

# Patient Experiences of Primary Care by Visit Mode and Visit Reason During the COVID-19 Pandemic



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## INTRODUCTION

To improve patient and clinician safety during the COVID-19 pandemic, primary care practices shifted from in-person to telehealth visits (telephone and video) beginning in March 2020.<sup>1</sup> As practices seek to re-balance their mix of in-person and telehealth visits, they might benefit from empirical evidence about which reasons for visits produce the best patient experiences for in-person vs telehealth modalities.<sup>2,3</sup> This study aims to provide information about adult patient experiences of, and satisfaction with, in-person, video, and telephone visits in primary care.

## METHODS

Between November 2020 and February 2021, we conducted a cross-sectional survey of 48,161 adults who were insured by Blue Cross Blue Shield of Massachusetts and who had had a primary care visit in 2020.

The survey, based on items from the CAHPS Clinician and Group Visit Survey 4.0 (beta) and 3.0 surveys,<sup>4</sup> was designed to compare patient experiences of primary care across visit modes (i.e., in-person, video, and telephone) and by patient-reported reason for visit (new concern, routine chronic condition, chronic condition flare-up, behavioral health, preventive care, follow-up for hospital/ED visit, follow-up for tests, or other). We fielded the survey in two mailed waves on November 9, 2020, and December 7, 2020, and collected responses through February 8, 2021. At the respondent level, we coded item responses to a 0-to-100 scale, with higher scores reflecting better patient experiences, and then we averaged them to calculate state-level item scores. We analyzed state-level data using *t* tests and one-way ANOVA tests to assess differences in patient experiences by patient characteristics, and visit mode and visit satisfaction, stratified by visit reason.

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## RESULTS

A total of 6139 surveys were returned (13% response rate). The majority of respondents were white (82%), non-Hispanic (96%), and in excellent/very good general health (58%); had internet access (96%) and reliable internet (77%); and were comfortable using their devices (71%). Respondents were older than the non-respondents (mean age 55.6 vs. 46.6 years), and there were only trivial differences between respondents and non-respondents on gender, education, poverty, race, ethnicity, and primary language.

### Experience Differences by Patient Characteristics

For most items, older (> 45 years), male, and white patients reported significantly better experiences compared to younger ( $\leq$  45 years), female, and non-white patients, respectively.

### Experience Differences by Visit Mode

For most items, patients reported significantly better experiences for in-person visits than with video or telephone visits (Table 1).

### Experience Differences by Visit Mode and Visit Reason

Patients rated in-person visits highest and telephone visits lowest for new concerns, routine chronic condition, and preventive care (Table 2). In contrast, patients rated in-person and video visits similarly for behavioral health and follow-up visits after hospitalization/ED visit, with both visit modalities having higher ratings than telephone visits.

## DISCUSSION

Our findings suggest that from a patient perspective, in-person primary care visits are the gold standard. However, for behavioral health and follow-up visits post hospitalization/ED visit, where patients reported the same quality of experience for in-person and video visits, video visits may offer patients increased access and convenience without compromising patient experience. These findings, which are supported by others,<sup>5,6</sup> may explain greater use of telehealth for behavioral health than for other health conditions<sup>1</sup> and provide evidence for the U.S.

Table 1 Comparison of Survey Item Scores Organized by Domain and Visit Mode

Domain	Items	Adult (5842)		
		In-person (3777)	Video (1475)	Telephone (590)
Communication	Provider explained things in a way that is easy to understand.	97.2*	96.4*	94.4*
	Provider listened carefully to you.	97.1*	96.3*	95.1*
	Provider showed respect for what you had to say.	97.7*	96.6*	96.1*
	Provider spent enough time with you.	95.8*	94.8*	93.8*
	You were able to communicate your concerns to provider.	95.6*	93.6*	93.6*
Integration of care	Office followed up with test results.	87.3*	82.2*	83.0*
	Provider knows you as a person, including values and beliefs.	88.3	86.6	86.1
Knowledge of patient	Provider has the medical information they needed about you.	96.5*	94.4*	93.4*
	Office staff was as helpful as you thought they should be.	95.1*	91.2*	89.1*
Office staff	Office staff treated you with courtesy and respect.	97.4*	96.0*	94.2*
	Overall rating of visit	91.9*	87.2*	85.4*

\*Denotes statistically significant differences compared to the average score for the item. Scores are on a 100 scale, with higher scores reflecting better patient experiences

Department of Health and Human Services' endorsement of telehealth for follow-up care.

The study was conducted within a commercially insured patient population, which might limit generalizability to other populations. The survey response rate was low, and the respondents were older than the non-respondents. The low

response rate might be related to the timing of the survey fielding, which occurred during the 2020 winter holiday season.

In conclusion, patients may be most amenable to primary care telehealth visits for behavioral health and follow-up visits post hospitalization/ED, if the visits are video visits.

Table 2 Comparison of Visit Mode Mean Ratings by Visit Reason

	Reason for the visit							
	New concern	Routine chronic condition	Chronic condition, flare-up	Behavioral health	Preventive care	Follow-up hospital or ED	Follow-up tests	Other
Visit rating**	N = 1168	N = 519	N = 235	N = 52	N = 2289	N = 178	N = 523	N = 427
In-person visit, rating	90.1*	94.3*	88.4	95.0 <sup>+</sup>	92.6*	90.4 <sup>+</sup>	91.5	90.7
Video visit, rating	87.2*	89.0*	87.3	94.5 <sup>+</sup>	85.3*	91.6 <sup>+</sup>	89.4	87.0
Phone visit, rating	85.1*	87.7*	82.1	86.0 <sup>+</sup>	83.8*	83.4 <sup>+</sup>	88.6	88.0
P value	0.001	< 0.001	0.19	0.06	< 0.001	0.07	0.16	0.10

\*Denotes statistically significant differences between all visit modes

<sup>+</sup>Denotes statistically significant differences between telephone and other visit modes

\*\*Ratings are on a 100 scale, with higher scores denoting higher ratings

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James Courtemanche, MS<sup>1</sup>  
Nathalie McIntosh, PhD<sup>1</sup>  
Raji Rajan, MS, MBA<sup>1</sup>  
Mark W. Friedberg, MD, MPP<sup>2</sup>  
Barbra G. Rabson, MPH<sup>1</sup>

<sup>1</sup>Massachusetts Health Quality Partners,  
1380 Solders Field Road, Brighton, MA 02135, USA  
<sup>2</sup>Blue Cross Blue Shield of Massachusetts,  
101 Huntington Avenue, Boston, MA 02199, USA

**Corresponding Author:** James Courtemanche, MS; Massachusetts Health Quality Partners, 1380 Solders Field Road, Brighton, MA 02135, USA (e-mail: [jcourtemanche@mhqp.org](mailto:jcourtemanche@mhqp.org)).

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**Declarations:**

**Conflict of Interest:** The authors declare that they have no conflicts of interest to disclose.

## REFERENCES

1. **Campion, FX, Ommen, S, Sweet, H, Shah, N, Rabson, B, Dougherty, N, Goldsack, J, Sylvester, P, Jones, K, Burgman, A, McIntosh, N, Sangaralingham, L, Jiang, D, McGinn, J, Rojas, R, Suther, T, Anderson, B, Halamka, J.** (2021) A COVID-19 telehealth impact study—exploring one year of telehealth experimentation. *Telehealth Med Today*. 6(3). <https://doi.org/10.30953/tmt.v6.280> ISSN 2471-6960
2. **Neves, AL, Li, E, Gupta, PP, Fontana, G, Darzi, A.** Virtual primary care in high-income countries during the COVID-19 pandemic: policy responses and lessons for the future. *Eur J Gen Pract*. 2021;27(1): 241-247. <https://doi.org/10.1080/13814788.2021.1965120>
3. **Carrillo de Albornoz, S, Sia, KL, Harris, A.** The effectiveness of teleconsultations in primary care: systematic review. *Family Practice* 2021;1-15. <https://doi.org/10.1093/fampra/cmab077>
4. CAHPS clinician and group surveys. <https://www.ahrq.gov/cahps/surveys-guidance/cg/index.html> accessed 12.16.21
5. **Carrillo de Albornoz, S, Sia, KL, Harris, A.** The effectiveness of teleconsultations in primary care: systemic review. *Family Practice* 2021;1-15. <https://doi.org/10.1093/fampra/cmab077>
6. **Tully, L, Case, L, Arthurs, N, Sorensen, J, Marcia, JP, O'Malley, G.** Barriers and facilitators for implementing paediatric telemedicine: rapid review of user perspectives. *Front Pediatr*. 2021;9 630365. <https://doi.org/10.3389/fped.2021.630365>

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