

BACKGROUND

- In November 2020, Island Health (IH), with the support of the BC Ministry of Health, introduced Hospital at Home (HaH) at Victoria General Hospital (VGH). The program expanded to Royal Jubilee Hospital in March 2021
- HaH is an innovative model of acute care that provides hospital-level treatment and services to patients in their own homes.
- Despite being at home, patients who live within a specified catchment radius are admitted to the "hospital" and remain under the care of a hospital-based team
- Given the acuity of the patients anticipated to receive care through this model, questions arose about how the delivery of clinical pharmacy services that inpatients rely on could be included in the HaH model
- With limited supporting evidence for the inclusion of a clinical pharmacist in the HaH model¹⁻⁴, Island Health launched the HaH program with a clinical pharmacist who provides services 7 days a week during daytime hours and works on site at VGH

OBJECTIVE

To assess the impact of the HaH clinical pharmacist on patient care, from the perspective of the HaH clinical pharmacist, patients, caregivers and program stakeholders

METHODS

- Prospective, observational mixed methods study
- Data collection occurred 1 year after the program launched (December 2021 – March 2022)

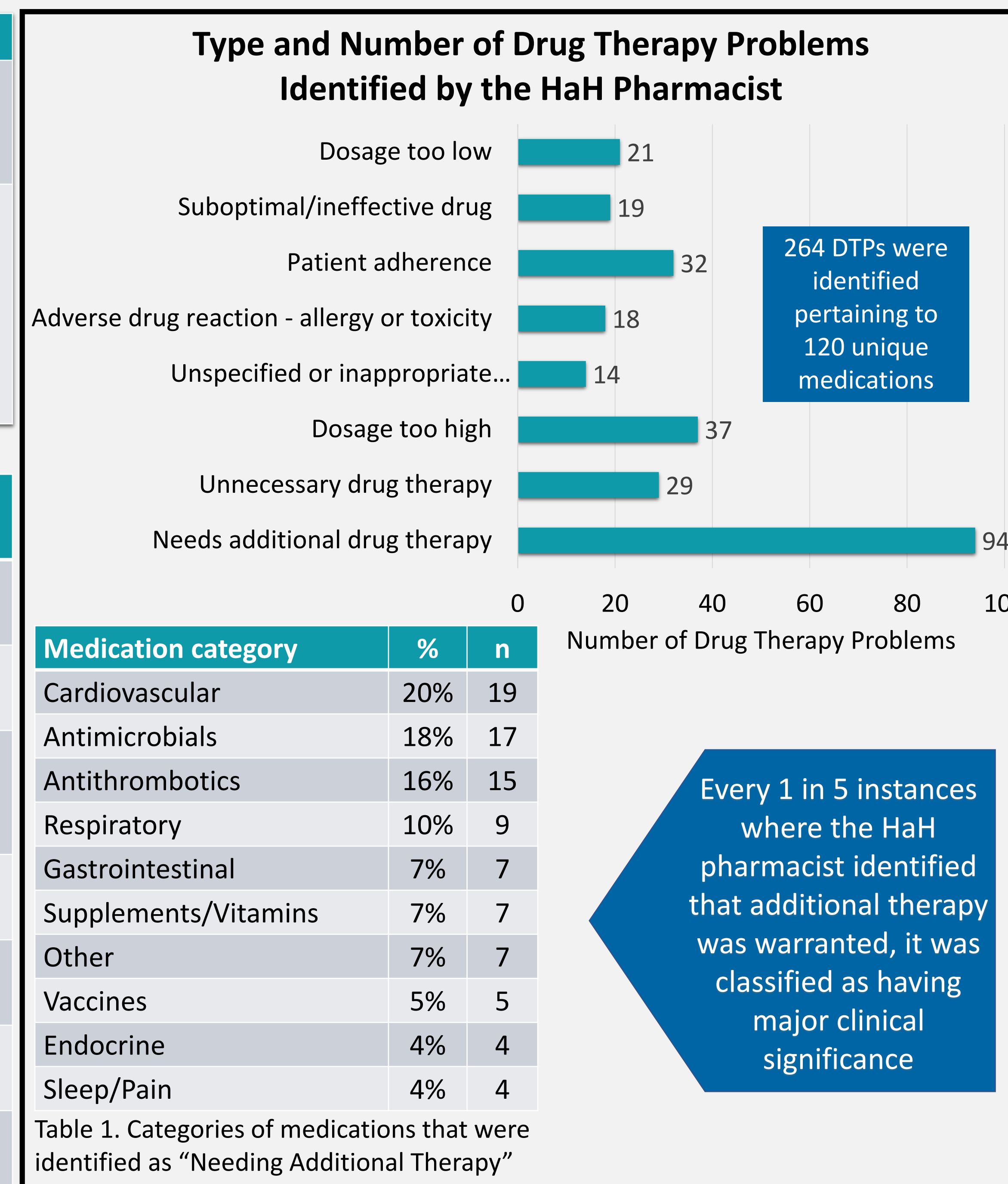
HaH Clinical Pharmacist	Patients and Caregivers	Program Stakeholders
<ul style="list-style-type: none"> 14 weeks Documented daily clinical pharmacy key performance indicators and resolved drug therapy problems 	<ul style="list-style-type: none"> 17 weeks Post-discharge phone survey - 4 questions 	<ul style="list-style-type: none"> 12 weeks Online survey – 9 questions Optional follow up virtual interview – 7 questions

- Stakeholders included: registered nurses, physicians, program leaders, rehabilitation assistants, and registered dieticians

PHARMACIST ACTIVITY DURING ADMISSION

	VGH	RJH
Percentage of individual patient care rounds the HaH participated in	96% (559/585)	98% (410/419)
Percentage of patients who received documented admission medication reconciliation, as well as resolution of identified discrepancies, facilitated by the HaH pharmacist	96% (75/78)	76% (34/45)

123 new admissions during study period	VGH and RJH
Number of times the HaH pharmacist contacted a patient's community pharmacy	46
Most common reasons: Discharge and home med clarification	29
Number of patients who received medication education from the HaH pharmacist while admitted	54
Number of patients who spoke to the HaH pharmacist on the phone	110
Number of patients who spoke to the HaH pharmacist in person	23
Average number of patients per day whose DTPs were identified and acted upon	3
Average number of DTPs per day that were identified and acted upon	3



PHARMACIST ACTIVITY IN PREPARATION FOR DISCHARGE

	VGH	RJH
Percentage of patients who received documented discharge medication reconciliation facilitated by the HaH pharmacist	80% (53/66)	45% (20/44)
Percentage of patients who received medication education by a pharmacist at discharge	70% (46/66)	48% (21/44)
Average number of medications that education was provided for to patients in preparation for discharge	6	3
Percentage of patients who received a medication calendar from the HaH pharmacist in preparation for discharge	26% (17/66)	7% (3/44)

PATIENT, CAREGIVER AND STAKEHOLDER PERCEPTIONS

100% of the PATIENT and CAREGIVER responders AGREE or STRONGLY AGREE that: (n=27)

- ... they received **quality care** from the pharmacist
- ... the pharmacist **took a personal interest** in them
- ... the pharmacist was **available** when they needed them
- ... they had **trust and confidence** in the pharmacist
- ... they were **confident the pharmacist knew enough about their health problems**

... Pharmacists are **critical members of the HaH healthcare team**
Percentage of STAKEHOLDER responders who were COMPLETELY SATISFIED that the pharmacist: (n=25)

- ... **educates** patients and caregivers about the safe and appropriate use of medications **92%**
- ... **monitors** and reports patient's response to drug therapy **76%**
- ... is available for **consultation 96%**
- ... **liaises** with other healthcare professionals delivering patient care to facilitate positive health outcomes **96%**
- ... **provides advice** to patients about their medications and/or health conditions **92%**
- ... **reviews therapies** and makes necessary changes to help promote positive health outcomes **88%**

STAKEHOLDER INTERVIEW THEMES

Positive

- Ensuring that medication prescribing is up-to-date, evidence-based, and safe (6 out of 8 interviews)
- Collaborating with others to proactively address all logistical issues involving medications (6 out of 8 interviews)
- Ensuring that medical and medication histories are accurate and comprehensive (5 out of 8 interviews)
- Ensuring all patients and/or caregivers are educated about medications (5 out of 8 interviews)

Negative

- Inconsistent coverage and challenges with a single-site pharmacist coverage model affecting the quality of care (5 out of 8 interviews)

DISCUSSION

- One of the most significant roles the HaH pharmacist plays is in identifying indications for medication therapy and making recommendations to initiate therapy where there is an absence
- There was high congruence between patient, caregiver, and stakeholder perceptions that the pharmacists positively impact patient care within the IH model
- The qualitative data draws focus to the importance of a consistent staffing model with respect to a dedicated pharmacist assigned to a specific HaH site in order to optimize care delivery
- Despite not being identified as a theme using our methodology, there were strong statements from stakeholder interviewees that spoke to the care team's dependence on the pharmacist's role to function properly
- The pharmacist's role has been firmly established and recognized by others in the first year after launch
- Limitations**
 - Limited sample size due to time constraints of data collection
 - Did not conduct a comparative analysis of the outcomes before and after integration of the clinical pharmacist
 - Inherent biases associated with study design (recall and performance)

CONCLUSION

- Overall, this study shows that a dedicated HaH pharmacist is invaluable to the delivery of excellent patient care in the IH HaH model
- Future direction: Establishment of the clinical pharmacist's role in new HaH programs would be assisted by health economic analyses

REFERENCES AND ACKNOWLEDGEMENTS

***References available upon request
 The authors would like to thank Dawn Pollon for assisting with ethics approval, Rounak Haddadi for assisting in the patient and caregiver survey, the HaH Clinical Pharmacists for documenting their daily activities, and the HaH Stakeholders for responding to the survey and volunteering to be interviewed.