noted that in the midst of the epidemic, due to class suspension and the lack of regular social activities, students' emotions could be easily affected. In Audit's view, with the resumption of full-day schooling for all secondary schools with effect from February 2023, DH should keep under review the need to suitably adjust AHP (e.g. programme content and schedule) taking into account the impacts brought by the COVID-19 epidemic.

Need to compile more management information on programme delivery

3.13 Audit noted that the bi-monthly reports (see para. 3.11) prepared by DH for monitoring focused on the commencement of programmes (i.e. the commencement of a topic selected by school under the programme) and the information kept in its database recorded the topics taken by schools. DH had not maintained readily available statistics on the number of topics selected by schools and the progress of delivering individual topics. Hence, the number of schools with the programmes commenced but without completing all the topics selected could not readily be ascertained. According to DH, the progress of delivering of programmes under BLST/TP in individual schools was monitored and followed up by responsible staff in AHP regional offices (see para. 3.3). The reasons for programmes not yet commenced during the year and programmes not delivered by the end of a year were reported to the senior management. While noting DH's explanations, to facilitate the monitoring and evaluation of AHP, DH needs to compile more management information on the progress of programme delivery including that on undelivered programmes.

Need to keep under review resumption of booster programme

3.14 Since 2015/16, DH has launched a pilot booster programme for students who have completed BLST for Secondary 1 to 3 and will promote to Secondary 4 in the next school year. The programme consists of interactive and adventure-type activities in a day camp setting and is provided during the summer holiday. According to DH, the objectives of the booster programme are to:

(a) strengthen the resilience of students in junior secondary promoting to senior secondary;

(b) strengthen the ability of students to build support networks through interactive activities and outdoor challenges; and

(c) develop positive attitude of students to overcome challenges brought along during their development and stress brought by examinations.

3.15 In 2017/18 and 2018/19, 873 and 363 students of 12 and 5 schools had completed the programme respectively. According to DH, due to the impact of the COVID-19 epidemic, the programme has been suspended since 2019/20. Upon enquiry, DH informed Audit in December 2022 that the resumption of the booster programme would depend on the development of the COVID-19 epidemic, availability of supporting services from NGOs, DH's service capacity and students' needs. In view of the benefits of the programme (see para. 3.14) and the drop in the participation, Audit considers that DH needs to keep under review the resumption of the booster programme.

Need to provide programme materials/deliver programmes in languages other than Chinese/Cantonese as appropriate

3.16 Audit noted that all programme materials of AHP were in traditional Chinese and all programmes were delivered in Cantonese, except for sex education under TP, which could also be delivered in English (introduced since 2009 after a review) upon request. In 2017/18 to 2021/22, a total of 23 programmes on sex education under TP were delivered in English. According to DH:

(a) there were no requests for other English programmes under AHP or programme materials from schools; and

(b) for schools with students of varying Chinese language abilities, DH provides supplementary notes on the core messages in English and delivers the programme supplemented by English to enhance students' understanding of the programme content.

3.17 In October 2014, with reference to the review conducted in 2009 (see para. 3.16), DH further reviewed the need of providing English programmes for ethnic minority students. It was subsequently considered that English and/or simpler Chinese programmes could be an option to meet the needs of ethnic minority students

in the long run when resources were available. In this connection, Audit noted that from 2013/14 to 2021/22, the number of students in international secondary schools had increased by 2,473 (15%) from 16,088 in 2013/14 to 18,561 in 2021/22, and the number of non-Chinese speaking students in local secondary schools had increased by 2,648 (35%) from 7,576 in 2013/14 to 10,224 in 2021/22. To facilitate students with varying Chinese language abilities accessing AHP, DH needs to provide the programme materials/deliver the programmes in languages other than Chinese/Cantonese as appropriate.

Need to review practice of sharing online teaching resources

3.18 DH shares teaching resources, including programme manuals, presentation notes and worksheets for students of programmes under BLST through the AHP website. According to DH, sharing of teaching resources with schools enables:

(a) the transfer of skills and knowledge from DH to school personnel, including teachers and school social workers, which facilitates schools to integrate the content of the programmes into the curriculum;

(b) teachers to understand the programmes before delivery to enhance communication between teachers and DH staff for smooth programme delivery; and

(c) access to teaching resources outside office hours.

3.19 Each year, DH provides an activation code to each enrolled school to activate an account for accessing the online teaching resources. Audit analysed the use of these online teaching resources in 2017/18 to 2021/22 (see Table 16) and found that:

(a) the account activation rates increased from 37% in 2018/19 to 63% in 2021/22;

(b) the number of logins and the number of schools involved decreased by 689 (78%) from 884 in 2017/18 to 195 in 2021/22, and by 76 (79%) from 96 in 2017/18 to 20 in 2021/22 respectively; and

(c) the number of items downloaded and the number of schools involved decreased by 1,618 (65%) from 2,473 in 2017/18 to 855 in 2021/22, and by 62 (76%) from 82 in 2017/18 to 20 in 2021/22 respectively.

Audit considers that DH needs to review the practice of sharing online teaching resources with schools including ascertaining the reasons for the decreasing usage, and take measures to address the issues.

Table 16

Use of online teaching resources for BLST
(2017/18 to 2021/22)

Year	Number of activation codes provided to schools	Number of activation codes used by schools	Login		Download	
			Number of times	Number of schools involved	Number of items	Number of schools involved
2017/18	118	N.A. (Note)	884	96	2,473	82
2018/19	119	44 (37%)	362	44 (100%)	1,416	42 (95%)
2019/20	112	50 (45%)	157	26 (52%)	814	26 (52%)
2020/21	114	54 (47%)	136	25 (46%)	876	21 (39%)
2021/22	92	58 (63%)	195	20 (34%)	855	20 (34%)

Source: *Audit analysis of DH records*

Note: *According to DH, in 2017/18, schools were provided with the accounts for using the online teaching resources directly. From 2018/19, as a security enhancement measure, activation codes were required to activate the accounts.*

Need to compile management information on feedback from participants

3.20 DH has devised an evaluation plan on collection of feedback for BLST and TP. According to the plan:

(a) for schools participating in BLST only, each student should complete an overall evaluation form in the last BLST session of a year;

(b) for schools participating in TP only, in general, each participant (i.e. student, parent and/or teacher) should complete a programme-specific evaluation form after each session. For programme sessions involving over 500 audiences, 20% of participants should complete the evaluation form (except for programme sessions provided by clinical psychologists, an evaluation form should be completed by each participant);

(c) for schools participating in both BLST and TP, students will not be requested to complete any evaluation forms for TP (except for programme sessions provided by clinical psychologists, an evaluation form should be completed by each participant); and

(d) teachers participating in a programme session under BLST/TP as observers should also complete a programme-specific evaluation form after each session. DH will conduct a debriefing meeting with teachers after each session.

According to DH, for each school, it has prepared summaries on the feedback collected from the abovementioned evaluation forms which were kept in individual school files. However, Audit noted that no overall summaries showing the feedback from participants had been prepared. Audit considers that DH needs to compile management information on feedback from participants regarding AHP to facilitate the evaluation of the programme and for continuous improvement.

Audit recommendations

3.21 **Audit has *recommended* that the Director of Health should:**

(a) **keep under review the need to suitably adjust AHP (e.g. programme content and schedule) taking into account the impacts brought by the COVID-19 epidemic;**

(b) **compile more management information on the progress of programme delivery of AHP including that on undelivered programmes;**

(c) **keep under review the resumption of the booster programme;**

(d) **provide the programme materials/deliver programmes under AHP in languages other than Chinese/Cantonese as appropriate;**

(e) **review the practice of sharing online teaching resources with schools including ascertaining the reasons for the decreasing usage, and take measures to address the issues; and**

(f) **compile management information on feedback from participants regarding AHP to facilitate the evaluation of the programme and for continuous improvement.**

Response from the Government

3.22 The Director of Health agrees with the audit recommendations and will follow up accordingly.

On-site facilitator services provided by non-governmental organisations

3.23 DH engages NGOs to deliver AHP collaboratively (Note 29). According to DH, the collaboration allows DH to learn from and work with social workers experienced in youth services. Each programme session under BLST/TP is delivered by two DH staff from an AHP regional office (e.g. nurses, dietitians and clinical psychologists), or one staff from an AHP regional office and a registered social worker of NGO as facilitator.

Note 29: *For 2019/20 and 2020/21, DH engaged 4 and 3 NGOs for BLST and TP respectively each year, and for 2021/22, DH engaged 3 and 2 NGOs for BLST and TP respectively. Under the contracts, NGOs are paid according to the number of programme sessions provided. In 2021/22, a total of 266 sessions were provided and the expenditure was about $0.37 million.*

Need to step up monitoring of performance of NGOs

3.24 ***Provision of facilitators.*** According to the contracts signed between DH and NGOs, NGOs should provide facilitators upon request. According to DH, it usually requests an NGO to arrange a facilitator for a programme session about 3 weeks in advance. If there are changes in schools' schedules, NGOs are requested to arrange facilitators within a week. Audit examined such requests and the provision of facilitators by NGOs in 2019/20 to 2021/22 and found that NGOs could not provide the facilitators on a number of occasions (see Table 17).

Table 17

Provision of facilitators by NGOs
(2019/20 to 2021/22)

Programme	Number of facilitators					
	Requested	Provided	Requested	Provided	Requested	Provided
	2019/20		2020/21		2021/22	
BLST	465	401 (86%)	113	104 (92%)	211	211 (100%)
TP	96	78 (81%)	40	36 (90%)	57	55 (96%)
Overall	561	479 (85%)	153	140 (92%)	268	266 (99%)

Source: Audit analysis of DH records

3.25 According to NGOs, for the period 2019/20 and 2020/21, there were problems of staff shortage from time to time, hence, they were not able to provide facilitators requested by DH on some occasions. According to DH, when no NGO facilitators were provided, it had redeployed its staff to replace the NGO facilitators (i.e. conducting the session with two DH staff). While noting NGOs'/DH's explanations, Audit considers that DH needs to step up monitoring of NGOs' performance to ensure that facilitators are provided upon request as far as possible.

3.26 ***Supervisory observations.*** According to the contracts signed between DH and NGOs, NGOs should conduct observations on facilitators' performance at the early stage, for example around one month after a facilitator has commenced

conducting the programme under AHP (i.e. supervisory observations). Audit examined records of supervisory observations conducted in 2019/20 to 2021/22 and found that (see Table 18):

(a) no supervisory observations were conducted for most facilitators engaged in each year; and

(b) for the remaining facilitators, about half of the supervisory observations were conducted more than one month (up to 10 months) after they had commenced providing services, contrary to the contract requirement.

Audit considers that DH needs to step up monitoring of NGOs' performance to ensure that supervisory observations on facilitators' performance are conducted as appropriate.

Table 18

Supervisory observations of NGO facilitators
(2019/20 to 2021/22)

Status	Number of facilitators		
	2019/20	**2020/21**	**2021/22**
No supervisory observation conducted	28 (85%)	23 (88%)	16 (64%)
Supervisory observation conducted within 1 month of service	2 (6%)	3 (12%)	4 (16%)
Supervisory observation conducted after 1 month of service	3 (9%)	0 (0%)	5 (20%)
Total	33 (100%)	26 (100%)	25 (100%)

Source: Audit analysis of DH records

Need to review contract requirement on training observations

3.27 ***Training observations***. According to the contracts signed between DH and NGOs, a new facilitator could only provide services under AHP after observing AHP programme sessions for a month (i.e. training observations). Audit examined records of the training observations and found that 3 of the 5 new facilitators, and 5 of the 8 new facilitators had not attended the training observations for one month before providing the services in 2019/20 and 2021/22 respectively. According to DH, in practice, new facilitators were required to attend training observations at least once before providing the services, instead of attending training observations for a month. In this connection, Audit considers that DH needs to review the contract requirement on training observations for new facilitators upon the award of a new contract as appropriate.

Need to provide clear instructions on training requirements for facilitators

3.28 In accordance with the contract requirement, DH requests NGOs to submit summaries on the in-house training and monitoring programme provided to their facilitators every three months using a designated form. Audit noted that:

(a) no requirement on facilitators' training (e.g. the type of training programmes and the number of training sessions to be provided in a year) was specified in the designated form; and

(b) according to the summaries on facilitators' training submitted by NGOs for 2019/20 to 2021/22:

  (i) various training activities had been provided, including general large-group training on conducting AHP, individual/small-group training on conducting AHP, experience sharing session and peers' class observation; and

  (ii) the number of training sessions provided by NGOs for each of the activities mentioned in (i) above varied from 0 to 12 amongst NGOs every year.

To ensure that adequate training is provided to facilitators of the NGOs, Audit considers that DH needs to provide NGOs with clear instructions on the training requirements (e.g. the type of training programmes and the number of training sessions to be provided in a year).

Audit recommendations

3.29 **Audit has *recommended* that the Director of Health should:**

(a) **step up monitoring of NGOs' performance to ensure that facilitators are provided upon request as far as possible and supervisory observations on facilitators' performance are conducted as appropriate;**

(b) **review the contract requirement on training observations for new facilitators upon the award of a new contract as appropriate; and**

(c) **provide NGOs with clear instructions on the training requirements (e.g. the type of training programmes and the number of training sessions to be provided in a year).**

Response from the Government

3.30 The Director of Health agrees with the audit recommendations and will follow up accordingly.

PART 4: OTHER RELATED ISSUES

4.1 This PART examines other issues relating to the provision of SHS, focusing on the following areas:

(a) HPSP (paras. 4.2 to 4.6);

(b) provision of health promotion activities (paras. 4.7 to 4.11);

(c) resumption of services of the West Kowloon Government Offices SHSC and SAC (paras. 4.12 to 4.15); and

(d) use of wSMASH (paras. 4.16 to 4.21).

Health Promoting School Programme

4.2 ***Pilot HPSP.*** In March 2019, DH engaged 30 schools to participate in a two-year pilot HPSP from 2019/20 to 2020/21. Under the programme, DH assists participating schools to identify specific health priorities and develop tailor-made school-based health promotion action plans (see para. 1.12). Between May and July 2019, DH visited the participating schools to introduce HPSP, including the requirements and schedule of the pilot programme. It also conducted various seminars and workshops to help school personnel, parents and students understand the concept of the "health-promoting-school" framework. Due to the outbreak of the COVID-19 epidemic, the pilot HPSP was extended to 2022/23.

Areas for improvement in implementation of pilot HPSP

4.3 In implementing the pilot HPSP, DH and the participating schools collaborated and exchanged various information in order to work towards the goal of building a healthy campus. Audit noted the following issues:

(a) ***Health profile reports not timely provided to schools.*** According to DH, health profile reports provided the schools with an overview of the health problems (e.g. overweight) and health-related behaviours (e.g. time spent

on the Internet and electronic devices) of students of the participating schools, and served as a reference to assist schools in identifying specific health priorities and developing the school-based health promotion action plans. As advised by the Working Group on Health Promoting School (see para. 1.11), school-specific health profile reports would be provided to the participating schools every year. Audit noted that DH had provided the 2017/18 health profile reports (based on health data collected from the annual health assessments of students in 2017/18) to all 30 participating schools between May and July 2019. Upon enquiry, DH informed Audit in January 2023 that due to the outbreak of the COVID-19 epidemic, there were service disruptions for annual health assessments and suspension of face-to-face classes of schools, DH did not have sufficient data and resources to prepare the health profile reports of 2018/19 to 2020/21. Hence, the reports had not been provided since 2020. With the resumption of services at SHSCs and face-to-face classes of schools, DH would provide the 2021/22 health profile reports to schools between March and April 2023;

(b) ***Self-assessment checklists not submitted by some schools.*** DH designed a checklist to facilitate the participating schools to conduct self-assessments when the programme was launched in 2019 (i.e. baseline self-assessment) and by the end of each school year (i.e. yearly self-assessment). Schools were advised to submit the self-assessment checklists to DH to evaluate the readiness of schools as health-promoting schools and the implementation progress of HPSP. Audit noted that as of January 2023, of the 30 participating schools:

(i) 4 (13%) schools had not submitted the baseline self-assessment checklists and all yearly self-assessment checklists for 2019/20 to 2021/22; and

(ii) 29 (97%), 24 (80%) and 27 (90%) schools had not submitted the yearly self-assessment checklists for 2019/20, 2020/21 and 2021/22 respectively; and

(c) ***Recommendations provided to schools not always in written format.*** Based on the self-assessment checklists submitted by schools, DH will provide recommendations to each participating school to assist the schools to set the health priorities and implement the action plans. According to

DH, it may provide the recommendations verbally or in written format. Audit noted that:

(i) for the school that had submitted the yearly self-assessment checklist for 2019/20 (see (b)(ii) above), DH had provided the recommendations verbally;

(ii) for the 6 schools that had submitted the yearly self-assessment checklists for 2020/21 (see (b)(ii) above), DH had provided recommendations to 3 schools in writing and 3 schools verbally; and

(iii) for the 3 schools that had submitted the yearly self-assessment checklists for 2021/22 (see (b)(ii) above), DH had provided the recommendations in writing.

Upon enquiry, DH informed Audit in March 2023 that it was planning to revamp HPSP. Hence, the content and approach of the programme might be different from the current mode. With the resumption of annual health assessments and face-to-face classes of schools, Audit considers that DH needs to take measures to ensure that health profile reports are provided to schools and self-assessment checklists are submitted by schools in a timely manner as appropriate in future. To better facilitate schools in setting the health priorities and implement the action plans, DH also needs to consider providing all relating recommendations in written format.

Need to follow up findings of consultancy study on feasibility of extending HPSP to other schools

4.4 In October 2019, DH commissioned a consultant to conduct a study on the feasibility of further promoting and implementing HPSP in local schools (Note 30). According to the agreement signed between DH and the consultant, the study would be completed by June 2021. Due to the outbreak of the COVID-19 epidemic, the study was extended to December 2022. The study report was issued on 31 January 2023. While it was concluded that HPSP could be further promoted and implemented in local schools, a number of recommendations were made for improving the programme (e.g. setting out the HPSP policy to be implemented in all schools, and setting up of an inter-sectoral advisory body to guide the implementation

Note 30: *The consultancy fee was about $1 million.*

of the HPSP policy). Audit considers that DH needs to follow up the findings of the study report on the feasibility of extending HPSP to other schools as soon as practicable, taking into account the results of the pilot HPSP.

Audit recommendations

4.5 **Audit has *recommended* that the Director of Health should:**

(a) **take measures to ensure that health profile reports are provided to schools and self-assessment checklists are submitted by schools in a timely manner as appropriate in future;**

(b) **to better facilitate schools in setting the health priorities and implement the action plans, consider providing all relating recommendations in written format; and**

(c) **follow up the findings of the study report on the feasibility of extending HPSP to other schools as soon as practicable, taking into account the results of the pilot HPSP.**

Response from the Government

4.6 The Director of Health agrees with the audit recommendations and will follow up accordingly.

Provision of health promotion activities

4.7 DH conducted various health promotion activities on a regular basis, including production of health education materials (e.g. pamphlets and booklets distributed during students' visits at SHSCs, and videos put on the SHS website), and conducting various health talks and workshops.

Need to review provision of health talks and workshops

4.8 According to DH, the following health talks and workshops are provided:

(a) ***General health talks.*** General health talks are provided to students and parents/guardians when they visit SHSCs for the annual health assessments. DH has prepared 39 general health talk topics (e.g. "healthy lifestyle", "stress faced by teenagers" and "mental health in adolescents"). It will select an appropriate topic according to the needs of audiences attending the annual health assessments at the time (e.g. grades and stage of development of students) for conducting the talk;

(b) ***Special health talks.*** Special health talks are provided by nurses and allied health staff (i.e. audiologists, clinical psychologists, dietitians and optometrists). Students identified with the related needs during their annual health assessments will be advised to attend special health talks held on scheduled dates at SHSCs. According to DH, any students interested in the special health talks held on the dates of their visits to SHSCs can also join the talks;

(c) ***Outreach health talks.*** Outreach health talks on "Diet and Health" are provided to 100 primary schools and 50 secondary schools with a high percentage of students attending the annual health assessments and a high detection rate for overweight to disseminate the messages on the importance of healthy eating and active participation of physical activities; and

(d) ***"Junior Health Pioneer" workshops.*** The "Junior Health Pioneer" workshop is designed for Primary 3 students. The workshop aims at increasing students' knowledge on the harmful effects of addictive behaviours (e.g. smoking, drinking, drug abuse and excessive use of electronic devices) and the ways to refuse and control them.

4.9 ***Areas for improvement in provision of health talks and workshops.*** Audit noted the following issues:

(a) ***Need to review provision of special health talks.*** The target numbers of special health talks to be provided by nurses for general problems, dietitians for growth problems, clinical psychologists for psychological problems,

optometrists for visual problems, and audiologists for hearing problems in 2017/18 were 144, 12, 6, 6 and 2 respectively (Note 31). According to DH:

(i) due to redeployment of resources, from 2018/19, the target numbers of special health talks to be provided per year by nurses, clinical psychologists, dietitians and optometrists have been reduced to 84, 4, 4 and 4 respectively. The target number of special health talks to be provided by audiologists has remained at 2 (Note 32);

(ii) due to the outbreak of the COVID-19, the provision of special health talks by the allied health staff has been suspended since November 2019, and the provision of special health talks by nurses has been suspended since January 2020; and

(iii) in 2017/18, 2018/19 and 2019/20, 287, 100 and 17 special health talks were conducted for 1,791 (i.e. 6 participants per talk), 961 (i.e. 10 participants per talk) and 138 (i.e. 8 participants per talk) participants respectively.

Audit noted that from 2017/18 to 2018/19, the number of students with health problems identified (Note 33) in vision, growth and psychological health slightly increased by 2.2% (from 151,256 to 154,547), 6.7% (from 132,996 to 141,869) and 3.4% (from 13,600 to 14,066) respectively. In addition, according to an analysis conducted in September 2021 by DH on the health status of children and adolescents in Hong Kong amid the COVID-19 epidemic, the detection rates of overweight and obesity (for Primary 1 and 2, and Secondary 1 students) and visual problems (for

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Note 31: *The target numbers of special health talks provided were all met in 2017/18.*

Note 32: *The target numbers of special health talks provided were all met in 2018/19.*

Note 33: *One or more health problems might be identified for students attending the annual health assessments, 355,647 and 371,362 health problems were identified for 427,350 and 446,837 students attended the annual health assessments in 2017/18 and 2018/19 respectively.*

Primary 1 students) had increased (Note 34). In light of the latest development, Audit considers that DH needs to review the provision of special health talks, taking into account the needs of students, attendance rates and participants' feedback on the services (see (c) below);

(b) ***Need to review provision of outreach health talks.*** Audit examination of the number of outreach health talks provided in 2017/18 to 2019/20 (Note 35) revealed the following issues:

(i) although DH had a target of providing outreach health talks to 100 primary schools, the talks were only provided to 38 (38%), 34 (34%) and 32 (32%) primary schools in 2017/18, 2018/19 and 2019/20 respectively. According to DH, about 60% of the invited schools rejected the invitations and about 2% of schools cancelled the talks scheduled due to various reasons (e.g. outbreak of influenza) each year; and

(ii) similarly, DH had a target of providing outreach health talks to 50 secondary schools. However, it only contacted 41 and 38 secondary schools in 2017/18 and 2018/19 for providing the talks respectively and did not contact any schools in 2019/20. Of the schools contacted, the talks were only provided to 9 schools each year (22% of the 41 schools in 2017/18 and 24% of the 38 schools in 2018/19). According to DH, the remaining schools (78% of the 41 schools in 2017/18 and 76% of the 38 schools in 2018/19) rejected the invitations.

Note 34: *According to the analysis:*

(a) for Primary 1 and 2 students, and Secondary 1 students attending the annual health assessments, the detection rates of overweight and obesity increased from 12.9% in 2018/19 to 20.2% in 2020/21, and increased from 20.9% to 24.1% in the period respectively; and

(b) for Primary 1 and Secondary 1 students attending the annual health assessments, the percentage of students wearing glasses increased from 11% in 2018/19 to 14% in 2020/21, and decreased from 55% to 53% in the period respectively.

Note 35: *Due to the outbreak of the COVID-19 epidemic, outreach health talks for primary schools and secondary schools have been suspended since January 2020.*

DH had failed to meet the targets set on outreach health talks to schools and the rejection rates for such service were high. In this connection, Audit considers that DH needs to review the provision of outreach health talks, taking into account the attendance rates, participants' feedback on the services (see (c) below) and the reasons for rejecting the services; and

(c) ***Need to obtain feedback from participants of all health talks and workshops.*** Audit noted that while participants of special health talks were requested to provide feedback on the talks by completing feedback questionnaires (Note 36), DH had not requested participants of other health talks and workshops to provide feedback. Audit considers that DH needs to collect feedback from participants of all health talks and workshops to evaluate the level of satisfaction and identify room for improvement.

Audit recommendations

4.10 **Audit has *recommended* that the Director of Health should:**

(a) **review the provision of special health talks, taking into account the needs of students, attendance rates and participants' feedback on the services;**

(b) **review the provision of outreach health talks, taking into account the attendance rates, participants' feedback on the services and the reasons for rejecting the services; and**

(c) **collect feedback from participants of all health talks and workshops to evaluate the level of satisfaction and identify room for improvement.**

Response from the Government

4.11 The Director of Health agrees with the audit recommendations and will follow up accordingly.

Note 36: *According to the results of the feedback questionnaires collected in 2018 and 2019, feedback from participants of the special health talks were generally satisfactory.*

Resumption of services of the West Kowloon Government Offices Student Health Service Centre and Special Assessment Centre

4.12 The West Kowloon Government Offices SHSC and SAC commenced operation in November 2019. According to DH, the SHSC and SAC were developed to strengthen service provision in Kowloon. Due to the outbreak of the COVID-19 epidemic, in late January 2020, services of the SHSC and SAC were suspended. Between March 2020 and May 2022, the West Kowloon Government Offices SHSC and SAC were converted temporarily into a DH call centre/office for handling matters relating to COVID-19 (e.g. answering public enquires and contact tracing for COVID-19 confirmed cases). In June 2022, the DH call centre/office ceased operation. According to DH, the premises concerned would be put on standby until October 2023.

4.13 Meanwhile, cases of annual health assessments and further assessments of the West Kowloon Government Offices SHSC and SAC have been transferred to other SHSCs and another SAC (Note 37). Audit noted that:

(a) DH planned to resume services at the West Kowloon Government Offices SHSC and SAC in November 2023. Fitting-out works were required before resumption of services (see Photographs 1(a) and (b) for the conditions of the centres as of January 2023) and DH planned to commence the works in June/July 2023; and

Note 37: *With the suspension of services in the West Kowloon Government Offices SHSC and SAC, students from West Kowloon have to go to the SHSCs in Lam Tin, Kowloon Bay, Kowloon City or Tsz Wan Shan for annual health assessments (see Table 1 in para. 1.5(a)), and to the Lam Tin SAC for further assessments (see Table 2 in para. 1.5(b)).*

Photographs 1(a) and (b)

Conditions of the West Kowloon Government Offices SHSC and SAC (January 2023)

(a) **(b)**

Source: *DH records*

(b) during the period of closure of the SHSC and SAC, staff had been deployed to assist in anti-epidemic duties of DH or to other SHSCs and SACs. According to DH, administrative and supporting staff would return to the SHSC and SAC in September 2023 for the final preparation work for service resumption, and other medical staff (i.e. doctors, nurses and allied health staff) would return to the centres in October 2023.

To ensure the resumption of services at the West Kowloon Government Offices SHSC and SAC in November 2023, DH needs to closely monitor the progress of the fitting-out works.

Audit recommendation

4.14 **Audit has *recommended* that the Director of Health should closely monitor the progress of the fitting-out works to ensure the resumption of services at the West Kowloon Government Offices SHSC and SAC in November 2023.**

Response from the Government

4.15 The Director of Health agrees with the audit recommendation. He has said that:

(a) the fitting-out works of the West Kowloon Government Offices SHSC and SAC commenced on 20 March 2023; and

(b) DH will work closely with the relevant works department and closely monitor the progress of the fitting-out works to ensure that the centres can resume services in November 2023.

Use of the Internet Service for the System for Managing the Assessment of Student Health

4.16 wSMASH was developed by DH to facilitate parents/guardians to make enquiries and reschedule appointments (see para. 2.12), view findings of annual health assessments and recommendations, and fill in the health assessment questionnaires of students (see para. 2.24(c)). E-mails are sent to wSMASH users to remind them of the annual health assessment appointments (see para. 2.18(b)).

4.17 ***Low usage of wSMASH.*** Audit examined the usage of wSMASH and noted that:

(a) as of October 2022, there were 129,414 active wSMASH user accounts (Note 38), representing about 22% of 575,580 average number of students enrolled in annual health assessments per year from 2017/18 to 2021/22;

(b) the number of active wSMASH user accounts decreased by 57,484 (31%) from 186,898 as of October 2018 to 129,414 as of October 2022;

(c) the number of newly registered wSMASH user accounts decreased by 6,839 (45%) from 15,165 in 2017/18 to 8,326 in 2021/22; and

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Note 38: *According to DH, a wSMASH user account is considered inactive if the student concerned has not enrolled in annual health assessments for three consecutive years after registering the account.*

(d) between November and December 2022, of the 14,341 Primary 2, 4 and 6 students attending the annual health assessments, parents/guardians of only 191 (1.3%) students filled in the health assessment questionnaires about the students through wSMASH (see para. 2.24(c)).

4.18 ***Replacement of wSMASH.*** According to DH, SMASH (including wSMASH) will be replaced by the enhanced CIMS under the departmental-wide information technology enhancement plan (see para. 2.46). Among other features, the enhanced system will provide more online services, such as electronic enrolment and one-stop portal for appointment scheduling. As of February 2023, the new system was scheduled for implementation by the end of 2024.

4.19 Audit considers that DH needs to take into account the audit findings and recommendations (e.g. electronic enrolment in paragraph 2.4 and rescheduling arrangements in paragraph 2.12) in this Audit Report in developing and promoting the online services under the new system for replacing wSMASH, and take measures to ensure that the new system is timely implemented.

Audit recommendation

4.20 **Audit has *recommended* that the Director of Health should take into account the audit findings and recommendations in this Audit Report in developing and promoting the online services under the new system for replacing wSMASH, and take measures to ensure that the new system is timely implemented.**

Response from the Government

4.21 The Director of Health agrees with the audit recommendation and will follow up accordingly.

Appendix A
(paras. 1.5(a), 2.24(b), 2.29 and 2.33 refer)

Major health assessment activities provided in Student Health Service Centres (July 2022)

Health assessment activity (Note 1)	Grade
Body weight and height measurement	All grades
Blood pressure measurement	Primary 5, and Secondary 1, 3 and 5
Visual acuity test	All grades
Stereopsis test	Primary 1
Colour vision test	Primary 6
Hearing test	Primary 1 and Secondary 2 (Note 2)
Checking of immunisation status	Secondary 1 to 6
History taking	All grades
Physical examination	Primary 1 and 5, and Secondary 1, 3 and 5 (Note 2)
Spinal assessment	Primary 5, and Secondary 1 and 3 (Note 2)
Health assessment questionnaire (student)	Primary 4 and 6, and Secondary 2, 4 and 6
Health assessment questionnaire (parent/guardian)	Primary 2, 4 and 6
Individual health counselling	All grades
Group health talk	All grades
Child Health Record updating	All grades

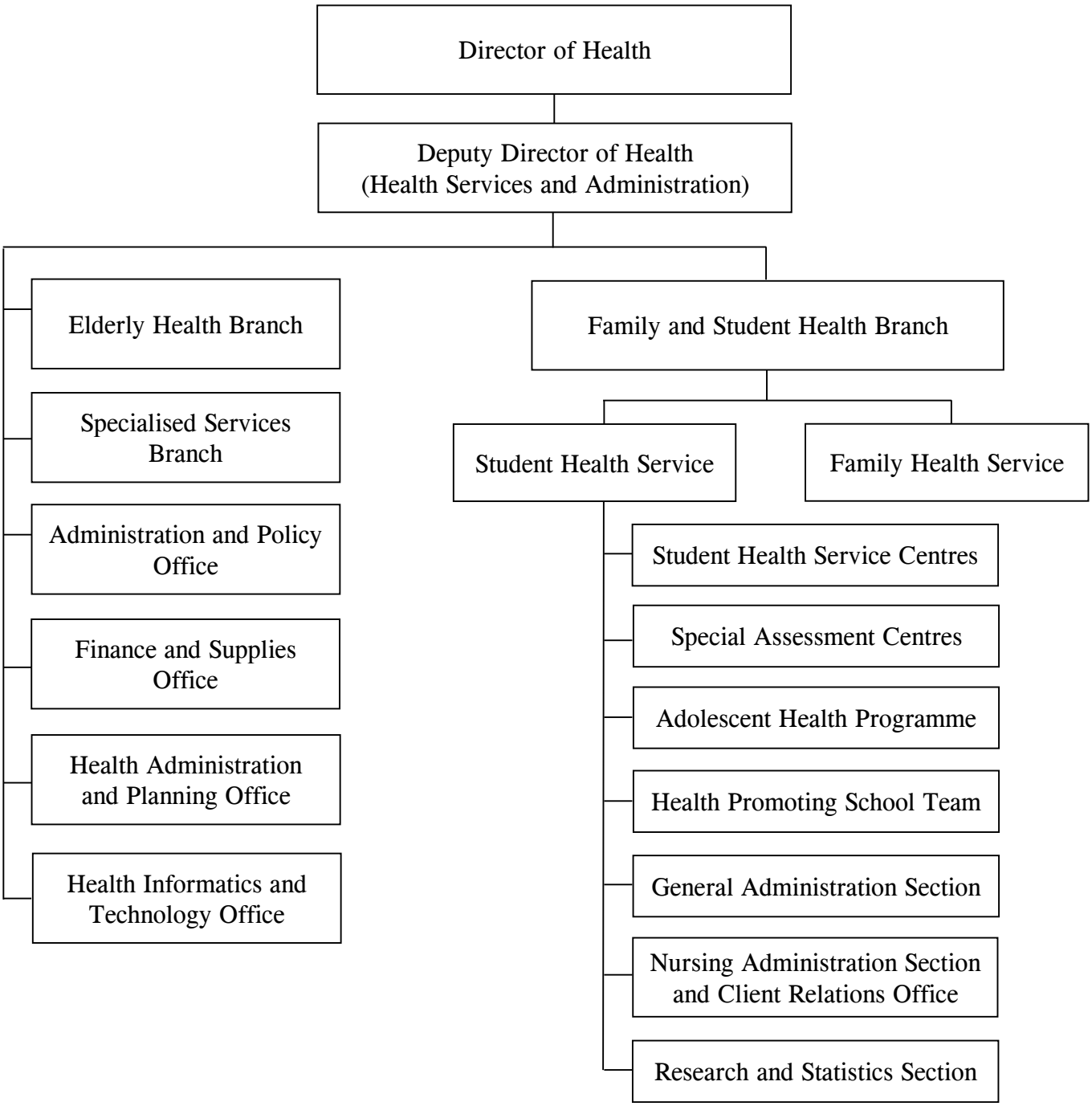
Source: *DH records*

Note 1: *According to DH, the health assessment activities may be adjusted from time to time.*

Note 2: *The health assessment activity may be provided to students of other grades as appropriate.*

Appendix B
(para. 1.14 refers)

Department of Health: Organisation chart (extract) (31 October 2022)



Source: *DH records*

Remarks: *Only the branches/offices responsible for the service area of the Health Services and Administration are shown.*

Appendix C

Acronyms and abbreviations

AHP	Adolescent Health Programme
Audit	Audit Commission
BLST	Basic Life Skills Training
CIMS	Clinical Information Management System
DH	Department of Health
eHRSS	Electronic Health Record Sharing System
HA	Hospital Authority
HPSP	Health Promoting School Programme
NGO	Non-governmental organisation
SAC	Special Assessment Centre
SDCS	School Dental Care Service
SHS	Student Health Service
SHSC	Student Health Service Centre
SMASH	System for Managing the Assessment of Student Health
SMS	Short message service
TP	Topical Programme
wSMASH	Internet Service for the System for Managing the Assessment of Student Health