

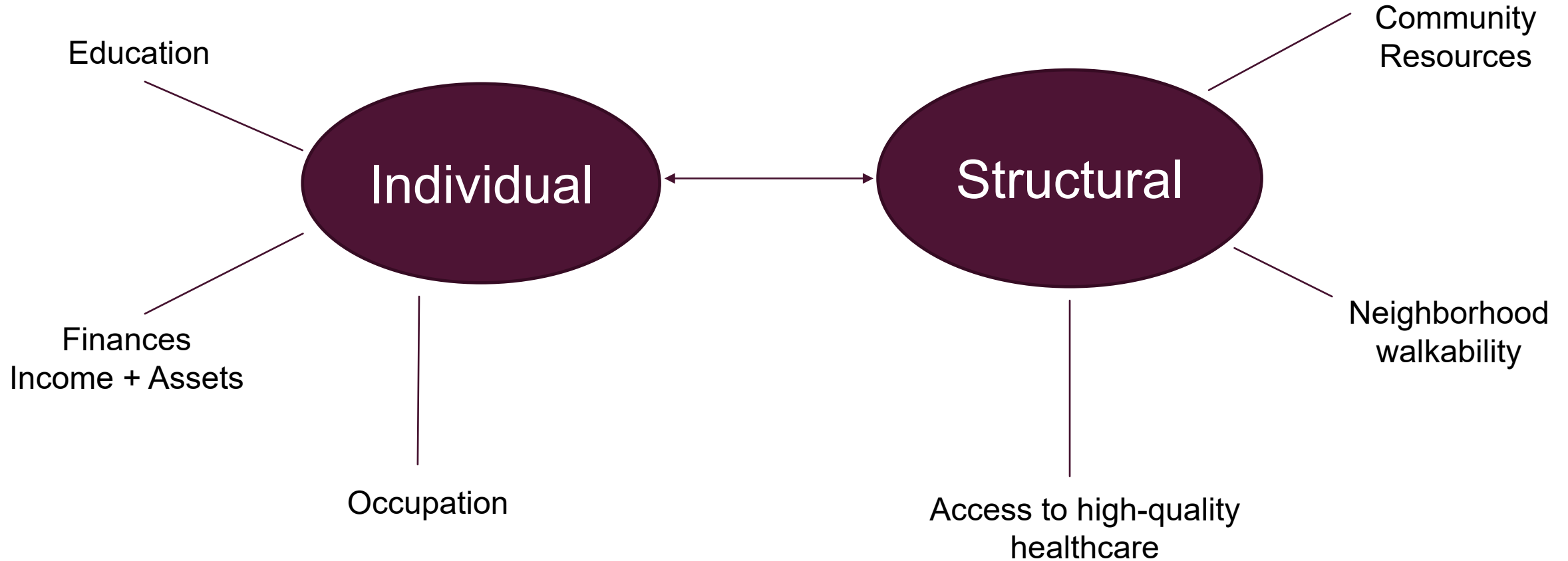


RESEARCH
CENTERS
COLLABORATIVE
NETWORK

Socioeconomic Disparities In Patient- Centered Outcomes Following Hospitalization

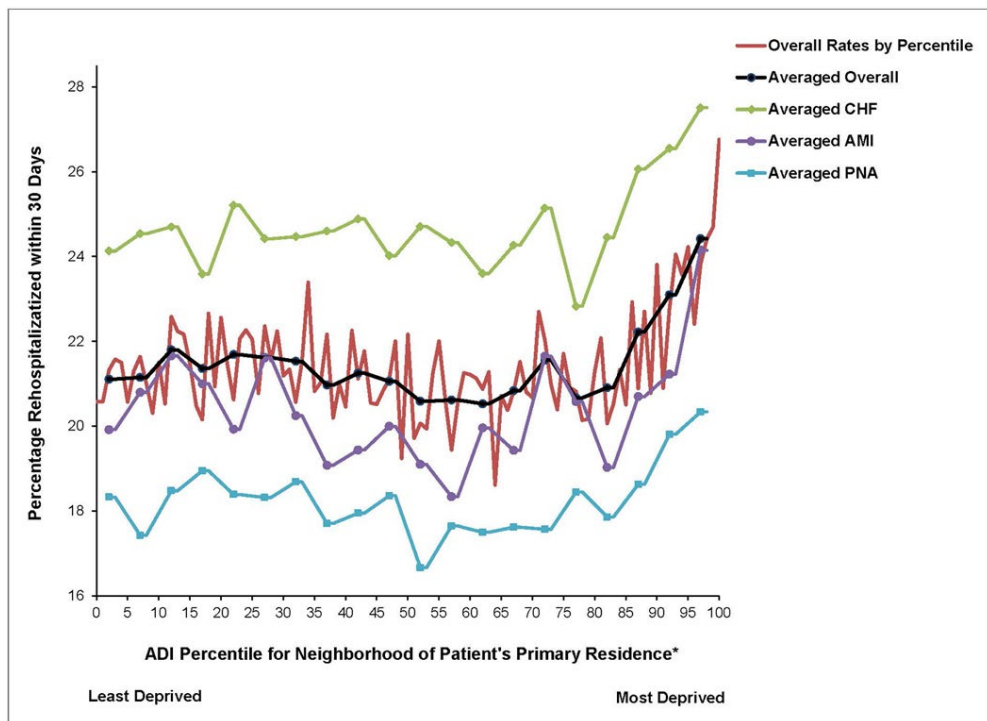
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Socioeconomic Disadvantage

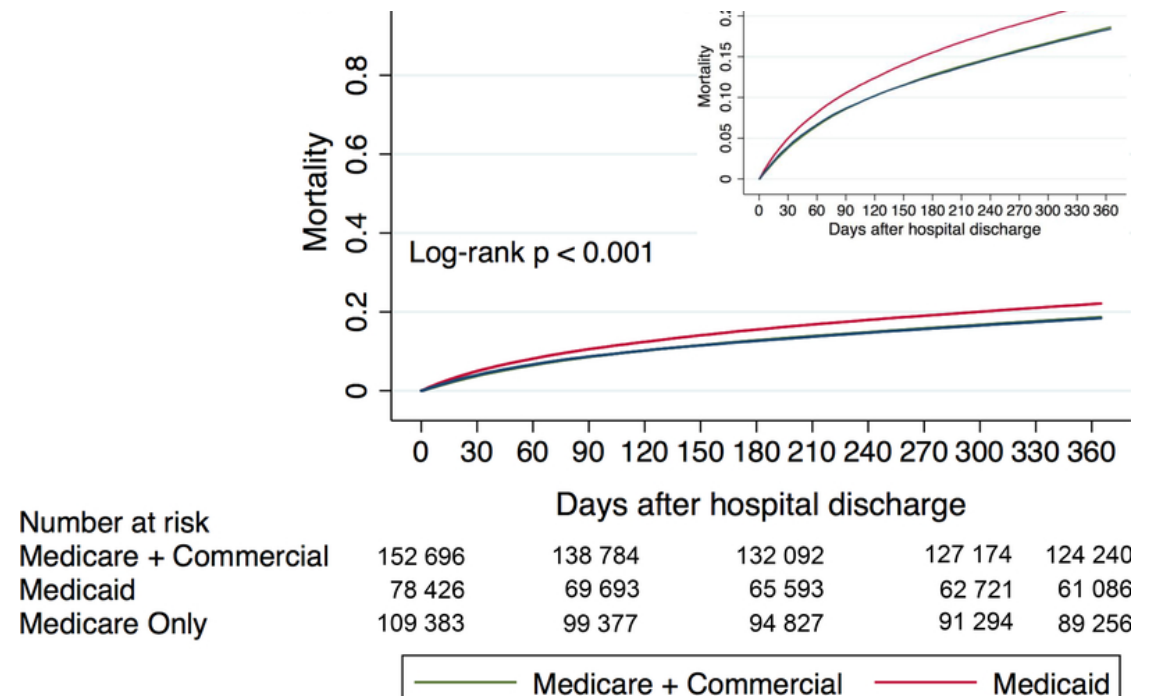


Socioeconomic Disparities Following Hospitalization

Neighborhood Socioeconomic Disadvantage & 30-d Readmission

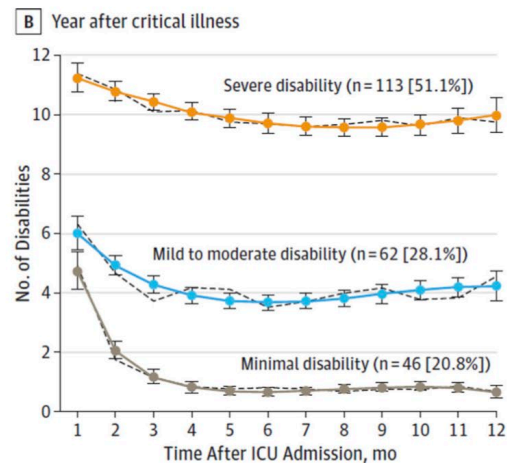
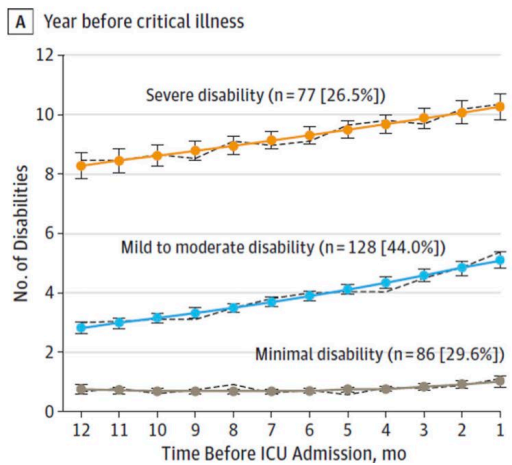


Dual Medicare-Medicaid status & 1-yr Mortality



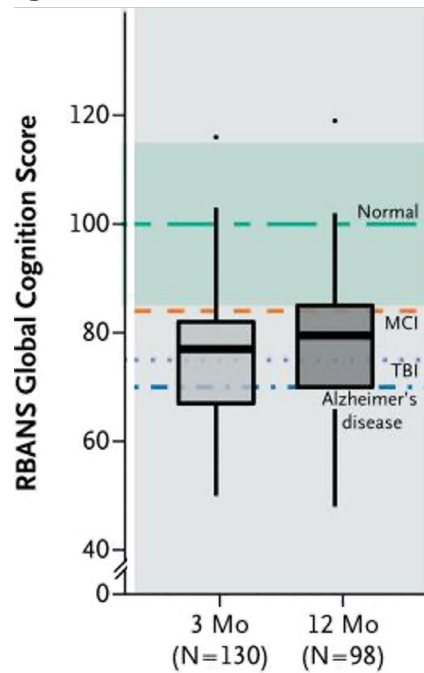
Patient-Centered Outcomes Following Hospitalization With Critical Illness

ICU-acquired weakness Disability



Physical

Cognitive Impairment



Cognitive

Anxiety, Depression

Depressive Disorder: 28%

Post-Traumatic Stress Disorder: 19%

Mental

Post-Intensive Care Syndrome

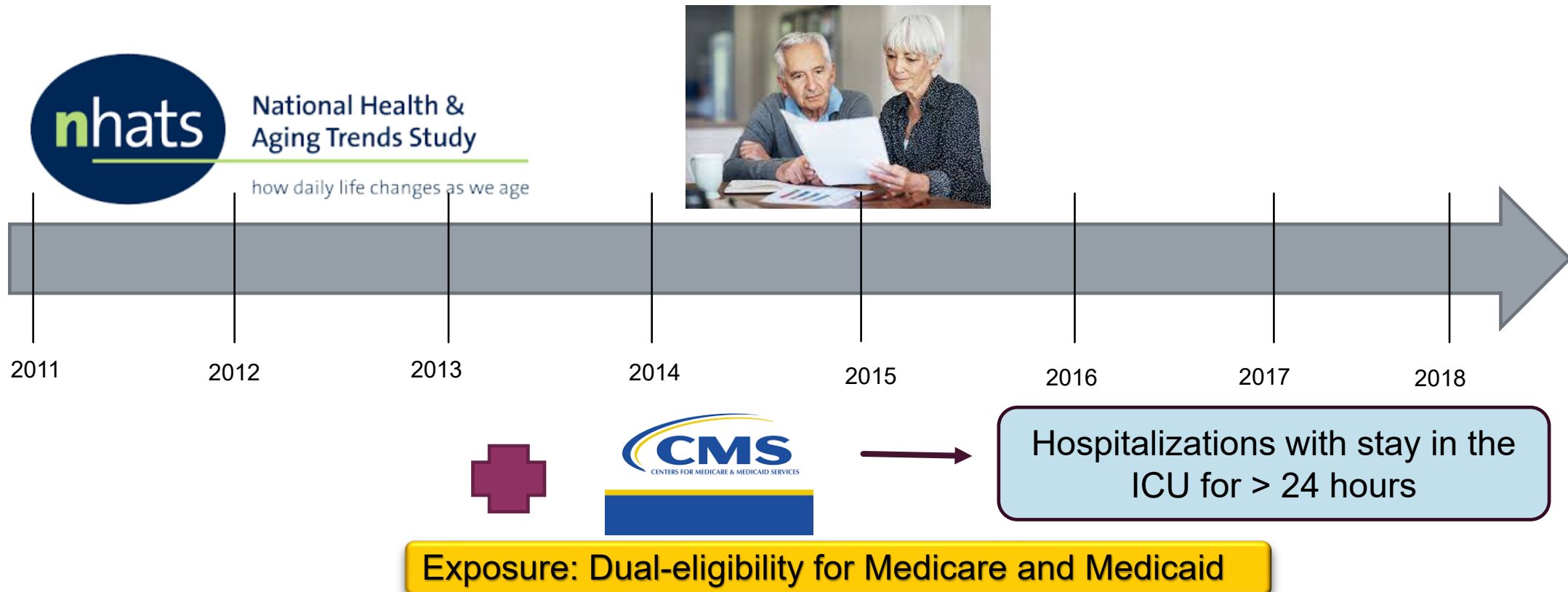
Ferrante LE et al. Functional trajectories among older persons before and after critical illness. *JAMA Intern Med.* 2015

Pandharipande PP et al. Long-term cognitive impairment after critical illness. *N Engl J Med.* 2013

Davydow DS, et al. Posttraumatic stress disorder in general intensive care unit survivors: a systematic review. *Gen Hosp Psychiatry.* 2008

Disparities in Patient-Centered Outcomes

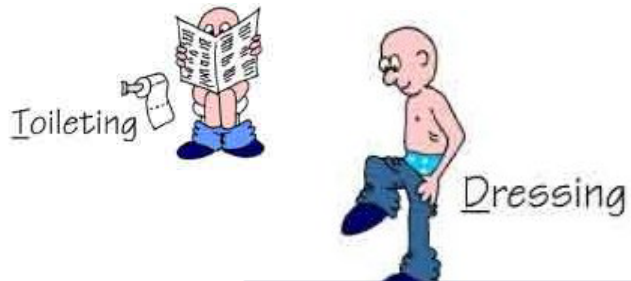
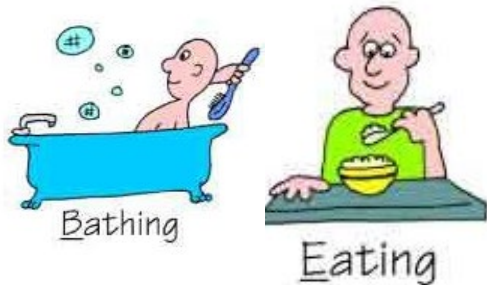
Is socioeconomic disadvantage associated with decline in patient-centered outcomes of function, cognition, and mental health after hospitalization with critical illness?



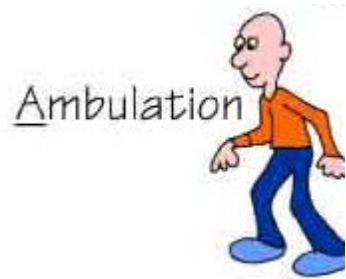
Outcomes

Function

ADLs



Mobility



Outside one's home
Inside one's home
Out of bed

Count of Disabilities 0-7

Cognition

No or Possible Dementia



Probable Dementia

Transition- yes/ no

Mental Health

Depression
+
Anxiety

PHQ-4 score 0-12

Baseline Characteristics

Characteristic	Function		Cognition		Mental Health	
	Dual-eligible	Non-Dual-eligible	Dual-eligible	Non-Dual-eligible	Dual-eligible	Non-Dual-eligible
Sample n	130	511	80	378	108	411
Weighted n	658 095	3 109 600	409 991	2 381 242	544 373	2 574 141
Age , mean (S.E.)	78.5 (0.9)	79.2 (0.4)	77.2 (1.0)	78.5 (0.4)	78.6 (0.4)	78.1 (0.9)
Female, % (95% CI)	61.7 (51.1, 72.3)	45.9 (39.6, 52.3)	61.6 (46.1, 77.1)	47.9 (40.1, 55.8)	63.2 (50.7, 75.6)	46.9 (39.5, 54.4)
Race, %(95% CI)						
Non-Hispanic White	61.3 (50.1,72.6)	86.7 (83.2,90.5)	64.5 (48.6, 80.4)	87.1 (82.8, 91.5)	60.2 (47.1, 73.3)	87.7 (83.7, 91.7)
Non-Hispanic Black	18.0 (10.2, 25.9)	7.1 (4.8, 9.4)	19.7 (7.7, 31.7)	7.4 (4.7, 10.2)	18.8 (8.8, 28.8)	7.3 (4.7, 9.8)
Hispanic	9.7 (1.8, 17.7)	3.0 (0.6, 5.4)	6.4 (0.0, 13.1)	2.4 (0.2, 4.5)	10.5 (2.6, 18.4)	2.2 (0.2, 4.1)
Others	10.9 (2.4, 19.4)	3.0 (1.1, 4.8)	9.4 (0.2, 18.6)	3.1 (0.7, 5.4)	10.5 (1.1, 19.9)	2.8 (0.7, 5.0)
Education, % (95% CI)						
Less than high school	52.0 (37.9, 66.2)	17.8 (12.6, 23.0)	50.7 (32.4, 69.0)	15.9 (9.9, 21.9)	52.8 (37.9, 67.8)	16.2 (10.7, 21.7)
Living Situation, % (95% CI)						
Lives alone	43.6 (31.0, 56.3)	32.1 (26.7, 37.5)	51.1 (35.3, 67.1)	30.1 (23.6, 36.6)	42.7 (29.4, 56.0)	31.3 (25.5, 37.2)
≥ 3 chronic conditions, % (95% CI)	79.5 (72.1, 86.9)	65.6 (59.7, 71.6)	77.9 (66.7, 89.0)	63.6 (55.9, 71.3)	77.4 (69.2, 85.5)	64.4 (57.3, 71.5)

Function

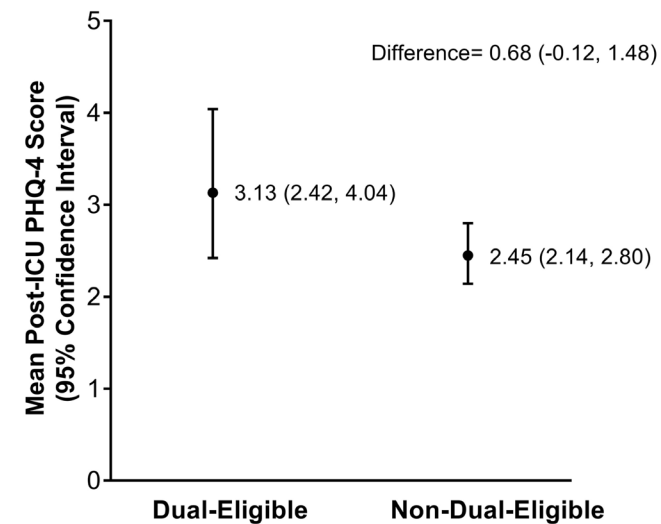
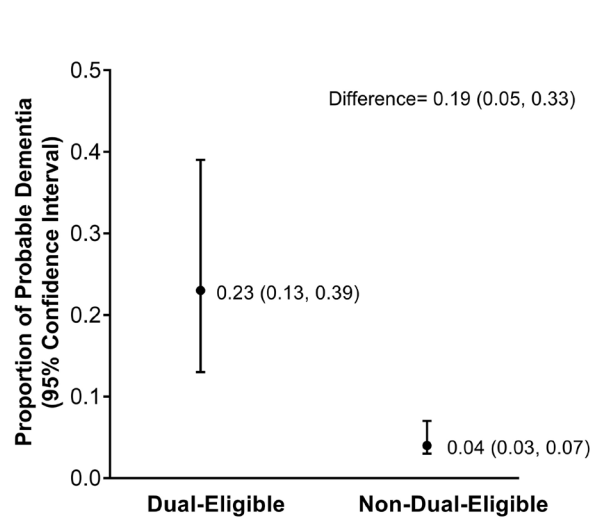
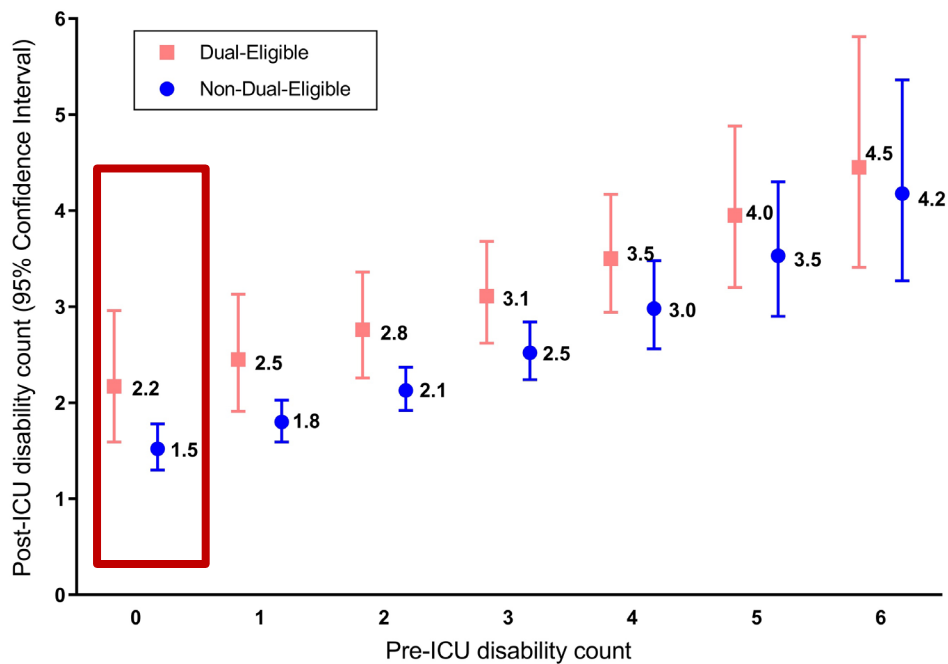
Cognition

Mental Health

IRR (95% CI): 1.28 (1.00, 1.64)

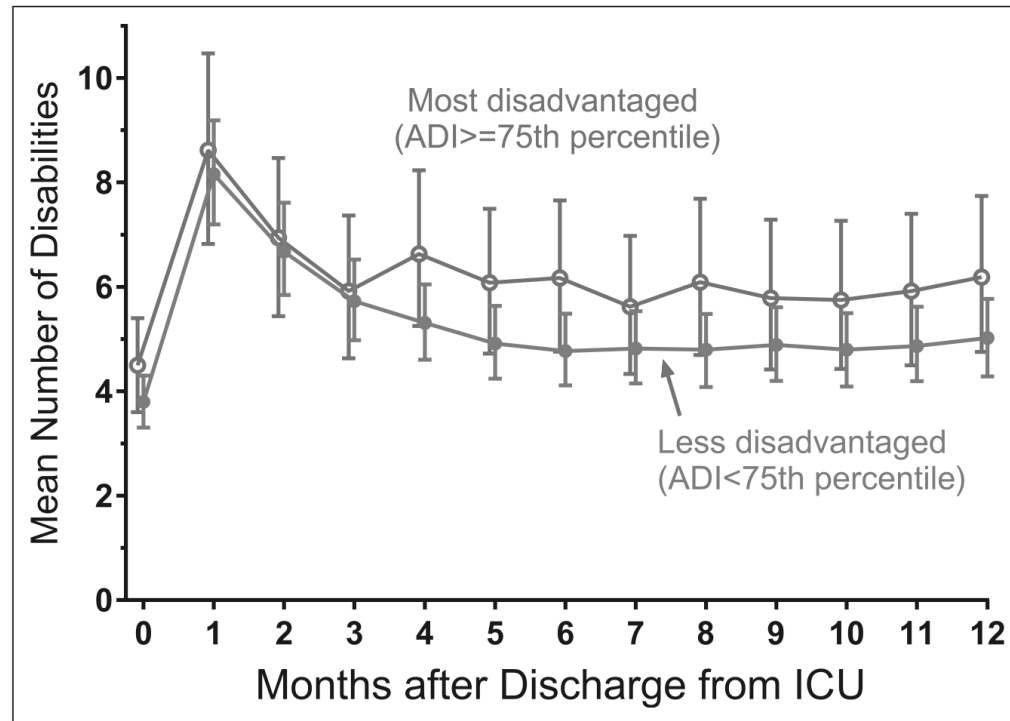
OR (95% CI): 9.79 (3.46, 27.65)

IRR (95% CI): 1.33 (0.99, 1.79)



Disability and Dementia after Critical Illness

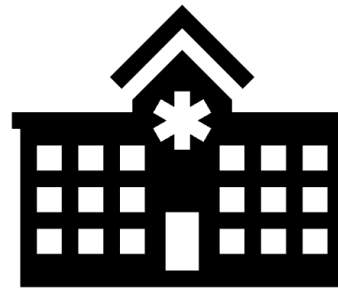
Neighborhood Disadvantage



Education, Race, Neighborhood SES

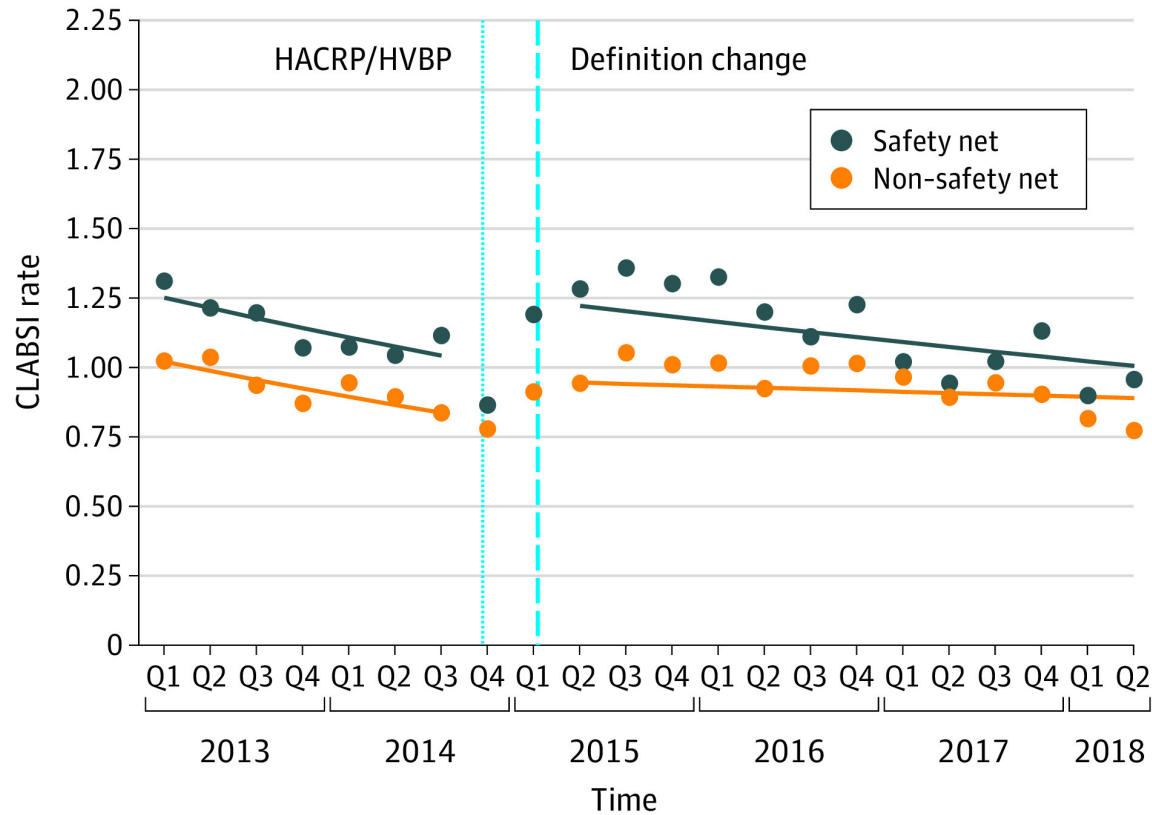
Characteristic	Adjusted RBANS Global Score Difference	P
Delirium duration	-6.72	0.068
Age at enrollment, y	-4.11	0.087
Education, y	2.88	<0.001
Non-white race [†]	-7.11	0.001
SES Index Score [‡]	0.89	0.43
Public insurance [§]	-2.03	0.18
Female sex [¶]	0.34	0.81
Veteran hospital type	7.85	<0.001
Discharge to facility ^{**}	0.11	0.95

Gaps: Are differences in healthcare delivery responsible?

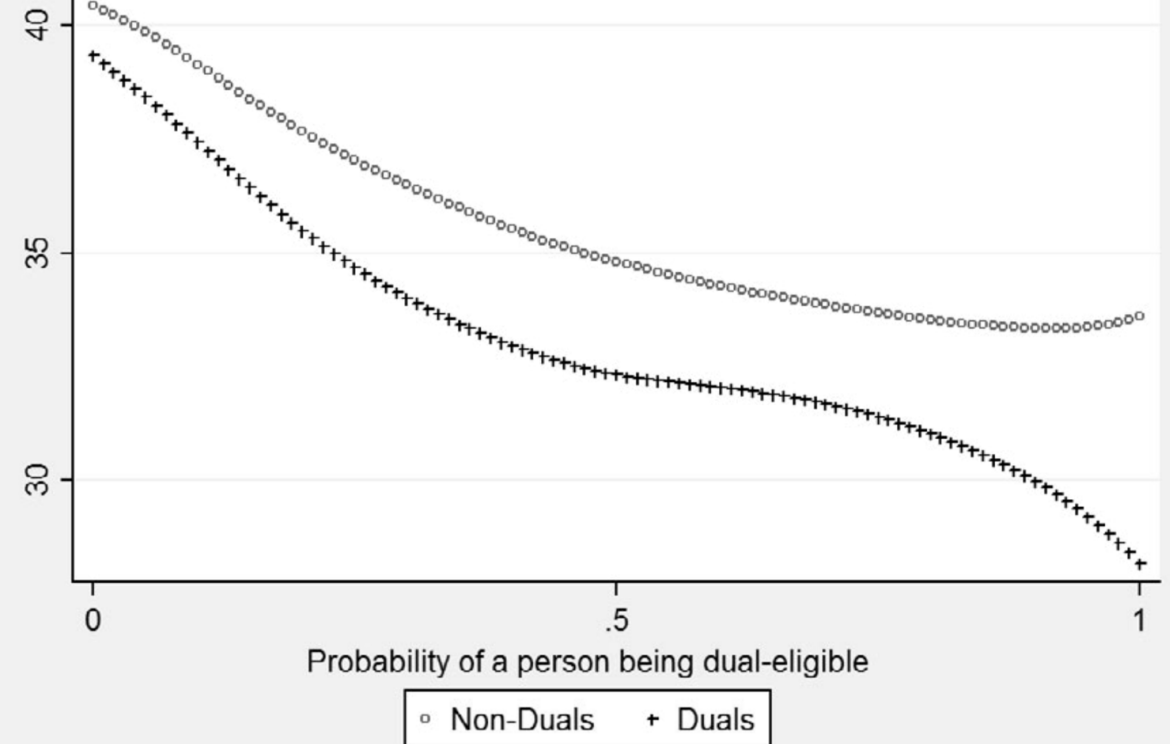


Differences in healthcare quality

A CLABSI rates per 1000 central line-days



Panel B: % of RN among total nursing staff

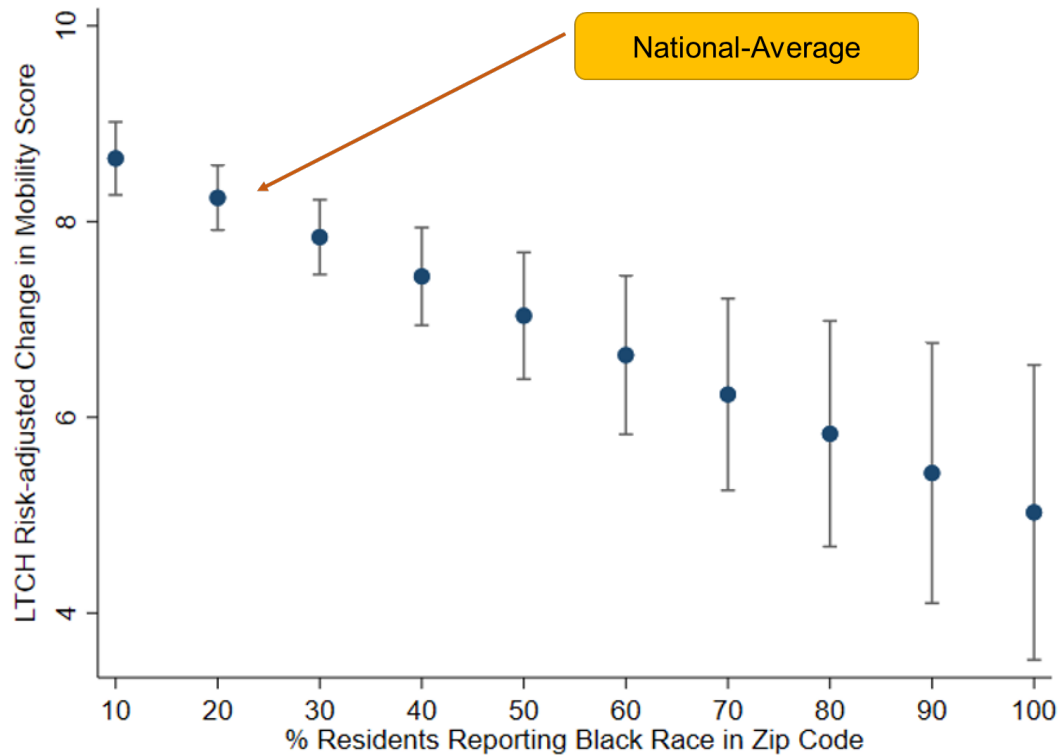




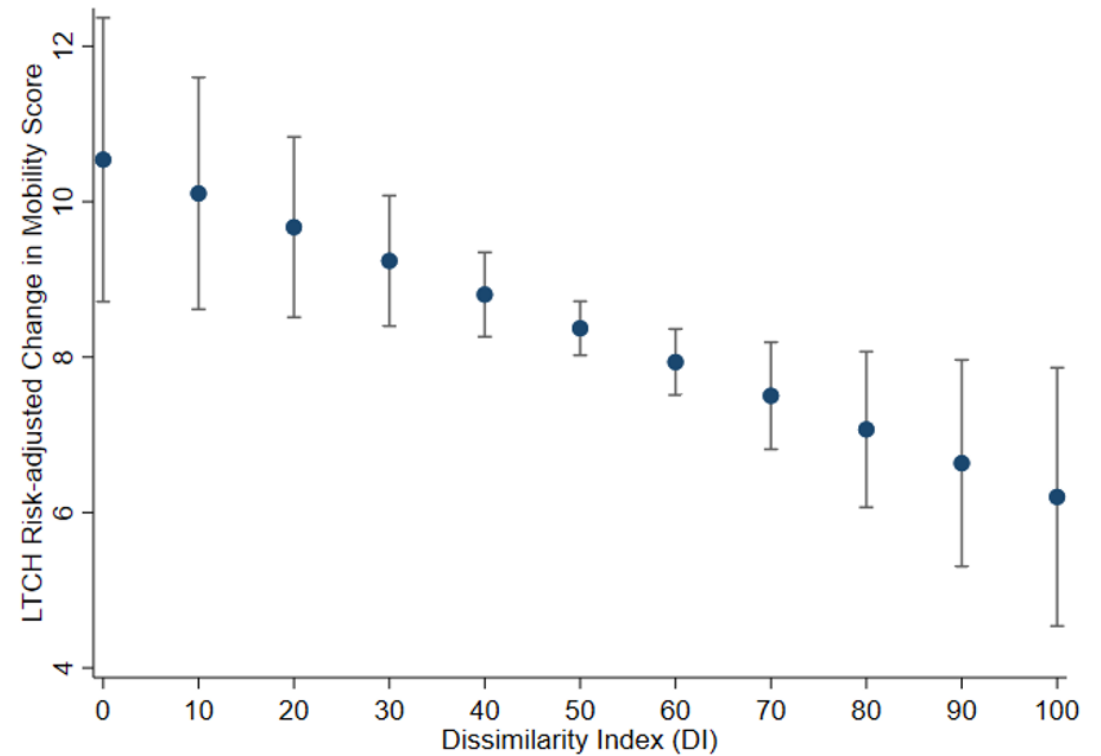
Long-Term Care Hospital Quality Reporting Program Measure Calculations and Reporting User's Manual

Functional Improvement at Long-Term Care Hospitals

% Residents reporting Black Race



Residential Segregation



Next Steps

1

Integrate

assessment of SDoH and patient-centered outcomes into routine clinical practice

2

Identify

evidence-based care processes that enhance patient-centered outcomes & understand differences in delivery

3

Promote

delivery of these processes to vulnerable populations to mitigate disparities