

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

Executive Summary

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).

Executive Summary

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).

Executive Summary

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

Executive Summary

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:

Executive Summary

- (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

Executive Summary

- (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)).

Executive Summary

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:**

Executive Summary

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));**

Executive Summary

- (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.