

Supplementary Material

Inequitable Access to General and Behavioral Healthcare in the US during the COVID-19 Pandemic: A Role for Telehealth?

Nina Mulia, Yu Ye, Thomas K. Greenfield, Priscilla Martinez, Deidre Patterson, William C. Kerr, Katherine J. Karriker-Jaffe

Supplemental Table S1. Total Ns for each group and Ns reporting positive outcomes¹

Demographics	(In overall sample)				(Among those with need) ²				(Among those with need) ³				(Among those receiving care) ⁴			
	Perceived Need for Care				Received Care				Delayed care due to:				Used telehealth			
	General / Check-up		Behavioral Health ⁵		General / Check-up		Behavioral Health ⁶		Lockdown/ Office Closed/ Fear		Cost		General / Check-up		Behavioral Health	
	N	Yes	N	Yes	N	Yes	N	Yes	N	Yes	N	Yes	N	Yes	N	Yes
TOTAL	1793	968	1792	347	965	864	346	238	1055	406	1055	115	919	505	255	221
Age																
18-34	565	274	565	155	274	232	155	105	322	133	322	63	260	147	108	91
35-49	518	278	518	112	277	248	111	76	305	122	305	30	264	153	81	72
50+	710	416	709	80	414	384	80	57	428	151	428	22	395	205	66	58
Gender																
Female	1164	664	1163	254	662	596	253	179	719	289	719	72	633	374	187	165
Male	628	303	628	93	302	267	93	59	335	116	335	43	285	130	68	56
Race																
White	1092	635	1092	219	634	578	219	157	687	258	687	62	609	320	168	141
Black/Afr Am	302	141	301	56	140	127	56	42	153	54	153	20	135	77	43	37
Hispanic/Latinx	223	94	223	41	94	74	41	23	108	42	108	17	84	53	27	26
Other groups	176	98	176	31	97	85	30	16	107	52	107	16	91	55	17	17
Insurance Type, T1																
Private/Other	1184	669	1183	227	667	609	227	161	724	271	724	72	642	342	172	148
Public	463	243	463	93	242	214	92	63	268	106	268	17	233	140	69	61
Uninsured	143	55	143	27	55	40	27	14	62	29	62	26	43	23	14	12
Household Income as % of FPL, ⁷ T1																
≤138% FPL	307	142	307	82	141	119	81	48	163	79	163	25	133	81	49	45
139-400% FPL	826	447	826	160	447	398	160	109	486	176	486	71	424	237	117	94

>400% FPL	635	363	634	102	361	332	102	79	390	143	390	18	347	177	87	80
Self-rated Health, T1																
Fair/poor	221	136	220	62	135	117	62	38	149	66	149	27	128	88	41	32
Good/excellent	1571	832	1571	285	830	747	284	200	906	340	906	88	791	417	214	189
Urbanicity, T1																
Urban	1577	843	1576	300	841	757	299	209	915	350	915	90	801	440	225	200
Rural	214	124	214	46	123	106	46	29	138	55	138	25	117	64	30	21
Work/pay reduced																
Yes	419	215	419	106	214	191	105	63	241	101	241	51	206	115	66	56
No	1372	751	1371	241	749	671	241	175	812	303	812	64	711	388	189	165
Marital & Parenthood status, T1																
Married/partnered no child	571	296	570	80	294	262	80	57	318	124	318	39	277	139	65	53
Married/partnered with child	454	247	454	85	246	223	84	54	277	103	277	26	241	123	56	49
Single no child	581	323	581	131	323	287	131	93	350	131	350	37	303	182	98	88
Single with child	186	101	186	50	101	91	50	33	109	47	109	13	97	60	35	30
Usual source of primary care, T1																
Yes	1379	806	1378	265	803	735	264	185	866	322	866	82	775	432	198	174
No	414	162	414	82	162	129	82	53	189	84	189	33	144	73	57	47
Region of residence, T1																
Northeast	280	141	280	53	140	129	52	36	155	62	155	8	141	84	40	38
Midwest	402	230	401	82	229	205	82	63	250	87	250	26	220	111	66	54
Pacific	243	123	243	50	123	105	50	33	141	73	141	9	115	77	37	35
South	738	399	738	134	399	361	134	86	430	155	430	65	375	189	90	76
Mountain	130	75	130	28	74	64	28	20	79	29	79	7	68	44	22	18

¹ Yes indicates the respondent perceived a need for, or received, the specified care.

² Receipt of care for general health since April 1, 2020 was examined among those who had perceived need for general healthcare (N=968); Receipt of care for behavioral health since April 1, 2020 was examined among those who had perceived need for behavioral healthcare (N=347).

³ Reason for delayed care since April 1, 2020 was examined among those who had perceived need for either general or behavioral healthcare (N=1057).

⁴ Use of telehealth for general health was examined among those who received any general healthcare since April 1, 2020 (N=919); Use of telehealth for behavioral health was examined among those who received any behavioral healthcare since April 1, 2020 (N=255).

⁵ Wanted or needed mental healthcare or counseling, or counseling for drinking.

⁶ Received care from a mental health counselor, substance use counselor, or mutual help group such as Alcoholics Anonymous.

⁷FPL, US federal poverty level

T1, the N14 (baseline) survey

Supplemental Table S2. Assessing potential bias from sparse data when predicting telehealth use for behavioral health care (N=238): Comparison of adjusted ORs and unadjusted ORs

	Multivariable Logistic Regression (as in Table 2B)		Bivariate Logistic Regression (predictors entered separately)	
	Adjusted OR	95% CI	Unadjusted OR	95% CI
Age				
18-34	0.47	(0.15, 1.53)	0.54	(0.18, 1.67)
35-49	1.00	(0.26, 3.76)	1.26	(0.38, 4.22)
50+	Ref		Ref	
Gender				
Female	2.10	(0.78, 5.67)	1.74	(0.65, 4.69)
Male	Ref		Ref	
Race				
White	Ref		Ref	
Black/Afr Am	0.36	(0.11, 1.21)	0.41	(0.10, 1.59)
Hispanic/Latinx	11.96*	(1.07, 133.40)	9.36*	(1.12, 78.02)
Other groups	NA ¹		NA ¹	
Urbanicity, T1				
Urban	Ref		Ref	
Rural	0.30†	(0.09, 1.01)	0.34†	(0.10, 1.12)
Region of residence, T1				
Northeast	Ref		Ref	
Midwest	0.21	(0.03, 1.69)	0.16†	(0.03, 1.07)
Pacific	1.51	(0.12, 19.59)	1.25	(0.11, 14.55)
South	0.25	(0.03, 1.91)	0.14*	(0.02, 0.95)
Mountain	0.26	(0.02, 3.34)	0.32	(0.04, 2.69)

¹ OR estimate for “other” race/ethnicity not available as all 17 respondents in this group reported using telehealth and were dropped from the regression model.

†p<0.10, *p<0.05

T1, the N14 (baseline) survey

Rural						3.10**	(1.57, 6.12)
Work/pay reduced							
Yes		0.73	(0.38, 1.40)	1.45†	(0.96, 2.19)	2.73**	(1.43, 5.22)
No		Ref		Ref		Ref	
Usual source of primary care, T1	DROPPED	DROPPED		DROPPED		DROPPED	
Yes							
No							

¹ Each outcome corresponds to a logistic regression model that includes gender, age, race/ethnicity and any other predictor that was found to be at least marginally significant ($p < 0.10$) in Table 1 bivariate analysis; when adjusted ORs are not shown for a given variable, it means the variable was not included in the model (but was used in some other model whose results are presented in this table)

² See Footnotes in Supplemental Table S1 for analytic sample Ns.

† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

FPL, US federal poverty level

T1, the N14 (baseline) survey