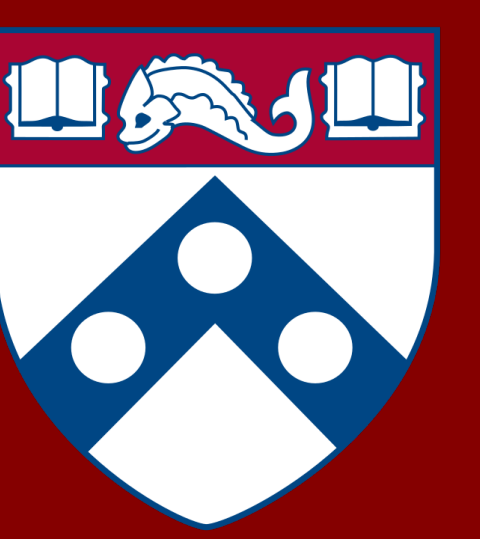


Decreasing Health Inequity Through the Center for Disease Control's Social Vulnerability Index

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Background / Introduction

- In the United States, marginalized and disadvantaged groups--in particular, Black, Hispanic, and Indigenous populations--have been disproportionately impacted by the COVID-19 pandemic.
- In an unprecedented and novel turn, the Center for Disease Control and Prevention (CDC)'s Social Vulnerability Index (SVI) was used by the majority of states to improve equitable access to Covid-19 vaccines in disadvantaged geographic areas, for example, by allocating larger shares of vaccines, or planning dispensing sites.
- Objective:** To conduct a literature review to determine how the CDC's Social Vulnerability Index has or can be used to promote health equity by reducing disadvantage across income and racial/ethnic groups.

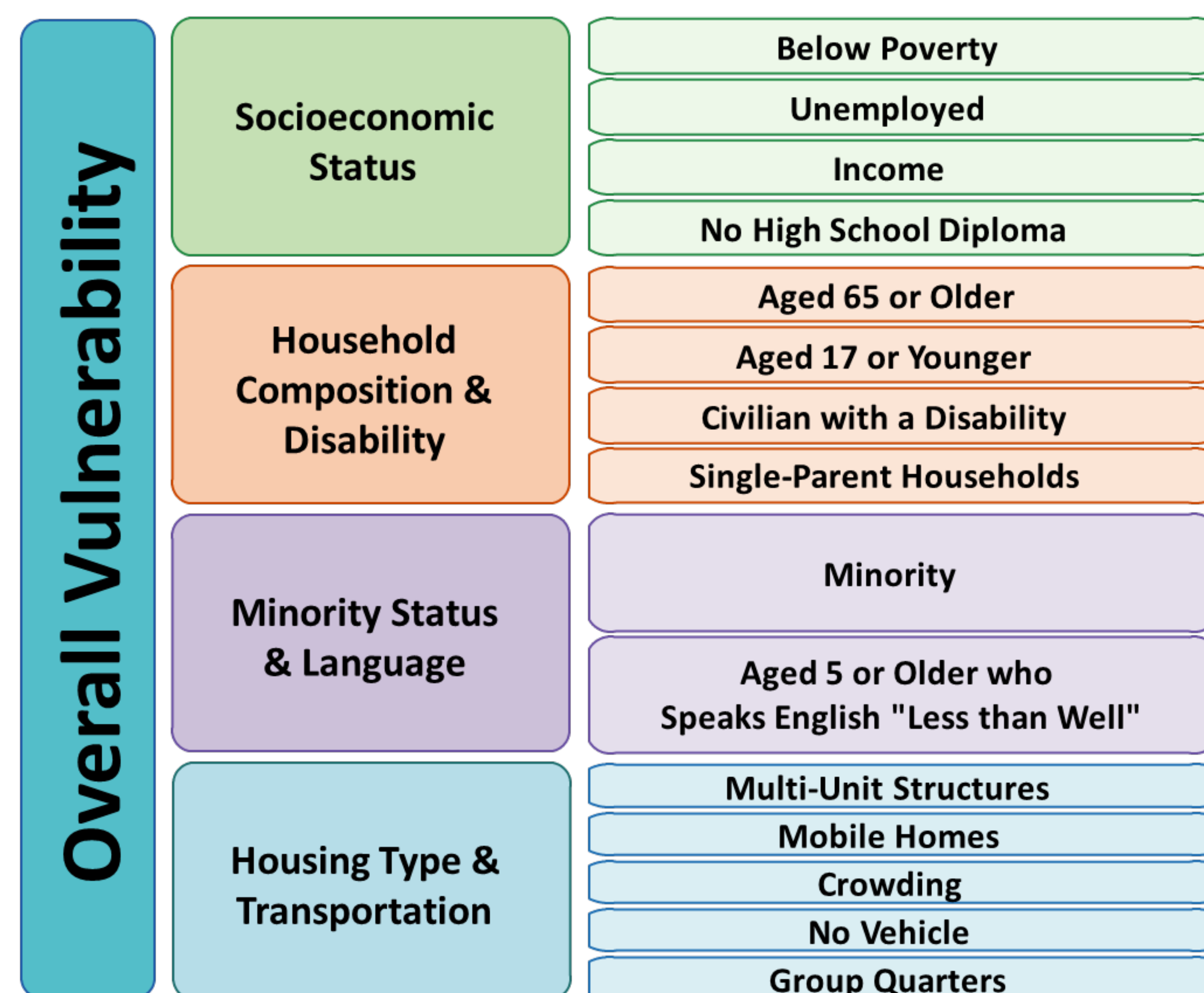
Methods

- We began with a systematic literature search using PubMed and Covidence for all domestic publications containing the search term "social vulnerability index" published after 2011.
- In an Excel sheet, we listed all publications meeting our criteria as well as including verbatim or information regarding to objectives, methods, results, conclusions, location specificity, general topic, population by insurance status, whether the publication compared two or more indices, unit of geographical area used, whether the publication evaluated the index itself, the index increments used, any non SVI indexes referenced, keywords, and corresponding author information.
- This Excel table was used to analyze how the CDC's Social Vulnerability Index has been used across different domains and health-related areas and to draw conclusions about how it can be used in the future.

Results

- Several hundred publications were retrieved and after applying our criteria for inclusion and accounting for duplicates, nearly one hundred were eligible for review.
- While the SVI was developed specifically for disaster situations such as earthquakes or hurricanes, we found a wide range of SVI applications such as COVID-19, and clinical and public health areas.
- Nearly all publications showed that disadvantaged groups as measured by the SVI were at a higher risk for poorer health outcomes; there was variation, however, in that authors conceptualized "the disadvantaged" as, for example, the worse of 10%, 25% or 30%, even though the SVI is a continuous scale
- Publications differed in how they used the SVI, but all offered novel ways of mitigating the consequences of structural racism and discrimination that lead to disparate health outcomes.

What is the CDC's Social Vulnerability Index?



Conclusion / Discussion

- The goal of our project is to further discuss how the CDC's Social Vulnerability Index can be applied to promote health equity and reduce disparities in marginalized groups.
- To our knowledge, this is the first literature review of how the CDC's SVI has been used**
- We found considerable methodological variation meriting further analysis, but also considerable potential to extend the novel use during Covid-19 to other areas where health equity is critical.
- Our project is still ongoing, as we prepare to finalize our conclusions based on the data extracted. However, our main theme remains that the Social Vulnerability Index can be valuable towards creating a more equal society.

Source and Citation	Objectives	Methods	Results	Conclusion	US focused (yes: 1, no:0)	If US, which state, county and/or city (otherwise which country)?	(General topic in sentence format) i.e. Health Condition, Disease area, or Other application such as Vaccine coverage or
Bigart LM, Dong L, Gandhi P, Klein DJ, Smith TL, Ryan S, Okoli BO. COVID-19 Vaccine Intentions and Mistrust in a National Sample of Black Americans. J Prim Med Assoc. 2021 Jun 19;50(7):968-971. doi: 10.1093/jama.2021.05.011. Epub ahead of print. PMID: 3415171; PMCID: PMC8214755.	National data indicate low intentions for COVID-19 vaccination among a substantial minority of Black Americans, and disproportionately lower vaccination rates among Black Americans than White Americans.	A total of 207 of the 318 Black participants (65%) in the RAND American Life Panel, a nationally representative internet panel, were surveyed about COVID-19 vaccine intentions in November-December 2020. Participants' survey responses were geocoded using the Centers for Disease Control and Prevention's Social Vulnerability Index.	Overall, 35% agreed or strongly agreed that they would not get a COVID-19 vaccine, 40% agreed or strongly agreed that they would get vaccinated, and 25% reported "don't know." Significant multivariable predictors of not wanting to get vaccinated included high mistrust of the vaccine itself (e.g., concerns about harm and side effects), OR (95% CI) = 2.2 (1.2-3.9), p = .007, and weak subjective norms for vaccination in one's close social network, OR (95% CI) = 0.6 (0.4-0.7), p = .001. Residence in an area of higher socioeconomic vulnerability was a marginally significant predictor, OR (95% CI) = 3.1 (0.9-11.0), p = .08.	High mistrust around COVID-19 vaccines may lower vaccine confidence. Social network members' attitudes can be influential in encouraging vaccination. Public health communications could use transparent and clear messaging on safety and efficacy, and acknowledge historical and ongoing discrimination and racism as understandable reasons for low confidence in COVID-19 vaccines. Future research is needed to consider vaccine access challenges in tandem with mistrust as contributing to low vaccination rates across health conditions.	1	national	Covid-19 vaccine intentions and mistrust

Population by insurance status: (yes: 1, no: 0)	Theoretical index to promote equity--will be in abstract	Unit of Geo area Text Entry or #	Evaluation of index to promote equity--will be in abstract	Evaluation Verbatim	Index Increments	References any other disadvantage index?	Index/Scale referenced	Keywords as assigned by author	MESH terms search in PDF	Corresponding Author Information	Full Text Available and searched in initial extraction	Notes (i.e. did sensitivity analysis, justified choice of index increments ONLY regarding svi or speaks to question of SVI and race/ethnicity)
general population	Using or Comparing 2 or more indices (with or without other (specify which) condition) for at least partial purpose of finding performance of indices, i.e. how the index function compares to another index that does the same thing	Ex. block group, census tract, county (etc.)	Evaluation of index after it has been applied to describe a population in "unspecified"	Text entry (describes what was evaluated) or #	quartiles, quintiles	if unspecified because cannot access full paper, write # search in full text for continuous/quintiles, quartiles, quintiles	N/A	Black/african americans; COVID-19; Medical mistrust; Vaccine confidence/hesitancy.	not yet	Laura M Beget RAND Corporation, Pittsburgh, PA, United States. Electronic address: beget@rand.org	1	

Example of Completed Entry for one publication