

Pediatric pain evaluation accessibility: The impact of telehealth on patient access



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Introduction

- Chronic pain (i.e., discomfort longer than 3 months) occurs in 25-33% of youth (2020).⁹
- As the standard of care, multidisciplinary treatment of chronic pain results in reduced reports of pain and health care utilization as well as improvement in functioning and mood symptoms.^{4, 5, 6, 7, 8}
- Families face barriers to obtaining comprehensive care including geographic distance, transportation, school absences, and caregiver time off work.^{2, 3}
- The onset of the COVID-19 pandemic has prompted telemedicine as an adaptive need for health care settings across the U.S.
- As telehealth helps to eliminate some of the barriers to treatment, the current study examined the shifts in the range of patients accessing pain management following the onset of shelter in place (SIP) in the context of COVID-19.
- Telehealth was hypothesized to result in maintained or increased rates of access regarding patient geographic diversity, ethnic and racial diversity, and patients with government-funded insurances.

Methodology

- Data were extracted retrospectively from the Pediatric-Collaborative Health Outcomes Information Registry (Peds-CHOIR)¹ and patient medical charts.
- Participants (n = 906) with chronic pain ages 2 – 21 years received an initial evaluation in-person (n=472) within the 18 months before SIP *or* during the 18 months after SIP via telehealth (n=434) during the COVID-19 pandemic.
- Patient geographic distance from clinic: calculated with zip codes. Differences were evaluated using independent samples t-test.
- Racial and ethnic composition: differences were assessed via chi-squared test.
- Insurance: percentage change between groups was calculated and a chi-squared test run to assess for significance.

Results

Sample Description

- 906 youth ($M_{age} = 13.9$; $SD = 3.16$); 70.6% designated-female
- In-person (n = 472) and telehealth (n = 434) evaluations
- No significant between-group differences at baseline for gender or age.

Results

Geography

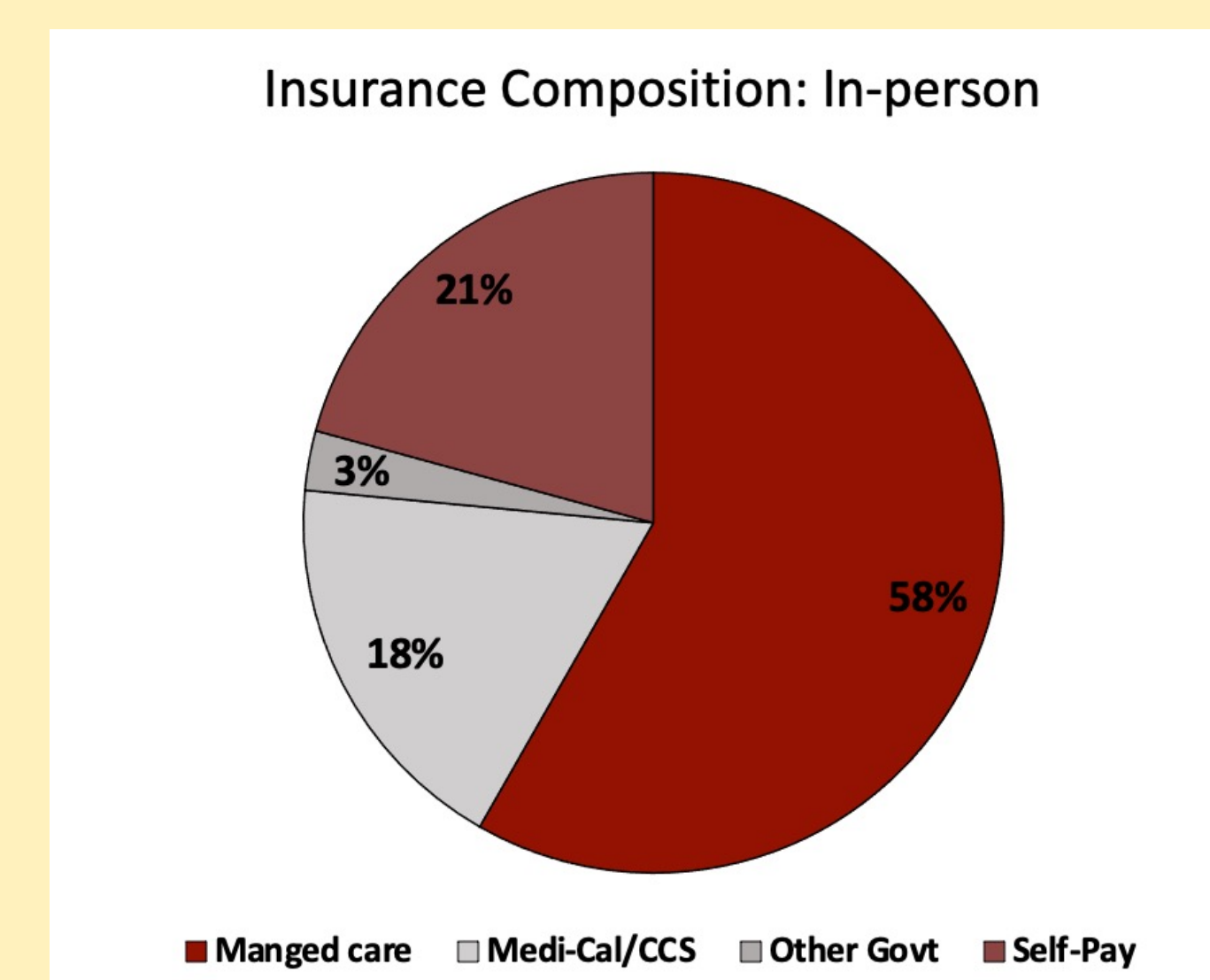
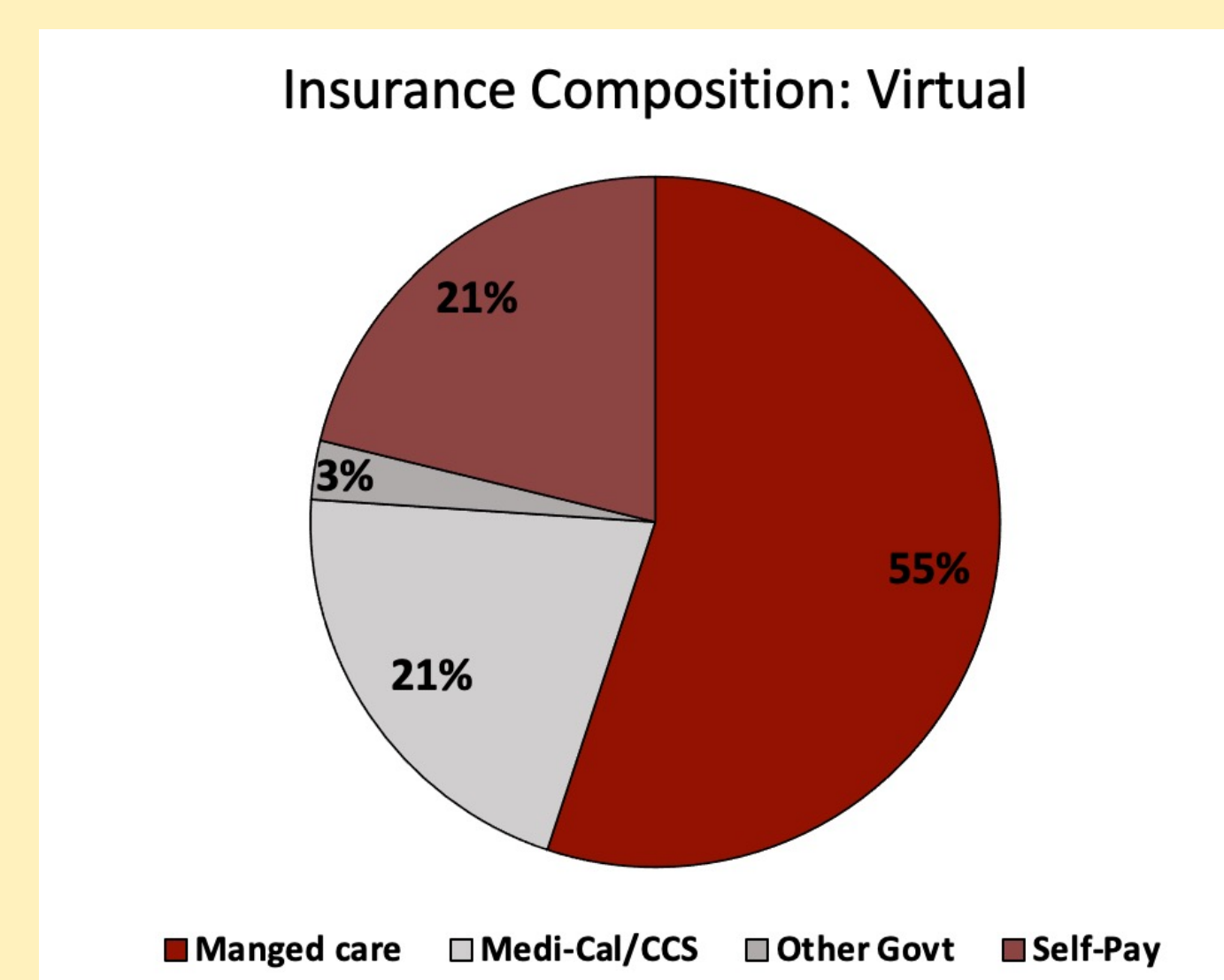
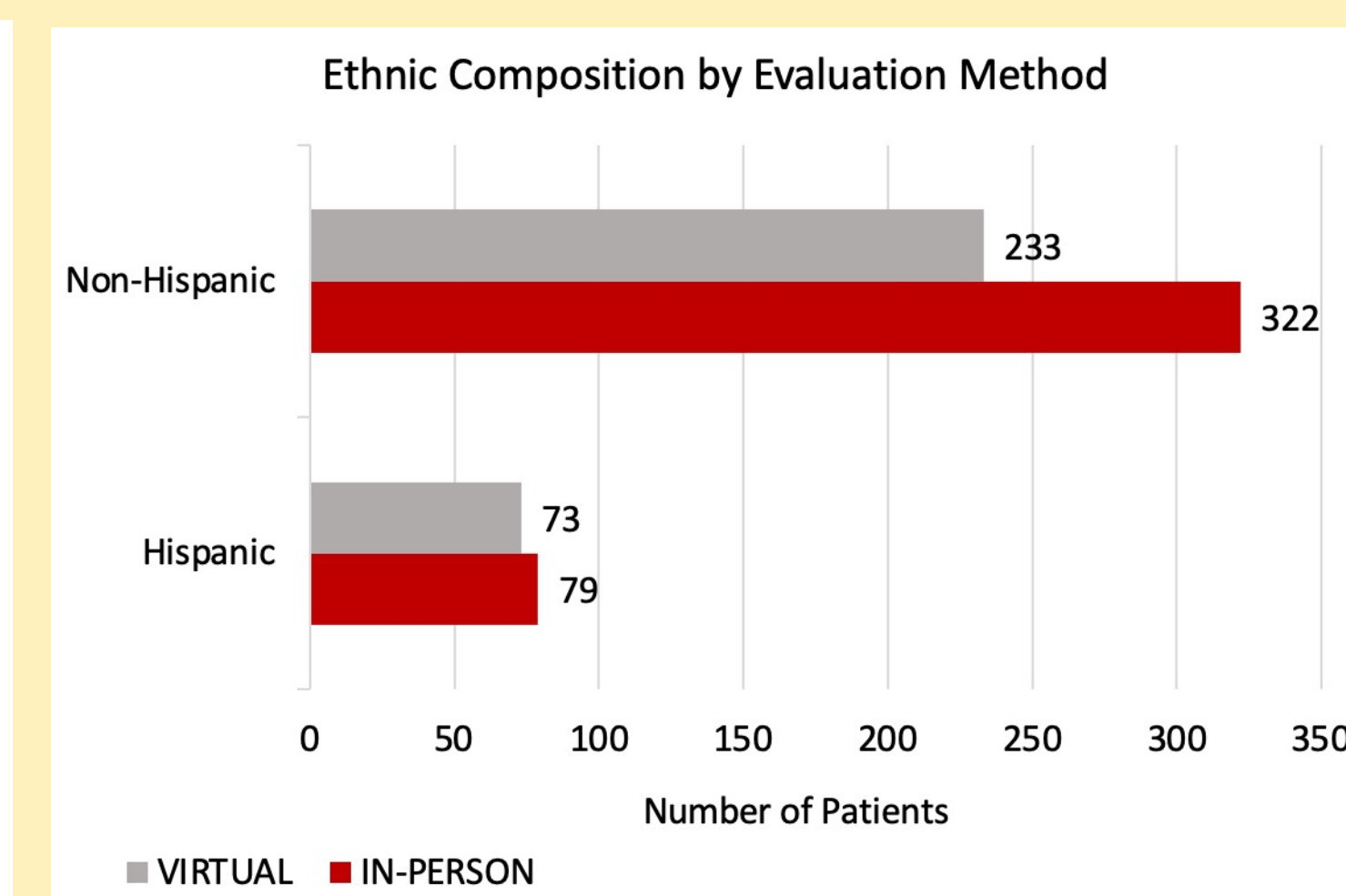
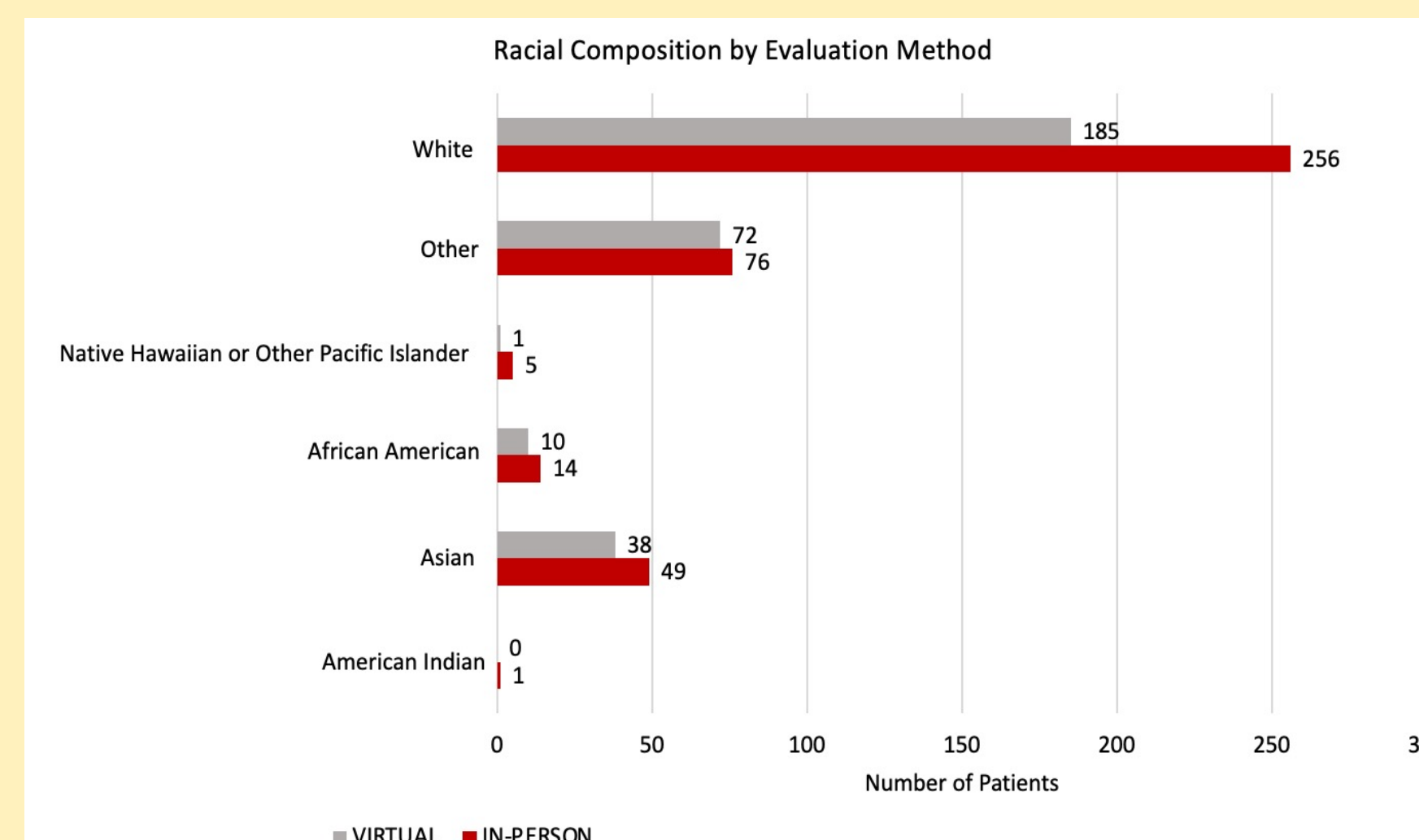
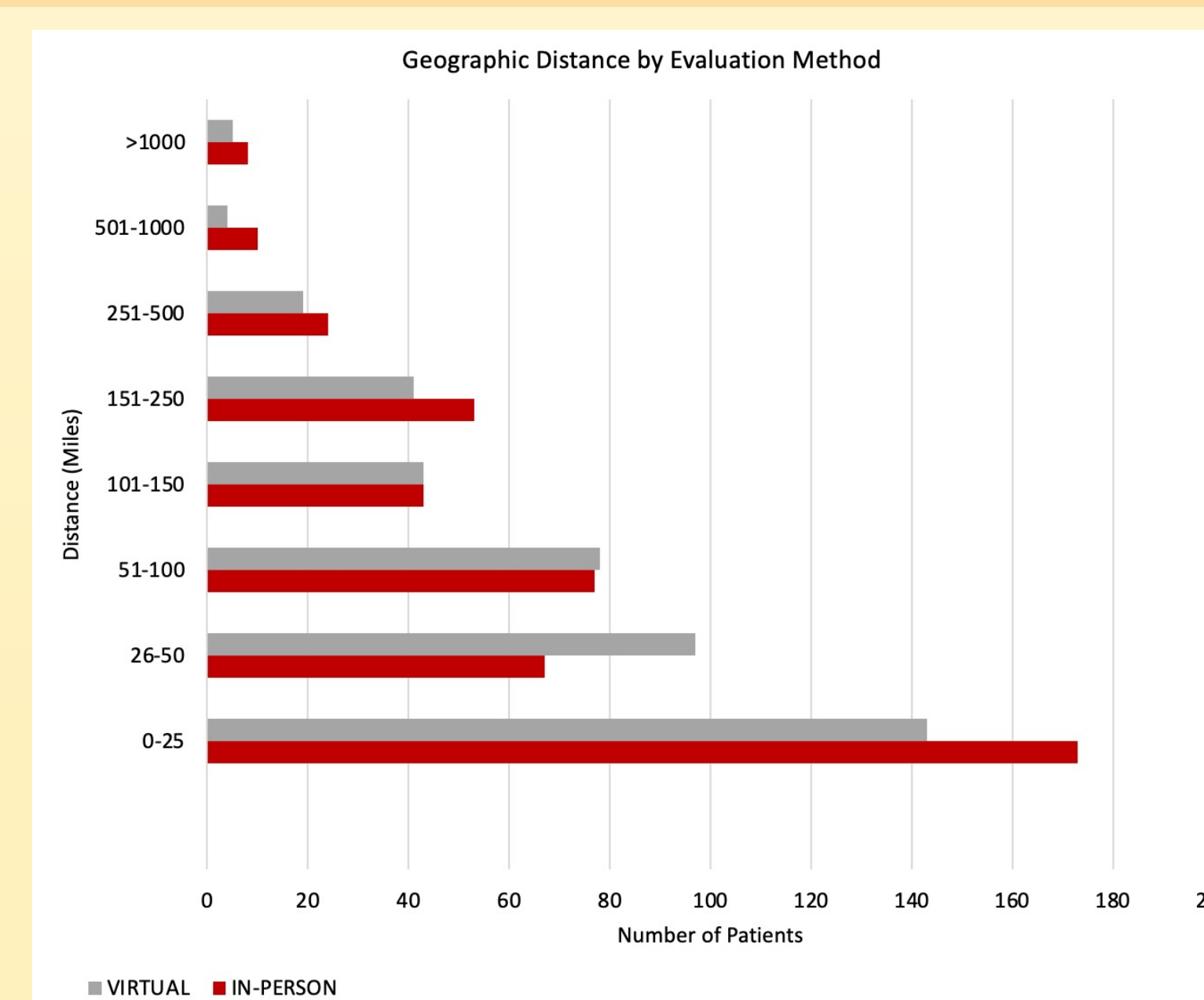
- No significant differences between groups, $t(259) = -1.47$, $p = 0.14$.
- A slight majority of participants (in-person: 52.75%; telehealth 55.81%) lived within 50 miles of the clinic.

Racial & Ethnic Composition

- The rate of patients declining to respond or responding “unknown” to the questions of race and ethnicity increased by 14.2% for the telehealth group. These cases were excluded.
- No significant changes across race $X^2(5, N = 717) = 4.48$, $p = 0.48$ and ethnicity $X^2(1, N = 717) = 1.09$, $p = 0.30$ related to appointment type.

Insurance

- The telehealth group demonstrated a slight increase in government-funded insurances (2.74%); no differences between telehealth and in-person visits, $X^2(3, N = 906) = 1.36$, $p = 0.71$.



Conclusions & Future Directions

Conclusions:

- Access to pain management evaluation during SIP was maintained
- Some trends in increased accessibility for patients with government insurance.
- Results support the continued use and offering of telehealth procedures beyond the context of COVID-19.

Future Directions:

- Evaluate in-person versus telehealth access across patients experiencing their care solely post-pandemic onset.
- Evaluate the impact of treatment access longitudinally comparing in-person and telehealth conditions.

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