

# Patient-reported Experience in Telemedicine and In-person Oncology Visits During the COVID-19 Pandemic

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# Background

- A rapid adoption of telemedicine in early COVID-19 pandemic and a persistent trend of telemedicine use during the ongoing pandemic
- Patient experience is an important component of health care quality
- Few data on telemedicine and cancer care

Doraiswamy (2020) Use of Telehealth During the COVID-19 Pandemic: Scoping Review the following medical specialties: internal medicine (125/543, 23%), preventive medicine (56/543, 10.3%), psychiatry (42/543, 7.7%), surgery (36/543, 6.6%), neurology (33/543, 6.1%), otolaryngology (23/543, 4.2%), and dermatology (23/543, 4.2%). Additional analysis of the subspecialties revealed that the top 5 subspecialties deploying telehealth were endocrinology (30/543, 5.5%), oncology (25/543, 4.6%), geriatrics (23/543, 4.2%), cardiovascular (20/543, 3.7%), and orthopedics (10/543, 1.8%). The numbers of articles grouped across various specialties and subspecialties of medicine are reported in [Table 4](#).

# Objectives

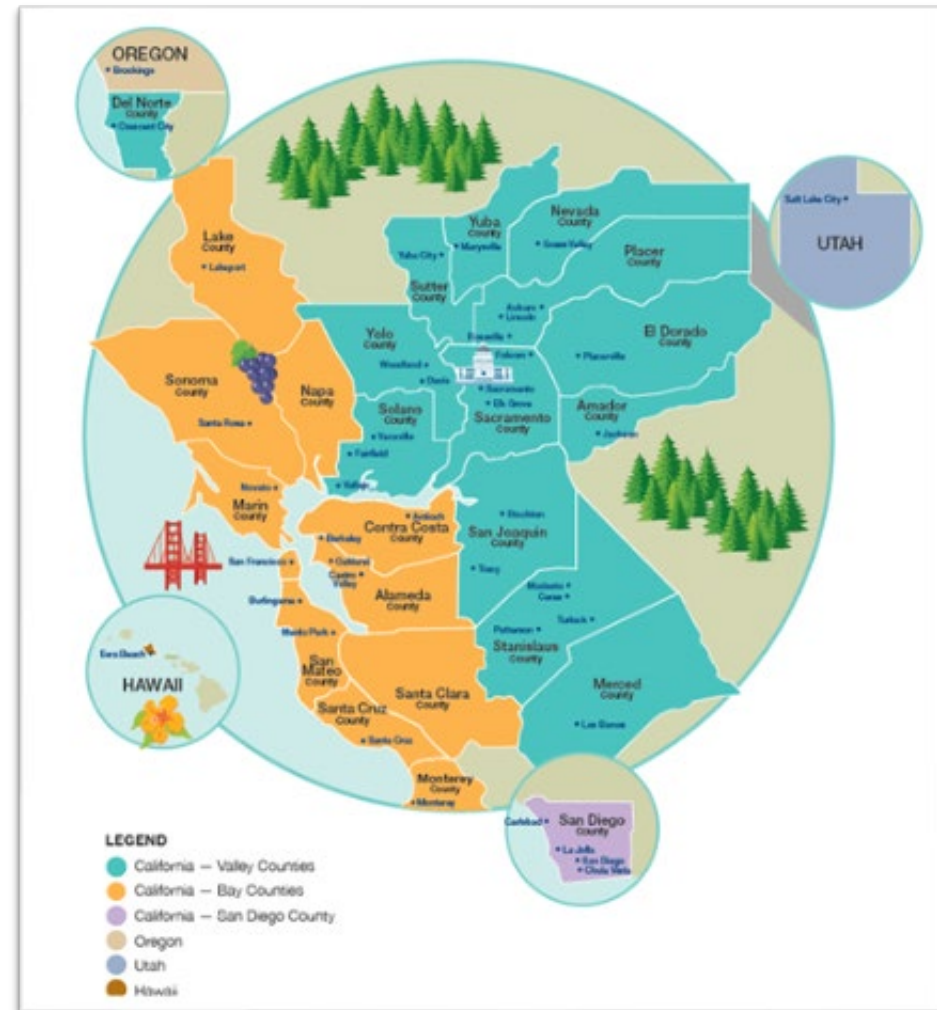
- To assess patient-reported experiences with telemedicine oncology visits compared to in-person oncology visits during the COVID-19 pandemic

## Specific domains:

- Access to care
- Provider Communication
- Overall rating of provider
- Safety perception
- Care coordination

# Setting

- Large healthcare system in Northern California: Sutter Health
- ~3.3 million active patients
- Diverse racial/ethnic patient composition
- Mix of insurance plans: some capitated, but mostly PPO/FFS



# Methods

- Retrospective, observational analysis of linked patient survey data and electronic health records
- 11,447 surveys of oncology visit experience between 03/2020 and 07/2021
- t-test to compare percentage of top-box rating between telemedicine and in-person samples
- Multivariate logistic regression

# Patient Experience Measures

- **Access**
  - Did you get an appointment as soon as you needed?
- **Communication**
  - Did the provider explain things in a way that you could understand?
  - Did this provider listen carefully to you?
- **Provider rating**
  - Using any number from 0 to 10, where 0 is the worst provider possible and 10 is the best provider possible, what number would you use to rate this provider?
- **Safety perception**
  - Did you feel that your safety was a priority while you were in our care?

# Patient Experience Measures

- Care coordination
  - Did this provider seem to know the important information about your medical history?
  - Did you and someone from this office talk about all the prescription medicines you were taking?
  - When this provider ordered a blood test, x-ray, or other test for you, how often did someone from this provider's office follow up to give you those results?
  - When you contacted this provider's office during regular office hours, how often did you get an answer to your medical question that same day?



# Top-Box Rating

- Access, communication, safety perception, Care coordination (medical history, Rx meds)

No; Yes, somewhat; Yes, mostly; Yes, definitely

- Provider rating

10 on a 0-10 scale

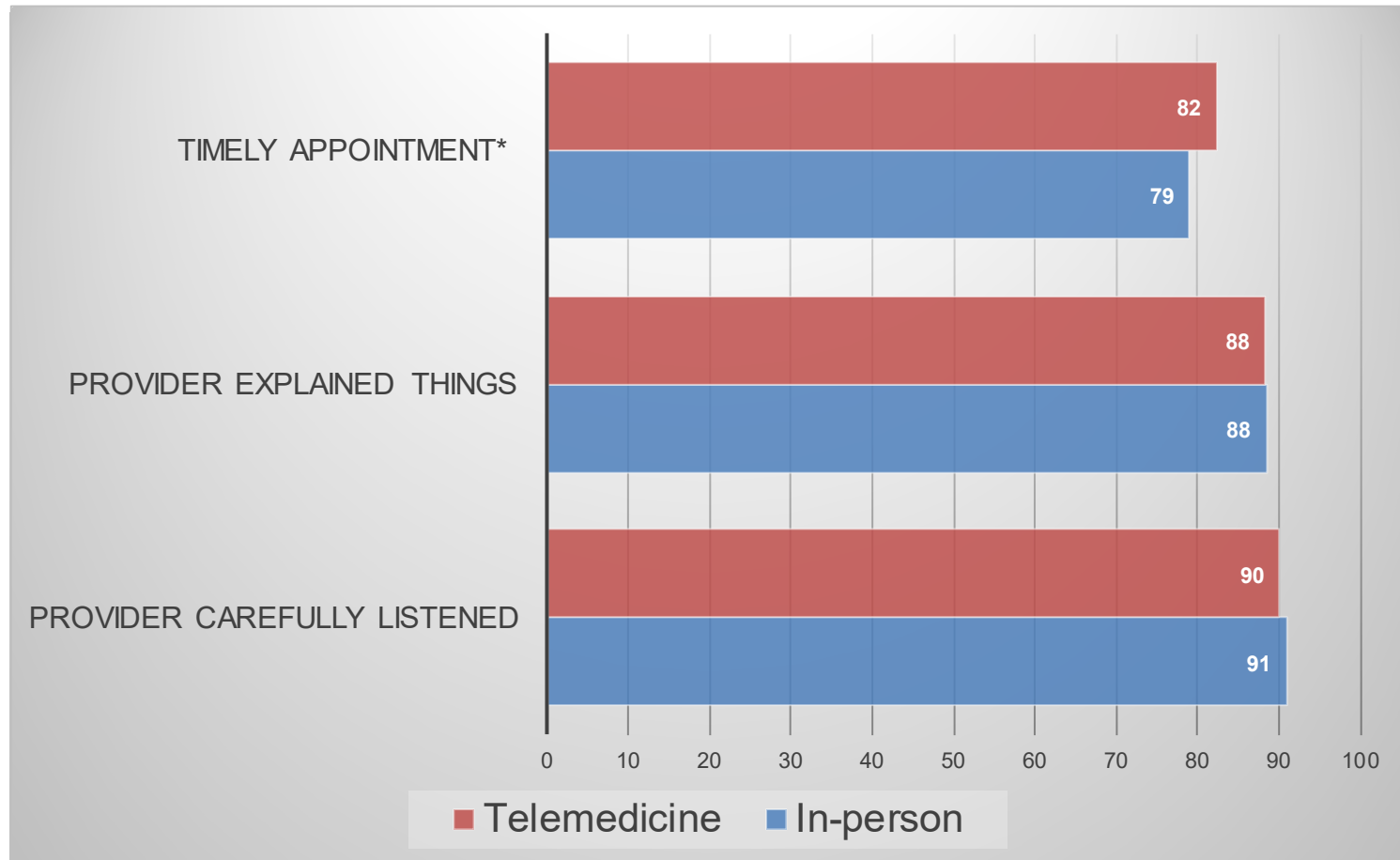
- Care coordination (test results, question)

Never; Sometimes; Usually; Always

## Patient Experience: Telemedicine vs. In-person Visits

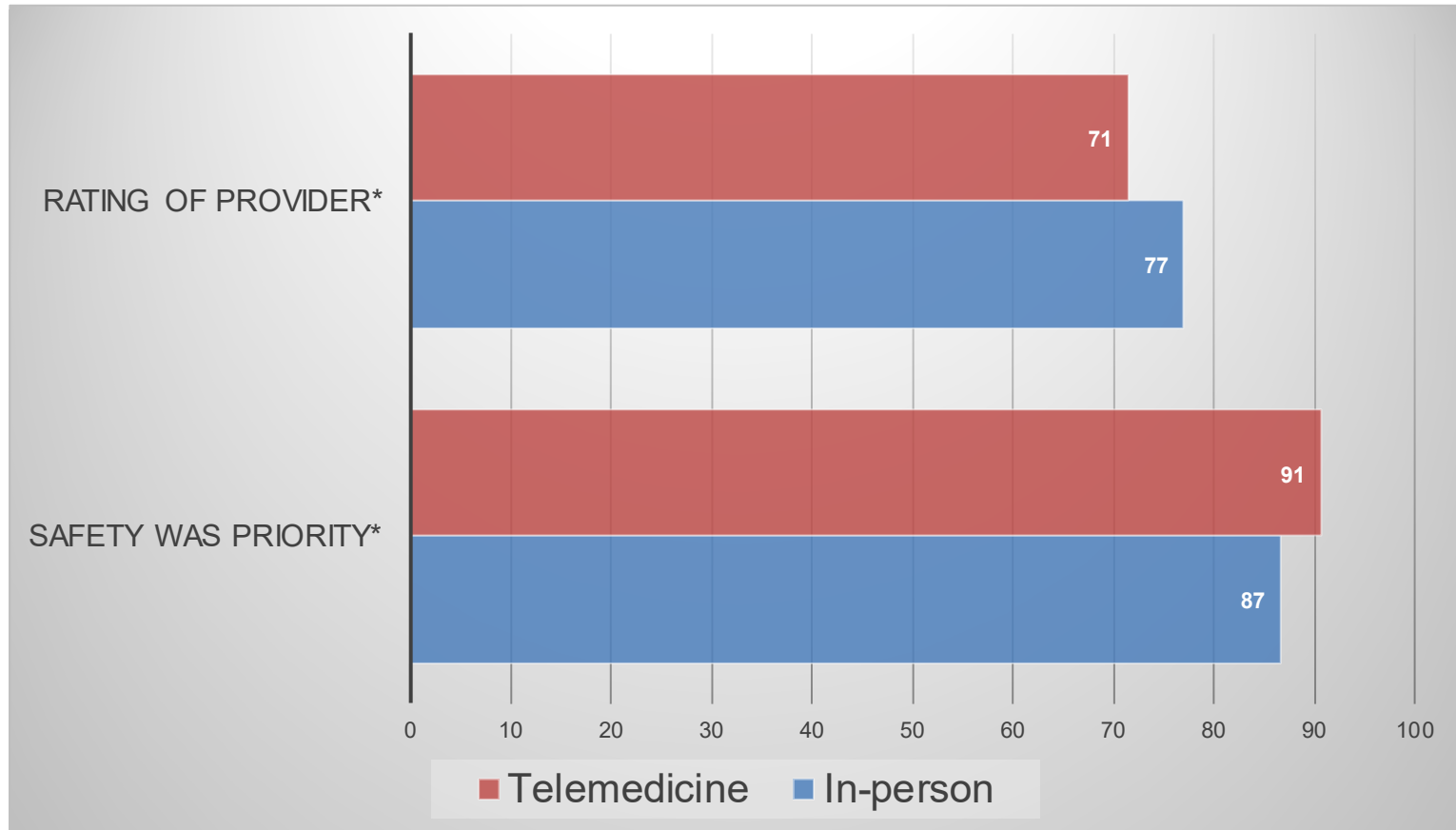
<b>Sample Characteristic</b>	<b>Number (%)</b>
<b>Number of patient surveys</b>	11,447
<b>Telemedicine visit</b>	2,309 (20.2%)
<b>Age (interquartile range)</b>	71 (63-78)
<b>Female</b>	7,659 (66.9%)
<b>Race/ethnicity</b>	
White	8,352 (73.0%)
Black	347 (3.0%)
Hispanic	919 (8.0%)
Asian	1,006 (8.8%)
Other	823 (7.2%)
<b>Comorbidity (interquartile range)</b>	3 (2-6)
<b>Insurance Type</b>	
PPO/FFS	2,305 (20.1%)
HMO	1,145 (10.0%)
Medicare	7,656 (66.9%)
Other	341 (3.0%)

# Timely appointment with telemedicine; similar communication



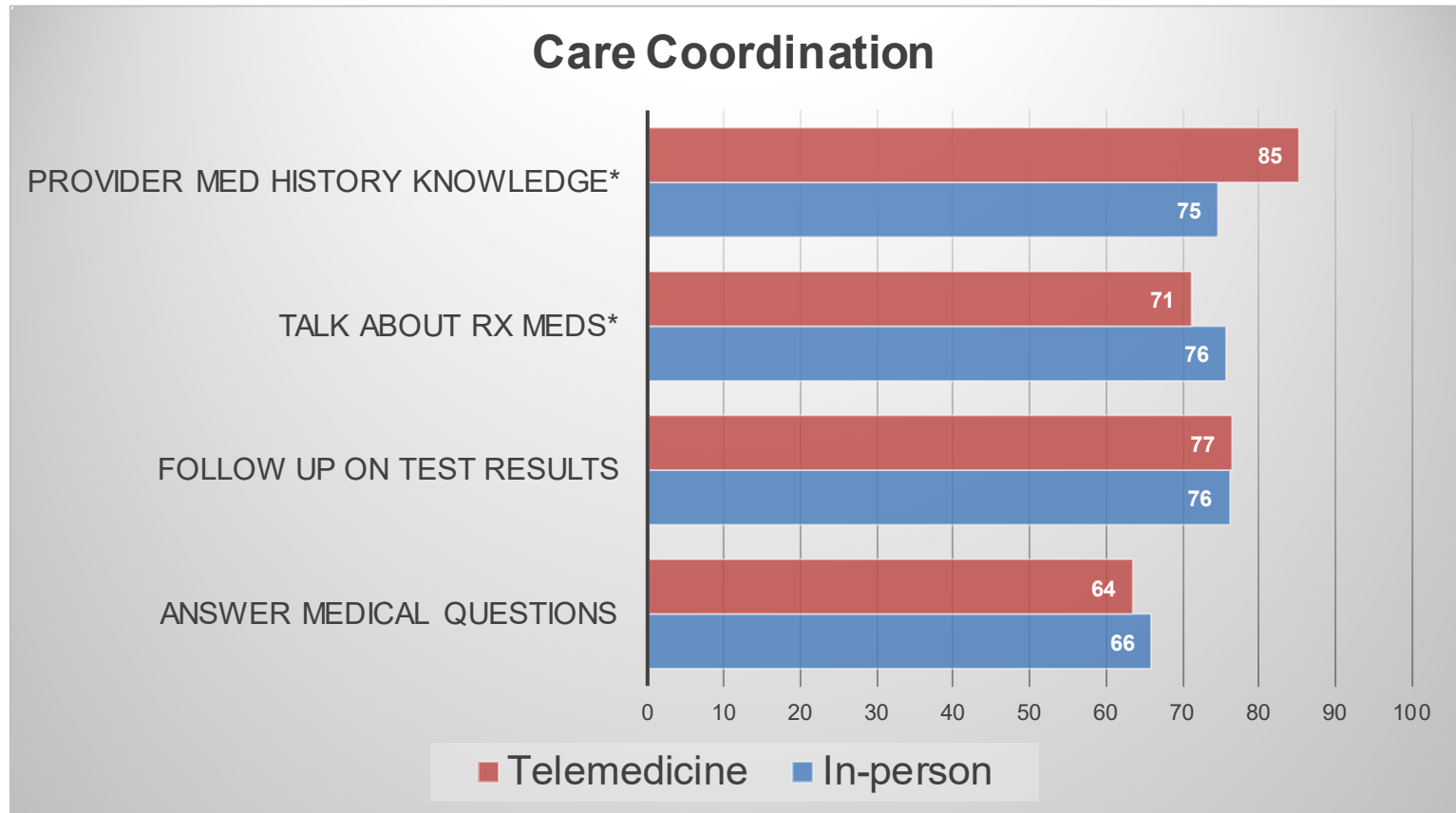
\*  $p < 0.01$

# Fewer “best” ratings for provider but more best ratings for safety with telemedicine



\* p<0.01

More best ratings for medical history knowledge but fewer best ratings for Rx medicine discussion with telemedicine



\*  $p < 0.01$

# Multivariate Logistic Regression Results

	Odds Ratio (95% CI)	p-value
Timely appointment	1.23 (1.09-1.40)	<0.001
Safety was priority	1.35 (1.10-1.65)	<0.001
Provider medical history knowledge	1.75 (1.28-2.40)	<0.001
Provider rating	0.76 (0.68-0.85)	<0.001
Talk about Rx meds	0.73 (0.65-0.82)	<0.001
Answer medical questions	0.85 (0.75-0.97)	0.01

\*Multivariate logistic regression modeling the association between care delivery mode (telemedicine vs. in-person) and the likelihood of top-box rating in patient experiences, controlling for patient demographic characteristics (age, sex, race/ethnicity), comorbidity, insurance type, visit length; and accounting for clustering within patients

## Limitations

- Single healthcare system
- Not representative of US
- Potential selection bias in observational study

## Strengths

- A diverse population
- Large regional setting
- Rich electronic health record data to account for confounding and additional analyses

# Conclusion & Discussion

- While delivering similar quality in terms of provider communications, telemedicine and in-person visits each offer their own advantages.
  - Virtual convenience vs. in-person connection
- Additional studies are warranted to explore patient preference and an optimal balance of telemedicine and in-person visits for cancer care.



# Thank You