The Impact of Consumers' COVID-19 Concerns on Teledentistry Use

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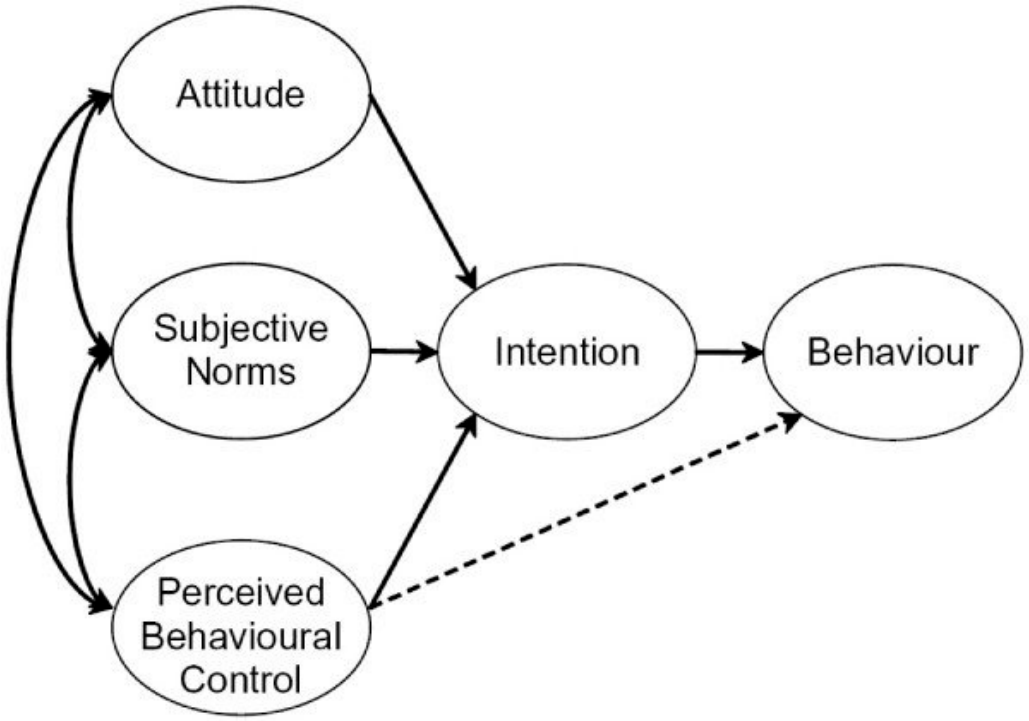
Consumer Attitudes and Health Behaviors

- Perceptions, attitudes, and beliefs constitute a core component of health behaviors and eventual health outcomes
  - Health Belief Model
  - Theory of Planned Behavior

- Specific beliefs and perceptions around COVID-19 have affected consumer health behaviors
  - Increased stress and health anxiety
  - Dental delay



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Teledentistry and COVID-19

- Potential to identify high-risk populations, facilitate patient referrals, and support locally-based treatment, especially in rural and low-income areas

- Changes to teledentistry after March 2020:
  - Centers for Medicare and Medicaid Services (CMS) and many states loosen restrictions on teledentistry
  - Clarified permitted practices and increased reimbursement across states
  - Increased patient demand and provider use

Study Objectives

- Investigate the use of teledentistry before and after the start of the pandemic
  - Identify associations with consumers' concerns about the pandemic
  - Assess use across demographic, socioeconomic and geographic groups

Methods

Cross-sectional survey

- Collected by the Association of American Medical Colleges (AAMC) as part of biannual Consumer Survey of Health Care Access
- June 2020 wave: 3,500 adults who needed health care in last year

Variables

- **Predictors**: Pandemic concerns, participant characteristics
- **Outcomes**: Teledentistry use (modalities, first time/other use)

Analysis

- Descriptive analyses
- Poisson regression for multivariable associations

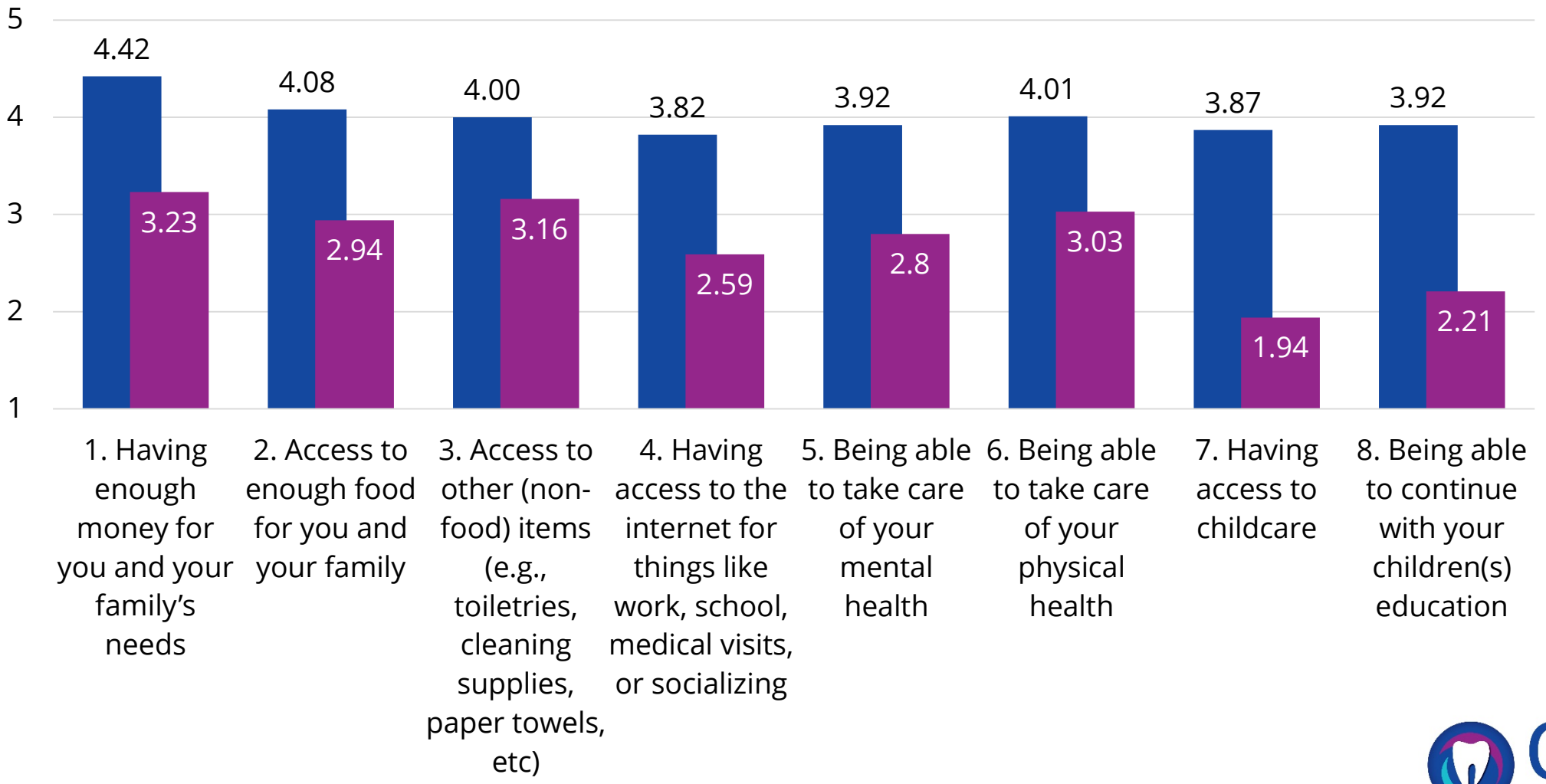
Results: Study Respondents

	Teledentistry Users (n=1021)	Non-users (n=2526)
Age (years)*		
18-34	34.4%	22.6%
35-54	**58.9%**	28.5%
55 and older	6.8%	**48.9%**
Sex*		
Female	25.8%	**54.8%**
Male	**74.1%**	45.2%
Race/Ethnicity		
White, non-Hispanic	69.8%	70.6%
Black/African-American	16.3%	17.1%
Other	13.9%	12.3%
Residence*		
Suburban	26.9%	**48.0%**
Rural	7.2%	18.9%
Urban	**65.8%**	33.1%
Region*		
Northeast	22.1%	17.5%
Midwest	14.4%	22.1%
South	**35.2%**	**38.4%**

	Teledentistry Users (n=1021)	Non-users (n=2526)
Marital Status*		
Married/living together	**74.3%**	**55.1%**
Single	21.8%	23.0%
No longer married	3.8%	22.0%
Education*		
HS grad or less	16.5%	26.2%
Some college	22.6%	**37.7%**
College graduate	23.9%	23.5%
Post graduate	**37.0%**	12.5%
Annual Household Income*		
<$50,000	14.6%	**36.0%**
$50-100,000	25.5%	24.4%
$100,000 or more	**59.8%**	29.5%
Health Insurance*		
Private	**51.7%**	**39.6%**
Medicare/Other gov't	35.1%	**39.3%**
Medicaid	7.0%	17.3%
None	6.1%	3.8%

*$P<.001$

COVID-19 Concerns Were Significantly Stronger for Teledentistry Users



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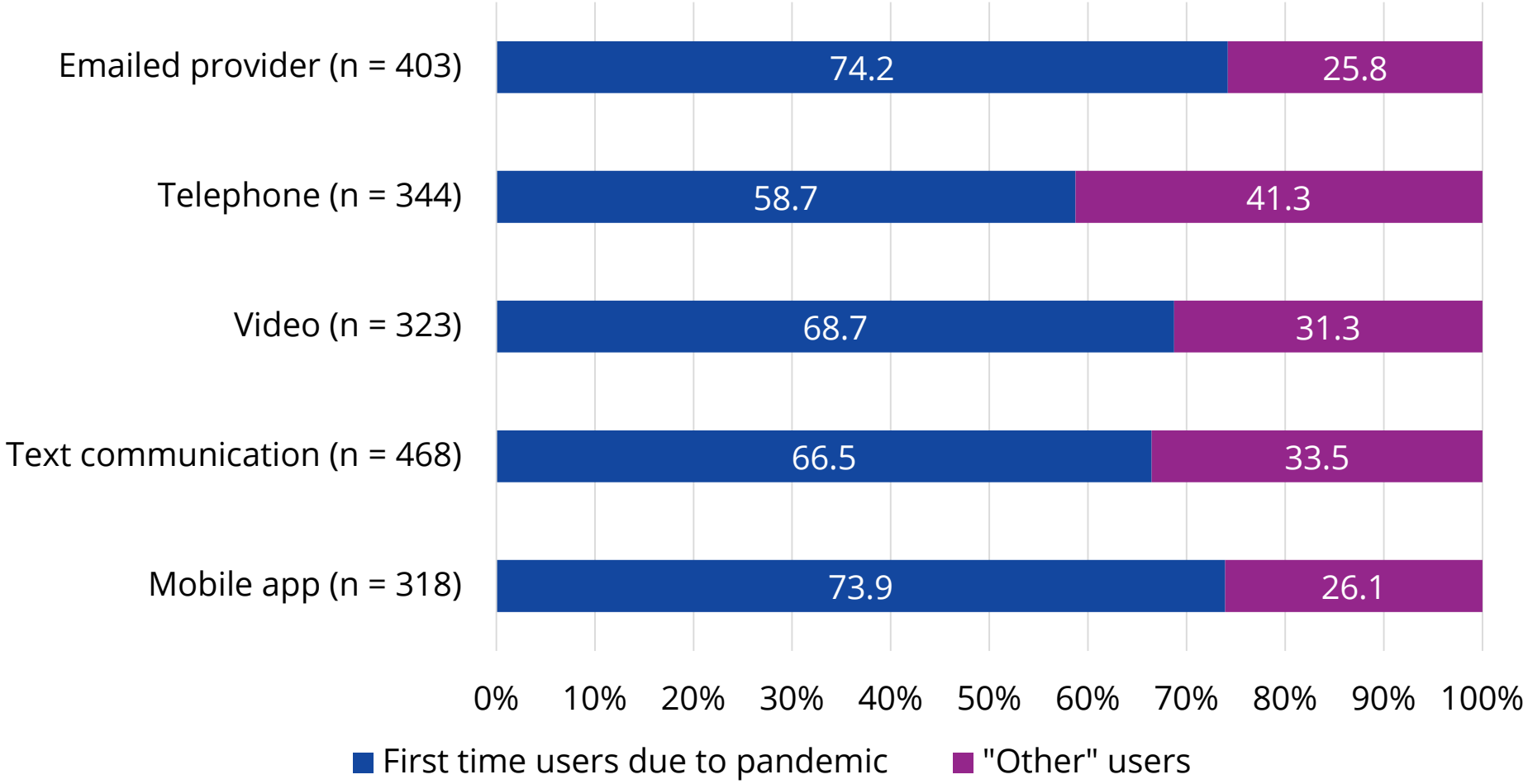
Predominant First-time Use Across Teledentistry Modalities



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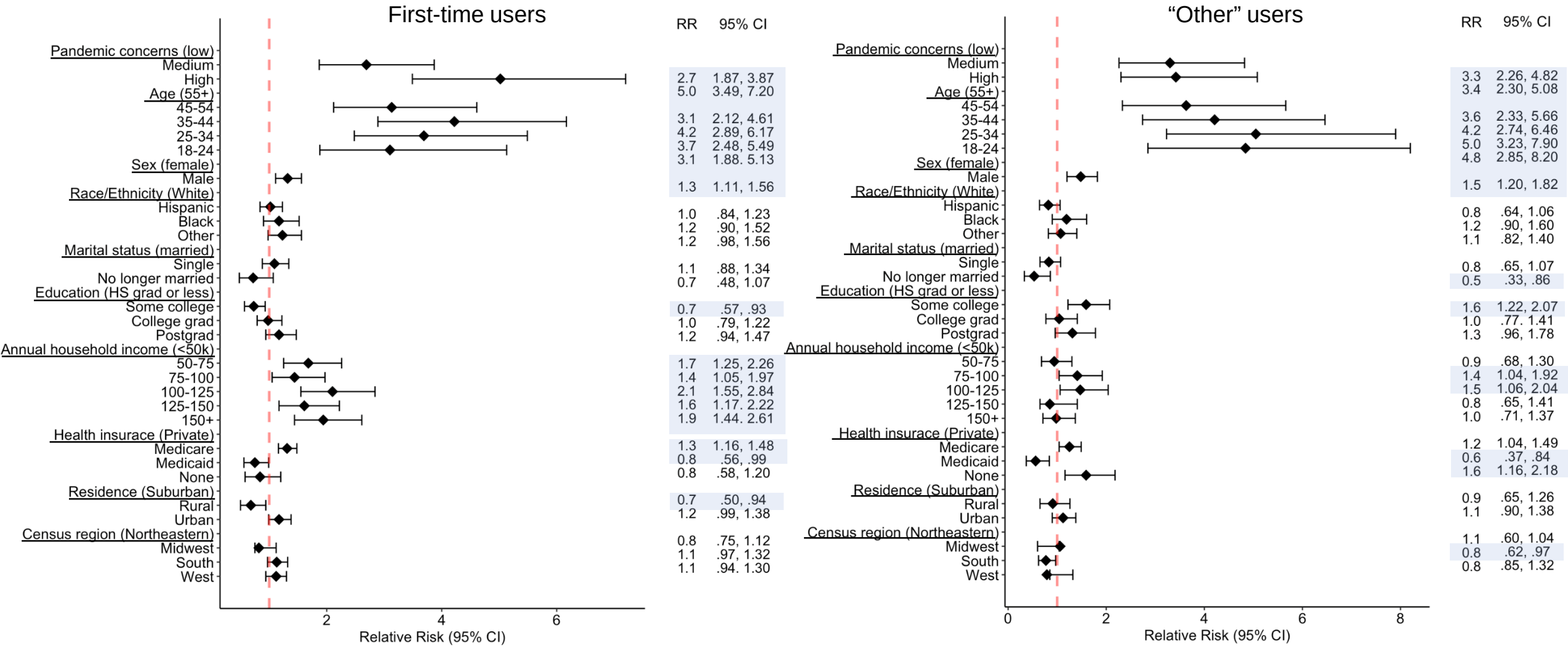
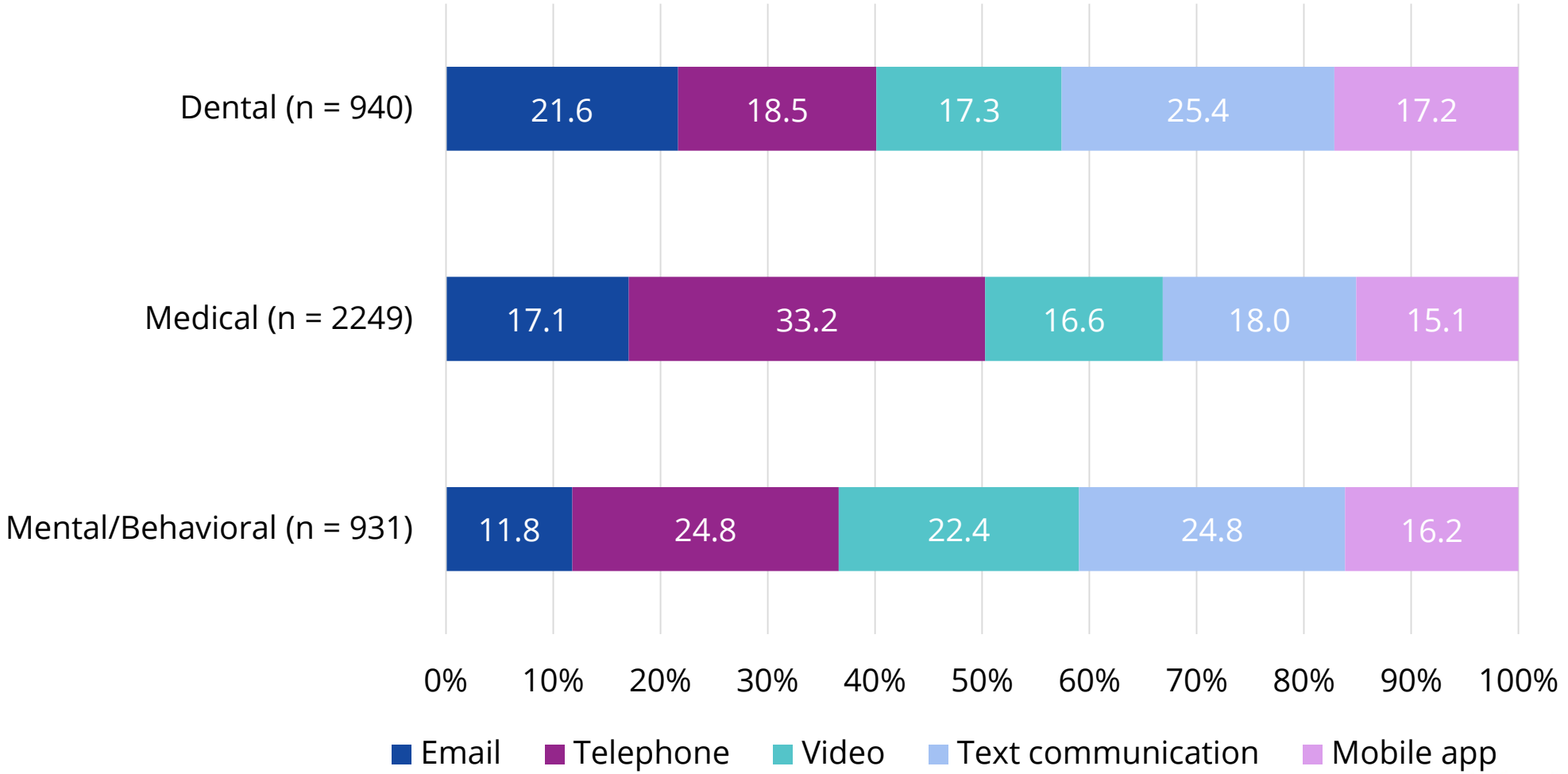
Teledentistry Use Most Strongly Associated With Pandemic Concerns



More Frequent Teledentistry Use of Email, Mobile Application, Text Communication Compared to Telemedicine



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Summary of Findings

- 3 in 10 respondents used teledentistry; more than half for first time due to pandemic
- Pandemic concerns were most strongly associated with teledentistry use
  - Age, sex, education, health insurance, and residence were also significantly associated
  - Broader use across groups occurred during the pandemic
- Executive orders increasing accessibility and reimbursement of teledentistry likely contributed to use

Conclusions and Implications

- High patient utilization of teledentistry during the early pandemic can be attributed to:
  - Increased patient need and concerns about the pandemic
  - Supportive regulatory action
  - Dental providers' participation in remote dental services

- The current findings provide a precedent for using teledentistry to expand oral health workforce capacity and respond to future public health emergencies

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Questions?

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