

Rates of Telehealth No-Shows at Dartmouth-Hitchcock General Internal Medicine Clinics

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OBJECTIVES

- The primary objective of this study is to determine the rate of patient no-shows for telehealth visits at three Dartmouth-Hitchcock Medical Center (DHMC) General Internal Medicine (GIM) clinics; the clinics in scope for this study are located at the Lyme, Heater Road, and DHMC facilities.
- A secondary objective is to identify the demographic variables associated with a higher likelihood of a telehealth no-show occurrence. These variables can be leveraged to create targeted interventions that reduce patient no-show rates.

BACKGROUND

- After the outbreak of COVID-19, the use of telehealth has increased significantly. The use of telehealth to replace in-clinic appointments has increased from 11% in 2019 to 45% in 2020, and telehealth is forecasted to become a \$250 billion industry.
- A patient “no-show” is defined as when a patient schedules an outpatient appointment but does not appear for care at the specified date, time and location without previously cancelling the appointment. In the US, primary care no-show rates range from 5% to 55%.
- Patient no shows have significant consequences for providers, patients and hospitals. The impact includes underutilization and efficiency losses for the providers, loss of continuity of care and worse outcomes for patients, and higher expenditures and revenue losses for hospitals.
- Dartmouth-Hitchcock Medical Center (DHMC) has increasingly used telehealth over the past 6 months to accommodate patient care during the COVID-19 pandemic. These visits have taken the form of telephone visits and video calls using the Vidyo software.
- There is currently limited data related to telehealth no-shows at DHMC. As telehealth becomes increasingly utilized across the DHMC system, it will be important to understand the rate of patient no-shows for telehealth visits given the growing use of telehealth as well as the implications for patient health and safety, healthcare provider efficiency, and hospital/clinic finances.

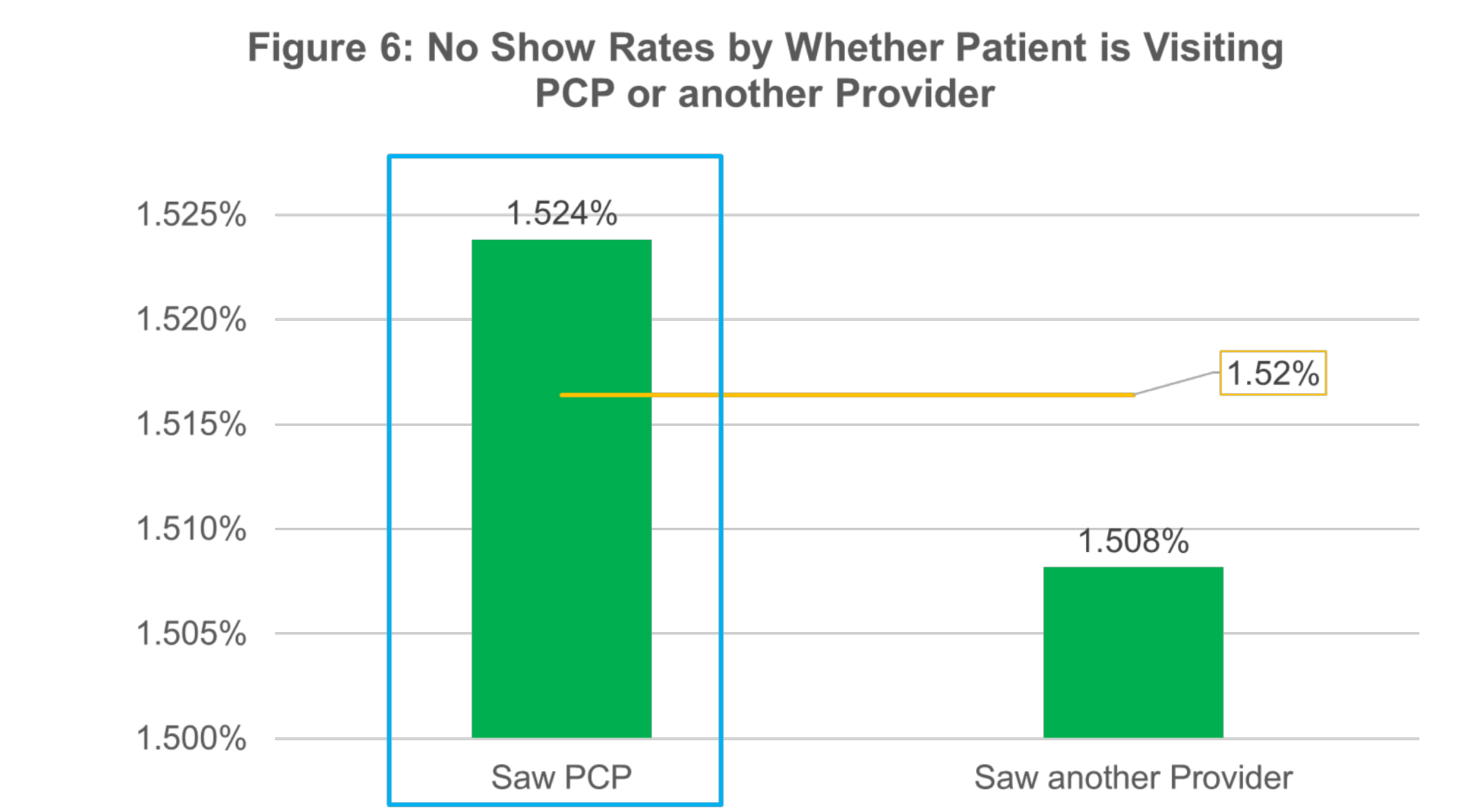
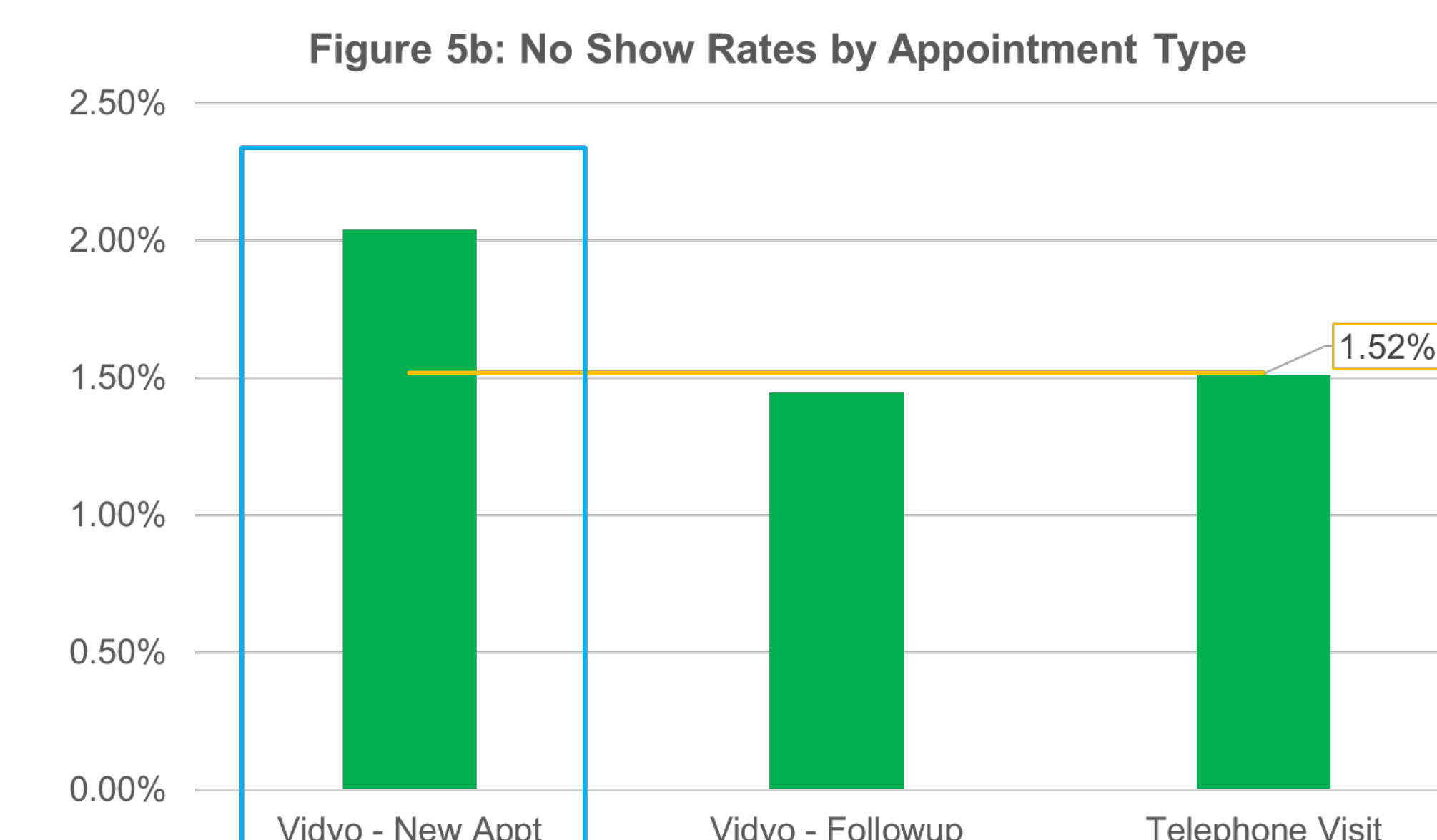
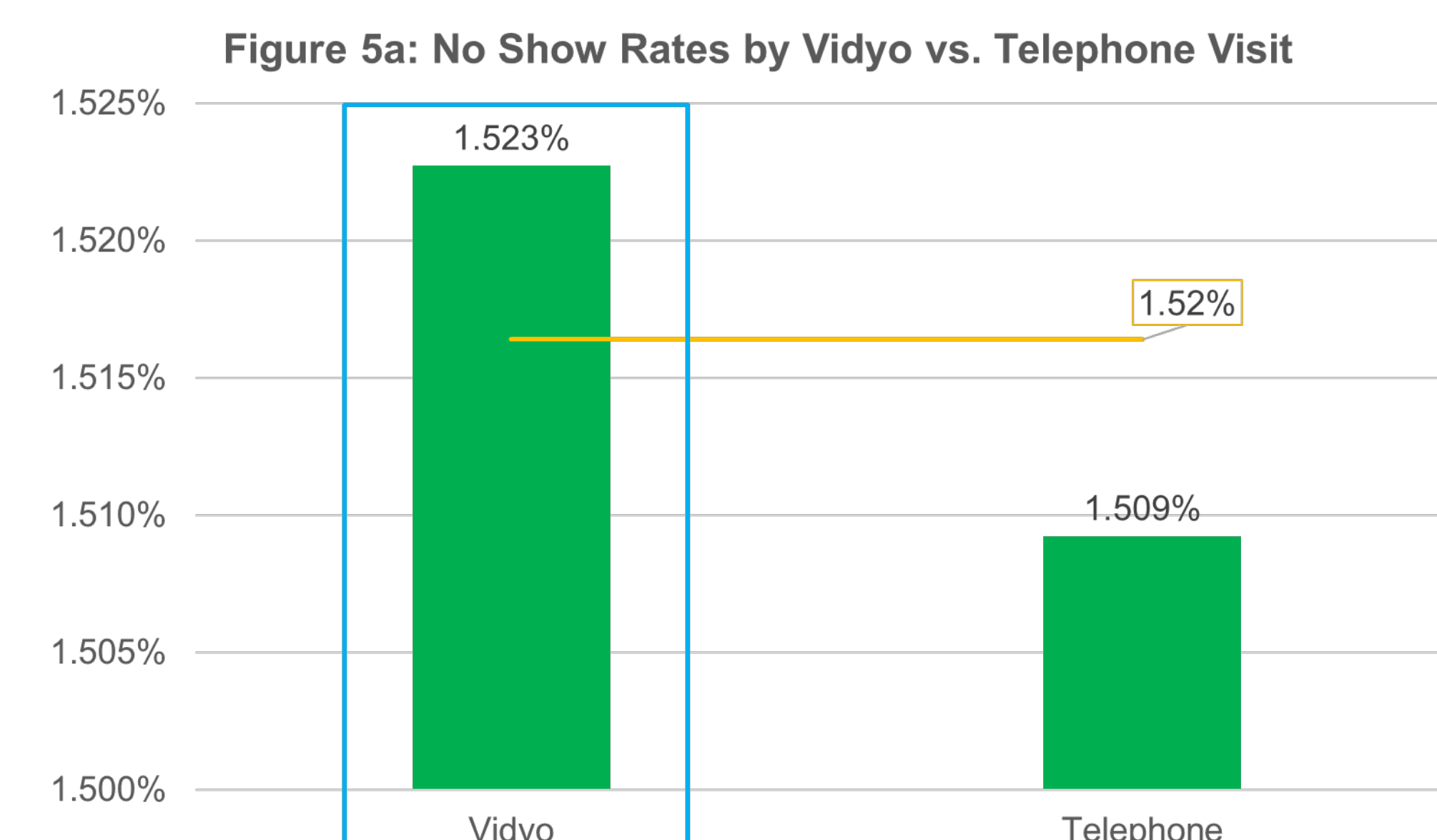
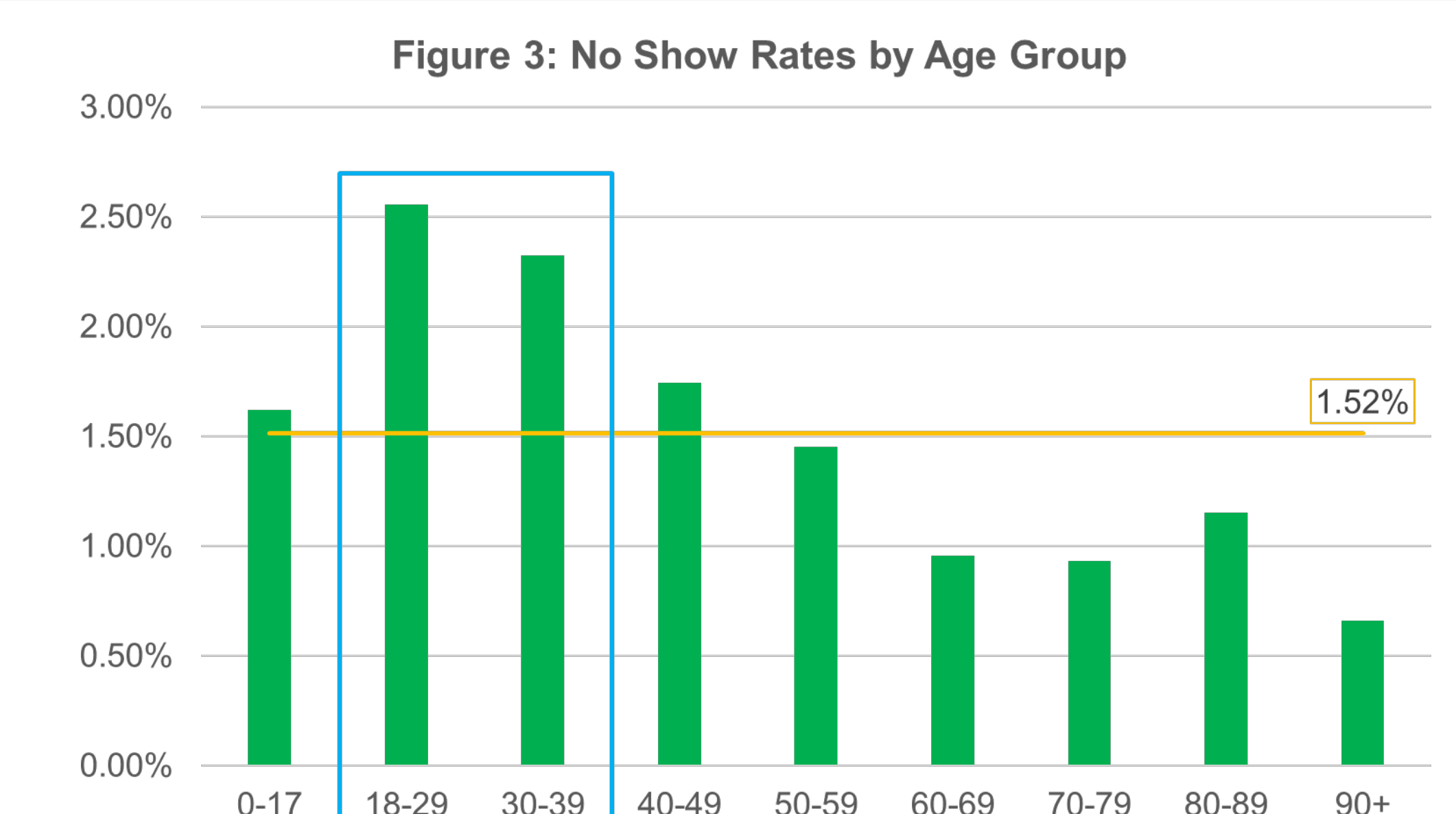
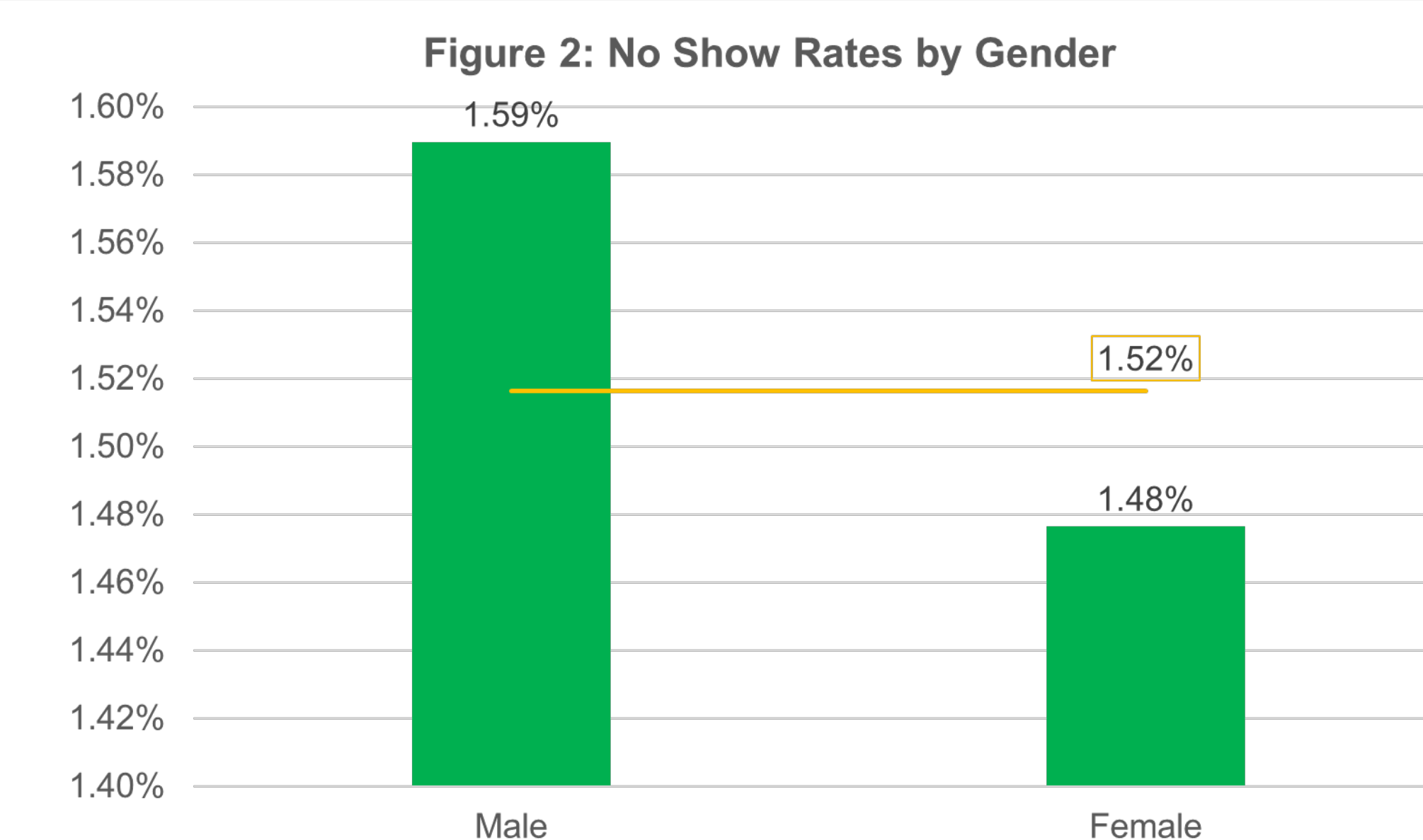
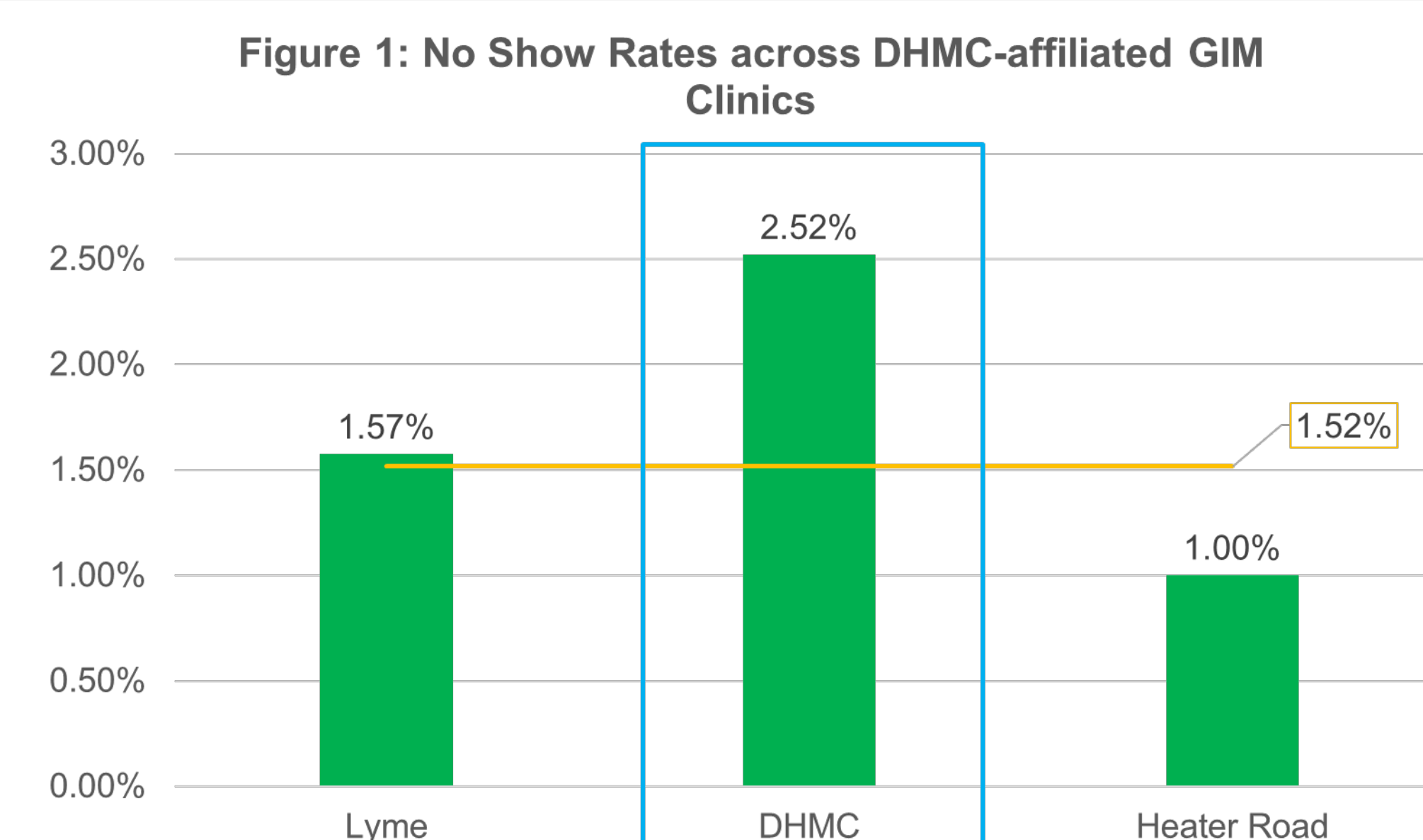
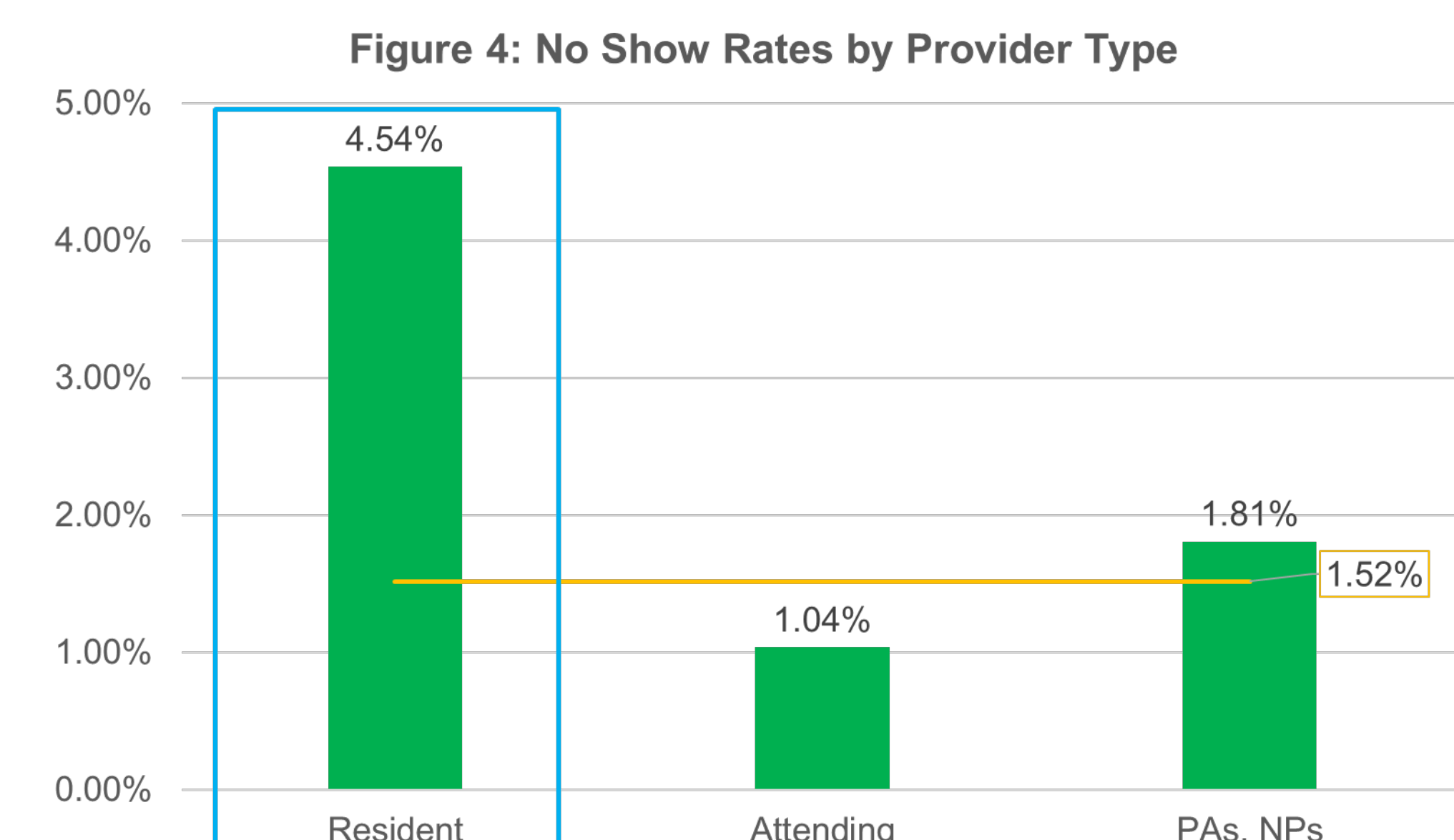
METHODS

- A medical record database search of the DHMC GIM electronic medical record system was performed for telehealth visits scheduled between March 1, 2020 and September 13, 2020 at the three GIM clinics (Lyme, Heater Road, and DHMC).
- Patient no-show rates were analyzed and stratified by appointment location, patient age and gender, appointment type (video or telephone call), provider type (attending physician, resident physician, associate provider), and who the patient saw (patient's PCP or another provider).
- No-show rates are calculated as the number of telehealth no-shows over the total number of telehealth visits.

RESULTS

SUMMARY: Number of Appointments by Facility

	No-Show	Show	Total
Lyme	23	1,438	1,461
DHMC	131	5,065	5,196
Heater Road	103	10,188	10,291



DISCUSSION

Interesting trends emerge when patient no-show rates by location, age group, gender and provider type are examined.

The overall no-show rate across the three DHMC GIM clinics was 1.52%, and equates to 257 no-shows over the 6-month period examined.

As demonstrated by Figure 1, no-show rates at the DHMC GIM clinic are the highest at 2.52%, while the Heater Road facility has a patient no-show rate of ~1.00%. This possibly is driven by the increased presence of residents at the DHMC clinic compared to Lyme and Heater Road, and the associated higher rate of no-shows for telehealth appointments with residents

Stratifying the no-show rates by gender and age group, as noted in Figures 2 and 3, we see men have a slightly higher no-show rate than women. Additionally, there are significant differences across age groups. Specifically, patients aged 18-29 and 30-39 have higher than average no-show rates at 2.56% and 2.32%, respectively. This is in-line with no-show data for in-person appointments. Furthermore, it does not appear that technical difficulties are barriers for older patients who may not be as well versed in telehealth as younger patients.

In Figure 4, the no-show rates were stratified based on the appointment's provider type – whether the patient was seeing a resident physician, an attending physician, or associated providers (PAs or NPs). The data indicates that patients have nearly triple the no-show rates when they are scheduled to see a resident than when the patient is scheduled to see an attending, or associated provider. While the reasons are unclear, the discrepancy across the three provider types suggests significant intervention is needed to lower the no-show rates for telehealth appointments with residents.

Figures 5a and 5b provide the no-show rates based on the appointment type, specifically whether the patient was scheduled to join via the Vidyo software (video call), or by telephone, and whether the Vidyo appointment was a new or follow-up appointment. While the difference between the Vidyo and telephone no-show rates is only about ~0.13% as seen in Figure 5a, video calls do result in a higher than average no-show rate. This appears to be driven by patient no-shows for new appointments as seen in Figure 5b.

Figure 6 shows the no-show rates for appointments where the patient is seeing his/her PCP, or another provider. The data reveals that while there is very little difference across these two groups, there is a higher no-show rate when patients are seeing their PCPs. This could represent patient's keeping their appointments for acute care with any available provider, while no-showing for routine appointments with their PCP. Additional intervention to ensure patients attend or cancel their PCP appointments may help in reducing the no-show rates.

CONCLUSIONS & TAKEAWAYS

- Across the three sites reviewed, DHMC had the highest no-show rate at 2.52%, suggesting that DHMC GIM clinic patients specifically may benefit from intervention tactics.
- Younger patients (aged 18-39) have higher no-show rates, and targeted intervention may be beneficial to reduce their no-show rates.
- Intervention is needed for resident appointments as residents have nearly triple the no-show rates that attendings or associated providers do. Similarly, patients have higher no-show rates when they see their PCP than another provider which may need additional intervention.
- No-show rates for Vidyo calls, especially new appointments, are above average. Intervention or improvements to the Vidyo user experience may reduce no-show rates.
- Additional research and analysis of telehealth no-show rates across different clinics and over longer periods of time would help continue identifying areas for targeted intervention to lower no-show rates. Multivariable analysis of demographics may also reveal additional data (e.g. examining no-show rates among men aged 18-39 vs. women aged 18-39 which may identify areas for intervention).
- Further research into the no-show rate before and after implementation of a new EHR-integrated video software may help identify software features that can be utilized to further lower no-show rates.

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