

Supplementary Table S1: Characteristics of Nursing Homes by Completeness of Data on Personal Protective Equipment (PPE) and Staffing Shortages Over the Period from June 15 through July 19, 2020 (n=15,388)

	Facilities with complete data on PPE and staffing shortages (n=13,445)	Facilities with incomplete data on PPE and staffing shortages (n=1,943)	<i>p-value</i>	Number of facilities with incomplete data that reported PPE or staffing shortage information in each week
Reported PPE shortage during week ending:				
June 21, 2020 (%)	18.7	17.0	.104	1,515
June 28, 2020 (%)	18.1	17.9	.877	1,448
July 5, 2020 (%)	17.3	17.3	.993	1,521
July 12, 2020 (%)	16.8	15.8	.305	1,445
July 19, 2020 (%)	18.8	12.1	<.001	974
Reported staffing shortage during week ending:				
June 21, 2020 (%)	20.2	20.3	.898	1,523
June 28, 2020 (%)	20.7	21.0	.789	1,460
July 5, 2020 (%)	21.0	21.1	.927	1,529
July 12, 2020 (%)	21.1	23.5	.039	1,453
July 19, 2020 (%)	21.8	19.7	.115	976
State in which facility is located:				
In Northeast PPE Consortium (%)	15.5	15.4	.900	
Has LTC teams with a focus beyond testing (%)	27.5	26.0	.174	
LTC workforce supports				
Adjusted licensing or training requirements (%)	20.0	22.1	.034	
Increased payments or incentives for staff (%)	21.1	17.4	<.001	
Offers job match assistance (%)	27.1	25.6	.179	
Expanded Medicaid payments to LTC (%)	49.6	43.8	<.001	
County in which facility is located:				
Change in COVID-19 cases per 100k pop b/n May 24, 2020 and June 14, 2020 (mean)	125.8	138.0	.050	
Population >75% urban (%)	56.5	61.0	<.001	
Nursing home characteristics:				
Nursing home size (%)				
Small (<50 beds)	11.8	14.3	.006	
Medium (≥50 & ≤150 beds)	72.7	70.9		
Large (>150 beds)	15.5	14.7		
Ownership (%)				

Non-profit	23.8	20.9	.006	
Government	6.3	7.5		
For-profit	69.9	71.6		
Part of a chain (%)	59.0	53.8	<.001	
Located in a hospital (%)	4.0	5.5	.004	
Share of revenue from Medicaid (quartiles)				
1 (lowest)	25.1	28.7	<.001	
2	25.0	21.4		
3	25.0	23.2		
4 (highest)	24.9	26.7		
Black residents >25% of all residents (%)	15.8	19.3	<.001	
CMS Overall Five-Star Rating (%)				
1 (lowest)	16.3	19.2	<.001	
2	19.5	20.0		
3	17.6	16.9		
4	21.1	19.9		
5 (highest)	24.3	21.3		
Missing rating	1.2	2.7		
Change in COVID-19 cases per bed b/n May 24, 2020 and June 14, 2020 (mean)	.013	.016	.230	

Abbreviations: LTC, long-term care; pop, population; PPE, personal protective equipment

Notes: Information from LTCfocus.org (chain status, in-hospital status, Medicaid resident share, Black resident share) was missing for 960 facilities. The descriptive statistics exclude facilities missing information on a characteristic from estimates for that characteristic. For facilities with incomplete data on PPE and staffing shortages over the five-week study period, weekly PPE and staffing shortage estimates were based on the facilities that reported shortage information in that week.

Supplementary Table S2: State Action, County, Facility, and Resident Characteristics of Nursing Homes by Shortages of Personal Protective Equipment (PPE) and Staff, June 15 through July 19, 2020 (n=13,445)

	Short PPE at Least One Week (n=3,710)	Not Short PPE (n=9,735)	<i>p-value</i>	Short Staff at Least One Week (n=4,054)	Not Short Staff (n=9,391)	<i>p-value</i>
State in which facility is located:						
In Northeast PPE Consortium (%)	13.5	16.3	<.001	12.8	16.7	<.001
Has LTC teams with a focus beyond testing (%)	25.2	28.4	<.001	21.8	30.0	<.001
LTC workforce supports						
Adjusted licensing or training requirements (%)	20.5	19.9	.423	20.0	20.0	.951
Increased payments or incentives for staff (%)	21.9	20.7	.145	16.6	23.0	<.001
Offers job match assistance (%)	25.8	27.5	.048	21.3	29.5	<.001
Expanded Medicaid payments to LTC (%)	52.4	48.5	<.001	48.2	50.2	.034
County in which facility is located:						
Change in COVID-19 cases per 100k pop b/n May 24, 2020 and June 14, 2020 (mean)	128.2	124.9	.292	127.3	125.2	.506
Population >75% urban (%)	55.2	57.0	.060	49.5	59.6	<.001
Nursing home characteristics:						
Nursing home size (%)						
Small (<50 beds)	11.5	12.0	.190	10.8	12.2	.067
Medium (≥50 & ≤150 beds)	73.8	72.2		73.4	72.4	
Large (>150 beds)	14.7	15.8		15.8	15.4	
Ownership (%)						
Non-profit	19.6	25.3	<.001	21.3	24.8	<.001
Government	4.5	7.0		7.3	5.9	
For-profit	75.9	67.7		71.4	69.3	
Part of a chain (%)	57.8	54.9	.002	55.4	55.8	.617
Located in a hospital (%)	2.4	4.4	<.001	3.1	4.1	.007
Share of revenue from Medicaid (quartiles)				10.1	8.2	<.001
1 (lowest)	24.0	25.5	.171	21.2	26.8	<.001
2	26.0	24.6		24.7	25.1	
3	25.6	24.8		24.8	25.7	
4 (highest)	24.4	25.1		23.3	28.4	

Black residents >25% of all residents (%)	14.3	15.2	.182	18.3	13.5	<.001
CMS Overall Five-Star Rating (%)						
1 (lowest)	16.3	16.3	.389	20.4	14.5	<.001
2	20.1	19.3		21.2	18.8	
3	17.6	17.5		17.8	17.5	
4	21.7	20.8		19.6	21.7	
5 (highest)	23.2	24.9		19.9	26.4	
Missing rating	1.1	1.2		1.1	1.1	
Change in COVID-19 cases per bed b/n May 24, 2020 and June 14, 2020 (mean)	.013	.014	.248	.015	.012	.004

Abbreviations: LTC, long-term care; pop, population; PPE, personal protective equipment

Notes: Information from LTCfocus.org (chain status, in-hospital status, Medicaid resident share, Black resident share) was missing for 754 facilities. The descriptive statistics exclude facilities missing information on a characteristic from estimates for that characteristic.