

Project Title

Vaccination Workflow Redesign_Channelling Increased Productivity to Virtual Coaching

Project Lead and Members

Project lead: Ms Theresa Loh

Project members: Dr Prema K, Ms Tay Shufen, Dr Melissa Chiang, Ms Jeslin Loh, Ms Mollie Seow, Ms Rachael Phua, Ms Lim Cindy, Dr Chew Ling & Dr Chong Si Jack

Organisation(s) Involved

Health Promotion Board

Healthcare Family Group(s) Involved in this Project

Nursing, Healthcare Administration

Applicable Specialty or Discipline

Youth Preventive Health Service, Student Wellness Service

Project Period

Start date: Not Available

Completed date: Not Available

Aims

To improve work efficiency & to expand the role of the nurses in supporting HealthierSG@Schools initiatives.

Background

See poster appended/below

Methods

See poster appended/below

Results

1. The programme yielded substantial productivity of 14% for SHS teams in the morning, averaging around 22.73 minutes per class. Moreover, in the afternoons, 2 per SHS team were able to conduct VC, accounting for 28% productivity gain.
2. Since July 2023, a total of 13,879 students completed their vaccinations using the new workflow with zero errors over this 9-month period.

VC approach has achieved 3 key successes in a 2023 study conducted by SWS (see chart):

Increased attendance (30% to 60%)

Positive behaviour outcomes such as better sleep (7.4h to 7.8h), less sweetened drinks consumption (4 to 2 SSB per week), & increased physical activity (176 to 254 min)

Conclusion

See poster appended/below

Additional Information

Project awarded at the 3rd Singapore International Public Health Conference (SIPHC) & 17th Singapore Public Health & Occupational Medicine Conference (PHOM)

Project Category

Care & Process Redesign

Quality Improvement, Workflow Redesign

Workforce Transformation

Job Redesign, Digital Workforce

Keywords

Vaccination, Weight Management Programme, Virtual Coaching, Role Expansion,
Telehealth, Nursing Education

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Vaccination Workflow Redesign: Channelling Increased Productivity to Virtual Coaching

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Youth Preventive Health Service (YPHS) | Student Wellness Service

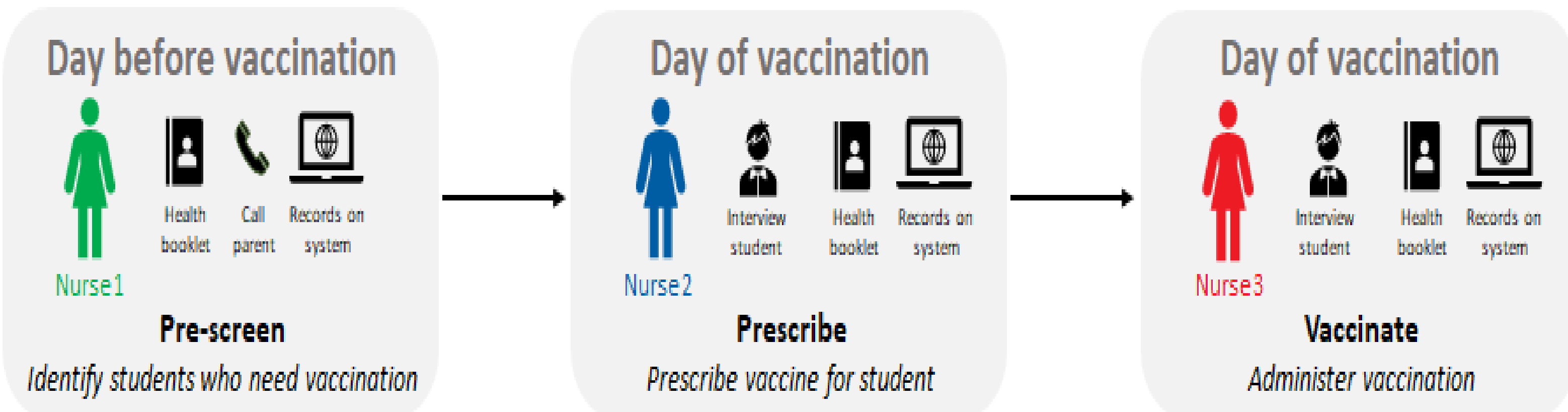
Mission Statement

To improve work efficiency & to expand the role of the nurses in supporting HealthierSG@Schools initiatives.

Triggers for Change

Vaccination Workflow -

The original process involved 3 nurses to verify vaccination records for the same student.



There was duplication & overlapping of roles. As a result, on average-

- 2.1 medication errors were reported annually.
- 154.6 minutes were required to screen a class of 40 students in the school.

Weight Management Programme -

- Student Wellness Service at Health Promotion Board (HPB) faced substantial challenges in terms of scalability, particularly in addressing the surge in obesity prevalence.
- Parents, together with their overweight (O)/ severely overweight (SO) child were required to visit HPB for intervention. Busy and conflicting schedule makes it challenging for them to travel to HPB, resulting in a dropout rate of > 60%.

Results/ Achievements

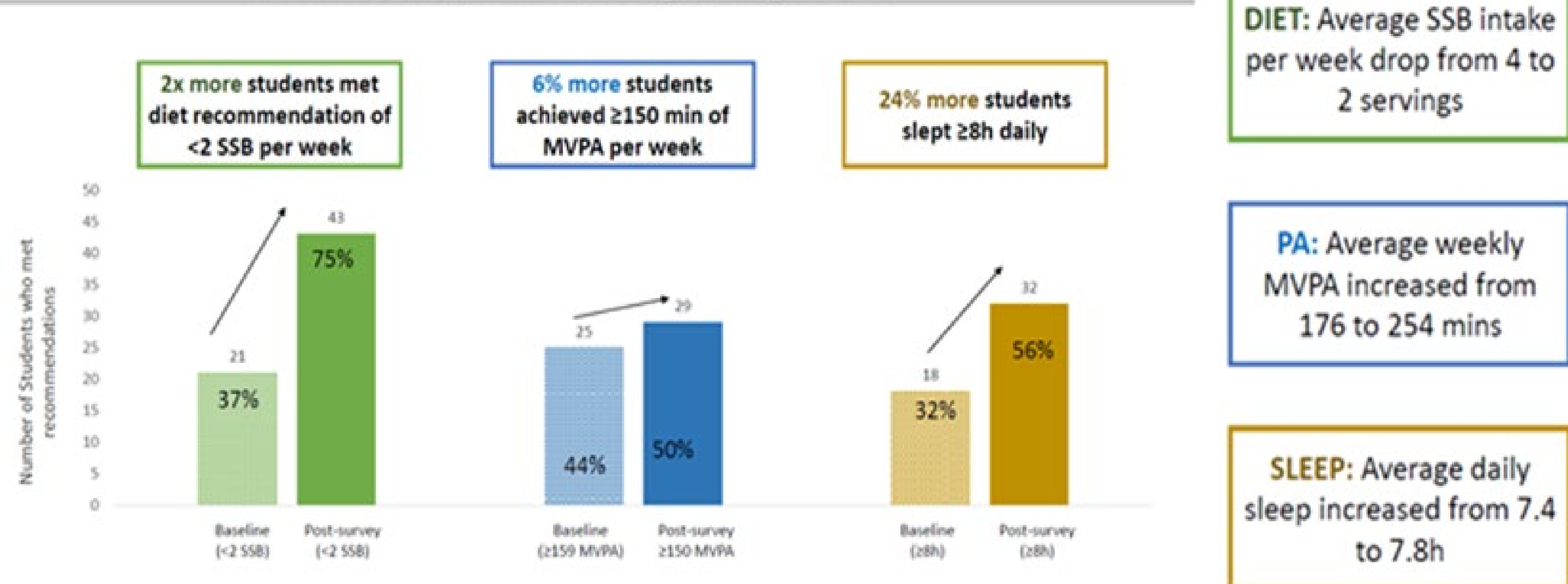
- The programme yielded substantial productivity of 14% for SHS teams in the morning, averaging around 22.73 minutes per class. Moreover, in the afternoons, 2 per SHS team were able to conduct VC, accounting for 28% productivity gain.
- Since July 2023, a total of 13,879 students completed their vaccinations using the new workflow with zero errors over this 9-month period.

VC approach has achieved 3 key successes in a 2023 study conducted by SWS (see chart):

- Increased attendance (30% to 60%)
- Positive behaviour outcomes such as better sleep (7.4h to 7.8h), less sweetened drinks consumption (4 to 2 SSB per week), & increased physical activity (176 to 254 min)
- Ability to scale

Comparison from baseline ie from start to end of the coaching programme

For all 3 behavioural indicators, significantly more students met the recommendations by the end of session 4, with diet seeing the largest shift.



Acknowledgement

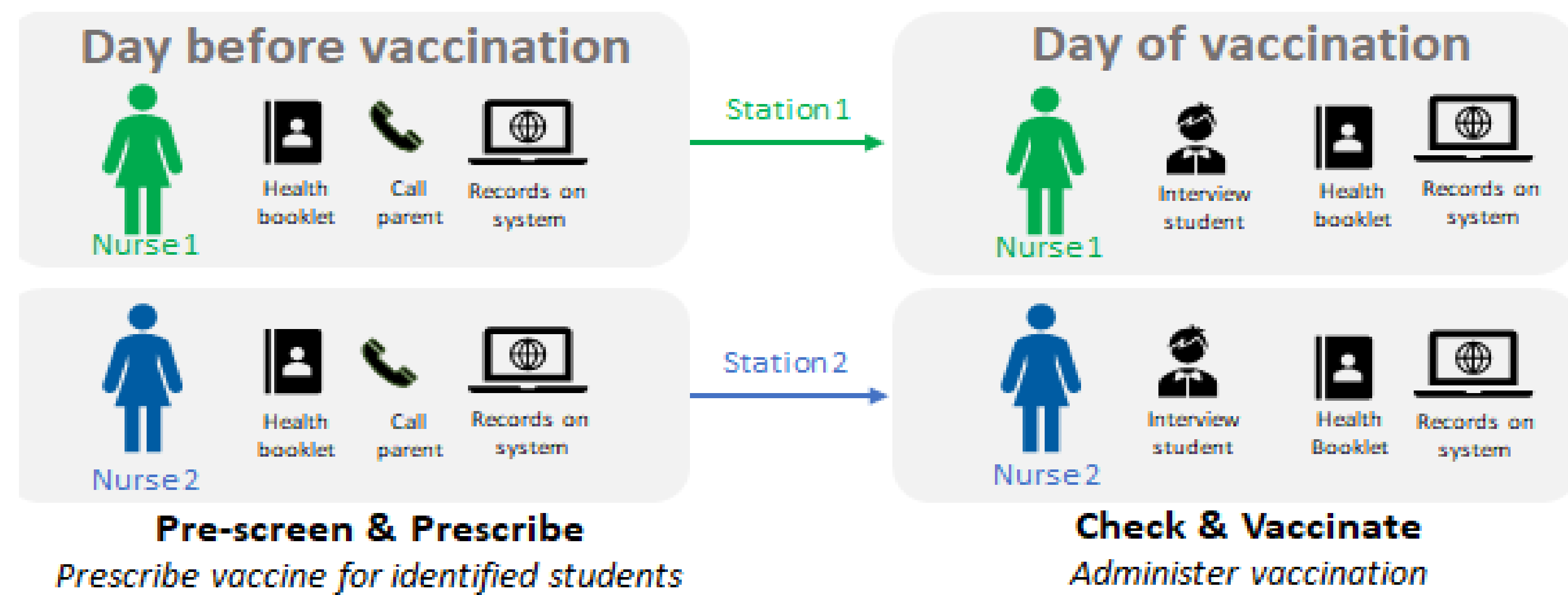
Special Thanks to:

Ms Serena Chia, Ms Grace Anna, Ms Melissa Koh, Ms Jane Tan, Ms Nurasyikin Bte Osman, Ms Cheng Shita, Ms Pang Mong Ling, Ms Norsiha Bte Basri, Ms Norhayati Bte Abdul Wahab & Ms Mageswari d/o N. Amaderlingam, & Ms Siti Junaidah Binte Hasani.

Revised Workflow

Vaccination Workflow -

2 nurses were involved in the administration of vaccine for the students. The cases were assigned & the same nurse would verify the vaccination records for the same student throughout pre-screening, prescription & administration of vaccine process.



Benefits -

- Eliminated risk of miscommunication.
- Enhanced accountability & responsibility among nurses.
- Enhanced the safety of the students.

Weight Management Programme -

- Virtual coaching (VC) program was initiated & this involved the utilisation of digital technologies & behaviour change strategies, tailoring to O/SO students.
- HPB nurses underwent the following training to support this new initiative -

Coaching / Counselling skill	Health Education & Promotion	Care & Case Planning
<ul style="list-style-type: none"> Knowledge and ability to demonstrate key elements of a therapeutic relationship that influences outcome of the session(s) Knowledge of and ability to use various strategies to promote change in behaviours that leads towards an improvement in the student's health 	<ul style="list-style-type: none"> Knowledge pertaining to health-related issues and high-risk behaviours associated with student population Ability to communicate the information as and when necessary to the student population 	<ul style="list-style-type: none"> Client engagement SOPs (e.g. appointment scheduling, onboarding to digital resources, communication with parents) Referral p'way for distress/ mental health cases (e.g., School counsellor, psychiatrist) Case notes documentation (e.g. FORMSG)

Benefits -

- Enhanced flexibility in scheduling health coaching sessions.
- Reduced the necessity for parents & child to travel for intervention.
- Future-proofing our nurses in preparation to support HealthierSG@Schools initiatives.

Lesson Learnt

- The streamlined vaccination workflow has reduced vaccination errors as it promotes accountability among nurses. This is evidenced by attaining zero medication error over 9 months with 13,879 students vaccinated.
- The expansion of nurses' role bolstered their relevance in the ever-evolving healthcare landscape & extends their influence into broader realms of patient care and support beyond traditional clinical duties. It enhances the effectiveness and adaptability of our entire team while opening doors for career advancement, particularly in nursing education or telehealth.

Strategies to Sustain

- Conduct regular meetings/ engagements with relevant stakeholders.
- Conduct supervisory/ audit checks to monitor the process.
- Celebrating achievements.

Reference

HPB, Youth Preventive Services - Student Wellness Services (2023, Oct). Virtual coaching for weight management for overweight students. Paper awarded at the 3rd Singapore International Public Health Conference (SIPHC) & 17th Singapore Public Health & Occupational Medicine Conference (PHOM), Singapore.