

Health-related socioeconomic risks experienced by East and Southeast Asian women during the COVID-19 pandemic

Eva W Shiu, MPH
Clinical Trials Manager
University of Chicago
Biological Sciences Division
Department of Obstetrics & Gynecology
Lindau Lab

Oct 12, 2022 | SIREN National Research Meeting 2022
Racial Health Equity in Social Care
“Minding gaps in health care and social care”

Milkie Vu, PhD, Jennifer Makelarksi, PhD, MPH, Victoria A. Winslow, MPH, Monica M. Christmas, MD, Sadia Haider, MD, MPH, Nita K. Lee, MD, MPH, El A. Pinkerton, MPH, Kristen E. Wroblewski, MS, and Stacy Tessler Lindau, MD, MAPP. “Racial and Ethnic Disparities in Health-Related Socioeconomic Risks During the Early COVID-19 Pandemic: A National Survey of U.S. Women.” *JWH*, 30(10), 5 Oct 2021.



THE UNIVERSITY OF
CHICAGO
BIOLOGICAL
SCIENCES

Disclosures

I have no conflicts of interest to report.

Funding Acknowledgements

NIMDH R01MD012630

NIA R01AG064949



Change in Health-Related Socioeconomic Risk Factors and Mental Health During the Early Phase of the COVID-19 Pandemic: A National Survey of U.S. Women

Stacy Tessler Lindau, MD,¹ Jennifer A. Makelarski, PhD, MPH,^{2,3} Kelly Boyd, BS,² Kate E. Doyle, MPH,²
Sadia Haider, MD, MPH,² Shivani Kumar, MD,⁴ Nita Karnik Lee, MD, MPH,⁵ El Pinkerton, MPH,²
Marie Tobin, MD,⁴ Milkie Vu, MA,² Kristen E. Wroblewski, MS,⁶ and Ernst Lengyel, MD, PhD⁵

Abstract

Background: During a pandemic, women may be especially vulnerable to secondary health problems driven by its social and economic effects. We examined the relationship between changes in health-related socioeconomic risks (HRSRs) and mental health.

Materials and Methods: A cross-sectional survey of 3,200 women aged 18–90 years was conducted in April 2020 using a quota-based sample from a national panel (88% cooperation rate). Patterns of change in HRSRs (food insecurity, housing instability, interpersonal violence, and difficulties with utilities and transportation) were described. Weighted, multivariate logistic regression was used to model the odds of depression, anxiety, and traumatic stress symptoms among those with and without incident or worsening HRSRs.

Results: More than 40% of women had one or more prepandemic HRSRs. In the early pandemic phase, 49% of all women, including 29% with no prepandemic HRSRs, had experienced incident or worsening HRSRs. By April 2020, the rates of depression and anxiety were twice that of prepandemic benchmarks (29%); 17% of women had symptoms of traumatic stress. The odds of depression, anxiety, and posttraumatic stress symptoms were two to three times higher among women who reported at least one incident or worsening HRSR; this finding was similar for women with and without prepandemic HRSRs.

Conclusions: Increased health-related socioeconomic vulnerability among U.S. women early in the coronavirus disease 2019 (COVID-19) pandemic was prevalent and associated with alarmingly high rates of mental health problems. Pandemic-related mental health needs are likely to be much greater than currently available resources, especially for vulnerable women.

Keywords: COVID-19, disparities, mental health, health behaviors, social determinants of health


Landscape

NEWS HURRICANE IAN LIVE UPDATES POLITICS PLAN YOUR VOTE U.S. NEWS WORLD COVID BUSINESS OPINION WATCH NOW

CORONAVIRUS

Trump tweets about coronavirus using term 'Chinese Virus'

The CDC has warned against naming diseases after locations, saying it stigmatizes residents.



President Donald Trump answers questions about the coronavirus outbreak at a news briefing at the White House on Monday, March 16, 2020.

March 16, 2020, 2:14 PM EDT / Updated March 17, 2020, 4:50 AM EDT
By Kimmy Yam

President Donald Trump drew backlash Monday night after posting a tweet using the phrase "Chinese Virus."

Sponsored Stories

HEALTH AFFAIRS FOREFRONT

RELATED TOPICS:
VIOLENCE | RACISM | COVID-19 | PANDEMICS | MENTAL HEALTH | PUBLIC OPINION
| CORONAVIRUS | SYSTEMS OF CARE | PUBLIC HEALTH

COVID-19 Has Driven Racism And Violence Against Asian Americans: Perspectives From 12 National Polls

Mary Findling, Robert J. Blendon, John Benson, Howard Koh

APRIL 12, 2022 DOI: 10.1377/forefront.20220411.655787



8 Dead in Atlanta Spa Shootings, With Fears of Anti-Asian Bias

The man who police say went on a rampage at three spas in the Atlanta area has been charged with eight counts of murder in connection with the attacks.

Published March 17, 2021 Updated March 26, 2021

Chicago Chinatown shooting: Murder charges filed after man, 71, killed outside CPS school

By Tre Ward, Karen Jordan, and Rob Elgas via
Wednesday, December 8, 2021

The New York Times <https://www.nytimes.com/2021/02/12/us/asian-american-racism.html>

A Tense Lunar New Year for the Bay Area After Attacks on Asian-Americans

The attacks have renewed fears over a wave of anti-Asian violence and harassment that was spurred earlier in the pandemic.

By Jill Cowan

Published Feb. 12, 2021 Updated Sept. 26, 2021

The New York Times <https://www.nytimes.com/2021/02/26/nyregion/asian-hate-crimes-attacks-ny.html>

Attacks on Asian-Americans in New York Stoke Fear, Anxiety and Anger

Hate crimes involving Asian-American victims soared in New York City last year. Officials are grappling with the problem even as new incidents occur.



By Alexandra E. Petri and Daniel E. Slotnik
Published Feb. 26, 2021 Updated Oct. 15, 2021

Association of "#covid19" Versus "#chinesevirus" With Anti-Asian Sentiments on Twitter: March 9–23, 2020

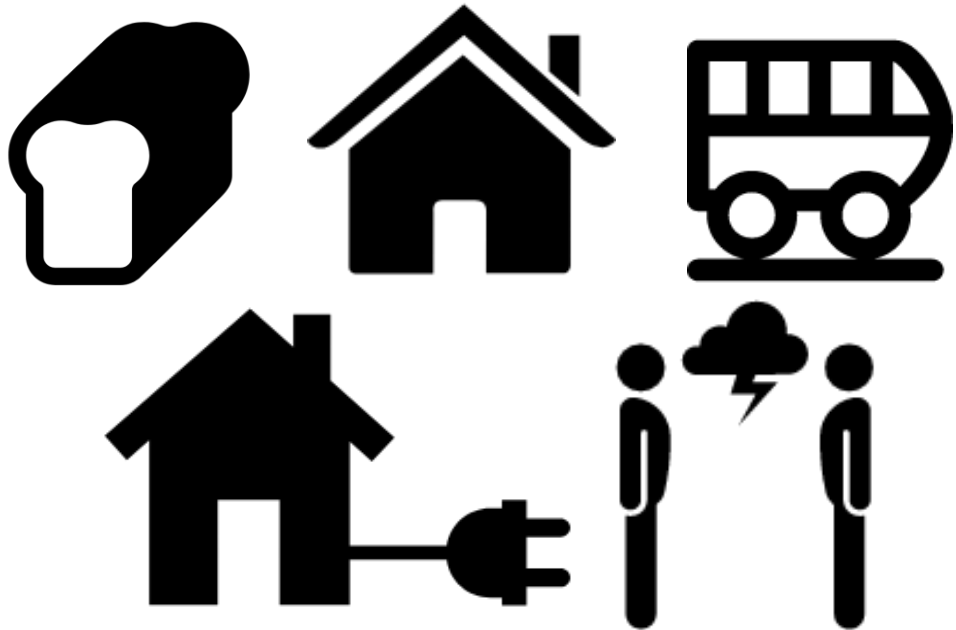
Yulin Hswen ScD, MPH, Xiang Xu MS, Anna Hing MPH, Jared B. Hawkins PhD, John S. Brownstein PhD, and Gilbert C. Gee PhD

[+] Author affiliations, information, and correspondence details

Accepted: January 03, 2021 Published Online: April 07, 2021

Landscape

Health-Related Socioeconomic Risks



Model Minority Myth



Graphic by Nicole Kim

Aims

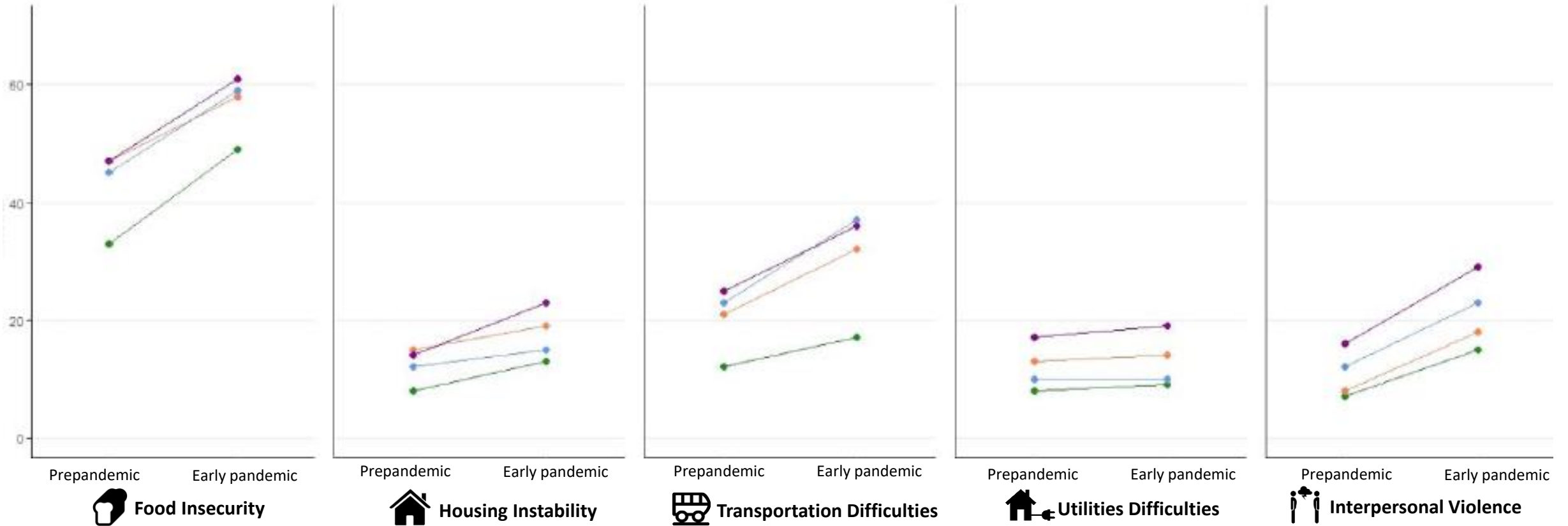
1. To examine **patterns** of change in HRSRs in the early pandemic by race and ethnicity, with an emphasis on East and Southeast (E/SE Asian women).
2. To fill **gaps** in our understanding of pandemic-related changes in HRSRs among E/SE Asian women to ensure an equitable and informed approach to pandemic management and recovery.

Methods

- Opinions 4 Good (Op4G): national cross-sectional survey of 3200 women (April 2020)
- HRSRs were assessed using the Accountable Health Communities screening tool.
- Weighted, multivariate logistic regression models generated **odds** of HRSRs by race/ethnicity adjusted for variables such as household characteristics and socio-demographics.

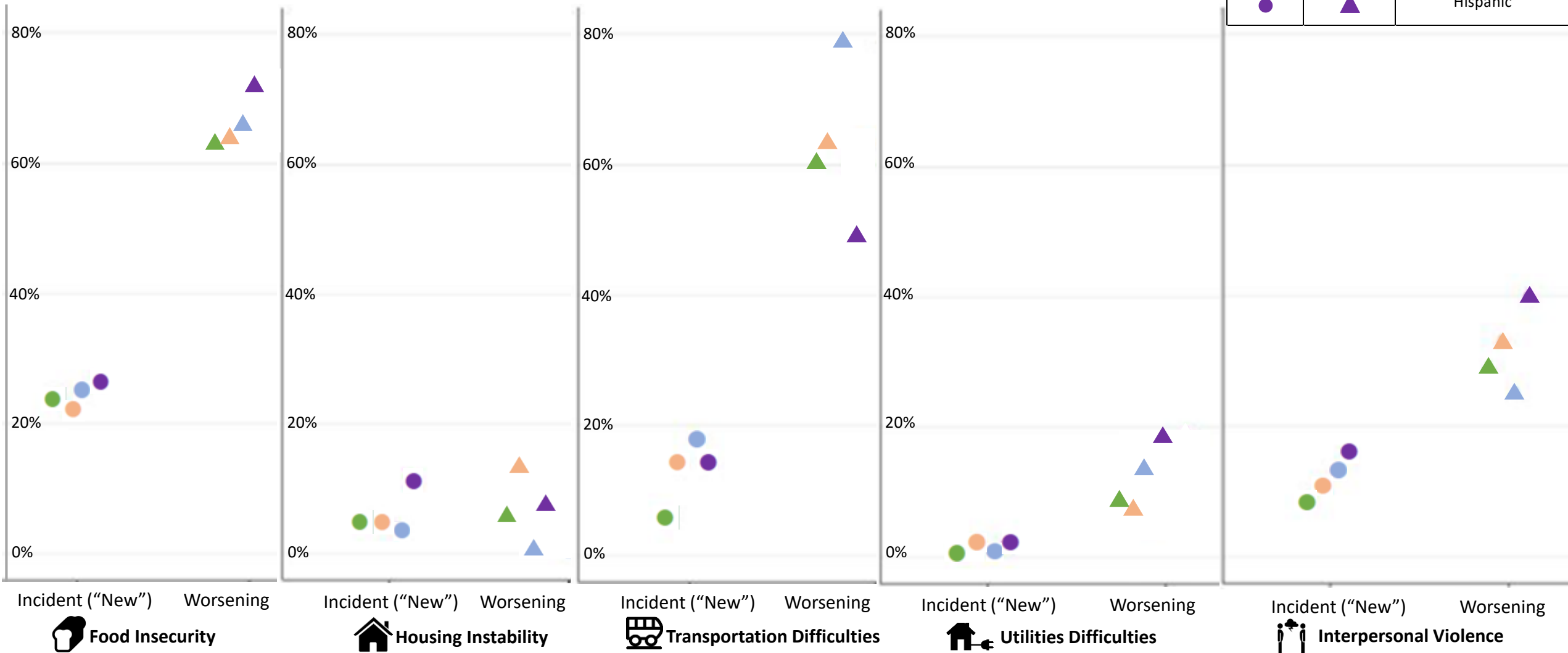
Results: Rates of prevalence of HRSRs in pre-pandemic and early pandemic by race/ethnicity

Race/Ethnicity	
●	Non-Hispanic White
●	Non-Hispanic Black
●	Non-Hispanic E/SE Asian
●	Hispanic



Results: Rates of new and worsening HRSRS by race/ethnicity in pre-pandemic and early pandemic

New	Worsening	Race/Ethnicity
●	▲	Non-Hispanic White
●	▲	Non-Hispanic Black
●	▲	Non-Hispanic E/SE Asian
●	▲	Hispanic



Results

TABLE 2. ADJUSTED ODDS OF PREPANDEMIC AND EARLY PANDEMIC CHANGES IN HEALTH-RELATED SOCIOECONOMIC RISKS AMONG U.S. WOMEN BY RACE AND ETHNICITY (NON-HISPANIC WHITE WOMEN AS REFERENCE GROUP)

	<i>Non-Hispanic Black</i>		<i>Non-Hispanic East or Southeast Asian</i>		<i>Hispanic</i>		<i>Other</i>	
	<i>aOR</i>	<i>95% CI</i>	<i>aOR</i>	<i>95% CI</i>	<i>aOR</i>	<i>95% CI</i>	<i>aOR</i>	<i>95% CI</i>
Prepandemic HRSRs								
At least one HRSRs	2.0***	1.5–2.8	2.2***	1.5–3.1	1.5**	1.2–2.1	1.3	0.8–2.0
Food insecurity	1.7**	1.2–2.2	2.3***	1.7–3.3	1.4*	1.0–1.8	1.1	0.6–1.7
Housing instability	1.9**	1.3–2.8	1.3	0.8–2.1	1.4	0.9–2.0	1.8	0.9–3.4
Transportation difficulties	1.8**	1.3–2.6	2.9***	2.0–4.4	2.0***	1.5–2.8	2.1*	1.2–3.7
Utilities difficulties	1.6*	1.1–2.4	1.5	1.0–2.5	2.0***	1.3–2.9	1.4	0.7–2.7
IPV	1.0	0.6–1.6	2.0**	1.2–3.2	1.8**	1.2–2.7	1.5	0.7–3.3
Early pandemic HRSRs								
At least one incident or worsening HRSRs	1.3	1.0–1.7	1.6**	1.2–2.2	1.2	0.9–1.5	1.7	1.0–2.8
Food								
Incident vs. Secure	0.7	0.4–1.2	0.8	0.5–1.3	0.8	0.5–1.3	1.4	0.7–2.7
Worsening vs. Persistent or improved	1.0	0.7–1.5	1.5	1.0–2.3	1.3	0.9–1.9	1.6	0.8–3.6
Housing^a								
Incident vs. Secure	1.0	0.5–1.8	0.8	0.4–1.7	1.7*	1.0–2.8	1.5	0.7–3.5
Transportation								
Incident vs. Secure	2.1**	1.3–3.3	3.6***	2.2–6.0	2.0**	1.3–3.0	2.4*	1.1–5.2
Worsening vs. Persistent or improved	1.3	0.7–2.4	2.5*	1.1–5.6	0.6	0.4–1.1	0.8	0.3–2.0
IPV								
Incident vs. Secure	1.0	0.7–1.5	1.2	0.7–2.1	1.3	0.8–2.0	1.6	0.8–3.1
Worsening vs. Persistent or improved	1.2	0.5–3.2	1.3	0.5–3.7	1.7	0.8–3.5	1.1	0.2–5.2

Non-Hispanic White women are the reference group. Logistic regression model covariates include: age (decades), income, educational attainment, marital status, number in household, number of household children, caregiver status, region, self-rated health, and number of comorbidities. HRSR change status was classified as: secure (risk was absent before and early pandemic), incident (absent prepandemic and present early pandemic), persistent or improved (present prepandemic and unchanged or improved early pandemic), and worsening (present prepandemic and worse early pandemic).

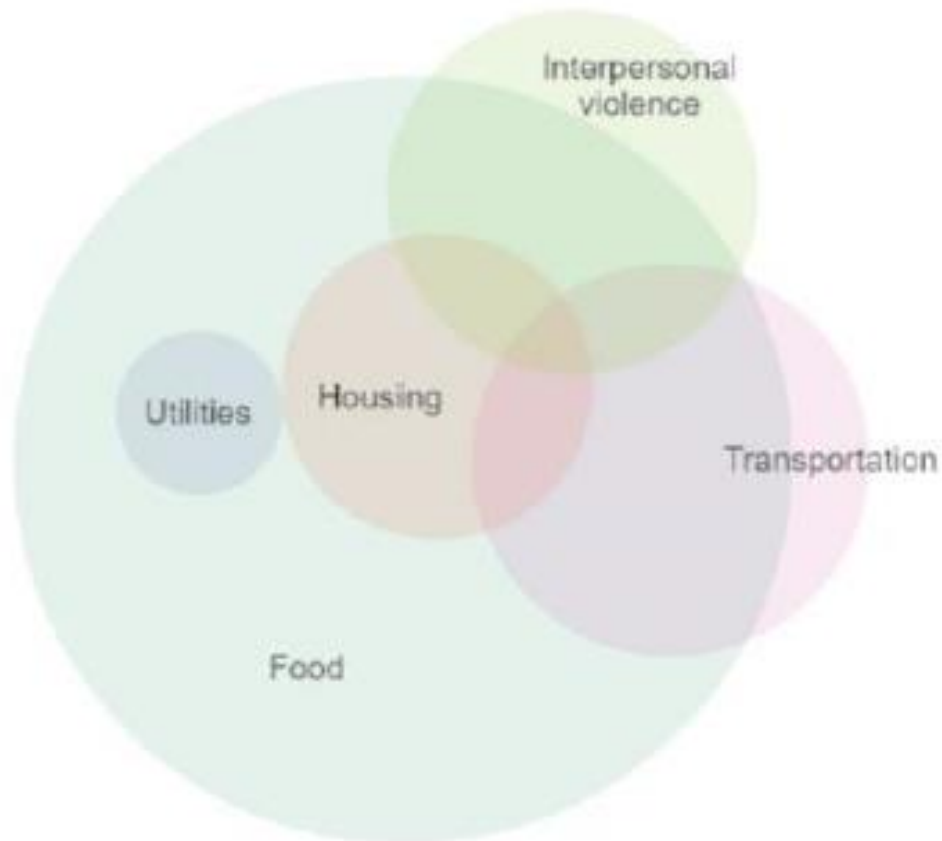
^aDue to small number of observations for the outcomes of worsening housing instability, incident utilities difficulties, and worsening utilities difficulties, multivariable logistic regressions were not conducted for these outcomes.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

aOR, adjusted odds ratios; CI, confidence interval; HRSRs, health-related socioeconomic risks; IPV, interpersonal violence.

Results: Venn Diagrams of Co-occurrence of HRSRs comparing Non-Hispanic White Women and E/SE Asian Women in our sample

Non-Hispanic White



Non-Hispanic East or Southeast Asian

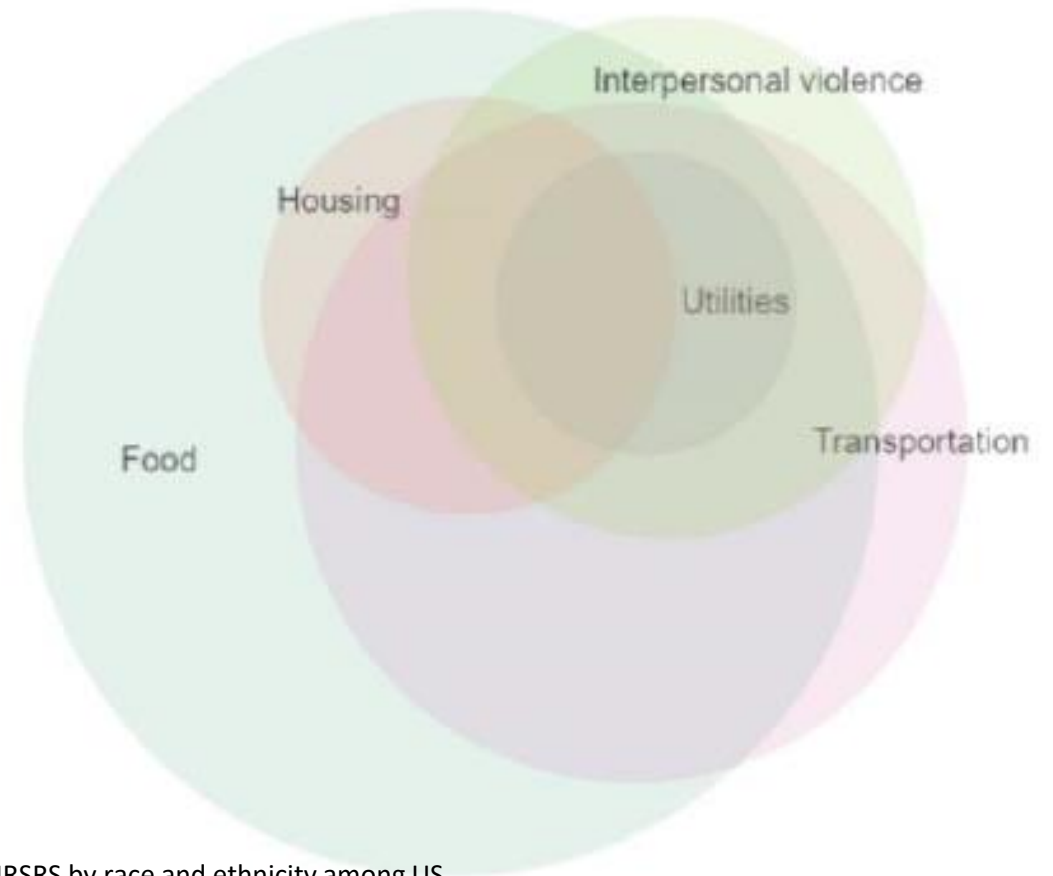


Figure 1. Venn Diagrams displaying co-occurrence of HRSRS by race and ethnicity among US women with ≥ 1 HRSRs in the early phase of the COVID-19 pandemic (Vu et al 2021)

Discussion

Patterns:

- Health disparities exist across the board for different racial/ethnic groups, especially for E/SE Asians, during the prepandemic and early pandemic
- **E/SE Asian women experienced higher rates of new and worsening transportation difficulties**
- **1 in 28 E/SE Asian woman (compared to 1 in 100 White women), experienced all 5 HRSRs, which is an indicator of disparities and vulnerabilities in the extreme.**

Gaps and Limitations:

- Data collection for E/SE Asian women has been scarce
- Model Minority myth can perpetuate a stereotype that E/SE Asians do not experience social risks or have social vulnerabilities
- COVID-19 and anti-Asian sentiment have exacerbated social risk vulnerabilities for this group, especially with the rise experienced violence or fear of violence in the communities where they live

Implications:

- To take a closer look at racialized stereotypes and data quality which shape the health of E/SE Asian (Yi et al 2022)
- Continue to study changes in HRSRS by race/ethnicity and ethnic sub-groups (disaggregation of data)

Acknowledgements

I would like to acknowledge the lead author on the JWH 2021 research paper, Milkie Vu, PhD. Special thanks to Milkie Vu, PhD, Jennifer Makelarski, PhD, and Stacy T Lindau, MD, MAPP for their support and feedback on this presentation. I would also like to send a note of appreciation to the members of the Lindau Lab.



THE UNIVERSITY OF
CHICAGO
BIOLOGICAL
SCIENCES

Email: eshiu@bsd.uchicago.edu

References

- Abrams, 2021, The mental health impact of anti-Asian racism, *APA Monitor on Psychology*, <https://www.apa.org/monitor/2021/07/impact-anti-asian-racism>
- The Accountable Health Communities Health-Related Social Needs Screening Tool, CMS, <https://innovation.cms.gov/files/worksheets/ahcm-screeningtool.pdf>
- Croucher 2020, <https://www.frontiersin.org/articles/10.3389/fcomm.2020.00039/full>
- Hahn (2021), Experiences of COVID-19-related anti-Asian discrimination and affective reactions in a multiple race sample of U.S. young adults *BMC Public Health*, <https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-021-11559-1>
- Kawai Y. Stereotyping Asian Americans: the dialectic of the model minority and the yellow peril. *Howard J Commun.* 2005;16(2):109-30.
- Lindau et al (2021), Change in Health-Related Socioeconomic Risk Factors and Mental Health During the Early Phase of the Covid-19 Pandemic: A National Survey of U.S. Women. *Journal of Women's Health* 30(4), 19 April, 2021
- Model Minority Section, [https://depts.washington.edu/sibl/Publications/Model%20Minority%20Section%20\(2011\).pdf](https://depts.washington.edu/sibl/Publications/Model%20Minority%20Section%20(2011).pdf)
- Ruizetal (2021), One-third of Asian Americans fear threats, physical attacks and most say violence against them is rising *Pew Research Center*
- Vu et al (2021), Racial and Ethnic Disparities in Health-Related Socioeconomic Risks During the Early COVID-19 Pandemic: A National Survey of U.S. Women, *Journal of Women's Health* 30(10), 5 Oct 2021
- Wong F, Halgin R. The “model minority”: bane or blessing for Asian Americans” *J Multicult Couns Devel.* 2006; 34(1):38-39.
- Yi et al (2022), The Mutually Reinforcing Cycle of Poor Data Quality And Racialized Stereotypes That Shapes Asian American Health. *Health Affairs* 41(2)
- Image: Nicole Kim (2016). <https://hwchronicle.com/44771/features/a-is-for-asian/>