



Grades 1 & 2 school-based immunization clinics to increase vaccine access & coverage: QI project results & lessons



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Disclosures

In relation to this poster, we declare that there are no conflicts of interest to disclose.

Introduction

7-year-old vaccine coverage in Island Health has persisted below 70%, which is less than the Island Health coverage target of 73%. High population-level vaccine coverage is important for establishing herd immunity against vaccine preventable diseases. In early 2023, Island Health implemented a phone reminder system to contact guardians of 4 to 6-year-old children if vaccines were due. Vaccine coverage remained below target so school-based immunization clinics (SBICs) for grades 1 and 2 were implemented at select schools to improve vaccine coverage and access.

Objectives

Increase 7-year-old vaccine coverage to 73% and increase access to school-entry vaccines.



Objectives:

- Achieve Island Health's target of 73% up-to-date by 7 years of age
- Improve access to vaccinations



Population of focus:

- Gr. 1 & 2 students in Island Health



Intervention:

- SBICs in schools with vaccine coverage <73% in Gr. 1 and/or 2, implemented by 12 public health units



Timeline:

- May & June 2023

Methods

Island Health piloted SBICs for grades 1 and 2 students in the 2022/2023 school year. Vaccine coverage was defined as proportion of students who were up-to-date for vaccines for their age based on the provincial schedule. Schools were eligible if vaccine coverage was less than 73% in either grades 1 or 2 and health units identified schools in which clinics were likely to have a larger impact. Health units planned and implemented clinics in May-June 2023. Schools and health units varied in whether guardians could attend, when clinics were scheduled, and if phone or letter consents were used. Vaccine coverage data was pulled from Panorama before and after clinics for all schools and participating and non-participating schools were compared. Projected vaccine coverage was determined by applying the percentage point difference pre & post SBICs in participating schools to the non-participating schools in corresponding health units. Qualitative feedback on the SBICs was collected from health unit staff and analyzed using thematic analysis.

Outcome Measures

Primary Quantitative Measures:

- # and % students up-to-date (i.e. vaccine coverage)
- Difference in % coverage pre & post SBICs by health unit, participating vs non-participating schools, grade, and overall

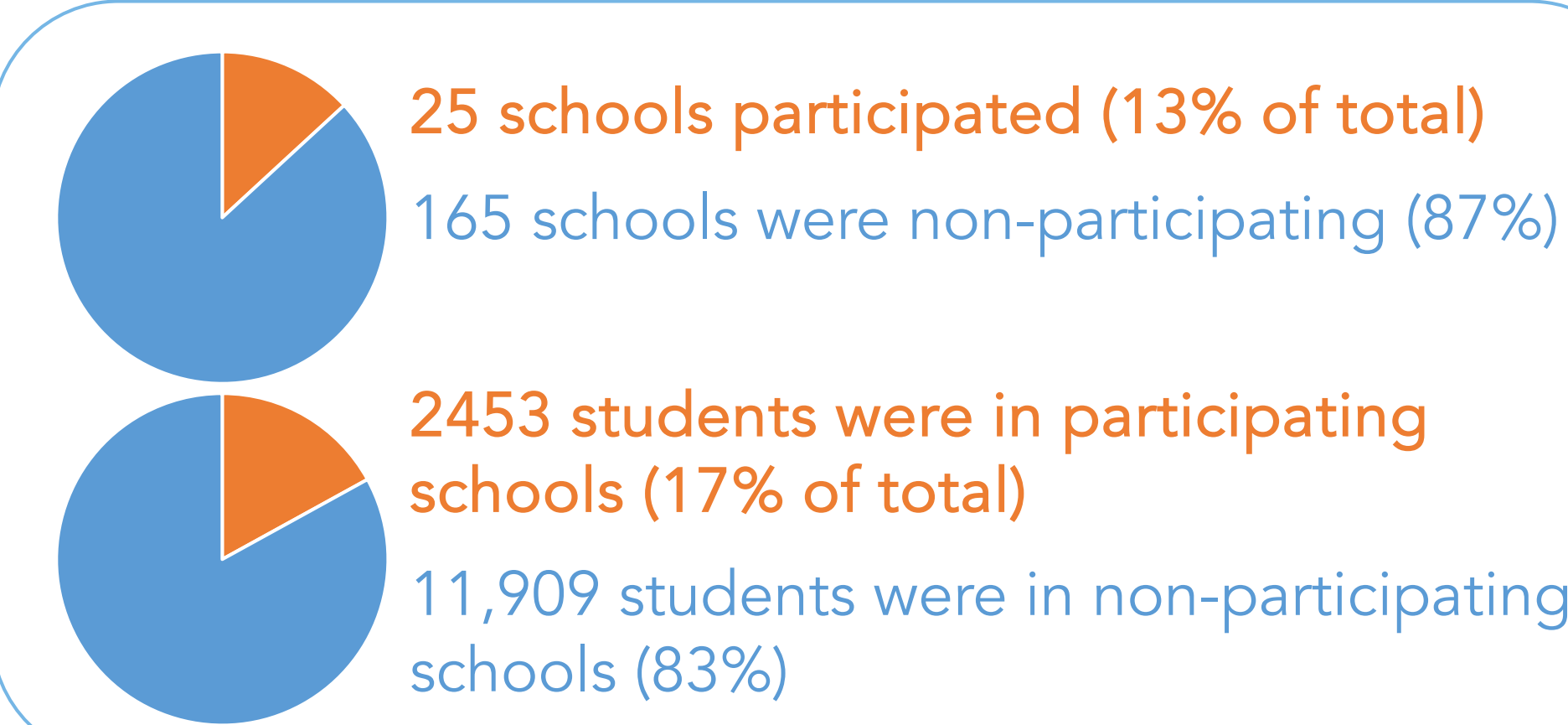
Secondary Quantitative Measures:

- Approximate proportion with guardian present
- Immunization uptake amongst those eligible
- Projected coverage if implemented broadly

Qualitative measures:

- What went well for the health units & what would they do differently?

Results: Quantitative



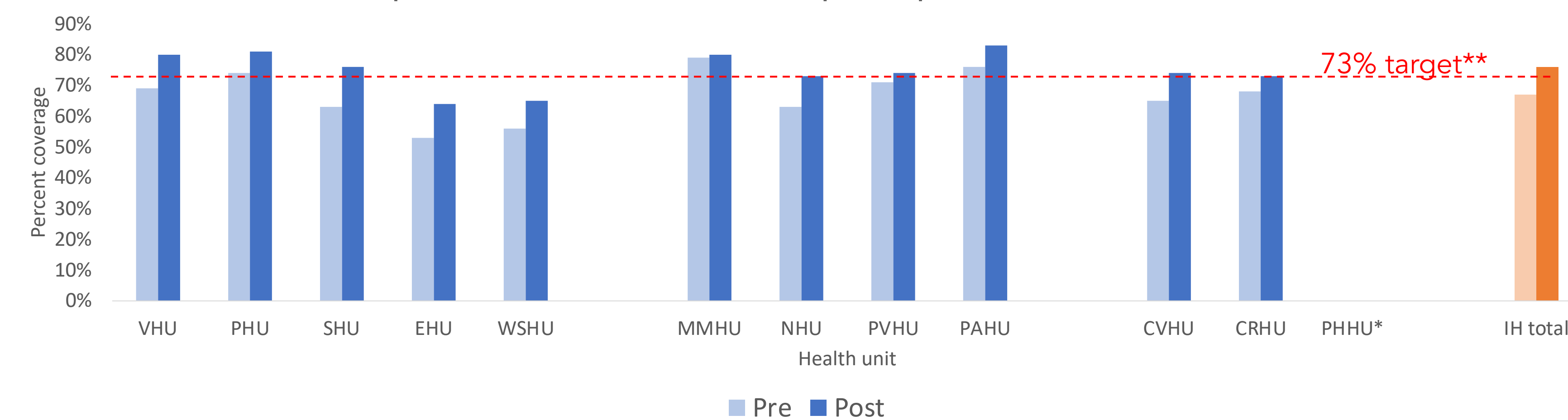
Participation in Gr. 1 & 2 SBICs:

- 25 out of 71 (35%) schools with coverage <73% participated in the SBICs
- Out of 805 eligible students, approximately 236 were immunized

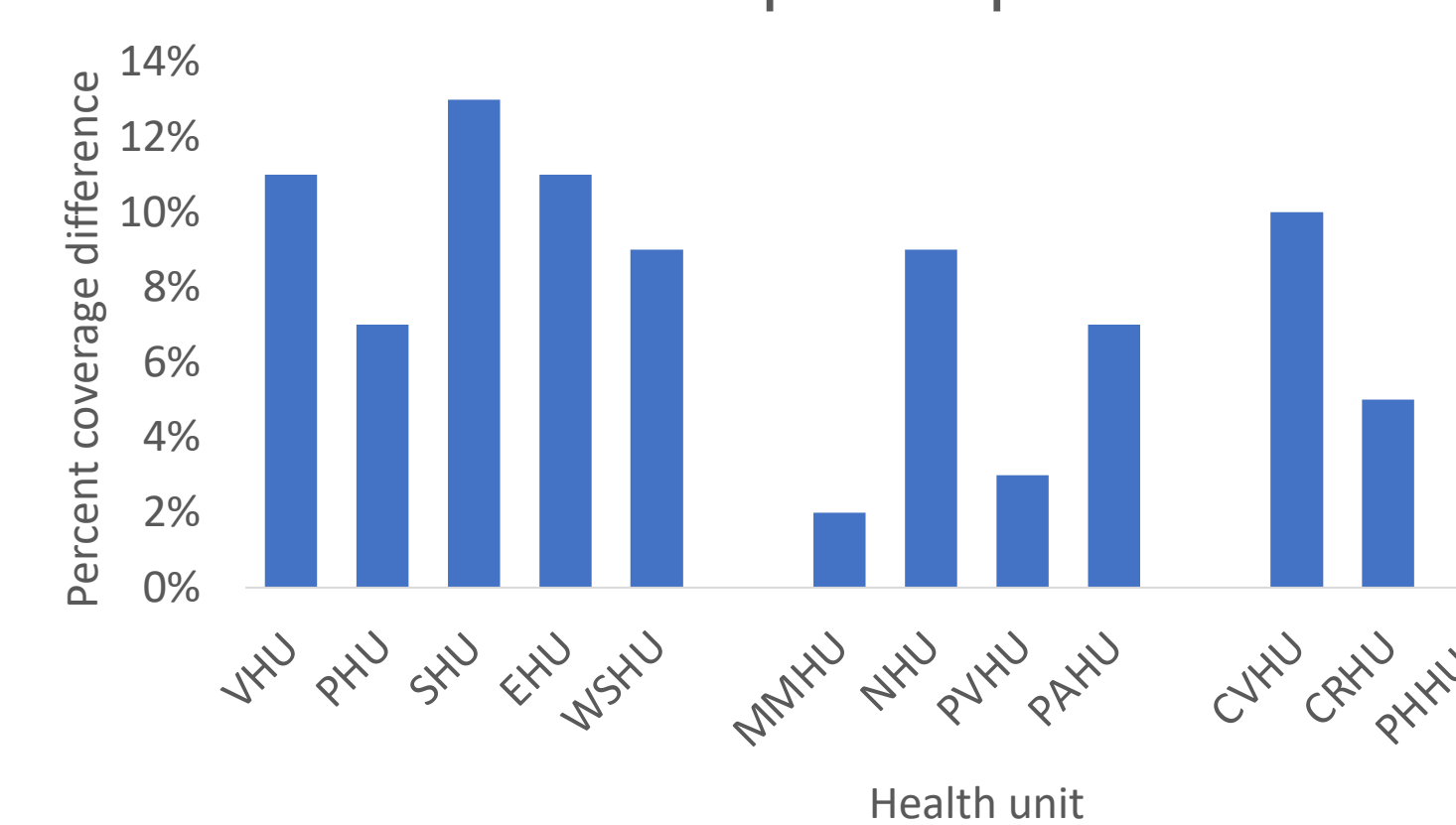
Quantitative Results Summary:

- 9 percentage point ↑ in coverage at participating schools across Island Health
 - 9 percentage point ↑ among Gr. 1; 8 percentage point ↑ among Gr. 2
 - 2-13 percentage point ↑ at participating schools & 0-1 percentage point ↑ at non-participating schools, by health unit
- Up to 5 percentage point ↑ overall coverage (participating & non-participating), by health unit
- 1 percentage point ↑ overall coverage at Island Health (72% → 73%)
- ~29% of those eligible became up-to-date

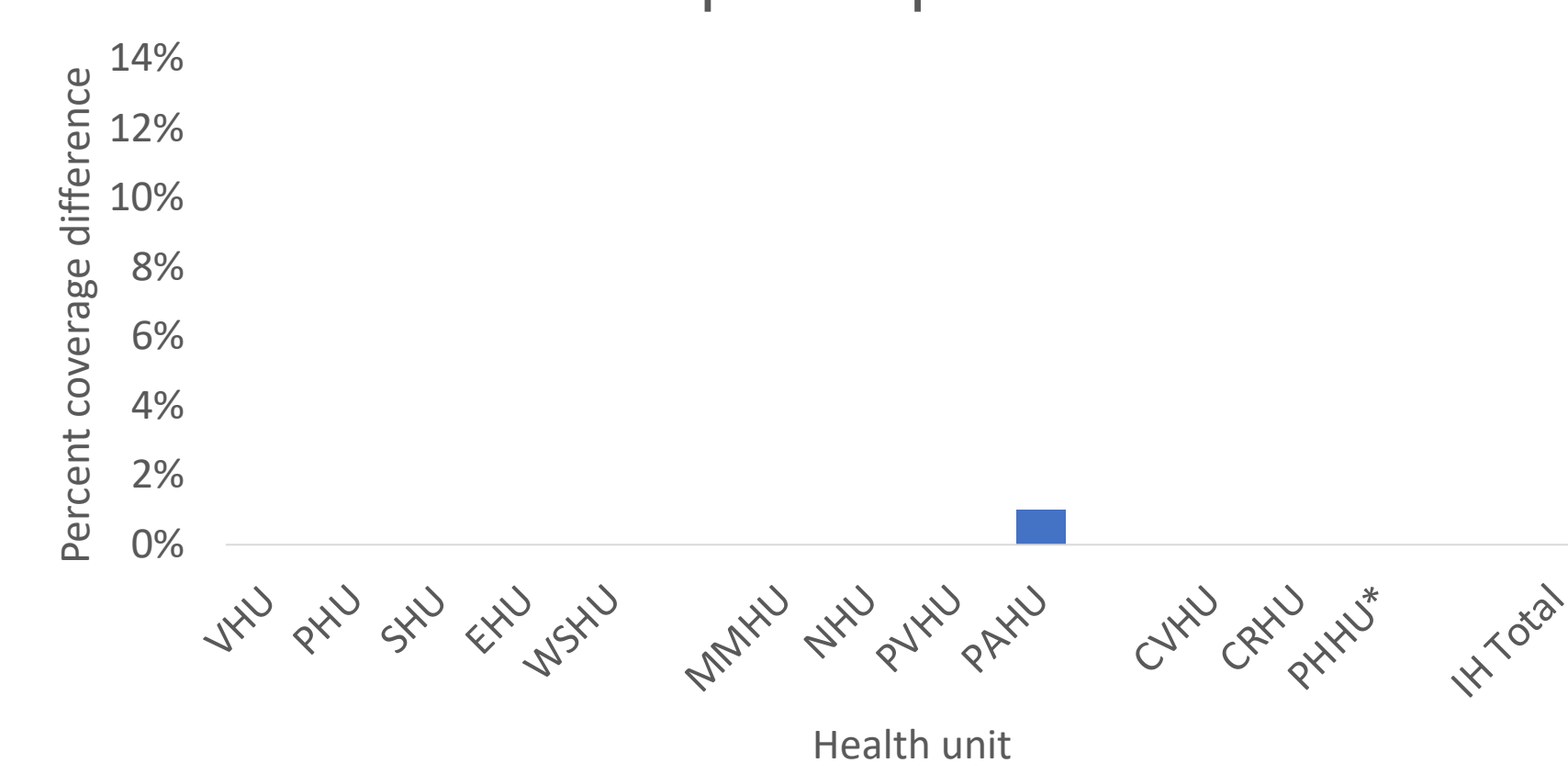
Participating schools % coverage pre & post SBICs by health unit



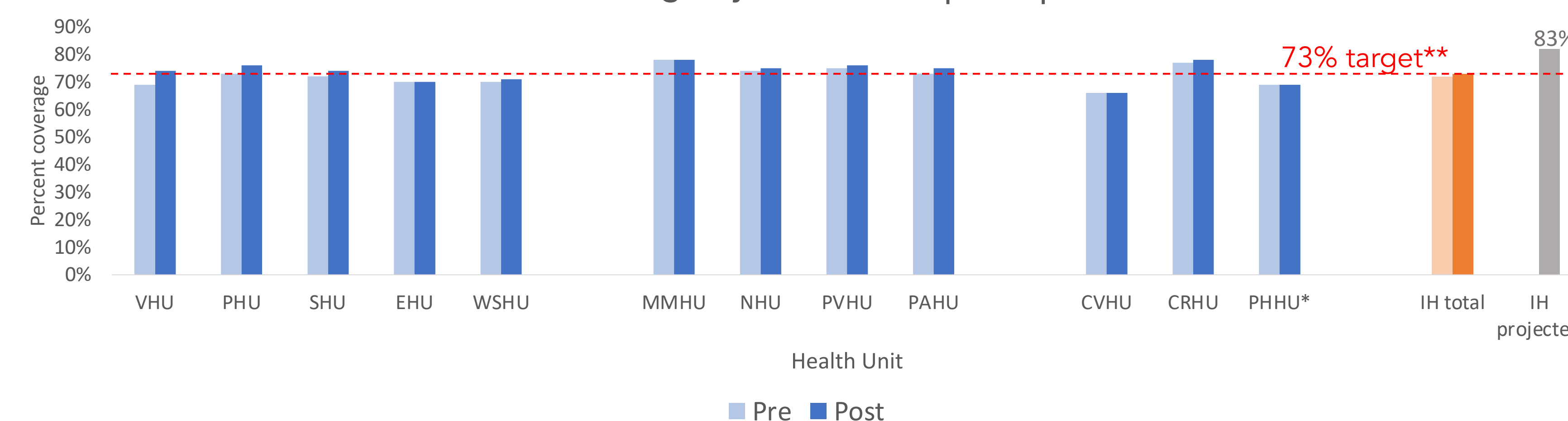
Participating schools % coverage difference pre to post SBICs



Non-participating schools % coverage difference pre to post SBICs¹



Overall % coverage by Health Unit pre & post SBICs



^{*}PHHU (Port Hardy Health Unit) was unable to offer SBICs at participating schools but was able to make phone reminder attempts to some children in these cohorts and offer immunization appointments.

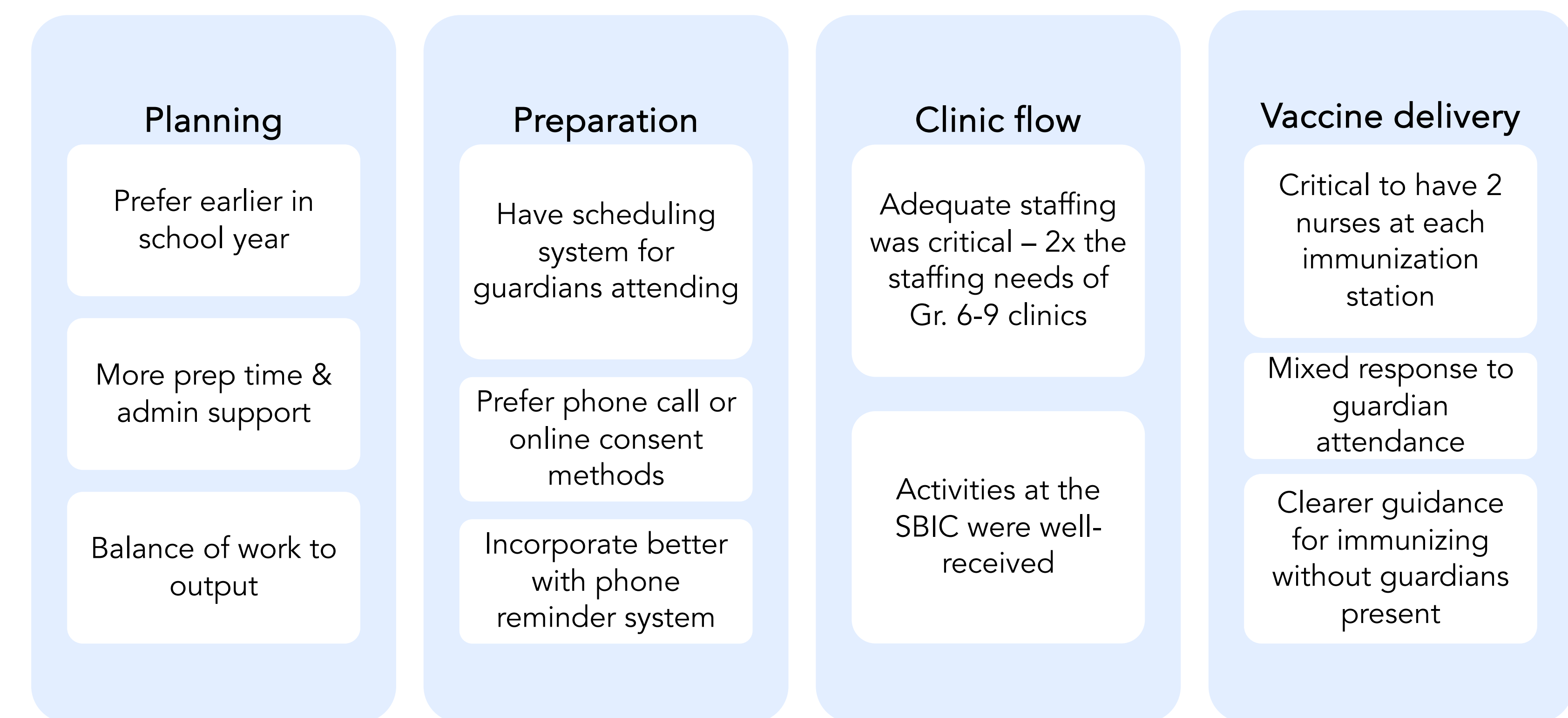
^{**}Gr. 1 & 2 immunization coverage ≠ 7-year-old immunization coverage.

¹Multiple schools had negative change in % coverage, likely due to student movement between schools from pre- to post SBICs or change in # documented.

Additional outcomes:

- Larger ↑ coverage among Gr. 1 than Gr. 2 students at participating schools and overall
 - 9 vs 8 percentage point ↑ at participating schools and 2 vs 1 percentage point ↑ at all schools
- Guardian attendance may help to ↑ coverage (9 vs 7 percentage point ↑; 12 vs 8 percentage point ↑ for Gr. 1)
- Larger ↑ coverage if paper consent was used vs phone consent alone (8 vs 4 percentage point ↑)
- Larger ↑ coverage with lower pre-project coverage & more students at the participating school

Results: Qualitative



Discussion & Lessons Learnt

Grades 1 & 2 SBICs contributed to a 2 to 13 percentage point increase in vaccine coverage across participating schools in Island Health. Even though health units already provided phone reminders for immunizations earlier in the year, SBICs were still highly effective in boosting coverage even further. The SBICs increased vaccine coverage among Grade 1 & 2 students in Island Health to the 7-year-old target of 73%, demonstrating the impact that a relatively small but directed campaign can have. Additionally, these SBICs increased access to school-entry vaccines as they did not require travel to a health unit or guardian presence. On the contrary, SBICs were resource-intensive to plan & staff, which can be a barrier to implementation for some health units. Further, the addition of a grades 1 & 2 SBIC requires coordination with pre-existing immunization activities & campaigns. Also highlighted were the challenges related to immunizing without guardians present. Overall, the grade 1 & 2 SBICs have the potential to drastically improve Island Health's 7-year-old coverage if incorporated into yearly campaigns and implemented more broadly.

Limitations

Limitations of this project included student movement within or outside of Island Health pre & post SBICs and changes to the number of people with immunization status documented; these had minute impacts on the denominators used and % coverage. Further, at least 1 school was excluded from the data due to missing pre-SBIC data and a small number of schools were misclassified in the results due to implementation of SBICs by a different health unit than what they are classified under in Panorama. Lastly, analyses of immunization coverage were conducted at an aggregate rather than individual level and does not identify the exact individuals who were vaccinated in this pilot.

Conclusion & Implications

This QI project highlights the importance of multi-faceted approaches to increase vaccine access & coverage. Given the effectiveness of the grades 1 & 2 SBICs, Island Health will continue to implement them at select schools, with potential for future expansion.

Recommendations for future campaigns:

- Integrate SBICs with phone reminders to streamline immunization outreach
- Consider SBICs in younger grades (such as kindergarten) to provide earlier protection
- Allow health units time and flexibility to integrate grades 1 and 2 SBICs into their existing work
- Create and share resources & training around immunizing children without their guardians present

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