

# The Effect of Telehealth Service Expansion on Beneficiaries with Mental and Behavioral Health Challenges



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## BACKGROUND

- Individuals living with mental and behavioral health challenges often experience disproportionate health disparities compared to the general population due to poor engagement in healthcare services
- In 2018, Kentucky expanded healthcare coverage to include telehealth services for Medicaid beneficiaries
- The extent to which this expansion increased beneficiary care access and satisfaction is unclear.
- Thus, the purpose of this study is to examine the effects of the telehealth expansion on treatment outcomes, healthcare utilization, and patient satisfaction among Medicaid beneficiaries. Specifically, the aim of this study is to assess satisfaction with tele-mental health service by examining:
  - Trust in Health Provider (Anderson & Dedrick, 1990)
  - Telehealth Usability Questionnaire (Paramanto et al., 2016).

## METHODS

### Procedures

- We sent out an anonymous, voluntary survey to Medicaid beneficiaries in selected Community Mental Health Centers (CMHCs)
- CMHCs included: NorthKey, New Vista, Pathways, RiverValley Behavioral Health, and Adanta
- Surveys were completed in-person with research personnel or online with assistance from CMHC staff
- Respondents were asked about their demographic information, residency status, housing status, primary diagnoses, frequency of telehealth use for mental and behavioral health services, and their ratings on the Trust in Health Provider Scale and Telehealth Usability Questionnaire.
- Medicaid beneficiaries will also be asked to rate their attitudes, subjective norms, perceived behavioral control, and intentions to access behavioral mental health services through telehealth platforms.

### Data analyses

- Chi-square tests of independence will be used to examine associations between demographic variables and telehealth frequency use
- A hierarchical linear regression will be used to examine factors associated with telehealth usability ratings
- A p-value of 0.05 will denote significance

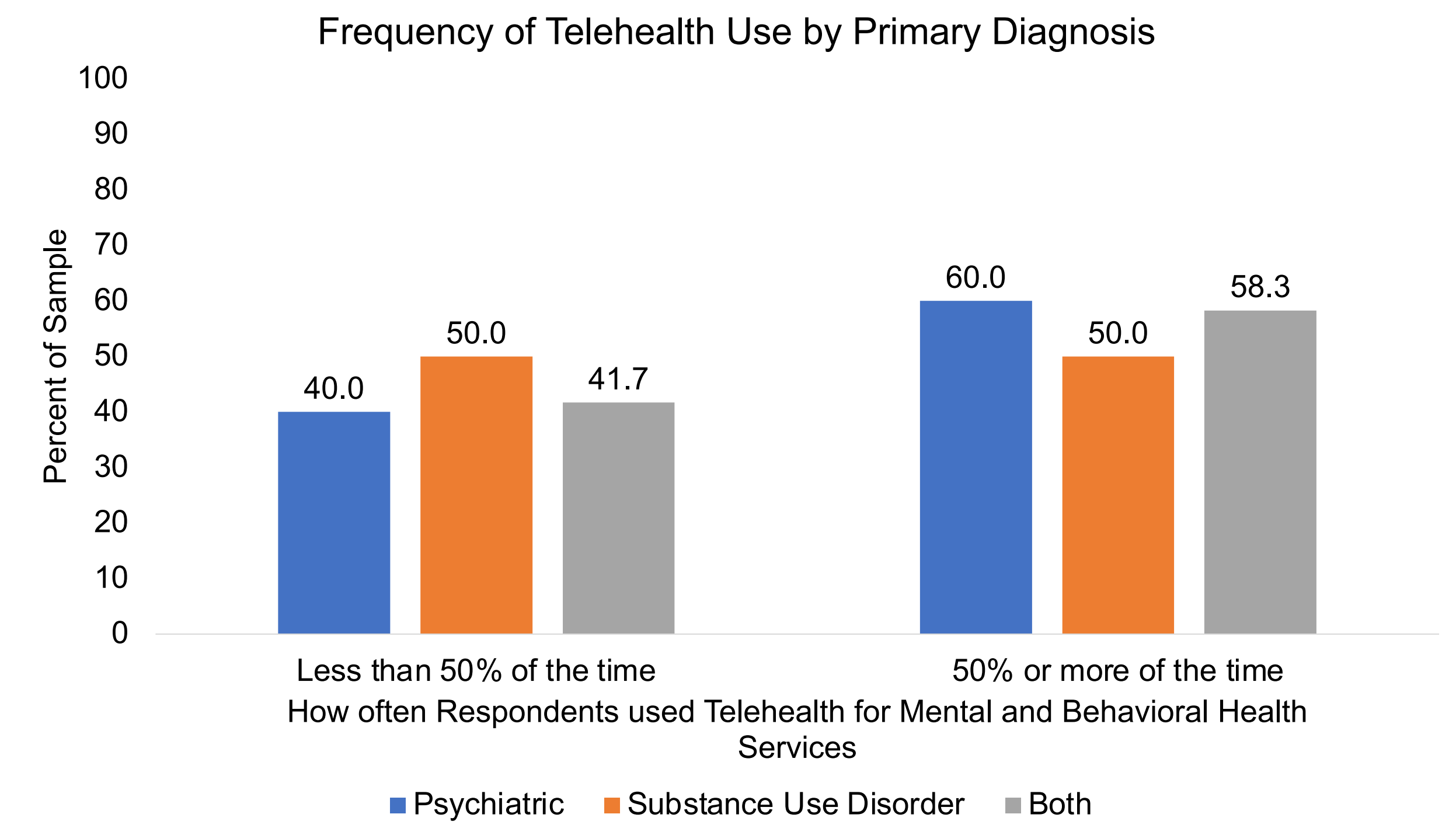
## RESULTS

### Sample Characteristics

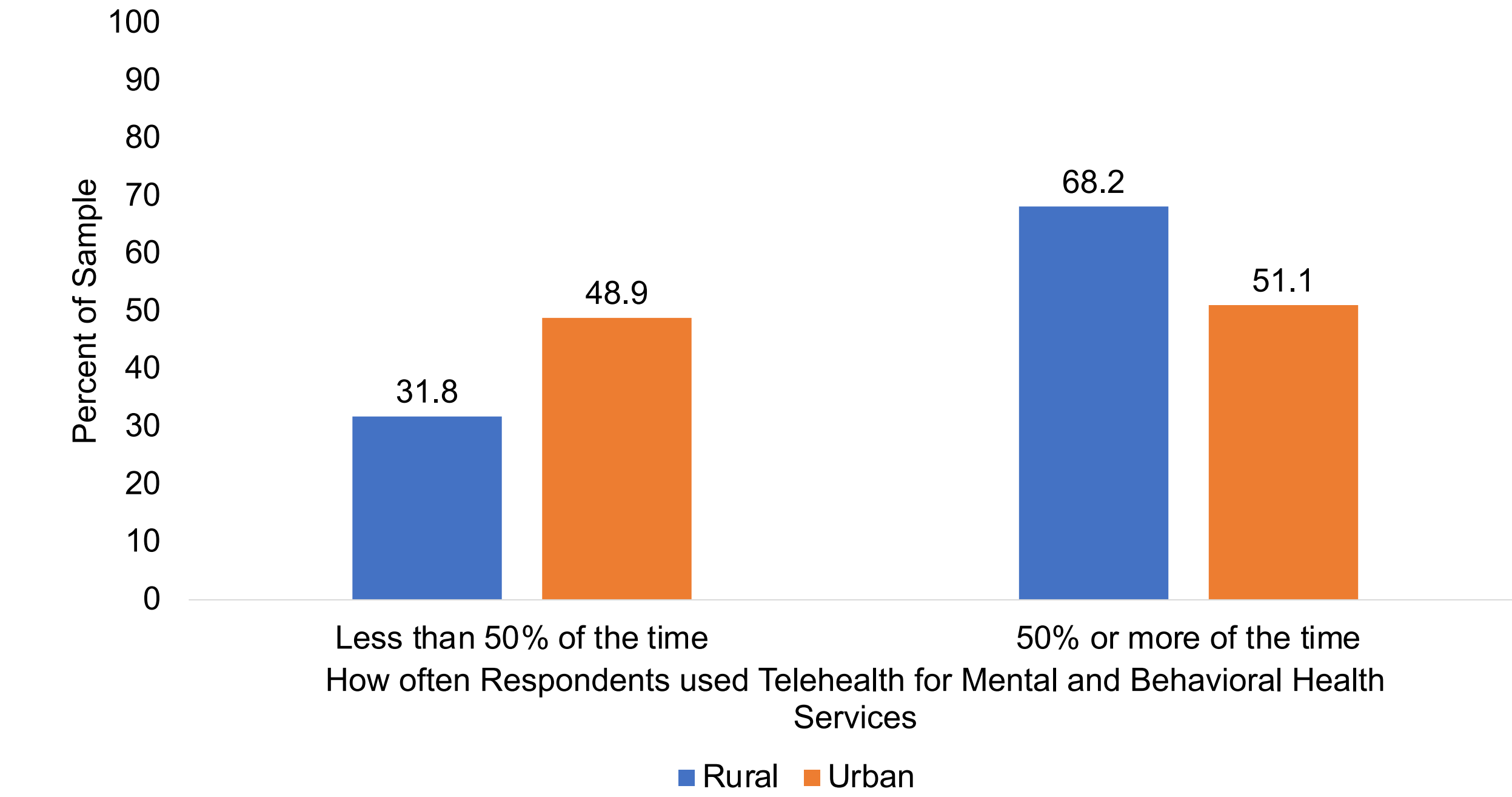
The majority of beneficiaries (N=73) were 26 to 35 years of age (35.6%), female (61.1%), single and never married (60.3%), white (76.4%), and had a college degree or higher (60.3%). Most respondents reported a primary psychiatric disorder (61.6%), owned, rented, or lived in a group home (81.7%), and lived in an urban area (68.1%). 57.5% of beneficiaries used telehealth for mental and behavioral healthcare services 50% or more of the time.

	n	%
<b>Demographics</b>		
<b>Age</b>		
35 years of age or younger	43	23.3
36 years of age or older	30	35.6
<b>Sex</b>		
Male	27	37.5
Female	44	61.1
Other*	2	2.7
<b>Marital Status</b>		
Single, never married	44	60.3
Other	29	39.7
<b>Ethnicity</b>		
White	55	76.4
Other	18	23.6
<b>Education</b>		
Highschool/GED or less	29	39.7
College Degree or higher	44	60.3
<b>Primary Diagnosis</b>		
Psychiatric Disorder	45	61.6
Substance Use Disorder	16	21.9
<b>Housing and Residency Status</b>		
Own, rent, or live in a group home	58	81.7
Shelter or no stable housing	13	18.3
Urban	47	68.1
Rural	22	31.9
<b>Frequency of telehealth use</b>		
<50% of the time	31	42.5
≥50% or more of the time	42	57.5
<b>Trust in Provider Scale (M ± SD)</b>		
	61.47	± 13.37
<b>Telehealth Usability Questionnaire (M ± SD)</b>		
	117.92	± 26.20

### Frequency of Telehealth Use



### Frequency of Telehealth Use by Residency Status



### Factors Associated with Telehealth Usability

The final model consists of age (36 years or older vs 35 years of age or younger), sex (female vs. other), marital status (single, never married vs. other), ethnicity (white vs. other), education (college graduate or more vs. less than college graduate), residency status (urban vs. rural), frequency of telehealth use for mental health services (50% of the time or more vs. less than 50% of the time). The final model explains 49.3% of the variance associated with telehealth usability among Medicaid beneficiaries.

	F	p-value	R <sup>2</sup> change	Beta	p-value
<b>Step 1: Demographics</b>	1.45	.219	.103		
<b>Age</b>				-.101	.284
<b>Sex</b>				.181	.050
<b>Ethnicity</b>				-.030	.753
<b>Education</b>				.126	.204
<b>Marital Status</b>				-.014	.881
<b>Step 2: Residency Status</b>	1.633	.153	.033		
<b>Urban</b>				-.131	.148
<b>Step 3: Trust in Provider Scale</b>	9.875	<.001	.395	.630	<.001
<b>Step 4: Telehealth Frequency use for Mental Health Services</b>	9.258	<.001	.021		
<b>50% of the time or more</b>				-.166	.097

## Conclusion

Factors associated with telehealth usability ratings were identifying as female and trust in healthcare provider scores. Receiving mental and behavioral healthcare services via telehealth is a practical option for this vulnerable population. Psychiatric-mental health nurses can facilitate patient recovery by utilizing telehealth services. Future studies may examine targeted interventions to enhance engagement with telehealth services, reduce barriers to access, and improve healthcare utilization.

References: 1) Anderson, L. A., & Dedrick, R. F. (1990). Development of the Trust in Physician scale: a measure to assess interpersonal trust in patient-physician relationships. *Psychological reports*, 67(3, suppl), 1091-1100. 2) Paramanto B, Lewis AN Jr, Graham KM, Bertolet MH. Development of the Telehealth Usability Questionnaire (TUQ). *Int J Telerehabil*. 2016 Jul 1;8(1):3-10. doi: 10.5195/ijl.2016.6196.