

APPENDIX

APPENDIX TABLE A1

Postacute Care Provider Descriptions

	Description	Eligibility	Key waivers during Public Health Emergency*
Home health agency (HHA)	Provides in-home part-time skilled nursing care, therapeutic services, medical social services, and a personal aide.	To be eligible under Medicare, a beneficiary must have a physician certify that they are homebound. Although most Medicare beneficiaries receive home health care without a prior hospital stay, many hospitalized patients who receive postacute care receive it at home.	<p><i>COVID-19 emergency declaration blanket waivers</i></p> <ul style="list-style-type: none"> Revised definition of “homebound,” and expanded it to people with a COVID-19 diagnosis or those at risk for contracting COVID-19 Waived in-person requirement for HHA initial assessments and allowed assessments to be conducted remotely or by record review Allowed HHAs to use telehealth and remote monitoring to furnish home health services Allowed nurse practitioners, clinical nurse specialists, and physician assistants to order HHA services, plan care, and certify patient eligibility
Skilled nursing facility (SNF)	Provides short-term skilled nursing care and rehabilitative and therapy services in an inpatient setting that can only be effectively administered by or under the supervision of a medical professional.	To be eligible under Medicare, a beneficiary must have an acute care hospital stay of 3 days or more within 30 days of SNF admission.	<p><i>3-day stay rule</i></p> <ul style="list-style-type: none"> Waived the requirement for a 3-day prior hospitalization Renewed SNF coverage without first having to start a new benefit period
Inpatient rehabilitation facility (IRF)	Hospital that provides intensive inpatient rehabilitative services and medical supervision following a serious illness, injury, or surgical procedure in a hospital setting.	To be eligible under Medicare, a beneficiary must have a physician certify they can tolerate and will benefit from intensive rehabilitative therapy, and they have a medical condition that requires medical supervision and coordinated care from a physician and therapist.	<p><i>3-hour rule</i></p> <ul style="list-style-type: none"> Waived requirement for IRF patient to receive at least 15 hours of therapy per week <p><i>60% rule</i></p> <ul style="list-style-type: none"> Waived 60% rule threshold for IRFs to receive payments
Long-term care hospital (LTCH)	Hospital that provides acute care services to patients who are critically and chronically ill, including patients on a ventilator and those with complex medical conditions. To qualify as an LTCH, hospitals must have an average length of stay of 25 days or more.	To be eligible under Medicare, a beneficiary must require hospital-level care and, for the LTCH to receive full payment under the LTCH prospective payment system (PPS), be immediately discharged from an acute care hospital having spent three or more days in the intensive care unit or having received mechanical ventilation at the LTCH for 96 hours or more.	<p><i>Site-neutral payment rate</i></p> <ul style="list-style-type: none"> Waived site-neutral payment rate, so that all cases were paid at LTCH PPS rate Waived 50% rule threshold for LTCHs to receive payments <p><i>25-day rule</i></p> <ul style="list-style-type: none"> Waived 25-day average length of stay requirement for LTCHs

* Data: Centers for Medicare and Medicaid Services, COVID-19 Emergency Declaration Blanket Waivers for Health Care Providers (CMS, Apr. 7, 2022).

APPENDIX TABLE A2

Pre-COVID-19 Hospital Discharge Distribution to Postacute Care by Race and Dual-Eligibility Status, for Overall and High-Need Populations (2017–2019)

Setting	Overall	Race		Dual eligible	
		Black	Non-Black	Dual	Non-dual
All					
Home	53.2%	56.5%	52.8%	52.0%	53.5%
SNF	23.0%	20.1%	23.3%	28.4%	21.5%
HHA	18.5%	17.8%	18.6%	15.6%	19.3%
IRF/LTCH	5.4%	5.6%	5.3%	4.0%	5.7%
High-Need					
Home	50.5%	56.2%	49.6%	52.4%	49.8%
SNF	25.9%	20.9%	26.7%	28.4%	25.0%
HHA	17.9%	17.2%	18.0%	15.2%	18.9%
IRF/LTCH	5.7%	5.7%	5.7%	4.1%	6.4%

Notes: Excludes cases that expired in hospital or discharged to hospice or other setting not listed. HHA = home health agency, SNF = skilled nursing facility, IRF = inpatient rehabilitation facility, LTCH = long-term care hospital.

Data: KNG Health analysis of 2017–2021 Medicare claims data.

APPENDIX TABLE A3

Odds Ratios

	HHA vs. any other setting		SNF vs. any other setting		High-quality HHA vs. low-quality HHA	
	Overall	High-need	Overall	High-need	Overall	High-need
COVID-19 period	1.419***	1.454***	0.702***	0.707***	1.003	0.994
Black	1.091***	1.081***	0.952***	0.926***	0.962	0.972
Dually eligible (fully)	0.880***	0.870***	1.649***	1.553***	0.858***	0.867***
COVID-19* Black	1.020***	1.001	1.002	1.013*	1.124***	1.121***
COVID-19* dual (fully)	0.993	0.946***	1.322***	1.320***	0.987	0.978
2018	0.987***	0.983***	0.939***	0.951***	0.987	1.002
2019	0.991**	0.990***	0.893***	0.905***	1.060*	1.098***
2020 (HHA reform)	1.130***	1.180***	0.836***	0.843***	1.070*	1.109***
SNF reform	0.985***	0.988***	0.983***	0.985***		
Constant	0.029***	0.037***	0.002***	0.003***	1.293	1.165
Observations	28,404,058	18,867,270	28,381,556	18,844,768	4,838,618	3,124,056

Notes: Regressions are estimated using a logit link function; standard errors clustered at a provider level. ***p<.01, **p<.05, and *p<.10. Only selected covariates are displayed. All regressions include controls for age, gender, comorbidities, diagnoses codes, calendar year dummies, calendar month dummies, the number of PAC providers at the county level, county-level median income, the percentage of population in poverty, the percentage urban, the percentage living alone, and the percentage with college education. "Any other setting" includes home, IRF, LTCH, and SNF(HHA) for HHA(SNF) regressions. High-quality HHA defined as having at least four stars in QoPC star rating.

APPENDIX TABLE A4

Effects of Key Variables for Discharge to HHA or SNF for the Overall and High-Need Populations

Key Measure	HHA vs. any other		SNF vs. any other	
	Overall	High-need	Overall	High-need
COVID-19 period	0.054***	0.056***	-0.037***	-0.038***
Black	0.013***	0.011***	-0.007***	-0.011***
Dual eligible	-0.018***	-0.021***	0.080***	0.077***
COVID-19 period* Black	0.006***	0.003**	0.001	0.003***
COVID-19 period* dual	-0.005***	-0.013***	0.032***	0.036***

Notes: Regressions are estimated using a logit link function; standard errors clustered at a provider level. ***p<.01, **p<.05, and *p<.10. Only selected covariates are displayed. All regressions include controls for age, gender, comorbidities, diagnoses codes, calendar year dummies, calendar month dummies, the number of PAC providers at the county-level, county-level median income, the percentage of population in poverty, the percentage urban, the percentage living alone, and the percentage with college education. "Any other setting" includes home, IRF, LTCH, and SNF(HHA) for HHA(SNF) regressions.

APPENDIX TABLE A5

Effects of Key Variables on Likelihood of Discharge to a High-Quality HHA

Key measure	Overall	High-need
COVID-19 period	0.003	0.001
Black	-0.003	-0.001
Dual eligible	-0.033***	-0.031***
COVID-19 period* Black	0.025***	0.025***
COVID-19 period* dual	-0.003	-0.005

Notes: Regressions are estimated using a logit link function; standard errors clustered at a provider level. ***p<.01, **p<.05, and *p<.10. Only selected covariates are displayed. All regressions include controls for age, gender, comorbidities, diagnoses codes, calendar year dummies, calendar month dummies, the number of PAC providers at the county-level, county-level median income, the percentage of population in poverty, the percentage urban, the percentage living alone, and the percentage with college education. High-quality HHA defined as having at least 4-star QoPC star rating.