



Advancing Equity in the COVID-19 Era: Perspectives from Aging Science

2021 COVID-19 Equity Evidence Academy

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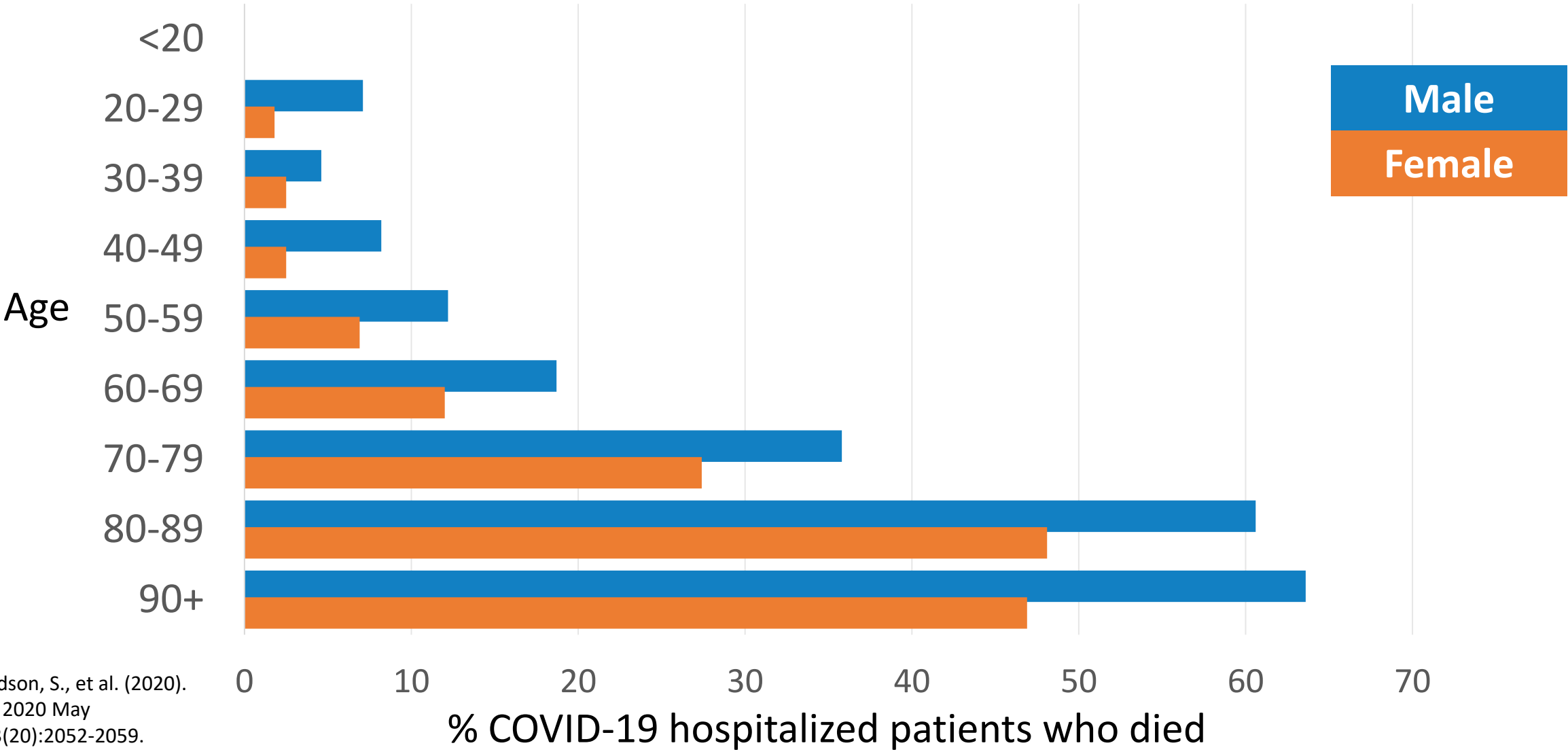
February 24th, 2021



National Institute
on Aging

Age and COVID-19

Advancing Age, Male Sex Predict Death Among Hospitalized COVID-19 Patients



Richardson, S., et al. (2020).
JAMA. 2020 May
26;323(20):2052-2059.

Risk Factors for Adverse Outcomes in SARS-CoV-2 Infection

Older Age (65+)

Male Sex

Cardiovascular
Disease/
Hypertension

Diabetes

Obesity

Respiratory
Disease

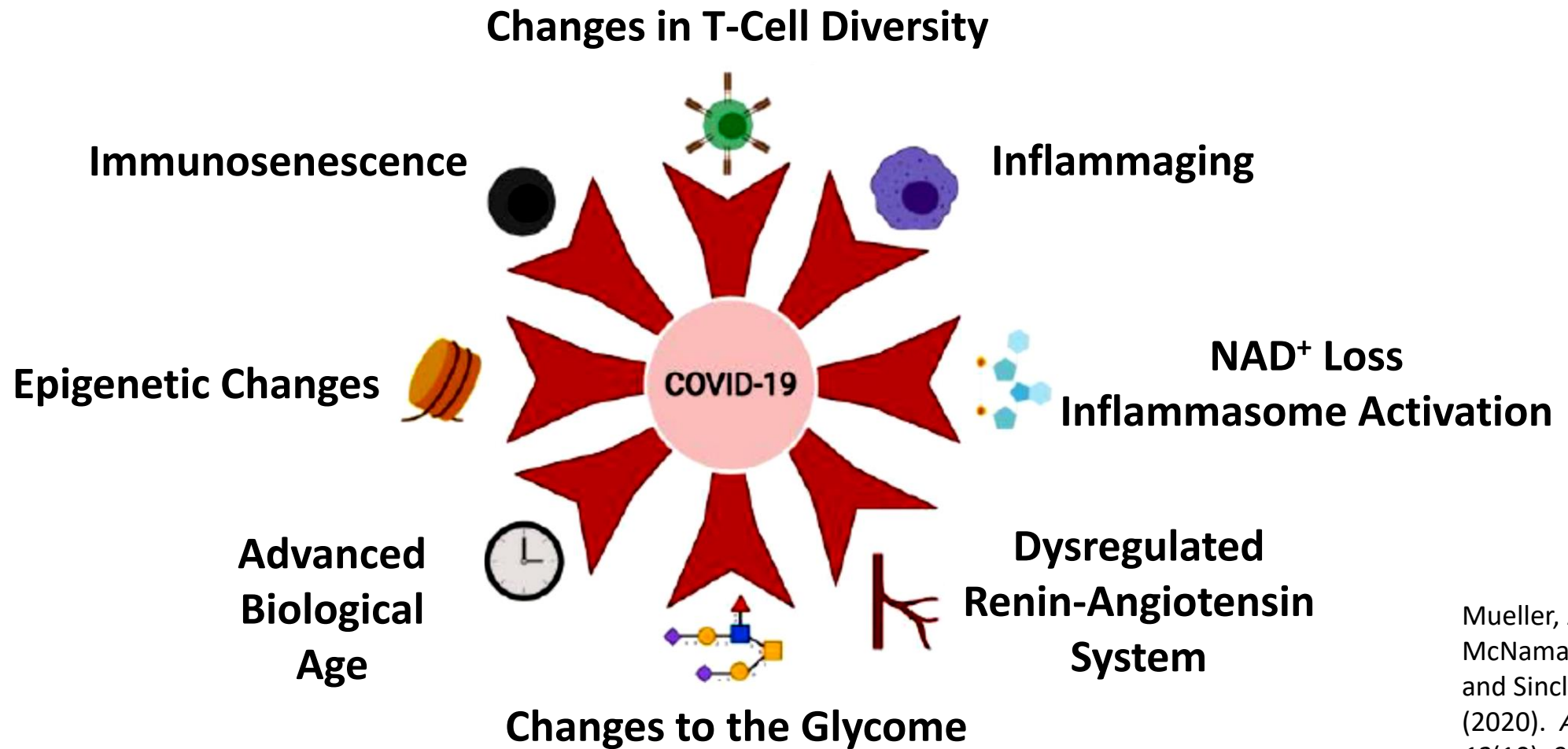
Kidney Disease

Immunological
Disorders

Cancer

Mueller, A. L.,
McNamara, M. S.,
and Sinclair, D. A.
(2020). *Aging*,
12(10), 9959-9981.

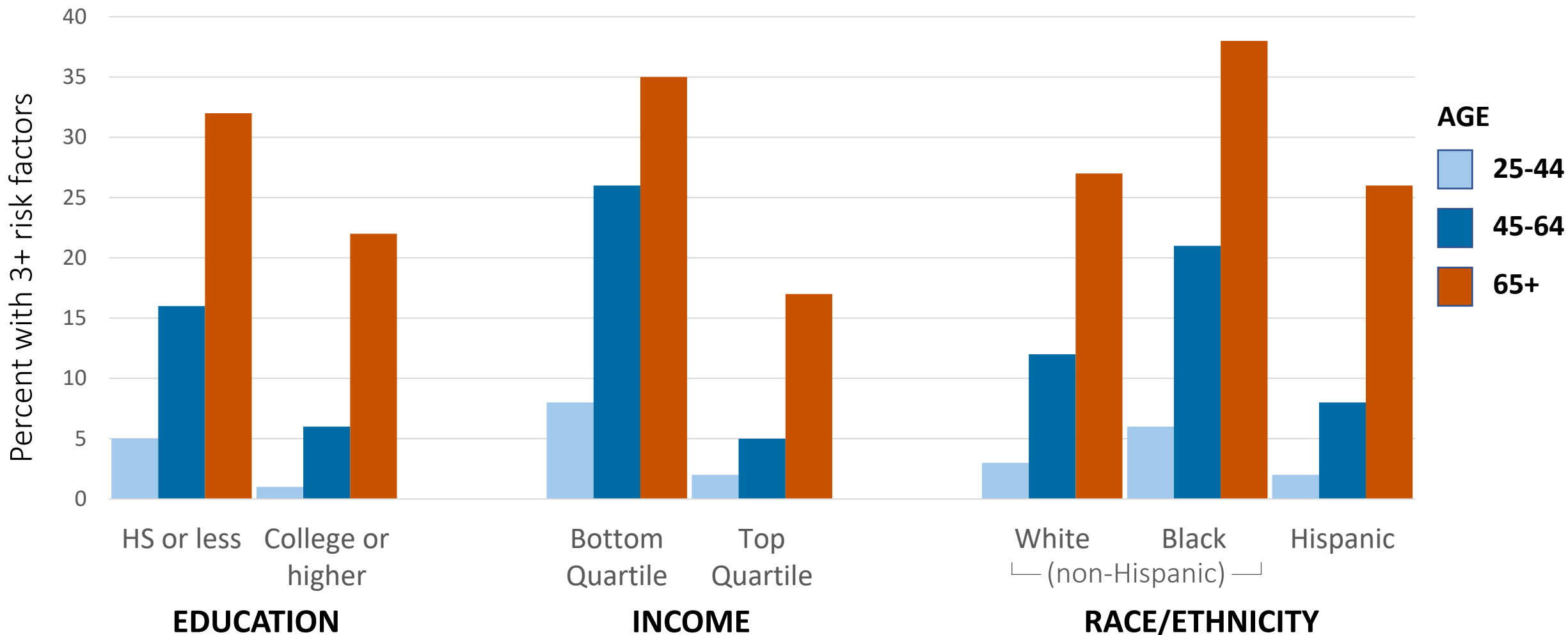
Age-Related Changes May Increase COVID-19 Susceptibility



Mueller, A. L.,
McNamara, M. S.,
and Sinclair, D. A.
(2020). *Aging*,
12(10), 9959-9981.

Disparities and COVID-19

COVID-19 Risk Factors Influenced by Race, Income, and Education Disparities Across Age Categories



African Americans Living With Dementia Are at Higher Risk for COVID-19 Infection Than Whites

Case	Control		AOR (95% CI)	p
➔ Dementia				
Female	Male		1.03 (0.97–1.10)	0.299
Senior (>65 yo)	Adult (18–65 yo)		0.96 (0.87–1.05)	0.397
African American	Caucasian		2.86 (2.67–3.06)	<.001
➔ Alzheimer's disease				
Female	Male		1.23 (1.09–1.38)	<.001
Senior (>65 yo)	Adult (18–65 yo)		1.05 (0.79–1.40)	0.758
African American	Caucasian		2.49 (2.19–2.82)	<.001

Wang, Q., et al. (2021). *Alzheimer's & Dementia*. Advance online publication. doi:10.1002/alz.12296

Racial and Ethnic Minorities Are More Likely to Experience COVID-19-Related Discrimination and Mental Distress

- The Understanding America Study surveyed **COVID-19-associated discrimination (CAD)** and **mental distress** during the initial coronavirus outbreak (March—April 2020).
- CAD was **more commonly experienced** among:
 - Racial and ethnic minorities (especially non-Hispanic Blacks and Asians)
 - Immigrants
 - Face mask wearers
 - Those with COVID-19-related symptoms
- CAD was associated with **increased mental distress**.



Liu, Y., et al. (2020). *American Journal of Preventive Medicine*, 59 (4):481-492. doi:10.1016/j.amepre.2020.06.007

Reflections on Day 1: *Perspectives on Equity from Aging Science*

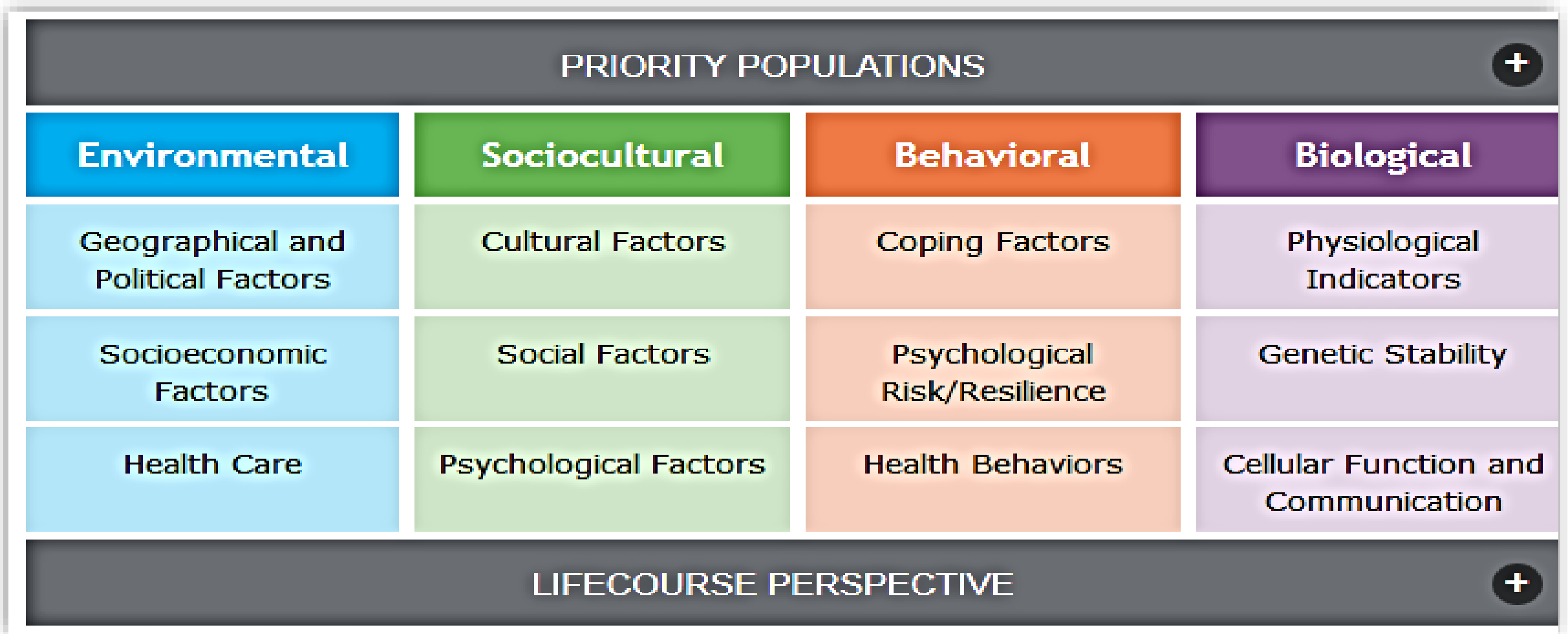
Cross-Cutting Theme 1: *Cultural and Ethical Considerations*

How Do Cultural Factors Influence Testing Behavior?

- Uptake of testing interventions is dependent upon a variety of cultural and sociodemographic factors, e.g.:
 - Race/ethnicity
 - Age
 - Gender
 - Language
 - Environment
- Tools from aging research may be helpful in promoting understanding of testing behavior and of health behavior and disparities more broadly.



NIA Health Disparities Research Framework

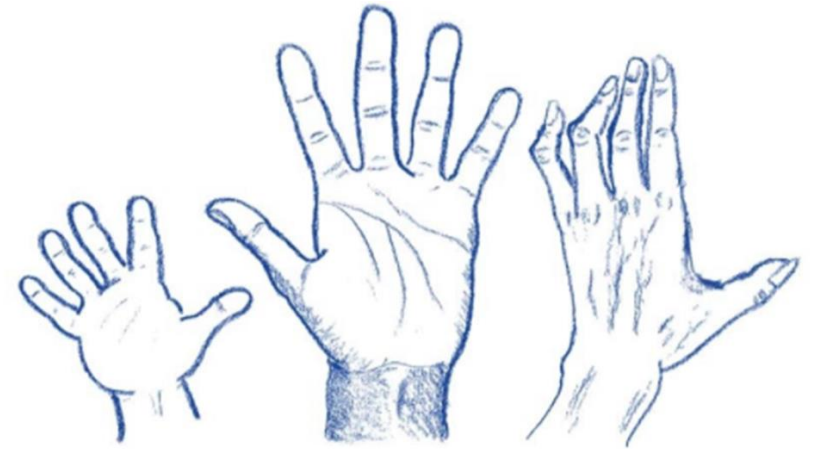


Hill, C. V., Pérez-Stable E. J., Anderson N. A., & Bernard, M. A. (2015). *Ethnicity & Disease*, 25 (3):245-254.

<https://www.nia.nih.gov/research/osp/framework>

NIH Inclusion Across the Lifespan Initiative

- Historically, older adults have been among several underrepresented populations in clinical research, particularly due to restrictive exclusion criteria, arbitrary age limits, or underrecruitment.
- NIH's Inclusion Across the Lifespan (IAL) initiative seeks to promote the inclusion of older adults, children, and other underrepresented groups in NIH research.



Inclusion Across the Lifespan

- Lessons from IAL are highly applicable in COVID-19 testing interventions.

Cross-Cutting Theme 2: *Social and Economic Barriers*

How Can Social and Economic Barriers to Testing Be Addressed?

Barriers may include:

- Access (geographic, transportation)
- Language
- Costs of testing
- Insurance and/or documentation issues



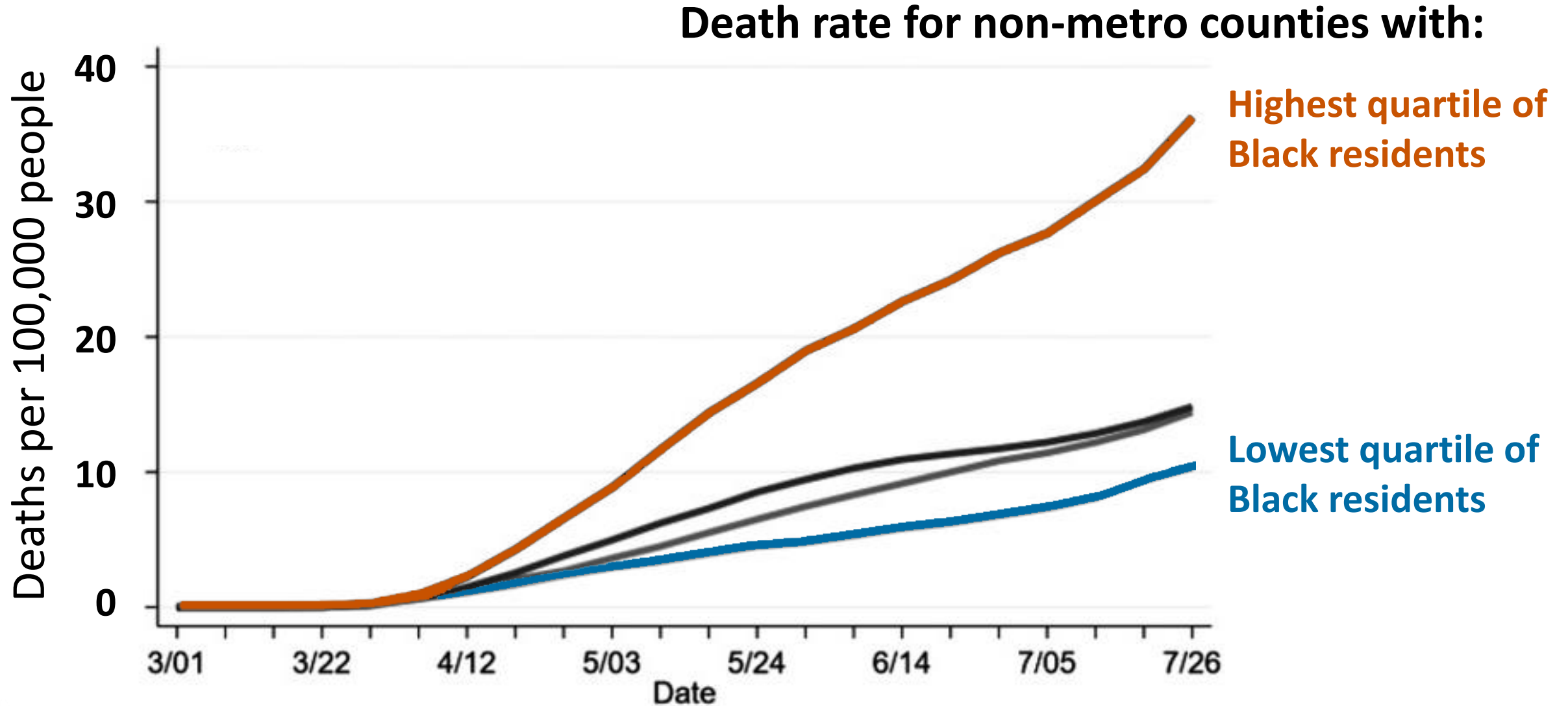
Nursing Home COVID-19 Outbreaks Related to Large Facility Size, Location, and Share of Black Residents

Nursing Home Characteristic	Probability of COVID-19 Cases – Odds Ratio
>150 beds	6.52***
Urban	3.22***
High Black resident share	2.05***

*** $p < .001$

Abrams, H. R., et al.
(2020). *J Am Geriatr Soc*,
68(8), 1653-1656.
doi:10.1111/jgs.16661

Non-Metro Counties with Higher Percentages of Racial/Ethnic Minorities Have Higher COVID-19 Death Rates



Cross-Cutting Theme 3: *Communication and Messaging*

Are Messages Regarding Testing Effectively Reaching Vulnerable and Underserved Populations?

- Individuals with cognitive impairment or Alzheimer's disease and other forms of dementia, and their caregivers?
- Socially isolated older adults?
- Those with medical comorbidities?
- Residents of nursing homes or assisted living facilities?
- Residents of rural and remote communities?
- Residents of tribal lands or reservations?
- Individuals in overcrowded or public housing?



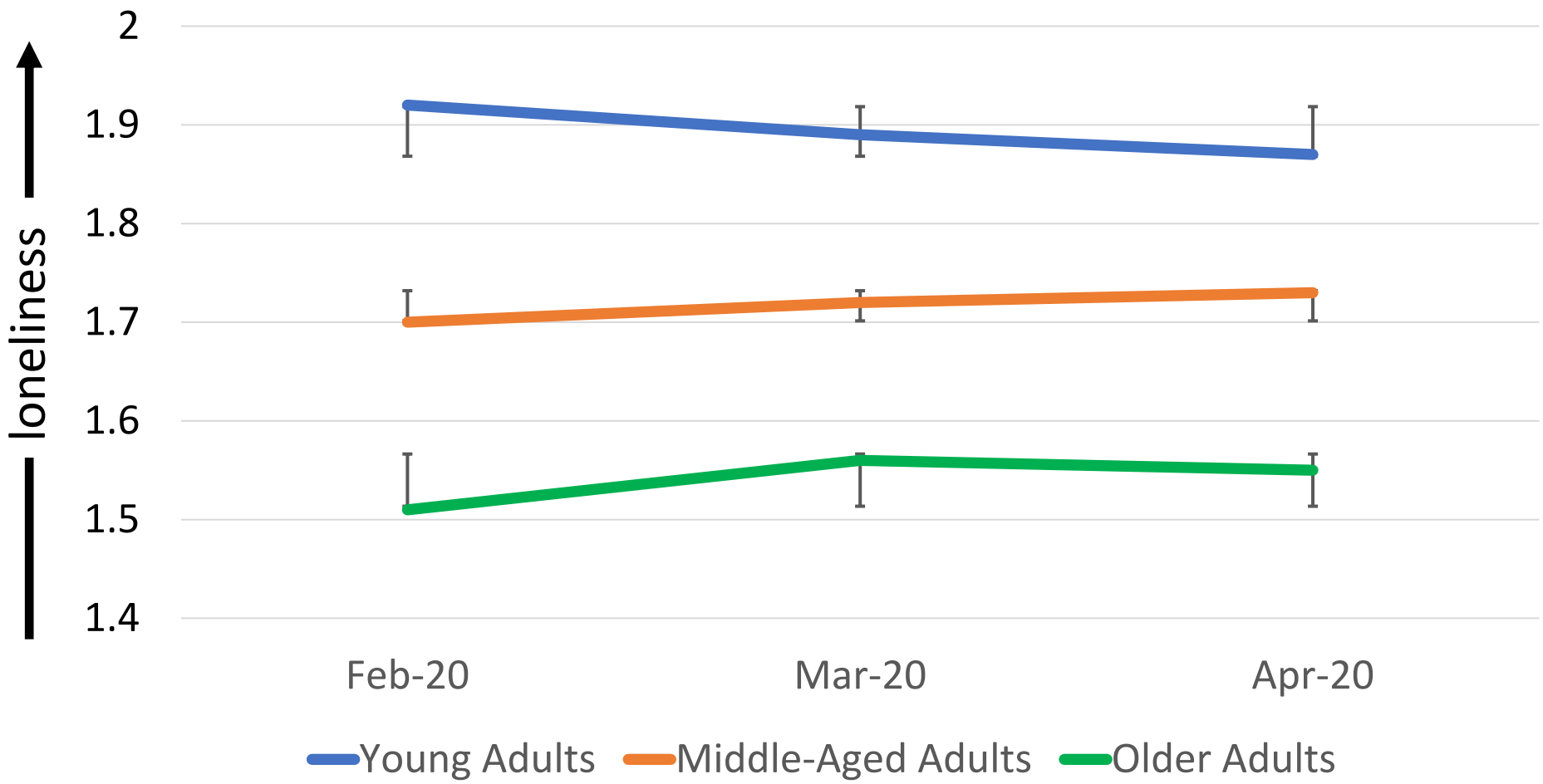
Media Exposure During the COVID-19 Pandemic Is Associated with Mental Distress

- Increased mental distress associated with:
 - Time spent on social media per day
 - Number of traditional media sources consulted (e.g., TV, newspaper, radio)



Riehm, K. E., et al. (2020). *American Journal of Preventive Medicine*, 59 (5):630-638. doi:10.1016/j.amepre.2020.06.008

Loneliness Stable During the Early Stages of COVID-19; Older Adults Showed Resiliency



- Older adults reported less loneliness than younger counterparts.
- No significant mean-level changes in loneliness observed.
- Important to note individual variability in loneliness – some may experience it keenly, while others do not.

Addressing Communication Challenges in COVID-19 Testing

Factors to consider:

- Cultural awareness in communications and messaging
- Conveying risk appropriately
- Minimizing misinformation
- Clarifying differences between test types
- Engaging trusted messengers
- Tailoring messages to community needs
- Sharing and implementing testing strategies



Cross-Cutting Theme 4:

Trustworthiness and Equity

How Can Trust Be Established to Advance Equity in Testing Interventions?

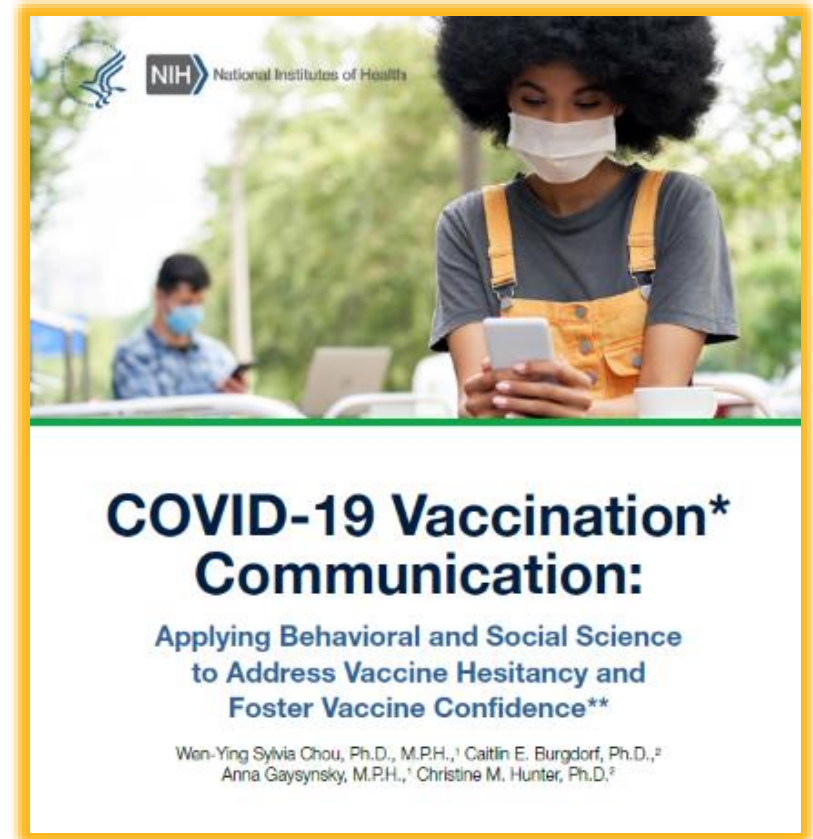
Factors to consider:

- Cultural sensitivity and communication
- Fears or lack of knowledge around testing
- Patient- and community-centered approaches
- Building diversity among members of research team
- Institutional trustworthiness when engaged in community-academic partnerships



NIH Report Emphasizes Building Trust to Bolster Vaccine Confidence

- Create and disseminate **tailored messages for the intended audience**, e.g.:
 - Older adults
 - Racial and ethnic minorities
- Identify and partner with **trusted COVID-19 vaccine messengers**.
- Create **accurate, transparent, and truthful** vaccine messages.
- Enact **value-concordant messaging** that is **sensitive to the emotional state** of the audience.



https://obssr.od.nih.gov/wp-content/uploads/2020/12/COVIDReport_Final.pdf

Cross-Cutting Theme 5: *Contact Tracing and Case Investigation*

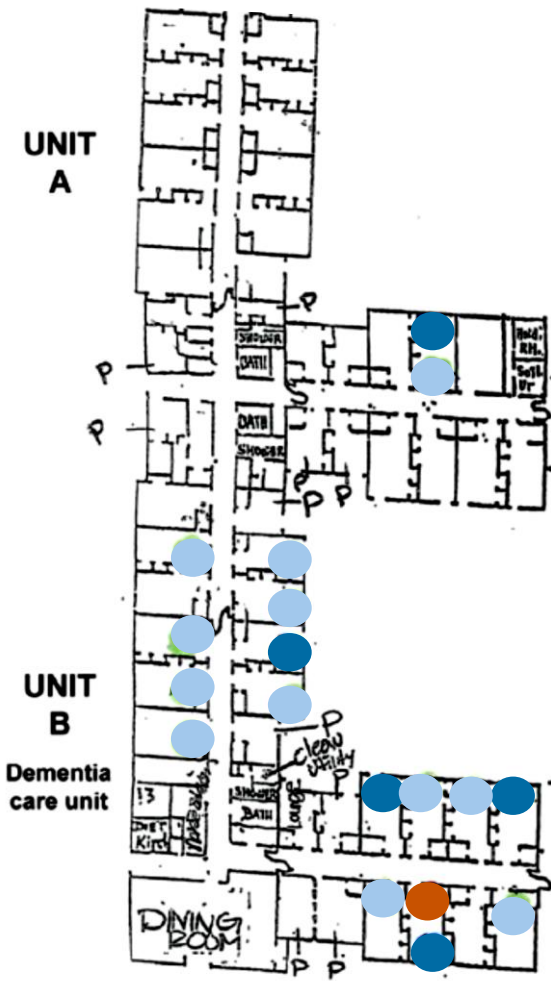
What Are Best Practices for Contact Tracing, Particularly Within Vulnerable and Underserved Groups?

Factors to consider:

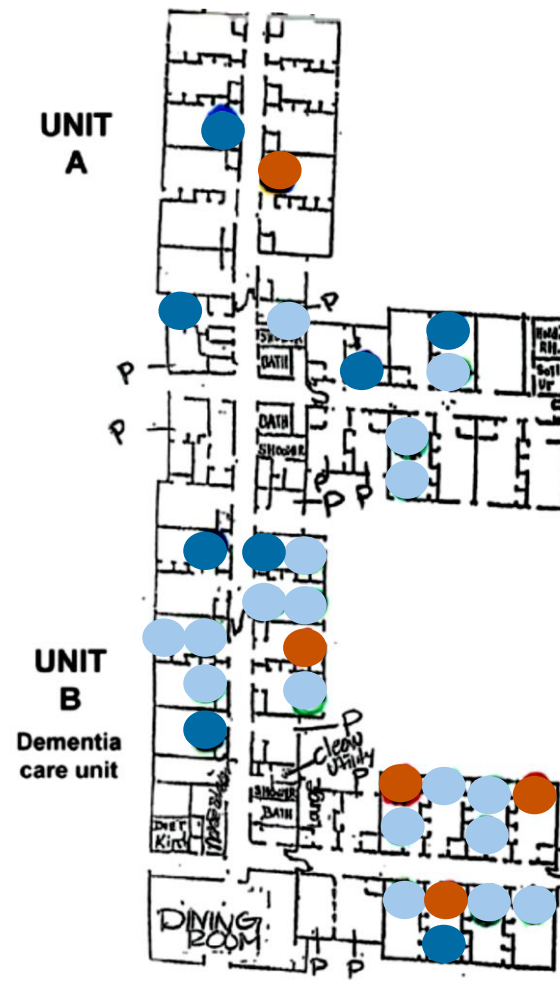
- Resources and system logistics
- Training and competencies
- Cultural sensitivities, linguistic supports
- Patient/community relationships
- Effective communication



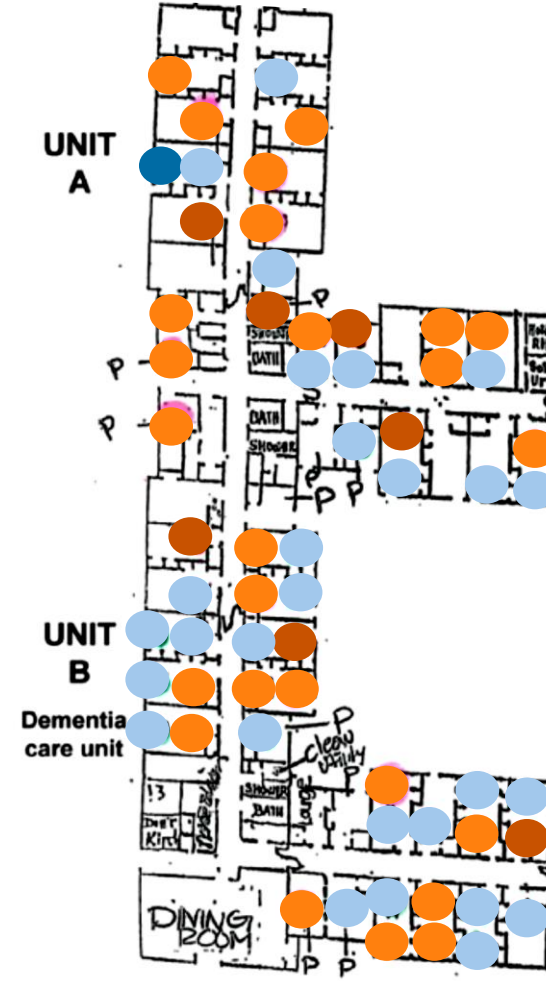
A Case Study: Transmission of SARS-CoV-2 in a Nursing Facility



MARCH 29, 2020



MARCH 31, 2020



APRIL 17, 2020

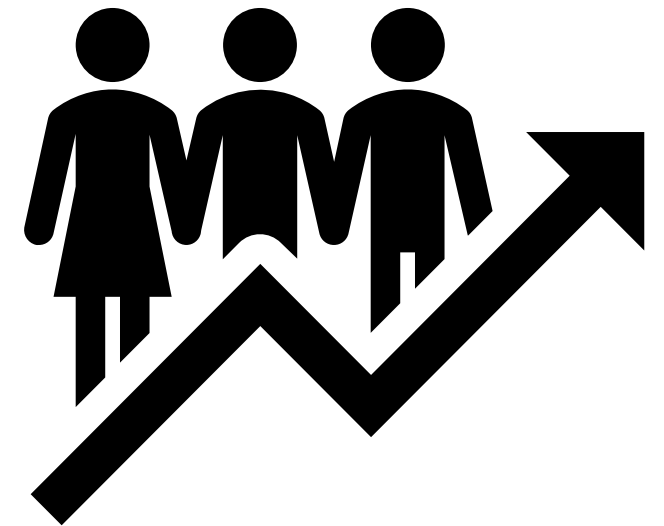
- Positive
- Tested
- Symptom
- Death

Cross-Cutting Theme 6: *Robust Data Science*

How Can Data Science and Protocols in COVID-19 Testing Be Enhanced?

Factors to consider:

- Planning meaningful data science methods which address community context and patient needs.
- Sharing of data collection protocols, in order to share and protect data.
- Conducting risk assessments and surveillance.
- Assessing impact of testing protocols.
- Evaluating equity of contact tracing efforts and data collection.



Ways to Stay Informed and Connected



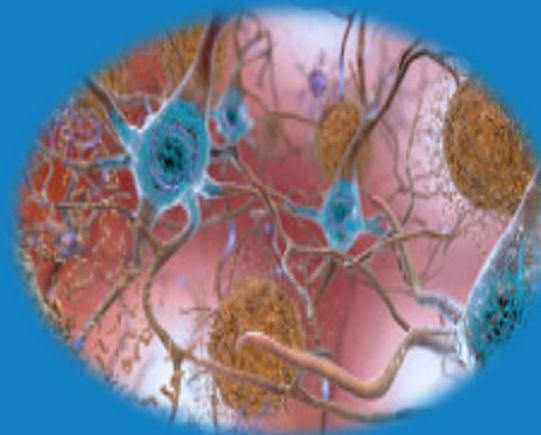
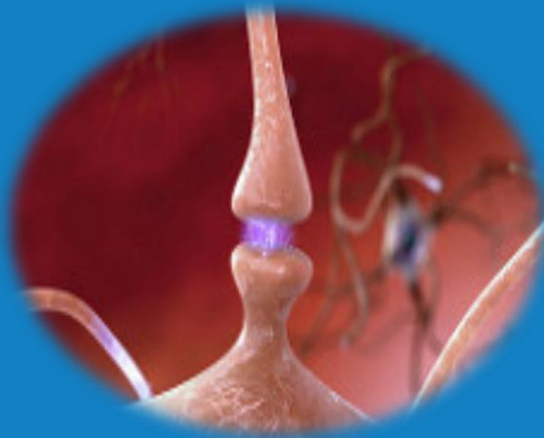
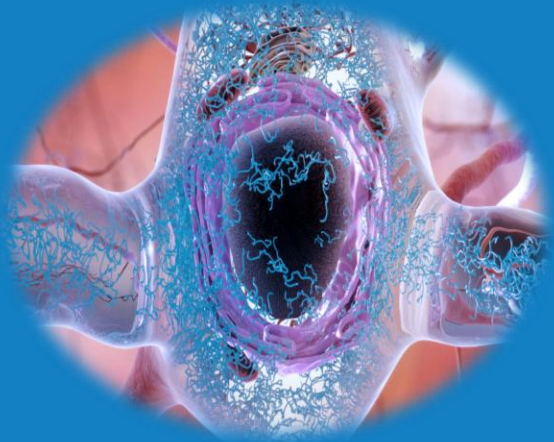
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<https://www.nia.nih.gov/research/funding>



Review the latest approved concepts:
<https://www.nia.nih.gov/approved-concepts>



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