

eAppendix 4: State, County, or Ward of Residence by Zip Code and Study Outcome by Median Income by Zip Code Code of Residence, n = 348

Variable	Sample Size Hospitalized	High Flow O2 (FIO2) N (%)		p-value	OR	p-value*	aOR*	Ventilator (INTUBATION)		p-value	OR	p-value*	aOR*	Death N (%)		p-value	OR	p-value*	aOR*
State of Residence		Yes	No					Yes	No					Yes	No				
Washington, DC	140 (40.2)	40 (28.6)	100 (71.4)	0.5594	REF	0.7705	REF	11 (7.9)	129 (92.1)	0.6115	REF	0.5915	REF	23 (16.4)	117 (83.6)	0.4937	REF	0.6712	REF
Maryland	155 (44.5)	35 (22.6)	120 (77.4)		0.73 [0.43, 1.23]		0.77 [0.45, 1.31]	17 (11.0)	138 (89.0)		1.45 [0.65, 3.20]		1.47 [0.66, 3.25]	29 (18.7)	126 (81.3)		1.17 [0.64, 2.14]		1.35 [0.72, 2.54]
Virginia	22 (8.9)	4 (18.2)	18 (81.8)		0.56 [0.18, 1.74]		0.68 [0.21, 2.19]	1 (4.6)	21 (95.5)		0.56 [0.07, 4.55]		0.59 [0.07, 4.82]	2 (9.1)	20 (90.9)		0.51 [0.11, 2.33]		0.73 [0.15, 3.58]
Other	31 (6.3)	7 (22.6)	24 (77.4)		0.73 [0.18, 1.74]		0.92 [0.36, 2.37]	4 (12.9)	27 (87.1)		1.74 [0.51, 5.87]		1.83 [0.53, 6.34]	3 (9.7)	28 (90.3)		0.55 [0.15, 1.94]		0.81 [0.22, 3.04]

Variable	Sample Size Hospitalized	High Flow O2 (FIO2) N (%)		p-value	OR	p-value*	aOR*	Ventilator (INTUBATION)		p-value	OR	p-value*	aOR*	Death N (%)		p-value	OR	p-value*	aOR*
County of Residence		Yes	No					Yes	No					Yes	No				
Alexandria, VA	3 (0.9)	0 (0.0)	3 (100.0)	0.9044	N/A	0.7927	N/A	0 (0.0)	3 (100.0)	0.9954	N/A	0.9937	N/A	0 (0.0)	3 (100.0)	0.8876	N/A	0.9518	N/A
Arlington, VA	2 (0.6)	0 (0.0)	2 (100.0)		N/A		N/A	0 (0.0)	2 (100.0)		N/A		N/A	0 (0.0)	2 (100.0)		N/A		N/A
Baltimore City, MD	4 (1.1)	0 (0.0)	4 (100.0)		N/A		N/A	0 (0.0)	4 (100.0)		N/A		N/A	0 (0.0)	4 (100.0)		N/A		N/A
Charles, MD	8 (2.3)	1 (12.5)	7 (87.5)		0.36 [0.04, 3.00]		0.46 [0.05, 3.94]	1 (12.5)	7 (87.5)		1.68 [0.19, 14.88]		1.77 [0.20, 15.95]	0 (0.0)	8 (100.0)		N/A		N/A
Fairfax, VA	10 (2.9)	1 (10.0)	9 (90.0)		0.28 [0.03, 2.26]		0.30 [0.04, 2.48]	0 (0.0)	10 (100.0)		N/A		N/A	1 (10.0)	9 (90.0)		0.57 [0.07, 4.68]		0.63 [0.07, 5.65]
Montgomery, MD	14 (4.0)	4 (28.6)	10 (71.4)		1.00 [0.30, 3.37]		1.40 [0.40, 4.91]	1 (7.1)	13 (92.9)		0.90 [0.11, 7.55]		0.97 [0.11, 8.25]	1 (7.1)	13 (92.9)		0.39 [0.05, 3.14]		0.72 [0.09, 6.05]
Other	31 (8.9)	7 (22.6)	24 (77.4)		0.73 [0.29, 1.83]		0.95 [0.37, 2.45]	4 (12.9)	27 (87.1)		1.74 [0.51, 5.87]		1.84 [0.53, 6.39]	3 (9.7)	28 (90.3)		0.55 [0.15, 1.94]		0.82 [0.22, 3.06]
Prince Georges, MD	129 (37.1)	30 (23.3)	99 (76.7)		0.76 [0.44, 1.31]		0.77 [0.44, 1.35]	15 (11.6)	114 (88.4)		1.54 [0.68, 3.50]		1.55 [0.69, 3.52]	28 (21.7)	101 (78.3)		1.41 [0.76, 2.60]		1.55 [0.81, 2.93]
Prince Williams, VA	7 (2.0)	3 (42.9)	4 (57.1)		1.88 [0.40, 8.76]		3.31 [0.67, 16.41]	1 (14.3)	6 (85.7)		1.96 [0.22, 17.72]		2.18 [0.23, 20.81]	1 (14.3)	6 (85.7)		0.85 [0.10, 7.38]		2.54 [0.27, 24.13]
Washington, DC	140 (40.2)	40 (28.6)	100 (71.4)		REF		REF	11 (7.9)	129 (92.1)		REF		REF	23 (16.4)	117 (83.6)		REF		REF

Variable	Sample Size Hospitalized	High Flow O2 (FIO2) N (%)		p-value	OR	p-value*	aOR*	Ventilator (INTUBATION)		p-value	OR	p-value*	aOR*	Death N (%)		p-value	OR	p-value*	aOR*
Geographic Area		Yes	No					Yes	No					Yes	No				
DC - Ward 1	3 (0.9)	0 (0.0)	3 (100.0)	0.6594	N/A	0.812	N/A	0 (0.0)	3 (100.0)	0.7885	N/A	0.7948	N/A	0 (0.0)	3 (100.0)	0.3114	N/A	0.6598	N/A
DC - Ward 2	34 (9.8)	8 (23.5)	26 (76.5)		1.06 [0.33, 3.35]		0.88 [0.27, 2.86]	4 (11.8)	30 (88.2)		0.90 [0.21, 3.96]		0.89 [0.20, 3.97]	6 (17.7)	28 (82.4)		2.00 [0.46, 8.80]		1.49 [0.32, 6.89]
DC - Ward 3	1 (0.3)	1 (100.0)	0 (0.0)		N/A		N/A	0 (0.0)	1 (100.0)		N/A		N/A	0 (0.0)	1 (100.0)		N/A		N/A
DC - Ward 4	33 (9.5)	7 (21.2)	26 (78.8)		0.92 [0.28, 3.02]		0.68 [0.20, 2.31]	2 (6.1)	31 (93.9)		0.44 [0.07, 2.57]		0.43 [0.07, 2.60]	7 (21.2)	26 (78.8)		2.51 [0.59, 10.76]		1.49 [0.33, 6.80]
DC - Ward 5	13 (3.7)	5 (38.5)	8 (61.5)		2.14 [0.53, 8.68]		1.55 [0.37, 6.48]	1 (7.7)	12 (92.3)		0.56 [0.06, 5.58]		0.55 [0.05, 5.64]	3 (23.1)	10 (76.9)		2.80 [0.48, 16.2]		1.61 [0.26, 9.95]
DC - Ward 6	5 (1.4)	0 (0.0)	5 (100.0)		N/A		N/A	0 (0.0)	5 (100.0)		N/A		N/A	0 (0.0)	5 (100.0)		N/A		N/A
DC - Ward 7	25 (7.2)	10 (40.0)	15 (60.0)		2.29 [0.72, 7.30]		1.81 [0.55, 5.91]	3 (12.0)	22 (88.0)		0.92 [0.19, 4.56]		0.91 [0.18, 4.60]	5 (20.0)	20 (80.0)		2.33 [0.50, 10.91]		1.59 [0.32, 7.82]
DC - Ward 8	26 (7.5)	9 (34.6)	17 (65.4)		1.82 [0.57, 5.83]		1.52 [0.47, 4.96]	1 (3.9)	25 (96.1)		0.27 [0.03, 2.58]		0.27 [0.03, 2.58]	2 (7.7)	24 (92.3)		0.78 [0.12, 5.05]		0.60 [0.09, 4.04]
PG - Central	28 (8.1)	4 (14.3)	24 (85.7)		0.57 [0.15, 2.21]		0.46 [0.12, 1.83]	2 (7.1)	26 (92.9)		0.52 [0.09, 3.08]		0.51 [0.09, 3.09]	3 (10.7)	25 (89.3)		1.12 [0.21, 6.06]		0.76 [0.13, 4.37]
PG - Inner Beltway	29 (8.3)	5 (17.2)	24 (82.8)		0.71 [0.20, 2.57]		0.60 [0.16, 2.20]	1 (3.5)	28 (96.5)		0.24 [0.03, 2.30]		0.24 [0.03, 2.29]	5 (17.2)	24 (82.8)		1.94 [0.42, 9.00]		1.57 [0.32, 7.56]
PG - North	35 (10.1)	8 (22.9)	27 (77.1)		1.02 [0.32, 3.22]		0.85 [0.26, 2.74]	4 (11.4)	31 (88.6)		0.87 [0.20, 3.82]		0.86 [0.19, 3.84]	7 (20.0)	28 (80.0)		2.33 [0.55, 9.95]		1.85 [0.42, 8.22]
PG - Rural	3 (0.9)	0 (0.0)	3 (100.0)		N/A		N/A	0 (0.0)	3 (100.0)		N/A		N/A	0 (0.0)	3 (100.0)		N/A		N/A
PG - South	34 (9.8)	13 (38.2)	21 (61.8)		2.12 [0.71, 6.31]		1.64 [0.54, 5.03]	8 (23.5)	26 (76.5)		2.08 [0.56, 7.74]		2.05 [0.53, 7.87]	13 (38.2)	21 (61.8)		5.78 [1.16, 22.90]		3.98 [0.95, 1664]
MD - Other	26 (7.5)	5 (19.2)	21 (80.8)		0.82 [0.23, 2.96]		0.83 [0.22, 3.05]	2 (7.7)	24 (92.3)		0.56 [0.09, 3.35]		0.56 [0.10, 3.35]	1 (3.9)	25 (96.1)		0.37 [0.04, 3.82]		0.39 [0.04, 4.13]
VA	22 (6.3)	4 (18.2)	18 (81.8)		0.76 [0.19, 3.01]		0.74 [0.18, 2.97]	1 (4.6)	21 (95.4)		0.32 [0.03, 3.09]		0.32 [0.03, 3.09]	2 (9.1)	20 (90.9)		0.93 [0.14, 6.11]		0.90 [0.13, 6.89]
Other U.S.	31 (8.9)	7 (22.6)	24 (77.4)		REF		REF	4 (12.9)	27 (87.1)		REF		REF	3 (9.7)	28 (90.3)		REF		REF

Variable	Sample Size Hospitalized	High Flow O2 (FIO2) N (%)		p-value	OR	p-value*	aOR*	Ventilator (INTUBATION)		p-value	OR	p-value*	aOR*	Death N (%)		p-value	OR	p-value*	aOR*
Geographic Area - DC		Yes	No					Yes	No					Yes	No				
DC - Ward 1	3 (2.1)	0 (0.0)	3 (100.0)	0.8079	N/A	0.8067	N/A	0 (0.0)	3 (100.0)	0.9719	N/A	0.9738	N/A	0 (0.0)	3 (100.0)	0.944	N/A	0.984	N/A
DC - Ward 2	34 (24.3)	8 (23.5)	26 (76.5)		REF		REF	4 (11.8)	30 (88.2)		REF		REF	6 (17.7)	28 (82.4)		REF		REF
DC - Ward 3	1 (0.7)	1 (100.0)	0 (0.0)		N/A		N/A	0 (0.0)	1 (100.0)		N/A		N/A	0 (0.0)	1 (100.0)		N/A		N/A
DC - Ward 4	33 (23.6)	7 (21.2)	26 (78.8)		0.88 [0.28, 2.77]		0.79 [0.25, 2.54]	2 (6.1)	31 (93.9)		0.48 [0.08, 2.84]		0.50 [0.08, 2.97]	7 (21.2)	26 (78.8)		1.26 [0.37, 4.23]		1.01 [0.28, 3.60]
DC - Ward 5	13 (9.3)	5 (38.5)	8 (61.5)		2.03 [0.52, 7.99]		1.80 [0.45, 7.19]	1 (7.7)	12 (92.3)		0.63 [0.06, 6.18]		0.65 [0.06, 6.61]	3 (23.1)	10 (76.9)		1.40 [0.29, 6.68]		1.09 [0.22, 5.51]
DC - Ward 6	5 (3.6)	0 (0.0)	5 (100.0)		N/A		N/A	0 (0.0)	5 (100.0)		N/A		N/A	0 (0.0)	5 (100.0)		N/A		N/A
DC - Ward 7	25 (17.9)	10 (40.0)	15 (60.0)		2.17 [0.70, 6.68]		2.06 [0.66, 6.42]	3 (12.0)	22 (88.0)		1.02 [0.21, 5.04]		1.05 [0.21, 5.21]	5 (20.0)	20 (80.0)		1.17 [0.31, 4.36]		1.07 [0.27, 4.19]
DC - Ward 8	26 (18.6)	9 (34.6)	17 (65.4)		1.72 [0.56, 5.34]		1.72 [0.55, 5.37]	1 (3.9)	25 (96.1)		0.30 [0.03, 2.86]		0.30 [0.03, 2.89]	2 (7.7)	24 (92.3)		0.39 [0.07, 2.11]		0.40 [0.07, 2.26]

Variable	Sample Size Hospitalized	High Flow O2 (FIO2) N (%)		p-value	OR	p-value*	aOR*	Ventilator (INTUBATION)		p-value	OR	p-value*	aOR*	Death N (%)		p-value	OR	p-value*	aOR*
Geographic Area - PG		Yes	No					Yes	No					Yes	No				
PG - Central	28 (21.7)	4 (14.3)	24 (85.7)	0.2207	REF	0.2727	REF	2 (7.1)	26 (92.9)	0.2041	REF	0.1965	REF	3 (10.7)	25 (89.3)	0.1273	REF	0.2017	REF
PG - Inner Beltway	29 (22.5)	5 (17.2)	24 (82.8)		1.25 [0.30, 5.23]		1.28 [0.30, 5.41]	1 (3.5)	28 (96.5)		0.46 [0.04, 5.43]		0.46 [0.04, 5.43]	5 (17.2)	24 (82.8)		1.74 [0.37, 8.07]		2.04 [0.41, 10.03]
PG - North	35 (27.1)	8 (22.9)	27 (77.1)		1.78 [0.48, 6.66]		1.81 [0.48, 6.85]	4 (11.4)	31 (88.6)		1.68 [0.28, 9.90]		1.68 [0.28, 9.92]	7 (20.0)	28 (80.0)		2.08 [0.49, 8.94]		2.41 [0.53, 10.92]
PG - Rural	3 (2.3)	0 (0.0)	3 (100.0)		N/A		N/A	0 (0.0)	3 (100.0)		N/A		N/A	0 (0.0)	3 (100.0)		N/A		N/A
PG - South	34 (26.4)	13 (38.2)	21 (61.8)		3.71 [1.05, 13.15]		3.58 [1.00, 12.77]	8 (23.5)	26 (76.5)		4.00 [0.77, 20.66]		4.10 [0.95, 1.04]	13 (38.2)	21 (61.8)		5.16 [1.29, 20.57]		5.21 [1.24, 21.93]

Variable	Sample Size Hospitalized	High Flow O2 (FIO2) N (%)		p-value	OR	p-value*	aOR*	Ventilator (INTUBATION)		p-value	OR	p-value*	aOR*	Death N (%)		p-value	OR	p-value*	aOR*
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Median Income Quintile		Yes	No					Yes	No					Yes	No				
20th (\$0-72,121)	70 (20.1)	22 (31.4)	48 (68.6)	0.2583	REF	0.2884	REF	5 (7.1)	65 (92.9)	0.5916	REF	0.5747	REF	8 (11.4)	62 (88.6)	0.1864	REF	0.311	REF
40th (\$72,122-80,542)	75 (21.6)	22 (29.3)	53 (70.7)		0.91 [0.45, 1.84]		0.88 [0.43, 1.80]	10 (13.3)	65 (86.7)		2.00 [0.65, 6.17]		1.99 [0.64, 6.14]	18 (24.0)	57 (76.0)		2.48 [0.99, 6.06]		2.43 [0.95, 6.20]
60th (\$80,543-96,439)	64 (18.4)	16 (25.0)	48 (75.0)		0.73 [0.34, 1.55]		0.61 [0.28, 1.33]	4 (6.3)	60 (93.7)		0.87 [0.22, 3.38]		0.84 [0.21, 3.28]	13 (20.3)	51 (79.7)		1.98 [0.76, 5.14]		1.47 [0.55, 3.97]
80th (\$96,439-116,492)	70 (20.1)	14 (20.0)	56 (80.0)		0.55 [0.25, 1.18]		0.56 [0.26, 1.22]	8 (11.4)	62 (88.6)		1.68 [0.52, 5.41]		1.70 [0.53, 5.47]	9 (12.9)	61 (87.1)		1.14 [0.41, 3.16]		1.21 [0.42, 3.44]
100th (\$116,492-242,610)	69 (19.8)	12 (17.4)	57 (82.6)		0.46 [0.21, 1.02]		0.46 [0.21, 1.05]	6 (8.7)	63 (91.3)		1.24 [0.36, 4.26]		1.25 [0.36, 4.31]	9 (13.0)	60 (87.0)		1.16 [0.42, 3.21]		1.17 [0.41, 3.35]

Variable	Sample Size Hospitalized	High Flow O2 (FIO2) N (%)		p-value	OR	p-value*	aOR*	Ventilator (INTUBATION)		p-value	OR	p-value*	aOR*	Death N (%)		p-value	OR	p-value*	aOR*
Median Income Quartile		Yes	No					Yes	No					Yes	No				
25th (\$0-73,544)	93 (26.72)	26 (28.0)	67 (72.0)	0.097	REF	0.191	REF	6 (6.5)	87 (93.5)	0.5149	REF	0.531	REF	13 (14.0)	80 (86.0)	0.0347	REF	0.1608	REF
50th (\$73,545-91,310)	106 (30.5)	33 (31.1)	73 (68.9)		1.17 [0.63, 2.15]		1.05 [0.56, 1.96]	13 (12.3)	93 (87.7)		2.03 [0.74, 5.57]		2.01 [0.73, 5.54]	26 (24.5)	80 (75.5)		2.00 [0.96, 4.17]		1.63 [0.76, 3.51]
75th (\$91,311-112,496)	65 (18.7)	11 (16.9)	54 (83.1)		0.53 [0.24, 1.16]		0.54 [0.24, 1.19]	5 (7.7)	60 (92.3)		1.21 [0.35, 4.14]		1.21 [0.35, 4.16]	5 (7.7)	60 (92.3)		0.51 [0.17, 1.52]		0.52 [0.17, 1.58]
100th (\$112,497-242,610)	84 (24.1)	16 (19.1)	68 (80.9)		0.61 [0.30, 1.23]		0.61 [0.30, 1.25]	9 (10.7)	75 (89.3)		1.74 [0.59, 5.11]		1.75 [0.59, 5.13]	13 (15.5)	71 (84.5)		1.13 [0.49, 2.59]		1.10 [0.46, 2.61]

Median Income Continuous				0.0247	1.00 [1.00, 1.00]	0.0293	1.00 [1.00, 1.00]			0.8609	1.00 [1.00, 1.00]	0.8502	1.00 [1.00, 1.00]			0.4914	1.00 [1.00, 1.00]	0.4872	1.00 [1.00, 1.00]
Units=10000				0.0247	0.91 [0.84, 0.99]	0.0293	0.91 [0.84, 0.99]			0.8609	1.01 [0.90, 1.13]	0.8502	1.01 [0.91, 1.13]			0.4914	0.97 [0.89, 1.06]	0.4872	0.97 [0.88, 1.06]

* Age-adjusted OR and p-value for age-adjusted analysis