

## Supplementary Online Content

Admon AJ, Iwashyna TJ, Kamphuis LA, et al; National Heart, Lung, and Blood Institute PETAL Network. Assessment of symptom, disability, and financial trajectories in patients hospitalized for COVID-19 at 6 months. *JAMA Netw Open*. 2023;6(2):e2255795.  
doi:10.1001/jamanetworkopen.2022.55795

**eTable 1.** Missingness by Variable

**eTable 2.** Participant Demographic Characteristics

**eTable 3.** Participant Demographics by Follow-up Status

**eTable 4.** Presence of Symptoms at 6 Months by Initial Illness Severity and Comorbidity Status

**eTable 5.** New or Worsened Cardiopulmonary Symptoms Over Time Compared to Pre-COVID Baseline Among Only Participants Responding to Each of Three Surveys

**eTable 6.** New or Worsened Cardiopulmonary Symptoms Over Time Compared to Pre-COVID Baseline Restricted Only to Respondents With Three or More Comorbidities at Baseline (n=99)

**eTable 7.** New or Worsened Cardiopulmonary Symptoms Over Time Compared to Pre-COVID Baseline Restricted to Respondents Who Received Mechanical Ventilation

**eTable 8.** Predictors of New Cardiopulmonary Symptoms at 6 Months

**eTable 9.** Financial Problems at Each Timepoint Among Only Participants Completing All Three Surveys

**eTable 10.** Predictors of Any Financial Toxicity at 6 Months

**eFigure 1.** CONSORT Diagrams—Month 1

**eFigure 2.** CONSORT Diagrams—Month 3

**eFigure 3.** CONSORT Diagrams—Month 6

**eFigure 4.** Trajectories in Perceived Recovery Over Time

**eFigure 5.** Trajectories in Self-reported Fatigue

**eAppendix.** List of BLUE CORAL Investigators

This supplementary material has been provided by the authors to give readers additional information about their work.

**eTable 1: Missingness by variable**

<b>Variable</b>	<b>Number Missing</b>	<b>Percent Missing</b>
<b>Financial Problems</b>		
Used up all or most of savings	36	1.8%
Were unable to pay for necessities	30	1.5%
Were contacted by a collection agency	36	1.8%
Declared bankruptcy	34	1.7%
Skipped or delayed medical care because of cost	30	1.5%
Took less medications because of the cost	32	1.6%
Lost a job	21	1.1%
Had to change work	29	1.5%
Had a loved one take time off of work	27	1.4%
Been told that insurance would not cover therapy or rehab	40	2.0%
Been told that insurance would not cover equipment	41	2.1%
How much of a drain on your family's financial resources	36	1.8%
<b>Symptoms</b>		
Cough	33	1.7%
Chest trouble with smells/fumes	41	2.1%
Breathlessness with sleep	38	1.9%
Chest trouble when upset	37	1.9%
Chest trouble getting around the house	36	1.8%
Chest trouble leads to going home early	42	2.1%
Breathlessness when laughing	40	2.0%
Using home oxygen	33	1.7%
Using CPAP or another breathing machine during sleep	37	1.9%
Swelling in feet, ankles, or legs	52	2.7%
Breathlessness when lying flat	43	2.2%
Rapid or irregular heartbeat	57	2.9%
Chest pain, tightness, or angina	47	2.4%
<b>ADL/IADL deficits versus enrollment</b>	7	0.4%
<b>Feeling tired or having little energy</b>	140	7.1%
<b>Quality of Life (EQ-5D-5L)</b>		
Anxiety/Depression	12	0.6%
Mobility	5	0.3%
Pain/Discomfort	8	0.4%
Self-care	8	0.4%
Usual activities	11	0.6%
<b>Demographics</b>		
Race/Ethnicity	0	0.0%
Medicare Beneficiary	8	0.4%
Primary Language	3	0.2%
<b>Severity of Illness</b>		
Charlson comorbidities	0	0.0%
Discharge disposition		
Immunosuppressed status	0	0.0%
Hospital length of stay	0	0.0%
Highest level of care	0	0.0%
Maximal oxygen use	0	0.0%
Vasopressors	0	0.0%

CPAP: continuous positive airway pressure; EQ-5D-5L: European Quality of Life five-dimension five-level instrument

**eTable 2:** Participant demographic characteristics (n=825)

<b>Characteristic</b>	<b>No. (%)</b>
<b>Age, median (IQR), y</b>	56 (43, 66)
<b>Age, categorical, y</b>	
≤ 50	313 (38.9)
51-60	169 (21.0)
61-70	191 (23.7)
71-80	87 (10.8)
≥ 81	45 (5.6)
<b>Sex</b>	
Male	444 (54.0)
Female	379 (46.1)
<b>Race</b>	
Hispanic	253 (30.7)
Non-Hispanic Black or African American	145 (17.6)
Non-Hispanic White	360 (43.6)
Other or Unknown*	67 (8.1)
<b>Primary Language</b>	
English	717 (86.9)
Spanish	108 (13.1)
<b>Charlson Comorbidities</b>	
None	444 (53.8)
1	186 (22.6)
2	96 (11.6)
3 or more	99 (12.0)
<b>Immunocompromised</b>	123 (14.9)
<b>Highest Level of Care</b>	
Ward	540 (65.5)
Intermediate or stepdown	185 (22.4)
Intensive care unit	100 (12.1)
<b>Maximal oxygen support</b>	
None	134 (16.2)
Conventional oxygen	441 (53.5)
High flow nasal cannula	131 (15.9)
Non-invasive ventilation	43 (5.2)
Invasive mechanical ventilation	76 (9.2)
<b>Vasopressor Use</b>	71 (8.6)
<b>Length of stay, median (IQR), d</b>	6 (4, 10)
<b>Hospital discharge location**</b>	
Home independently	640 (77.6)
Home with help	120 (14.6)
To another facility	65 (7.9)

\*Includes American Indian/Alaskan Native, Asian, Native Hawaiian/Pacific Islander, other/declined, and unknown.

\*\*Home discharge without services includes discharge against medical advice and discharge to a COVID Hotel or similar non-healthcare facility.

**eTable 3:** Participant demographic by follow-up status

<b>Characteristic</b>	<b>Completed only Month 1 (n=84)</b>	<b>Completed Months 1, 3, and 6 (n=473)</b>	<b>P Value<sup>†</sup></b>
<b>Age, median (IQR), y</b>	51 (38, 65)	59 (47, 68)	<0.001
<b>Age, categorical, y</b>			0.005
≤ 50	38 (46.9%)	143 (31.0%)	
51-60	17 (21.0%)	105 (22.7%)	
61-70	22 (27.2%)	123 (26.6%)	
≥71	4 (4.9%)	91 (18.7%)	
<b>Sex</b>			0.87
Male	40 (47.6%)	230 (48.6%)	
Female	44 (52.4%)	243 (51.4%)	
<b>Race</b>			0.14
Hispanic	31 (38.1%)	127 (26.9%)	
Non-Hispanic Black or African American	11 (13.1%)	87 (18.4%)	
Non-Hispanic White	34 (40.5%)	227 (48.0%)	
Other or Unknown*	7 (8.3%)	32 (6.8%)	
<b>Primary Language</b>			0.61
English	72 (85.7%)	415 (87.7%)	
Spanish	12 (14.3%)	58 (13.3%)	
<b>Charlson Comorbidities</b>			0.12
None	52 (61.9%)	241 (51.0%)	
1	12 (14.3%)	121 (25.6%)	
2	11 (13.1%)	53 (11.2%)	
3 or more	9 (10.7%)	58 (12.3%)	
<b>Immunocompromised</b>	12 (14.3%)	72 (15.2%)	0.83
<b>Highest Level of Care</b>			0.52
Ward	60 (71.4%)	309 (65.3%)	
Intermediate or stepdown	16 (19.1%)	103 (21.8%)	
Intensive care unit	8 (9.5%)	61 (12.9%)	
<b>Maximal oxygen support</b>			0.26
None	20 (23.8%)	68 (14.4%)	
Conventional oxygen	42 (50.0%)	257 (54.3%)	
High flow nasal cannula	12 (14.3%)	79 (16.7%)	
Non-invasive ventilation	3 (3.6%)	28 (5.9%)	
Invasive mechanical ventilation	7 (8.3%)	41 (8.7%)	
<b>Vasopressor Use</b>	10 (11.9%)	35 (7.4%)	0.16
<b>Length of stay, median (IQR), d</b>	5 (3, 8)	5 (3, 9)	0.09
<b>Hospital discharge location**</b>			0.48
Home independently	68 (81.0%)	354 (74.8%)	
Home with help	11 (13.1%)	79 (16.7%)	
To another facility	5 (6.0%)	40 (8.5%)	

\*Includes American Indian/Alaskan Native, Asian, Native Hawaiian/Pacific Islander, other/declined, and unknown.

\*\*Home discharge without services includes discharge against medical advice and discharge to a COVID Hotel or similar non-healthcare facility.

<sup>†</sup>Using Wilcoxon rank-sum test for continuous variables and chi-squared test for categorical variables.

**eTable 4:** Presence of symptoms at 6 months by initial illness severity and comorbidity status.

	All participants at 6 months (n=641)	Ward only (n=418)	ICU (n=82)	Zero comorbidities (n=329)	At least one comorbidity (n=311)	3 or More comorbidities (n=81)	Diabetes Mellitus (n=198)	Chronic Lung Disease (n=45)
Any cardiorespiratory symptom at 6 months	75.4% (71.9%, 78.8%)	76.0% (71.6%, 80.0%)	76.8% (66.2%, 85.4%)	72.0% (66.8%, 76.7%)	79.1% (74.2%, 83.5%)	81.5% (71.3%, 89.2%)	79.8% (73.5%, 85.2%)	88.9% (76.0%, 96.3%)
Any financial problem at 6 months	56.4% (52.5%, 60.3%)	57.6% (52.7%, 62.3%)	47.6% (36.4%, 58.9%)	51.7% (46.1%, 57.2%)	61.4% (55.8%, 66.9%)	54.3% (42.9%, 65.4%)	61.9% (54.8%, 68.7%)	62.2% (46.5%, 76.2%)
At least 1 new ADL/IADL impairment at 6 months	47.3% (43.3%, 51.2%)	44.3% (39.4%, 49.2%)	40.2% (30.0%, 51.7%)	40.9% (35.6%, 46.4%)	54.0% (48.3%, 60.0%)	51.9% (40.5%, 63.1%)	52.3% (45.1%, 59.4%)	62.2% (46.5%, 76.2%)
Less than 100% of baseline health at 6 months	71.8% (68.2%, 75.3%)	70.8% (66.1%, 75.2%)	66.7% (55.3%, 76.8%)	69.8% (64.4%, 74.7%)	74.0% (68.7%, 78.8%)	74.4% (63.6%, 83.4%)	71.8% (64.9%, 78.0%)	68.9% (53.4%, 81.8%)

ADL: Activity of daily living; IADL: Instrumental activity of daily living

**eTable 5:** New or worsened cardiopulmonary symptoms over time compared to pre-COVID baseline among only participants responding to each of three surveys (n=473 participants)

	Survey Timepoint (%)			P Value*
	Month 1	Month 3	Month 6	
<b>Symptoms</b>				
Chest trouble with odors/fumes	13.58	30.54	29.85	<0.001
Cough	20.82	21.79	27.72	0.006
Swelling in feet, ankles, or legs	10.99	22.48	24.78	<0.001
Chest trouble when upset	16.81	26.55	24.52	<0.001
Rapid or irregular heartbeat	19.52	21.43	20.00	0.82
Breathlessness with sleep	14.19	19.91	21.87	<0.001
Chest pain, tightness, or angina	14.87	19.23	18.75	0.06
Breathlessness when laughing	18.24	17.09	17.95	0.89
Breathlessness when lying flat	12.90	13.68	13.95	0.57
Chest trouble getting around the house	15.91	15.42	16.14	0.91
Chest trouble leads to going home early	15.09	16.03	15.07	0.99
<b>Any symptom</b>	<b>53.78</b>	<b>64.73</b>	<b>64.68</b>	<b>&lt;0.001</b>
<b>CPAP and supplemental oxygen</b>				
Using CPAP or another breathing machine during sleep	5.64	13.43	15.07	<0.001
Using home oxygen	21.20	15.35	12.53	<0.001
<b>Any CPAP or supplemental oxygen</b>	<b>23.44</b>	<b>23.67</b>	<b>23.14</b>	<b>0.88</b>
<b>Any symptom, CPAP, or supplemental oxygen</b>	<b>68.74</b>	<b>75.74</b>	<b>76.48</b>	<b>0.002</b>

\*P value calculating using Somers' D accounting for clustering of observations by respondent.  
 CPAP: continuous positive airway pressure

**eTable 6:** New or worsened cardiopulmonary symptoms over time compared to pre-COVID baseline restricted only to respondents with three or more comorbidities at baseline (N=99)

	Survey Timepoint (%)			P Value*
	Month 1	Month 3	Month 6	
<b>Symptoms</b>				
Chest trouble with odors/fumes	11.25	17.57	24.05	0.01
Cough	11.25	24.00	23.75	0.005
Swelling in feet, ankles, or legs	8.86	23.61	23.08	0.001
Chest trouble when upset	12.50	18.92	17.72	0.29
Rapid or irregular heartbeat	12.66	13.70	12.99	0.94
Breathlessness with sleep	11.25	14.67	20.99	0.08
Chest pain, tightness, or angina	8.86	13.33	11.69	0.51
Breathlessness when laughing	17.72	8.22	12.82	0.33
Breathlessness when lying flat	10.13	10.81	16.67	0.10
Chest trouble getting around the house	15.19	17.57	16.05	0.84
Chest trouble leads to going home early	8.97	6.76	7.50	0.73
<b>Any symptom</b>	43.04	63.89	61.25	0.12
<b>CPAP and supplemental oxygen</b>				
Using CPAP or another breathing machine during sleep	3.85	13.33	17.50	<0.001
Using home oxygen	26.58	20.00	18.75	0.17
<b>Any CPAP or supplemental oxygen</b>	29.11	28.00	30.00	0.88
<b>Any symptom, CPAP, or supplemental oxygen</b>	71.25	80.00	81.48	0.006

\*P value calculating using Somers' D accounting for clustering of observations by respondent.

CPAP: continuous positive airway pressure

**eTable 7:** New or worsened cardiopulmonary symptoms over time compared to pre-COVID baseline restricted only to respondents who received mechanical ventilation (N=76)

	Survey Timepoint (%)			P Value*
	Month 1	Month 3	Month 6	
<b>Symptoms</b>				
Chest trouble with odors/fumes	8.93	18.97	27.78	0.005
Cough	19.30	31.58	29.63	0.12
Swelling in feet, ankles, or legs	14.29	28.07	16.98	0.63
Chest trouble when upset	17.86	24.56	23.64	0.38
Rapid or irregular heartbeat	16.07	19.64	26.42	0.12
Breathlessness with sleep	12.28	17.54	23.21	0.10
Chest pain, tightness, or angina	8.93	17.54	19.23	0.006
Breathlessness when laughing	16.07	26.32	25.93	0.15
Breathlessness when lying flat	16.07	17.86	3.70	0.001
Chest trouble getting around the house	10.71	12.73	18.18	0.15
Chest trouble leads to going home early	16.07	14.55	17.86	0.77
<b>Any symptom</b>	50.00	73.68	62.96	0.06
<b>CPAP and supplemental oxygen</b>				
Using CPAP or another breathing machine during sleep	12.28	10.34	18.18	0.28
Using home oxygen	36.84	19.30	23.64	0.05
<b>Any CPAP or supplemental oxygen</b>	43.86	24.56	34.55	0.19
<b>Any symptom, CPAP, or supplemental oxygen</b>	79.31	81.36	73.21	0.41

\*P value calculating using Somers' D accounting for clustering of observations by respondent.  
 CPAP: continuous positive airway pressure



**eTable 8:** Predictors of new cardiopulmonary symptoms at 6 months (N=523 participants). Model 1 includes demographic characteristics. Model 2 adds pre-hospital comorbidities. Model 3 adds hospital severity of illness. Model 4 adds presence of cardiopulmonary symptoms at 1 month.

	Odds Ratio (95% CI)			
	Model 1	Model 2	Model 3	Model 4
Age in Decades	2.28* (1.14, 4.55)	2.18* (1.05 4.52)	2.03 (0.92, 4.45)	1.74 (0.76, 4.02)
Age <sup>2</sup>	0.94* (0.88, 0.99)	0.94* (0.88 1.00)	0.94 (0.87, 1.01)	0.95 (0.88, 1.03)
Sex (vs. female)				
Male	0.48** (0.31, 0.76)	0.48** (0.31 0.77)	0.50** (0.32, 0.79)	0.59* (0.37, 0.95)
Race and Ethnicity (vs. non-Hispanic White)				
Hispanic	1.01 (0.66, 1.54)	0.98 (0.65 1.47)	0.94 (0.61, 1.46)	1.11 (0.67, 1.82)
Non-Hispanic Black	1.22 (0.70, 2.12)	1.19 (0.70 2.02)	1.22 (0.71, 2.08)	1.62 (0.94, 2.80)
Other/Unknown†	0.61 (0.36, 1.02)	0.56* (0.32 1.00)	0.55* (0.31, 0.98)	0.83 (0.39, 1.76)
Medicare beneficiary (vs. non-Medicare beneficiary)				
Yes	0.88 (0.54, 1.45)	1.49 (0.79 2.81)	0.88 (0.52, 1.47)	0.94 (0.51, 1.72)
Unknown	1.49 (0.79, 2.81)	0.86 (0.51 1.43)	1.62 (0.87, 3.03)	1.67 (0.87, 3.21)
Number of Charlson comorbidities (vs. 0)				
1		1.14 (0.66 1.97)	1.12 (0.63, 2.01)	1.24 (0.57, 2.72)
2		2.39* (1.06 5.40)	2.37* (1.08, 5.20)	2.13 (0.83, 5.45)
3 or more		1.74 (0.83 3.64)	1.68 (0.79, 3.59)	1.50 (0.76, 2.96)
Immunocompromised (vs. not immunocompromised)				
Immunocompromised		0.79 (0.48 1.30)	0.91 (0.55, 1.51)	1.10 (0.66, 1.84)
Quartile of Length of Stay (vs. first quartile)				
Second quartile			0.87 (0.50, 1.53)	0.82 (0.47, 1.43)
Third quartile			1.59 (0.89, 2.85)	1.29 (0.76, 2.19)
Fourth (longest) quartile			1.37 (0.68, 2.75)	1.18 (0.58, 2.38)
Highest Level of Care (vs. ward)				
Intermediate or Stepdown			0.51 (0.22, 1.16)	0.52 (0.20, 1.33)
ICU			0.84 (0.42, 1.68)	0.84 (0.34, 2.07)
Maximal oxygen device (vs. none)				
Conventional Oxygen			1.83* (1.13, 2.97)	1.71* (1.10, 2.66)
High Flow Nasal Cannula			1.95 (0.89, 4.26)	1.74 (0.76, 3.95)
Non-invasive Positive Pressure Ventilation			3.54 (0.99, 12.63)	2.49 (0.63, 9.85)
Mechanical Ventilation			1.54 (0.28, 8.63)	1.73 (0.22, 13.76)
Vasopressors (vs no vasopressors)				
Received Vasopressors			1.72 (0.77, 3.87)	1.01 (0.30, 3.40)
Cardiorespiratory symptoms at 1 month (vs. no symptoms)				
Yes				3.25*** (2.01, 5.27)
Intercept	0.45 (0.06, 3.24)	0.50 (0.06 3.92)	0.36 (0.04, 2.97)	0.22 (0.02, 2.24)
AUROC	0.625	0.643	0.677	0.721

\*\*\* p<.001, \*\* p<.01, \* p<.05,

†Includes American Indian/Alaskan Native, Asian, Native Hawaiian/Pacific Islander, other/declined, and unknown

ICU: intensive care unit; AUROC: area under the receiver operating characteristic curve

**eTable 9:** Financial problems at each timepoint among only participants responding to each of three surveys (n=473 participants)

	Survey Timepoint (%)			P Value*
	Month 1	Month 3	Month 6	
<b>At any time because of COVID hospitalization, have you...</b>				
used up all or most of savings?	29.21	31.26	33.40	0.05
been unable to pay for necessities?	17.48	18.55	19.40	0.33
been contacted by a collection agency?	10.23	11.99	16.70	<0.001
skipped or delayed medical care because of cost?	7.46	8.49	8.32	0.51
taken less medications because of the cost?	4.90	6.61	6.40	0.25
declared bankruptcy?	0.85	1.28	1.50	0.35
<b>Since our last contact, have you...</b>				
had a loved one take time off of work?	38.54	23.62	20.51	<0.001
had to change work?	13.25	14.07	10.59	0.13
been told that insurance would not cover therapy or rehab?	3.85	5.59	6.17	0.06
lost a job?	7.46	6.57	6.34	0.42
been told that insurance would not cover equipment?	6.42	5.59	4.71	0.17
<b>Prevalence of any financial problem</b>	<b>63.83</b>	<b>56.36</b>	<b>53.70</b>	<b>&lt;0.001</b>

\*P value calculating using Somers' D accounting for clustering of observations by respondent.

**eTable 10:** Predictors of any financial problems at 6 months (N=528 participants). Model 1 includes demographic characteristics. Model 2 adds pre-hospital comorbidities. Model 3 adds hospital severity of illness. Model 4 adds presence of financial problems at 1 month.

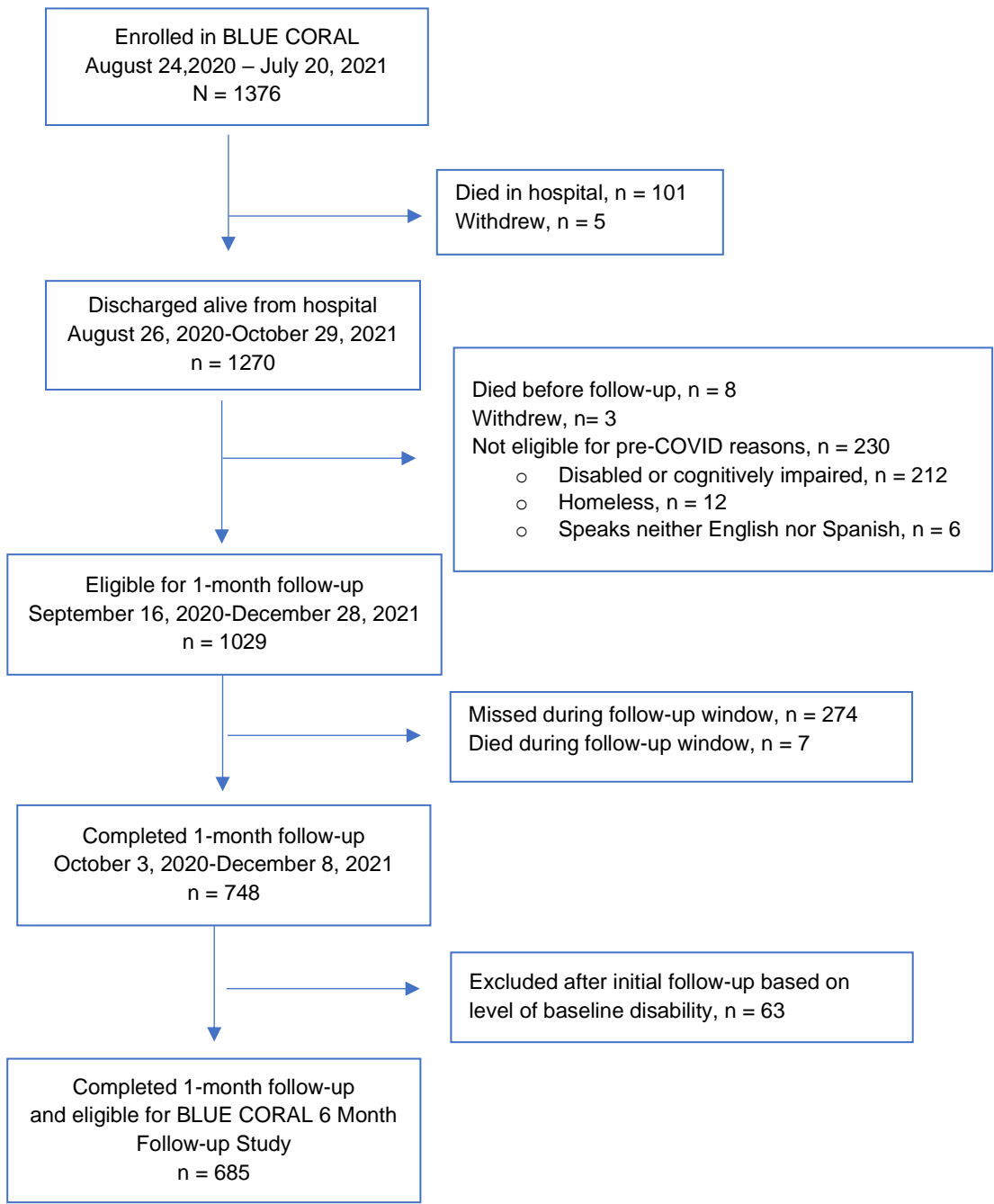
	Odds Ratio (95% CI)			
	Model 1	Model 2	Model 3	Model 4
Age in Decades	1.80 (0.90, 3.58)	1.56 (0.76, 3.20)	1.51 (0.73, 3.12)	1.46 (0.68, 3.13)
Age <sup>2</sup>	0.94 (0.88, 1.00)	0.95 (0.89, 1.01)	0.95 (0.89, 1.02)	0.96 (0.90, 1.03)
Sex (vs. female)				
Male	0.80 (0.61, 1.06)	0.82 (0.61, 1.10)	0.82 (0.61, 1.11)	0.77 (0.52, 1.14)
Race and Ethnicity (vs. non-Hispanic White)				
Hispanic	3.64*** (2.51, 5.27)	3.63*** (2.50, 5.27)	3.52*** (2.41, 5.15)	3.74*** (2.24, 6.23)
Non-Hispanic Black	2.99*** (2.01, 4.44)	2.86*** (1.94, 4.20)	2.97*** (2.10, 4.20)	2.63*** (1.65, 4.20)
Other/Unknown <sup>†</sup>	2.66** (1.28, 5.55)	2.53* (1.19, 5.41)	2.47* (1.19, 5.12)	3.28* (1.32, 8.17)
Medicare beneficiary (vs. non-Medicare Beneficiary)				
Yes	0.75 (0.52, 1.09)	1.46 (0.90, 2.36)	0.70 (0.48, 1.01)	0.89 (0.53, 1.51)
Unknown	1.54 (0.96, 2.49)	0.69* (0.47, 1.00)	1.59 (0.90, 2.83)	1.35 (0.68, 2.69)
Number of Charlson comorbidities (vs. 0)				
1		1.83** (1.27, 2.64)	1.84** (1.24, 2.74)	1.64 (0.99, 2.73)
2		2.08** (1.34, 3.24)	2.08** (1.27, 3.38)	1.68 (0.92, 3.08)
3 or more		1.25 (0.83, 1.89)	1.25 (0.75, 2.08)	1.27 (0.67, 2.42)
Immunocompromised (vs. not immunocompromised)				
Immunocompromised		1.21 (0.79, 1.86)	1.19 (0.78, 1.84)	1.13 (0.67, 1.89)
Quartile of Length of Stay (vs. first quartile)				
Second quartile			1.04 (0.57, 1.87)	1.01 (0.51, 2.00)
Third quartile			1.57 (0.84, 2.93)	1.22 (0.64, 2.35)
Fourth (longest) quartile			1.80 (0.88, 3.69)	1.44 (0.61, 3.43)
Highest Level of Care (vs. ward)				
Intermediate or Stepdown			0.59 (0.31, 1.12)	0.58 (0.30, 1.14)
ICU			0.80 (0.42, 1.54)	0.66 (0.35, 1.22)
Maximal oxygen device (vs. none)				
Conventional Oxygen			0.82 (0.47, 1.43)	0.70 (0.35, 1.41)
High Flow Nasal Cannula			0.96 (0.42, 2.19)	0.65 (0.24, 1.77)
Non-invasive Positive Pressure Ventilation			0.80 (0.35, 1.85)	0.72 (0.35, 1.50)
Mechanical Ventilation			0.55 (0.11, 2.73)	0.90 (0.11, 7.61)
Vasopressors (vs. no vasopressors)				
Received Vasopressors			2.65 (0.69, 10.13)	1.11 (0.20, 6.05)
Financial problems at 1 month (vs. no financial problems)				
Yes				8.03*** (5.12, 12.61)
Intercept	0.23 (0.04, 1.39)	0.30 (0.05, 1.89)	0.36 (0.06, 2.36)	0.11* (0.01, 0.92)
AUROC	0.692	0.707	0.722	0.811

\*\*\* p<.001, \*\* p<.01, \* p<.05

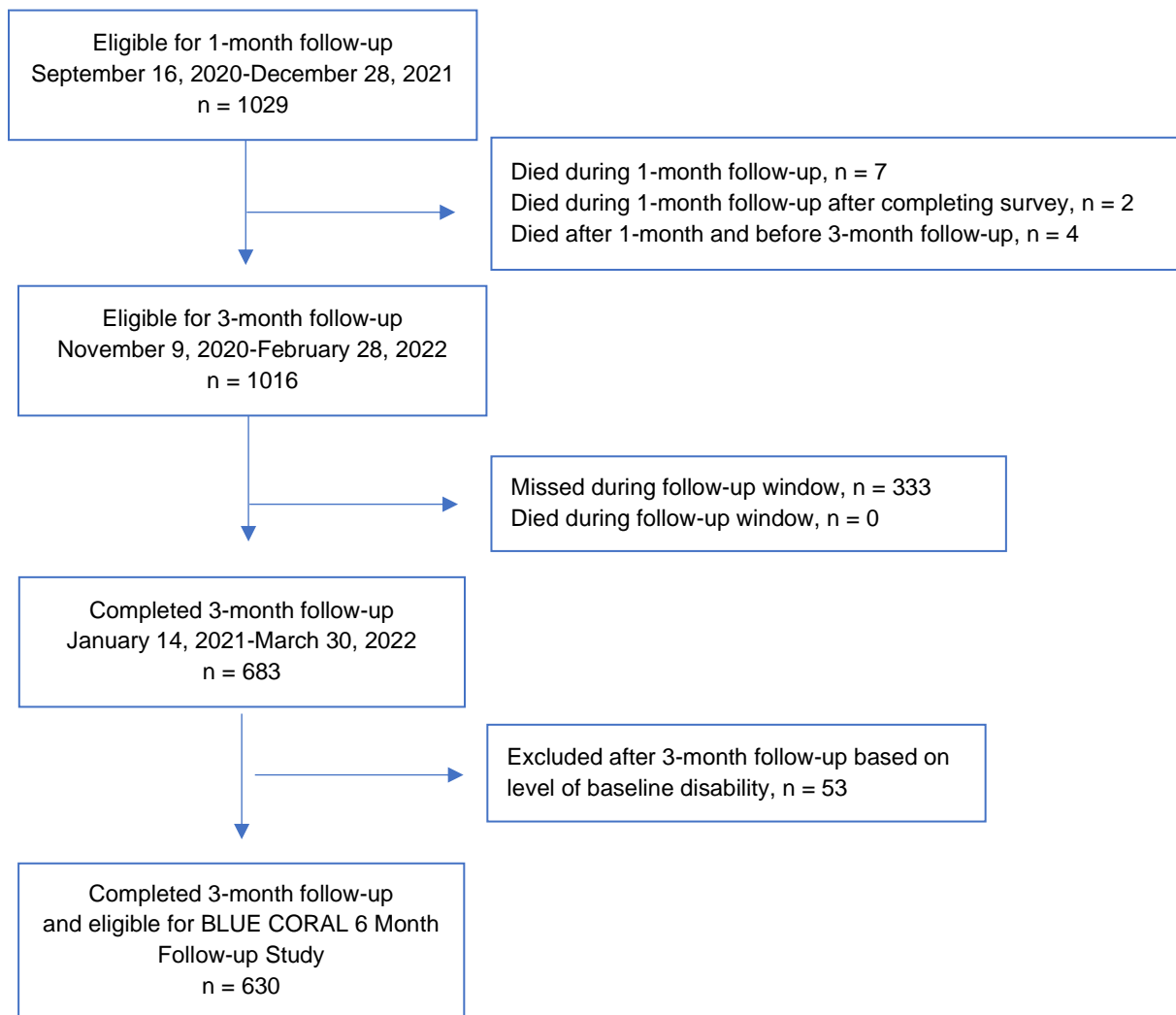
<sup>†</sup>Includes American Indian/Alaskan Native, Asian, Native Hawaiian/Pacific Islander, other/declined, and unknown.

ICU: intensive care unit; AUROC: area under the receiver operating characteristic curve

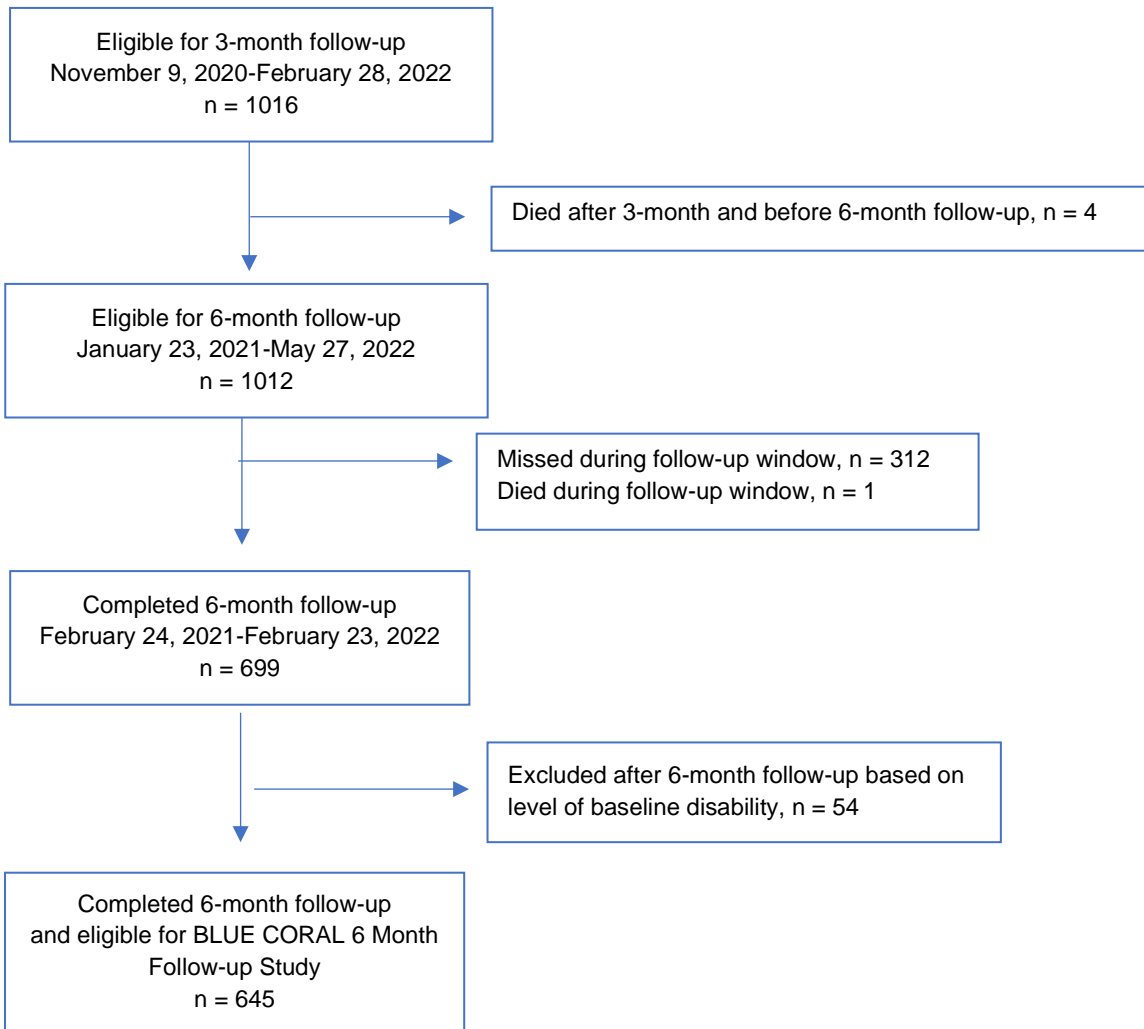
**eFigure 1: CONSORT Diagram – Month 1**



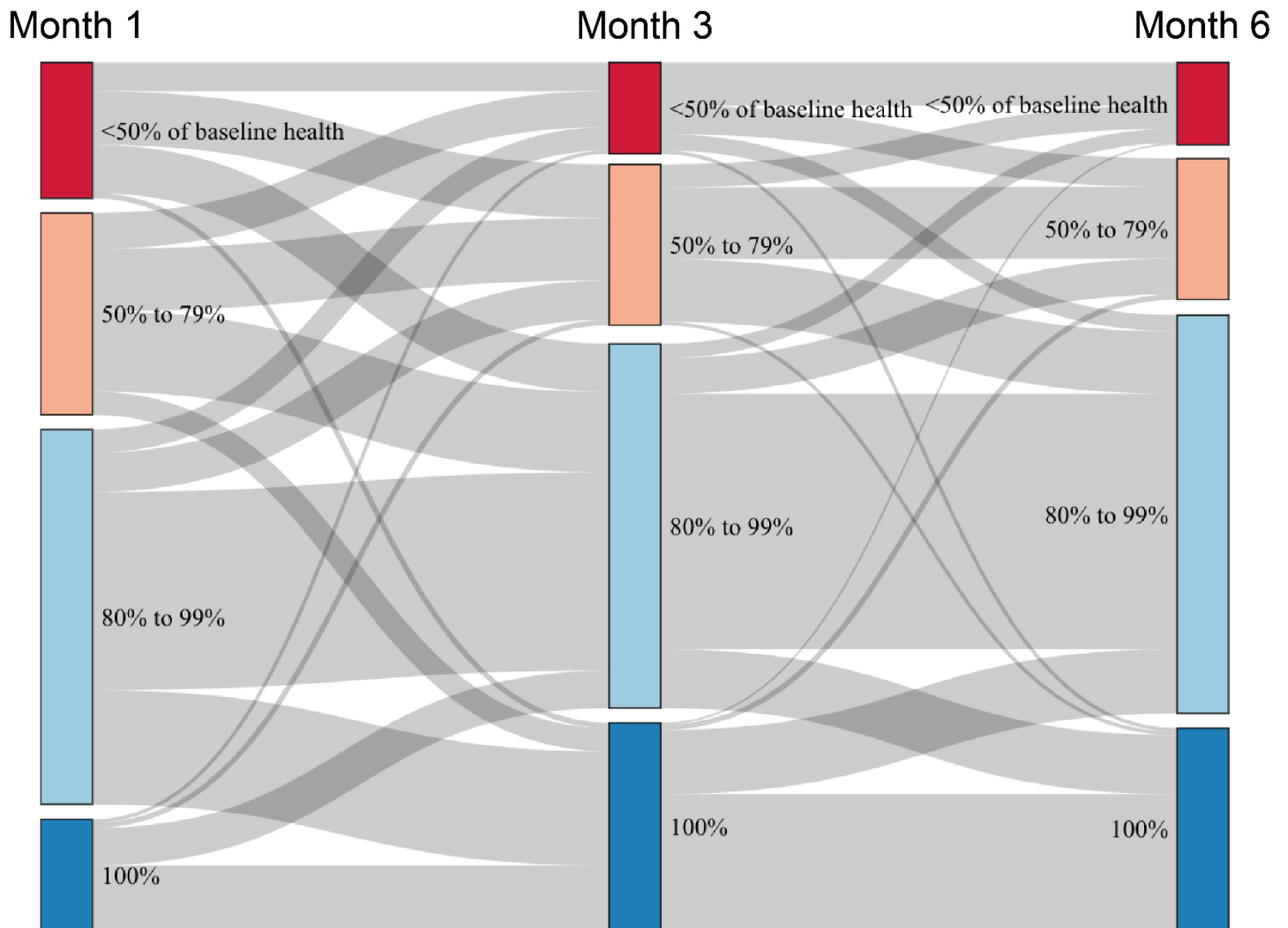
**eFigure 2: CONSORT Diagram – Month 3**



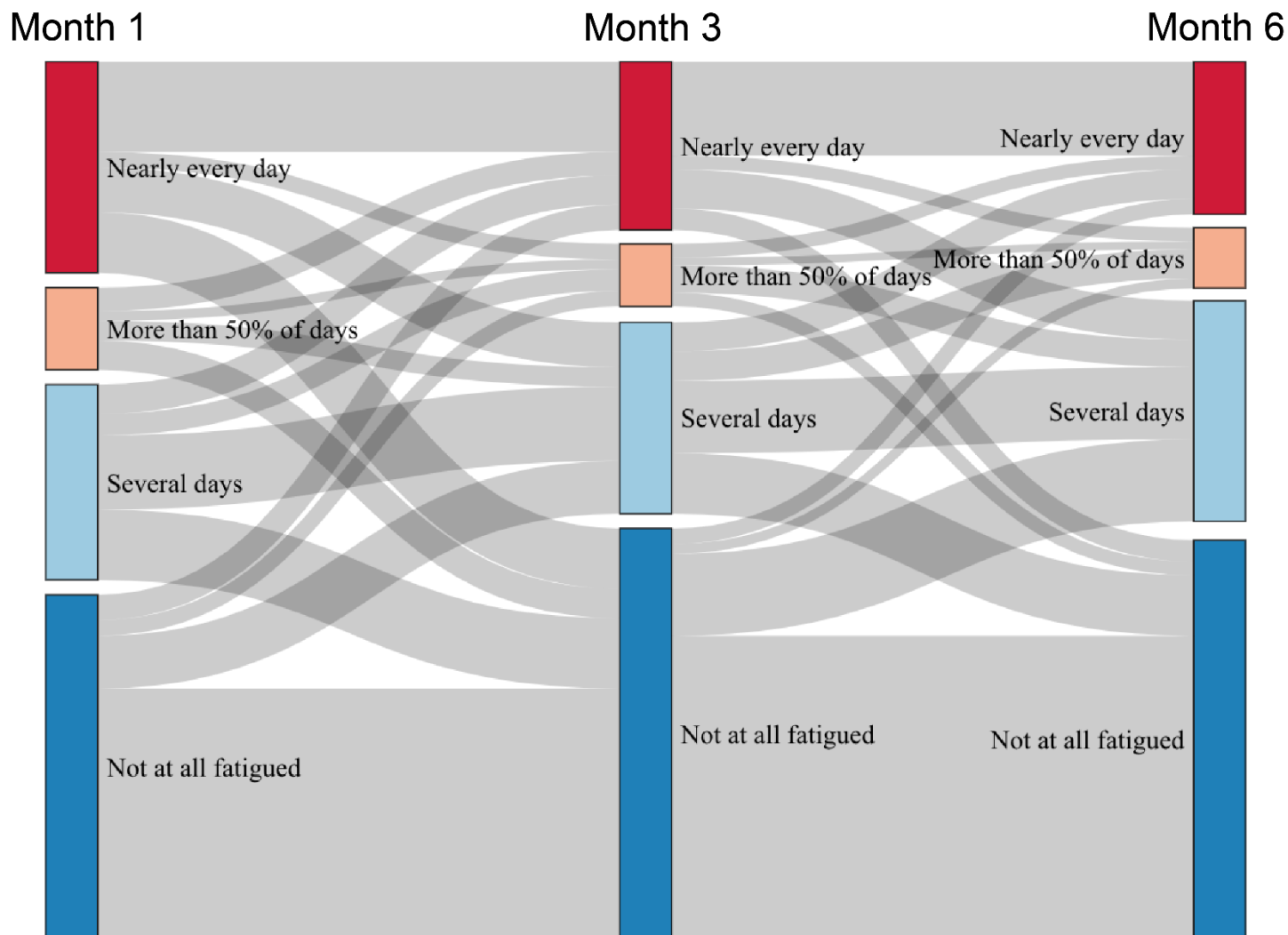
**eFigure 3: CONSORT Diagrams – Month 6**



**eFigure 4:** Trajectories in perceived recovery over time. Alluvial diagram displaying perceived recovery (as a percentage of baseline health) of respondents at each timepoint (vertical bars) and changes in responses over time (horizontal lines). Bar and line thicknesses are proportional to the number of patients represented by the relevant category or change.



**eFigure 5:** Trajectories in self-reported fatigue. Alluvial diagram displaying how often a participant reported fatigue over the preceding 14 days (vertical bars) and changes in responses over time (horizontal lines). Bar and line thicknesses are proportional to the number of patients represented by the relevant category or change.





## Complete list of BLUE CORAL Collaborators

---

Biology and Longitudinal Epidemiology of PETAL COVID-19 Observational Study (BLUE CORAL):

**ALIGN Clinical Center:** Baystate Medical Center -Jay Steingrub\*, Mark Tidswell, Lori Kozikowski, Lesley De Souza, Cynthia Kardos, Sarah Romain; Brigham and Women's Hospital -Rebecca M. Baron, Mayra Pinilla, Katherin Zambrano-Vera, Antonio Arciniegas; Maine Medical Center -Richard Riker, Christine Lord, Ashley Eldridge; University of Florida: Marie-Carmelle Elie, Torben K Becker, Matthew Shaw, Christopher J Duncan, Jesseca Antoine

**BOSTON Clinical Center:** Beth Israel Deaconess Medical Center -Daniel Talmor\*, Nathan Shapiro\*, Valerie Banner-Goodspeed, Sharon Hayes, Krystal Capers, Andre de Souza Licht, Lisa Kurt; Massachusetts General Hospital -Kathryn Hibbert, Kelsey Brait, Tatiana Held; University of Mississippi Medical Center -Alan E Jones, **Rebekah Peacock, James W. Galbraith, Utsav Nandi, Jenna L. Davis**

**CALIFORNIA Clinical Center:** University of California San Francisco -Michael Matthay\*, Kirsten Kangelaris, Kimberly Yee, Kimia Ashktorab, Rachel Gropper, Anika Agrawal; University of California San Francisco – Fresno -Eyad Almasri, Kinsley Hubel, Mohamed Fayed, Alyssa Hughes, Rebekah Garcia; Stanford University Hospital -Angela Rogers, Jennifer Wilson, Rosemary Vojnik, Jonasel Roque, Cynthia Perez; UCLA Ronald Reagan Medical Center -Nida Qadir, George Lim, Steve Chang, Greg Hendey\*, Rebecca Beutler, Trisha Agarwal, Julia Vargas; University of Texas Health Science Center at Houston -Ryan Huebinger, Bela Patel, Elizabeth Vidales

**COLORADO Clinical Center:** University of Colorado Hospital -Marc Moss\*, Adit Ginde\*, Neil Aggarwal\*, Jeffrey McKeehan, Carrie Higgins, Lani Finck; Denver Health Medical Center -Jason Haukoos, Ivor Douglas,Carolynn Lyle, Stephanie Gravitz, Terra Hiller, Ann Z Garcia, Alicia K Cupelo, Judy L Oakes; National Jewish Health|St. Joseph Hospital -James Finigan, Christine Griesmer, Cole Waliczek

**MICHIGAN Clinical Center:** University of Michigan Medical Center -Robert C. Hyzy\*, Pauline K. Park\*, Kristine Nelson, Norman Olbrich, Stephen Kay; Henry Ford Health System -Namita Jayaprakash, Emanuel P Rivers, Jennifer Swiderek, Jasreen Kaur Gill, Sheri Renaud, Ariella Hodari Gupta, Jacqueline Day, Anja Kathrina Jaehne, Aaron Cook, Jayna Gardner-Gray; Sinai Grace Hospital -Robert Sherwin, James Wooden, Thomas Mazzocco, Jacob Winkel; Detroit Receiving Hospital & Harper University Hospital -Robert Sherwin, Thomas Mazzocco, Theodore Falcon, Jeffrey Harrison; FUNCTION Group - Lee Kamphuis, Steve Vaughn, Sarah Seelye, Stacy Anderson, Taylor Bernstein, Aissa Cabrales, Jennifer Cano, Emily DelMonico, Dana Horowitz, Peggy Korpela, Max Monahan, Tiffany Lee, Jessie Milne, Stephanie Ortiz Chavez, Marylena Rouse, Melanie Vandersluis

**MONTEFIORE-SINAI Clinical Center:** Montefiore Medical Center -Michelle Gong, Aluko Hope, Omowunmi Amosu, Hiwet Tzehaie, Sabah Boujid, Martha Torres; Mt. Sinai -Lynne D. Richardson, Kusum Mathews, Sam Acquah, Patrick Maher, Neha Goel, George Loo; Montefiore Medical Center - Weiler -Tina Chen, Rahul Nair, Brenda Lopez, Manuel Hache Marliere, Marjan Islam; University of Arizona -Jarrod Mosier, Cameron Hypes, Ariana Cano, Boris Gilson, Elizabeth Salvaggio Campbell

**OHIO Clinical Center:** Cleveland Clinic Foundation -Abhijit Duggal\*, Omar Mehkri, Kiran Ashok, Siddharth P. Dugar, Simon Mucha; University of Cincinnati Medical Center -Kristin Hudock, Robert Duncan Hite\*, Harshada More, Hammad Tanzeem, Carrie Keininger

**PACIFIC NORTHWEST Clinical Center:** Oregon Health and Science University - Catherine L. Hough\*, Kelly Vranas, Akram Khan, Olivia F Krol, Madeline McDougal, Rupali Deshmukh, Zhengchun Luy, Milad Karami Jouzestani, Courtney Maxcy, Efrain Chavez Martinez, Otmar Borchard, Edlyn Lopez, Brennan Baylis; Harborview Medical Center -Nicholas J. Johnson, Bryce R.H. Robinson\*, Stephanie Gundel, Sarah Katsandres, Megan R. Fuentes, Kelsey Jiang, Sarah G. Dean, Sakshi Sehgal

**PITTSBURGH Clinical Center:** University of Pittsburgh Presbyterian, Magee, Mercy, Shadyside -Donald M Yealy\*, Alexandra Weissman, Sara Di Fore, Sarah McGarry, Tina Vita

© 2023 Admon AJ et al. *JAMA Network Open*.

**SOUTHEAST Clinical Center:** Wake Forest Baptist Health -Jessica Palakshappa, Chad Miller\*, Clark Files\*, Lori Flores, Mary LaRose, Rebecca Overman, Shannon Jones; University of Kentucky -Kirby Mayer, Peter Morris, Jamie Sturgill, Sara N Pasha, Evan Cassity; Medical University of South Carolina -Abbey Grady, Andy Goodwin

**UTAH:** Intermountain Medical Center -Samuel Brown\*, Ithan Peltan, Joseph Bledsoe\*, Jason Jacobs, Karah Imel, Brent Armbruster; Utah - LDS Hospital -Melissa Fergus, Valerie Aston; University of Utah Health Sciences Center -Estelle S Harris, Elizabeth A Middleton, Macy AG Barrios, Lindsey J Waddoups, Lindsey A McGuire

**VANDERBILT Clinical Center:** Vanderbilt University Medical Center -Todd W Rice\*, Wesley H Self\*, Margaret Hays, Sarah Frawley, Jakea Johnson; Duke University Medical Center -John Eppensteiner, Grace Hall, Alexander Limkakeng, Christopher Cox

**Clinical Coordinating Center:** Massachusetts General Hospital Biostatistics Center (CCC): B. Taylor Thompson\*, Douglas L Hayden, Nancy Ringwood, Cathryn Oldmixon, Richard Morse, Ariela Muzikansky, Laura Fitzgerald, Samuel Whitaker, Haley Morin, Weixing Huang, Grace Carey

**Johns Hopkins Medicine:** Roy G Brower, Sarina Sahetya

**National Heart, Lung, and Blood Institute:** Lora Reineck, Neil Aggarwal, Karen Bienstock, Michelle Freemer, Myron Maclawiw, Gail Weinmann

**Protocol Review Committee:** Laurie J Morrison, Mark N Gillespie, Richard J Kryscio, Wojciech Zareba, Anne Rompalo, Michael Boeckh

**Data and Safety Monitoring Board:** Polly Parsons, Jason D Christie, Jesse R Hall, Nicholas J Horton, Laurie S Zoloth, Neal Dickert Jr., Deborah Diercks

*\*Clinical Center or CCC Principal Investigator*

## Complete list of PETAL Network investigators

---

### The National Heart, Lung, and Blood Institute Prevention and Early Treatment of Acute Lung Injury (PETAL) Clinical Trials Network:

Abi Fadel, Francois	Douglas, Ivor S	Howrylak, Judie A
Aboodi, Michael	Driver, Brian	Huang, David T
Acquah, Samuel	Dugar, Siddharth P	Hudock, Kristin
Adams, Jason Y	Duggal, Abhijit	Huebinger, Ryan
Aggarwal, Neil	Elie, Marie-Carmelle	Hurst, Gina
Alappan, Narendrakumar	Enfield, Kyle B	Hypes, Cameron D
Albertson, Timothy E	Eppensteiner, John	Hyzy, Robert C.
Al-Jaghbeer, Mohammed	Fein, Daniel	Iovine, Nicole
Almasri, Eyad	Filbin, Michael	Islam, Marjan
Andrews, James S	Files, Clark	Israel, Jennifer
Angus, Derek C	Finigan, James H.	Iwashyna, Jack
Baker, Jason V	Flannery, Alexander H.	Jaffer, Faraz
Baron, Rebecca	Foulkes, Andrea	Janssen, William
Baumann, Michael	Fowler, Alpha A.	Jayaprakash, Namita
Becker, Torben	Frisch, Adam	Jia, Shijing
Biehl, Michelle	Fung, Monica	Johnson, Nicholas J
Bixby, Billie A	Gaillard, John	Jolley, Sarah
Bledsoe, Joseph R	Galbraith, James W	Jones, Alan
Bloom, John W	Gandotra, Sheetal	Jones, Elizabeth Jones B
Bose, Somnath	Gardner-Gray, Jayna M	Kadl, Alex
Boyle, Katherine L	Gay, Elizabeth A	Kangelaris, Kirsten N
Bradley, Patrick	Gibbs, Kevin	Kashiouris, Markos G
Branson, Rich D	Gill, Evanpaul	Kass, Lawrence E
Brown, Samuel	Ginde, Adit	Keller, Marla
Burnham, Ellen L	Girard, Timothy D	Khan, Akram
Calfee, Carolyn	Go, Pauline H	Khosravi, Mehdi
Callahan, Sean J	Goel, Neha N	Khouli, Hassan
Cancelliere, Alessandro	Goligher, Ewan C	Kinni, Harish
Carson, Shannon	Gomez-Arroyo, Jose	Kiyatkin, Michael E
Casey, Jonathan D	Gong, Michelle Ng	Knox, Daniel
Chang, Steven Y	Goodwin, Andrew J	Krishnan, Amita
Chekuri, Sweta	Gordon, Richard D	Kurtzman, Nicholas
Chen, Peter	Grissom, Colin K	Lammi, Matthew R
Chen, Tina	Gunnerson, Kyle	Lanspa, Michael J
Chenoweth, James	Han, Jin Ho	Le, Viet
Choi, Philip	Hanane, Tarik	Leither, Lindsay M
Co, Ivan	Hansen, Christopher K	Levitt, Joseph
Collins, Sean	Happel, Kyle	L'Heureux, Michael
Costa Monteiro, Ana Carolina	Harris, Estelle S	Lim, George
Couper, Mick	Haukoos, Jason	Limkakeng, Alexander
Cox, Christopher	Hendey, Gregory W	Lin, Michael Y
Daich, Jonathan	Hendrickson, Carolyn M.	Lindsell, Christopher
de Wit, Marjolein	Hibbert, Kathryn A.	Liu, Kathleen
deBoisblanc, Ben P	Hirshberg, Ellie	Lyn-Kew, Kenneth
Dettmer, Matthew R	Hite, R. Duncan	Lyons, Patrick G
Dhar, Sanjay	Hope, Aluko A	Mackay, Fraser C
Dillon, David	Hoth, Jason	Maher, Patrick J
Doernberg, Sarah	Hou, Peter C	Mahler, Simon A.
Doshi, Pratik B	Hough, Terri	Malhotra, Anita

Malley, Brian E  
Matthay, Michael A  
May, Teresa  
Mayer, Katherine  
Mayer, Kirby P  
McSparron, Jakob I  
McVerry, Bryan J.  
Miller, Chadwick D  
Miller, Stephen  
Minear, Steven C  
Mireles, Eduardo  
Mock, Jason  
Mohamed, Amira  
Montgomery-Yates, Ashley A  
Morris, Peter  
Mosier, Jarrod M  
Moskowitz, Ari  
Moss, Marc  
Mucha, Simon R  
Munroe, Elizabeth  
Nair, Rahul  
Nandi, Utsav  
Nassisi, Denise  
Nkemdirim, William  
Norton, Dustin L  
O'Gara, Brian  
O'Hearn, Daniel J  
OMahony, Darragh Shane  
Page, David B  
Paine, Robert  
Park, Pauline K  
Pasha, Sara  
Patarroyo Aponte, Gabriel D  
Patel, Avignat  
Patel, Bela  
Peltan, Ithan D.  
Perman, Sarah  
Pflaum-Carlson, Jacqueline  
Marie  
Phang-Lyn, Simone  
Pinto-Plata, Victor  
Prekker, Matthew E  
Puskarich, Mike  
Qadir, Nida  
Reddy, Raju M  
Rice, Todd W  
Richardson, Lynne D.  
Riker, Richard R  
Rivers, Emanuel P  
Robinson, Bryce RH  
Rogers, Angela J

Russell, Derek W.  
Sahoo, Debasis  
Sandrock, Christian  
Sanne, Shane  
Scheraga, Rachel G  
Schmidt, Eric  
Schooler, Jordan B  
Schwab, Kristin  
Self, Wesley H.  
Semler, Matthew W  
Sergot, Paulina  
Shah, Faraaz  
Shapiro, Nate  
Shaw, Daniel L  
Sherwin, Robert  
Siuba, Matthew  
Sjoding, Michael  
Smithline, Howard  
Sochor, Mark R  
Spurzem, John R  
Srinivasan, Vasisht  
Steel, Tessa L  
Steingrub, Jay S  
Stenson, Bryan  
Sterling, Sarah A  
Stopyra, Jason  
Stubblefield, William-May B.  
Sturek, Jeffrey M  
Sturgill, Jamie L  
Swiderek, Jennifer  
Syed, Aamer  
Talmor, Daniel  
Tatem, Geneva  
Thiruchelvam, Nirosshan  
Thompson, Taylor  
Thompson Bastin, Melissa L  
Tidswell, Mark  
Torbati, Sam S  
Trent, Stacy A  
Trott, Terren  
Van der Kloot, Thomas E  
Vranas, Kelly C  
Wang, Bonnie  
Wang, Ralph  
Ware, Lorraine  
Waters, Christopher M.  
Weissman, Alexandra J  
Wick, Katherine D  
Wilkin, Aimee M  
Wilson, David M  
Wilson, Jenny G

Wyles, David L  
Yanta, Joseph H  
Yealy, Donald M  
Youngquist, Scott  
Zaman, Tanzira