

ABSTRACT

Purpose of study: To evaluate factors associated with the use of teledentistry among US adults from June 2019-June 2020.

Methods: Researchers used data from a national, cross-sectional survey (n=3547) focusing on consumers' sociodemographic characteristics, their fears about the pandemic, and their teledentistry use. Survey respondents included US adults who needed healthcare in the last year at the time of survey completion. Data were weighted to be representative of the US population.

Results: Concerns about the pandemic were higher for teledentistry users (n=1021) than non-users (n=2526) across all domains (P<.001). Teledentistry users and non-users also differed across all consumer characteristics with the exception of race/ethnicity (P<.001). Pandemic concerns were the most consistently associated variable with teledentistry use (both first-time and "other" use), in addition to age, sex, education, income, and health insurance (P<.001). Higher education and household income were more strongly associated with first-time users compared to "other" users. Telehealth users in oral health care were also more likely to use email, text, mobile applications compared to telehealth users in primary and mental/behavioral health care.

Implications: Teledentistry use increased during COVID-19, especially for first-time users and across broader groups. The current findings thus reflect a precedent for using teledentistry to expand oral health workforce capacity and to respond to future public health emergencies.

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INTRODUCTION

- Teledentistry allows for remote provision of dental consultation, treatment planning, and pre- and post-operative care
- Emergency responses to the COVID-19 pandemic broadened the scope of permitted teledentistry practices, loosened privacy regulations, and increased its reimbursement
- Examining new and existing users of teledentistry during the emergence of COVID-19 can reveal associations with use to inform future efforts to expand teledentistry initiatives, increasing access to care

METHODS

Cross-sectional survey

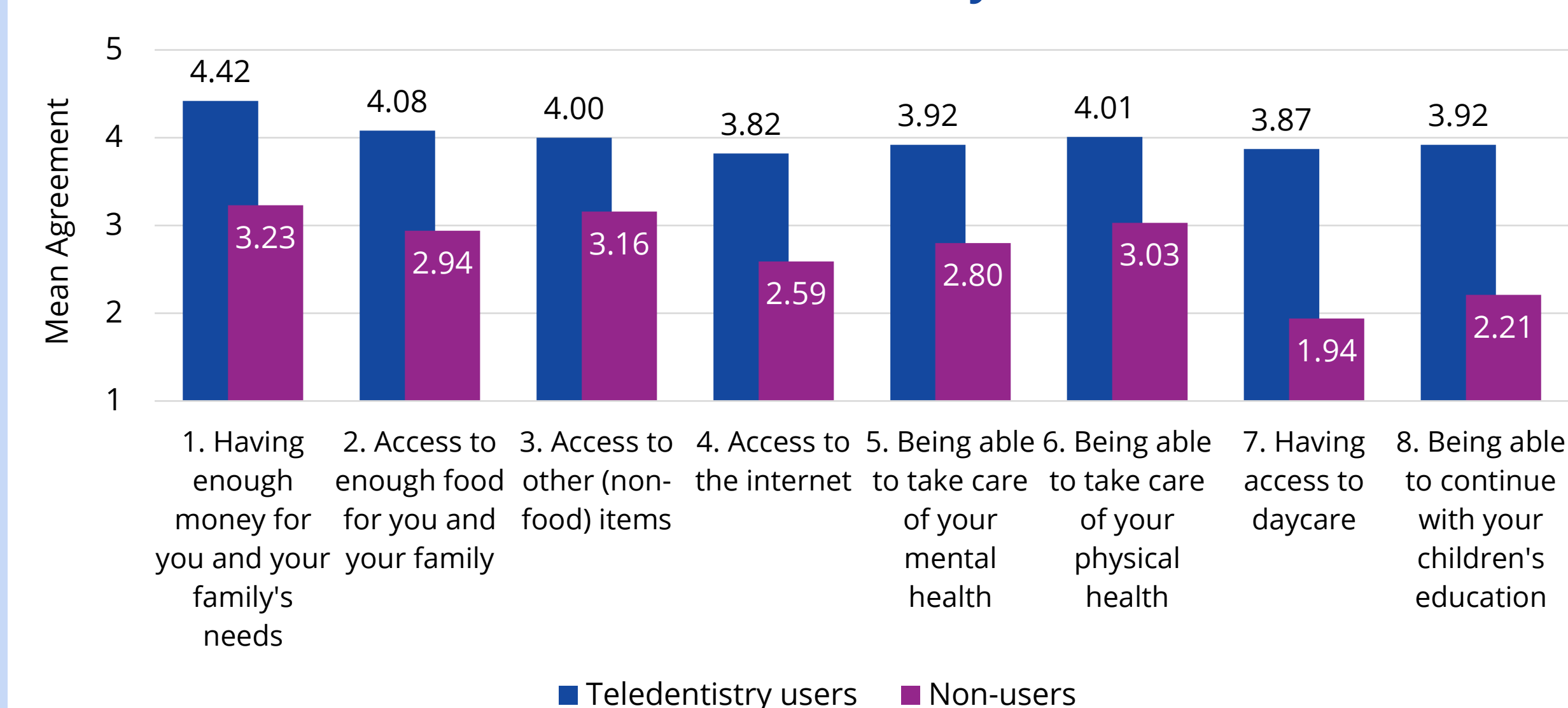
- Nationally representative sample of 3,500 consumers from American Association of Medical Colleges' Consumer Survey of Health Care Access (Responses covered year prior to survey completion [June 2019-2020])
- Variables of interest
 - Concerns about the pandemic across multiple domains (Likert ratings of 1 [not at all concerned] to 5 [very concerned])
 - Teledentistry use (first-time use due to pandemic vs. other reasons); modality use (email, phone, video, text communication, mobile app)
 - Respondents' demographic, socioeconomic, geographic characteristics

Data analysis

- Descriptive statistics, t- and chi-square tests for respondents' characteristics, pandemic concerns, and use of teledentistry modalities
- Poisson regression models for tests of associations with first-time and "other" teledentistry users vs non-users

RESULTS

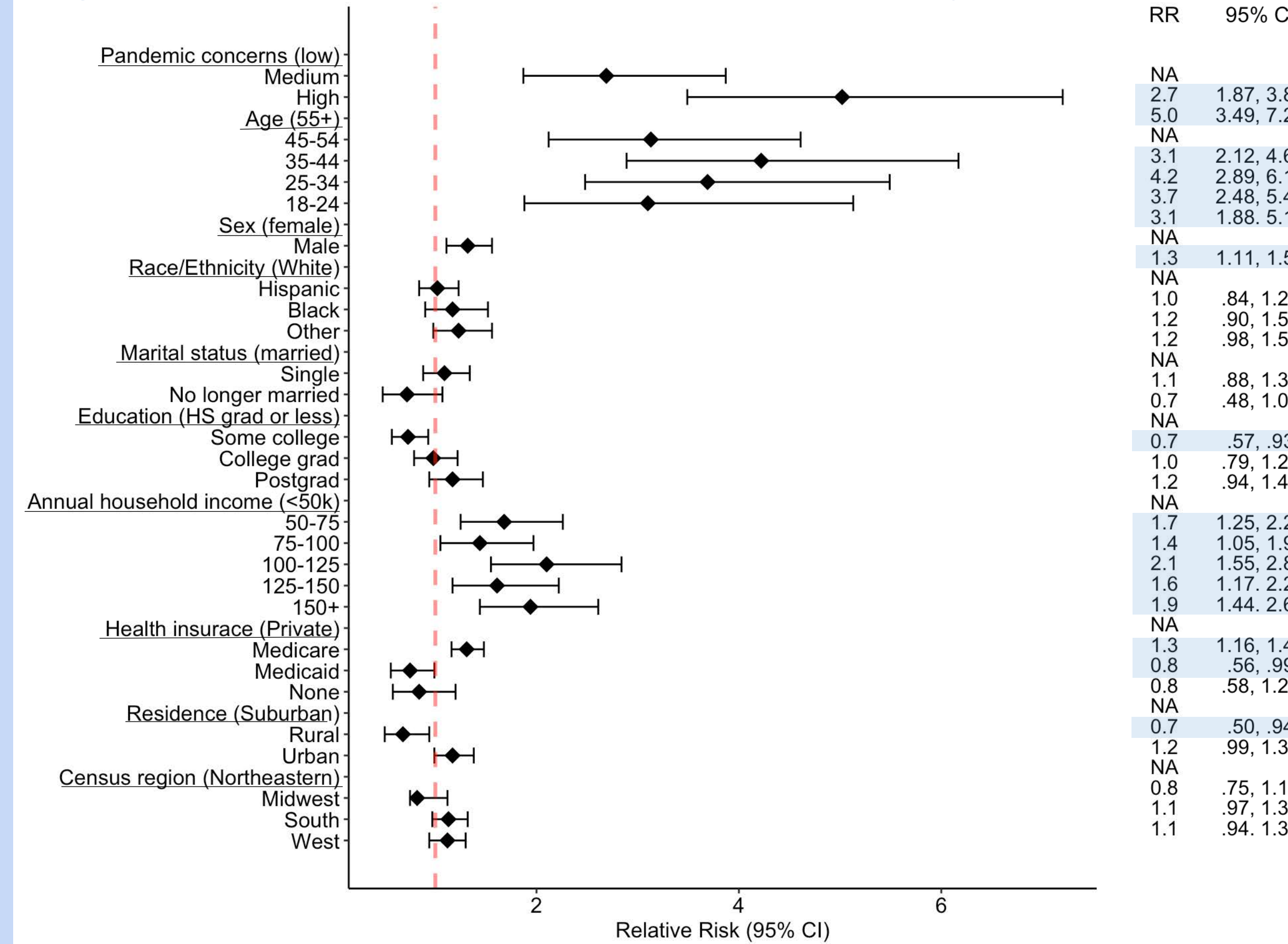
Table 1. COVID-19 Concerns of Teledentistry Users vs Non-Users



RESULTS (cont.)

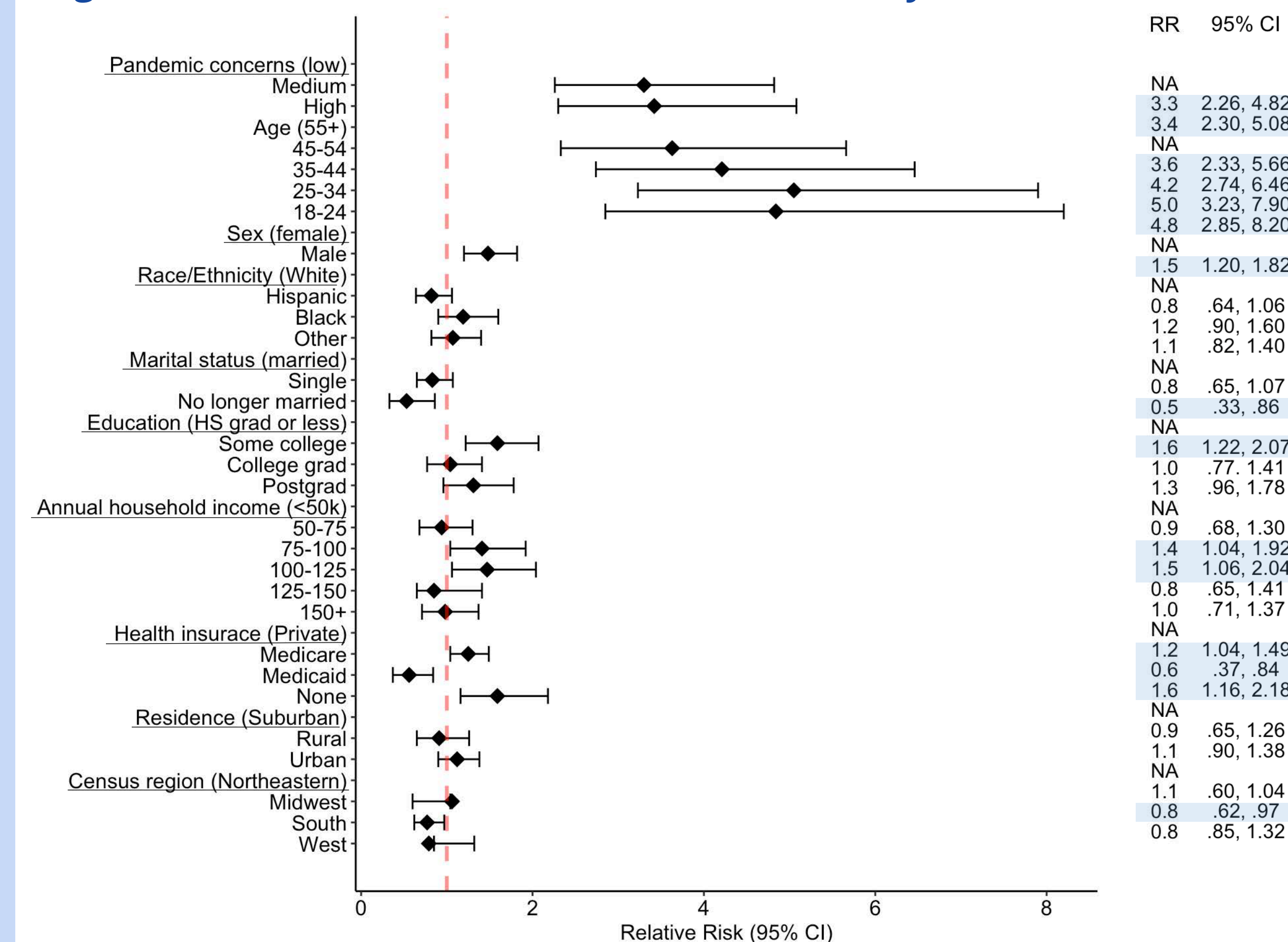
- First-time teledentistry use was most strongly associated with pandemic concerns, in addition to age, income, and health insurance

Figure 1. Associations With First-Time Teledentistry Use



- "Other" use was also associated with pandemic concerns and age; weaker associations with income and education compared to first-time use

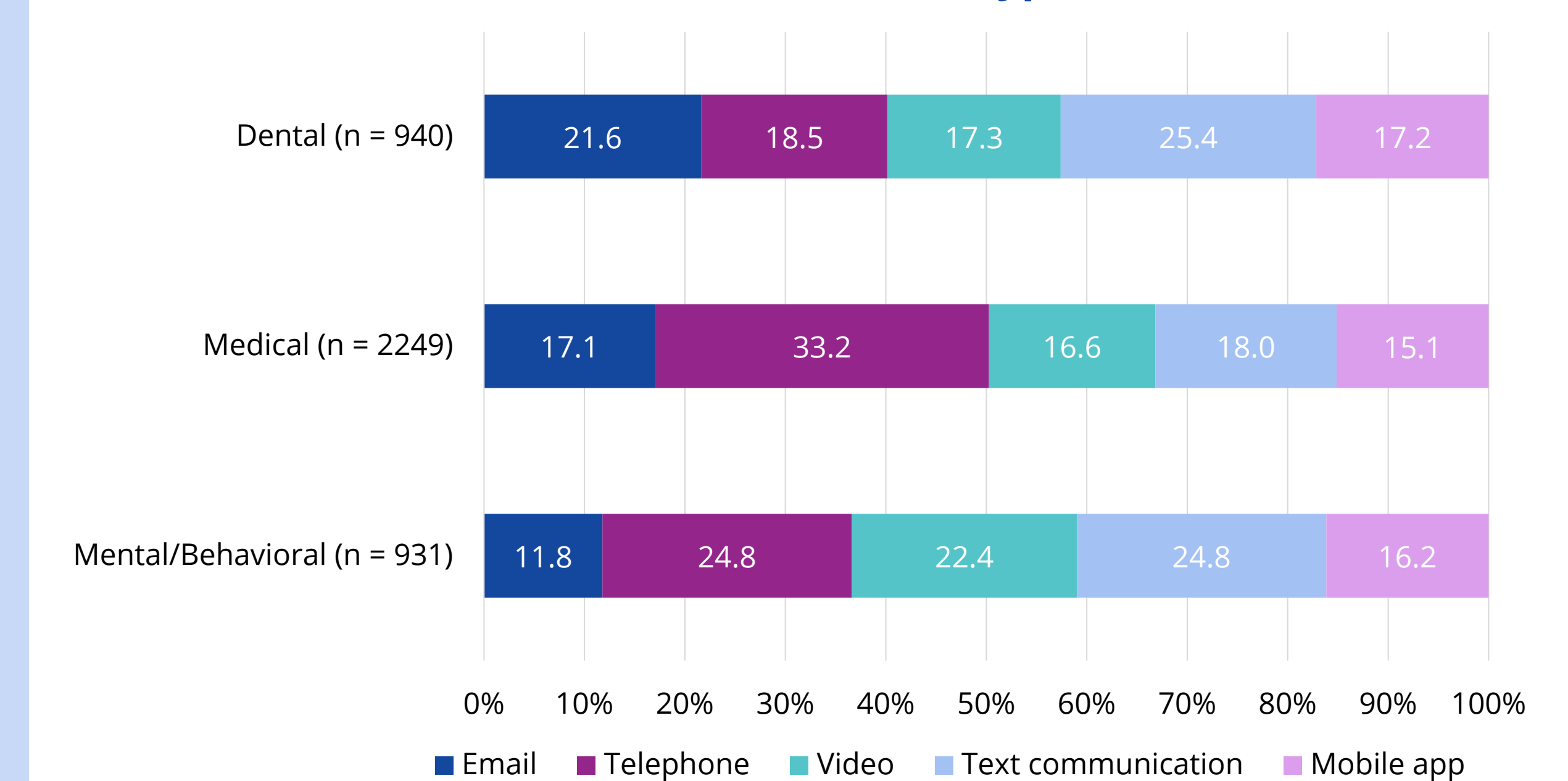
Figure 2. Associations with "Other" Teledentistry Use



RESULTS (cont.)

- Relative use of 3 telehealth applications for dental care (email, text communication, and mobile applications) was higher than for medical and mental/behavioral health
- Proportional telephone encounters were highest for medical care; proportional video encounters were highest for mental/behavioral health

Table 2. Modal Telehealth Use Across Care Types



CONCLUSIONS AND IMPLICATIONS

- Pandemic concerns had the strongest association with teledentistry use
 - Concerns about the pandemic were higher for teledentistry users across all domains
 - Demographic and socioeconomic factors also linked to use; users of teledentistry were younger, more highly educated and had higher incomes than non-users
- Broader overall use was observed by first-time users
 - The COVID-19 pandemic may have highlighted patient needs, increasing the motivation to seek out resources such as teledentistry
- Understanding use across consumer populations can illustrate the utility of teledentistry in public health emergencies and can inform its expansion in the future

ACKNOWLEDGMENTS

The OHWRRC is supported by the Health Resources and Services Administration (HRSA) of the US Department of Health and Human Services (HHS) as part of an award totaling \$449,915 with 0% financed with non-governmental sources. The content are those of the authors and do not necessarily represent the official views of, nor an endorsement by, HRSA, HHS, or the US government. For more information, please visit HRSA.gov.