



# National Institute on Minority Health and Health Disparities

## 2013 NIMHD Translational Health Disparities Course

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# **2013 NIMHD Translational Health Disparities Course**

## **Disability & Health: Definitions, Determinants, & Disparities**

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## Session Overview

- Overview of Disability
- Overview of Health Disparities
- Application of the Public Health Model of the Social Determinants of Health using the BRFSS
- Disability and Racial/Ethnic Group Comparisons





## Disclaimers

- Research funded by the National Institute on Disability and Rehabilitation Research, Grant # H133A100031, but contents do not reflect the formal position of NIDRR
- No reference to drugs or products are included in this presentation





## Definitions of Disability

- The Medical Model
- The Functional Model
- The Social Model
- Integrated Models





## The Medical Model & Disability

- Disability derives from a disease, trauma, or health condition that can be cured or treated through intervention
- Disability is generally viewed in categorical terms (e.g., Multiple Sclerosis, Mental Retardation)





# The Functional Model of Disability

- Disability is the inability to perform functional activities such as thinking, walking, or seeing (due to an underlying medical, physiological, or cognitive impairment or deficit)





## Social Models of Disability

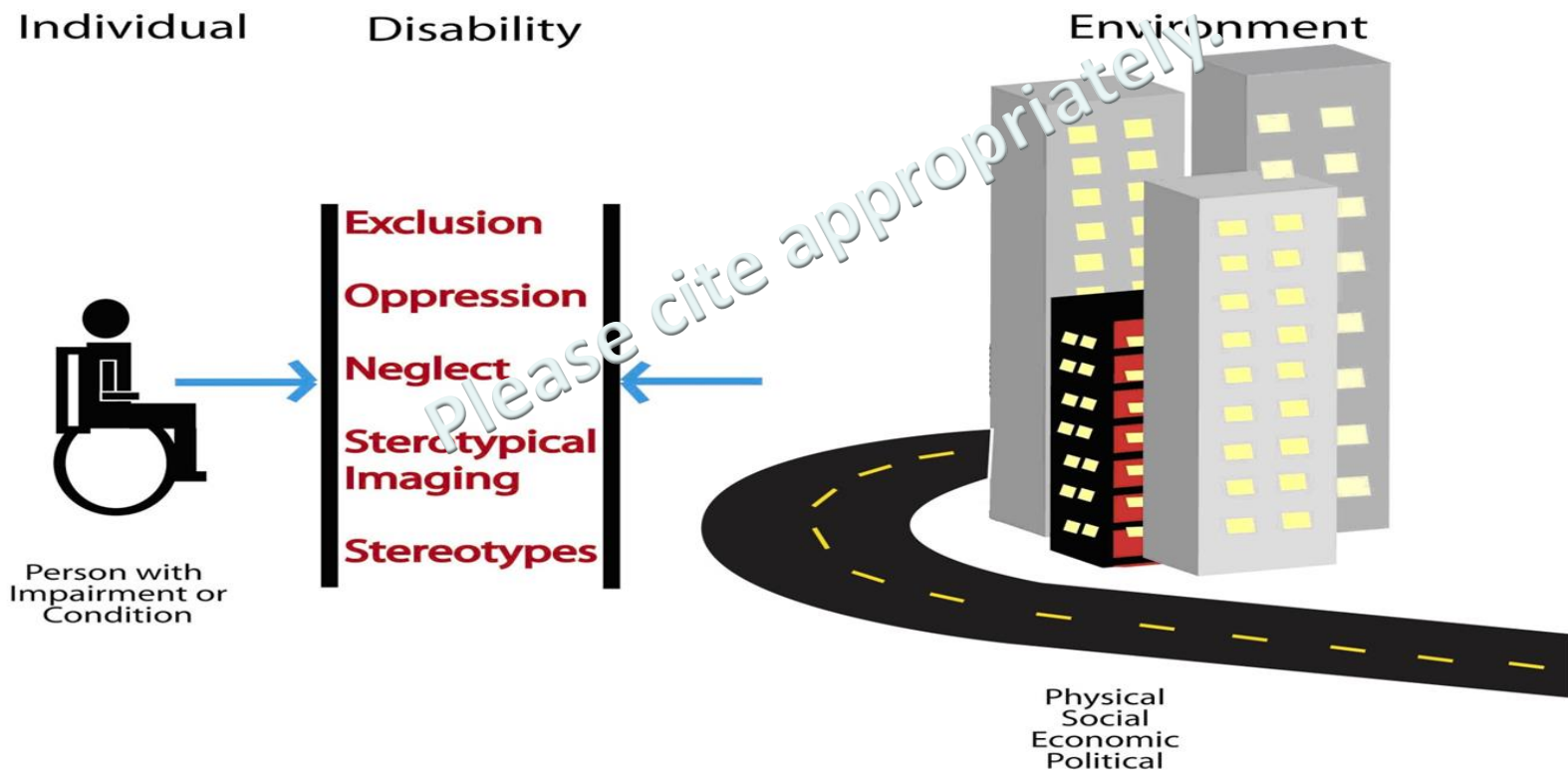
- Disability lies in the barriers individuals [with an underlying condition or impairment] encounter in accessing the environment
- *Environment* includes social, physical, economic, and political dimensions







# Social Model of Disability Illustrated





## Integrated Approaches to Disability

- In the mid-1960s, American sociologist Saad Nagi developed an integrated model to characterize the disabling process
- An expansion added a component to the disabling process model called *societal limitations* in 1993





# Expanded Nagi Model

**Nagi**

**NCMRR**

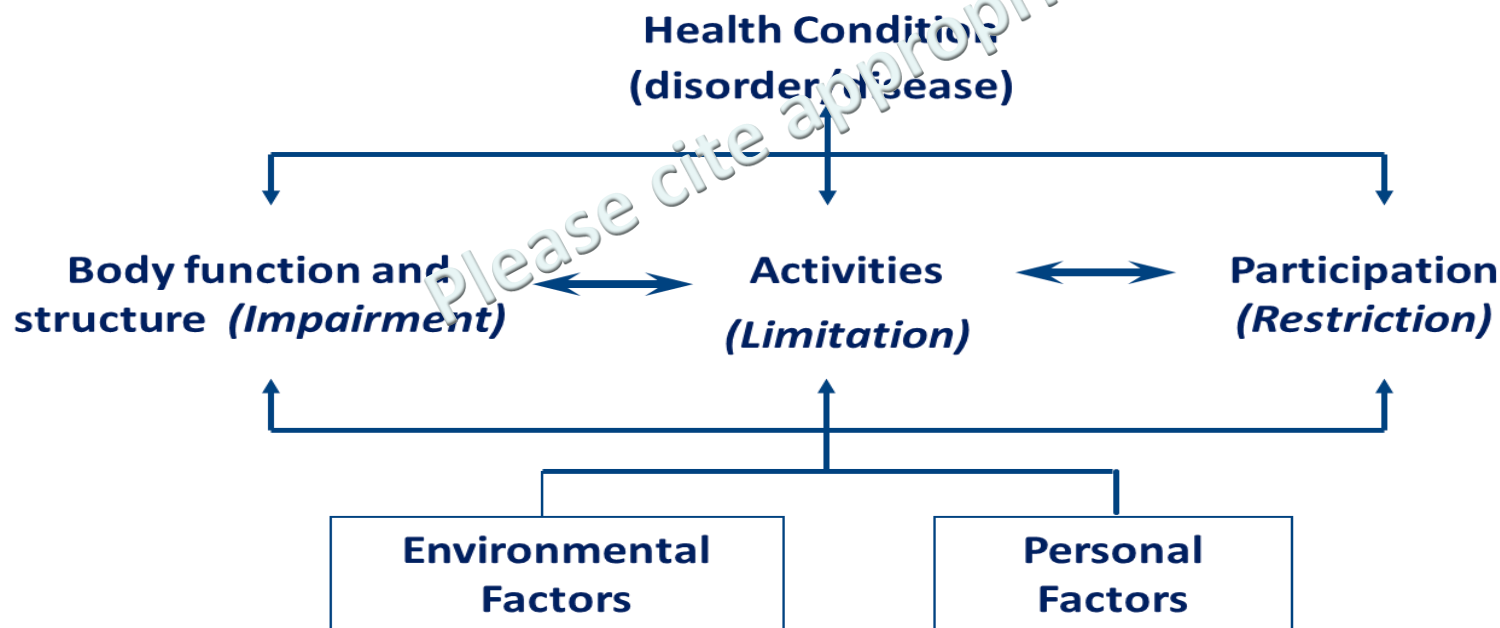
Active Pathology	Impairment	Functional Limitation	Disability	Societal Limitation
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- The disabling process is conceptualized as consisting of five major dimensions: active pathology, impairment, functional limitation, disability, and societal limitation





# International Classification of Functioning, Disability and Health





## Where's the “Health” in Health Disparities?

Traditionally:

- Rate of disease incidence, prevalence, morbidity, mortality, or survival rates
- “Differences in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions” (*NIH, 1999*)





## Where's the “Health” in Health Disparities?

- Health status and access/utilization/ quality of health care
- “...health outcomes, or access to health care”  
*(Health Resources and Services Administration, 2000)*
- “differences in health outcomes or health care use” (Kilbourne, et al., 2006)





# Health Disparity Populations

- Differences...among *specific population groups* (NIH, 1999)
- Traditionally: minorities, women, rural populations
- Recently: socially distinct vulnerable and less vulnerable populations (Kilbourne, et al., 2006)





# Health Disparity Populations

- “Health difference...based on racial or ethnic group; religion; socioeconomic status; gender; age; *mental health; cognitive, sensory, or physical disability*; sexual orientation or gender identity; geographic location; or other characteristics” (*Healthy People 2020*)







# Mere Difference or Disparity?

- Observed clinically and statistically significant differences...that are not explained by the effects of selection bias (Kilbourne, et al., 2006)





# Mere Difference or Disparity?

“Outcomes for which it can be determined quantitatively --- rather than merely anecdotally or associatively --- that the fact of pre-existing disability status serves as a dominating independent variable from which adverse or disparate outcomes directly and attributably arise, as opposed to merely one of many independent variables of varying epidemiologic force.” *The CDC Traditionalist*





# Health Disparities & Disability

- Why include people with disabilities as a health disparity population?
- Are people with disabilities more or less similar to racial/ethnic minorities in their experience of health disparities?





# Behavioral Risk Factor Surveillance System (BRFSS)

- State-based, random digit dialed telephone health survey conducted in all 50 states, DC, and U.S. Virgin Islands, Guam, American Samoa, and Palau
- Demographics and information on health, health behaviors, and prevention activities
- Iterative Proportional Fitting used to weight data to be nationally representative





## BRFSS

- Analysis based on 2011 data (N = 506,000 before weighting)
- Limited to ages 18 – 64 (N = 321,456)
- BRFSS Limitations





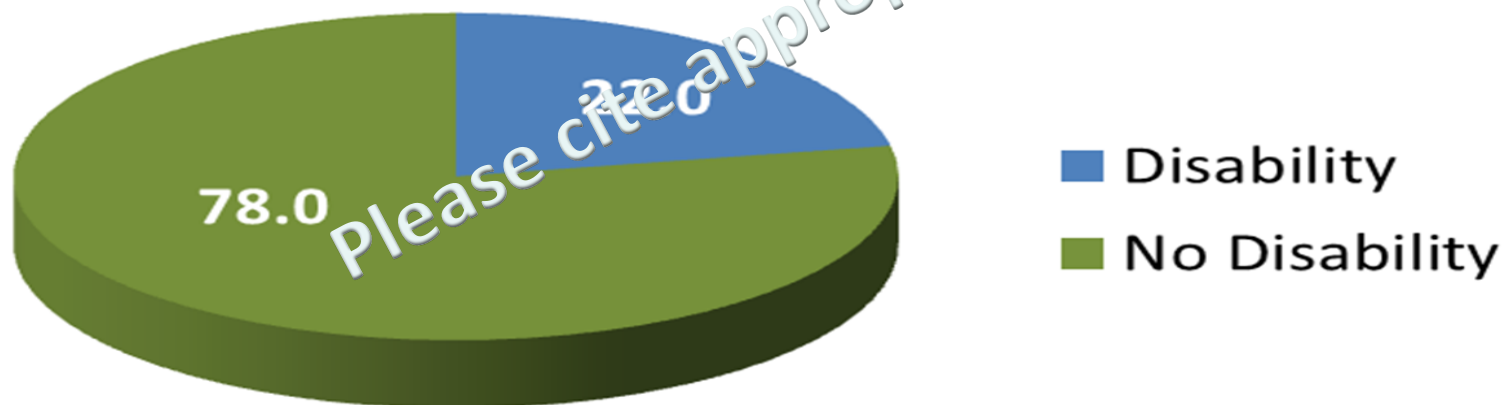
## BRFSS Disability Definition

1. Are you limited in any way in any activities because of physical, mental, or emotional problems?
  2. Do you now have any health problem that requires you to use special equipment, such as a cane, a wheelchair, a special bed, or a special telephone?
- Disability group includes all races and ethnicities, unless otherwise indicated



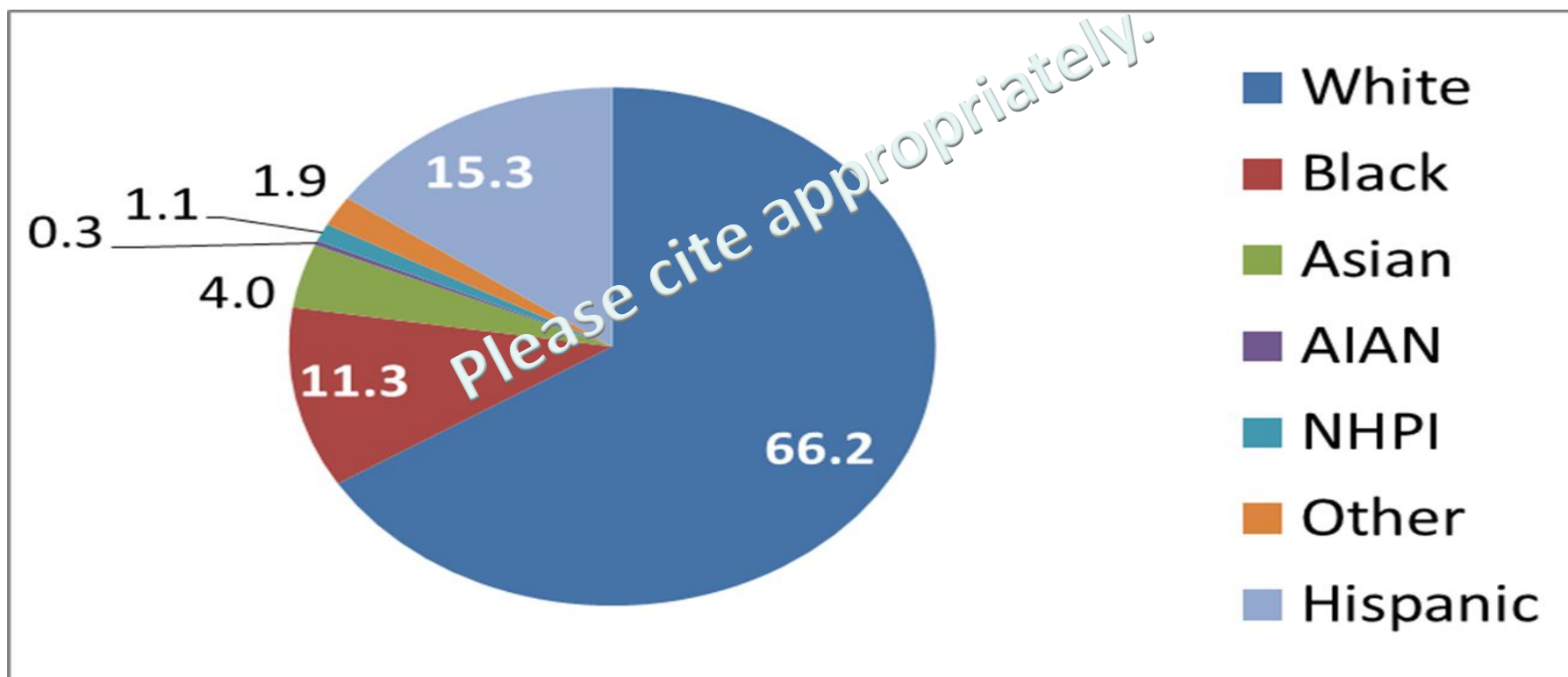


## Prevalence of Disability





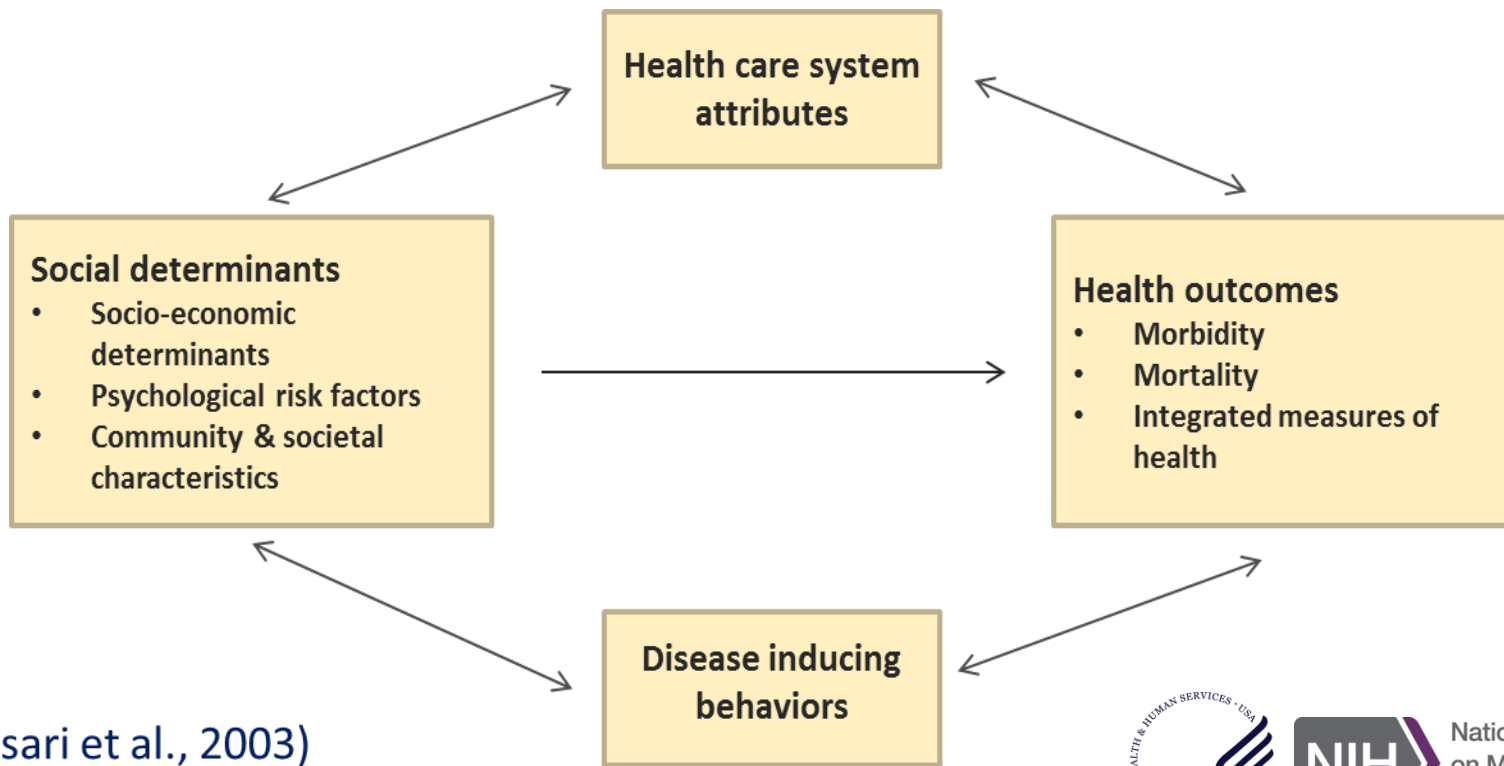
## Prevalence of Race / Ethnicity







# Public Health Model of Social Determinants of Health



(Ansari et al., 2003)





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# SOCIAL DETERMINANTS



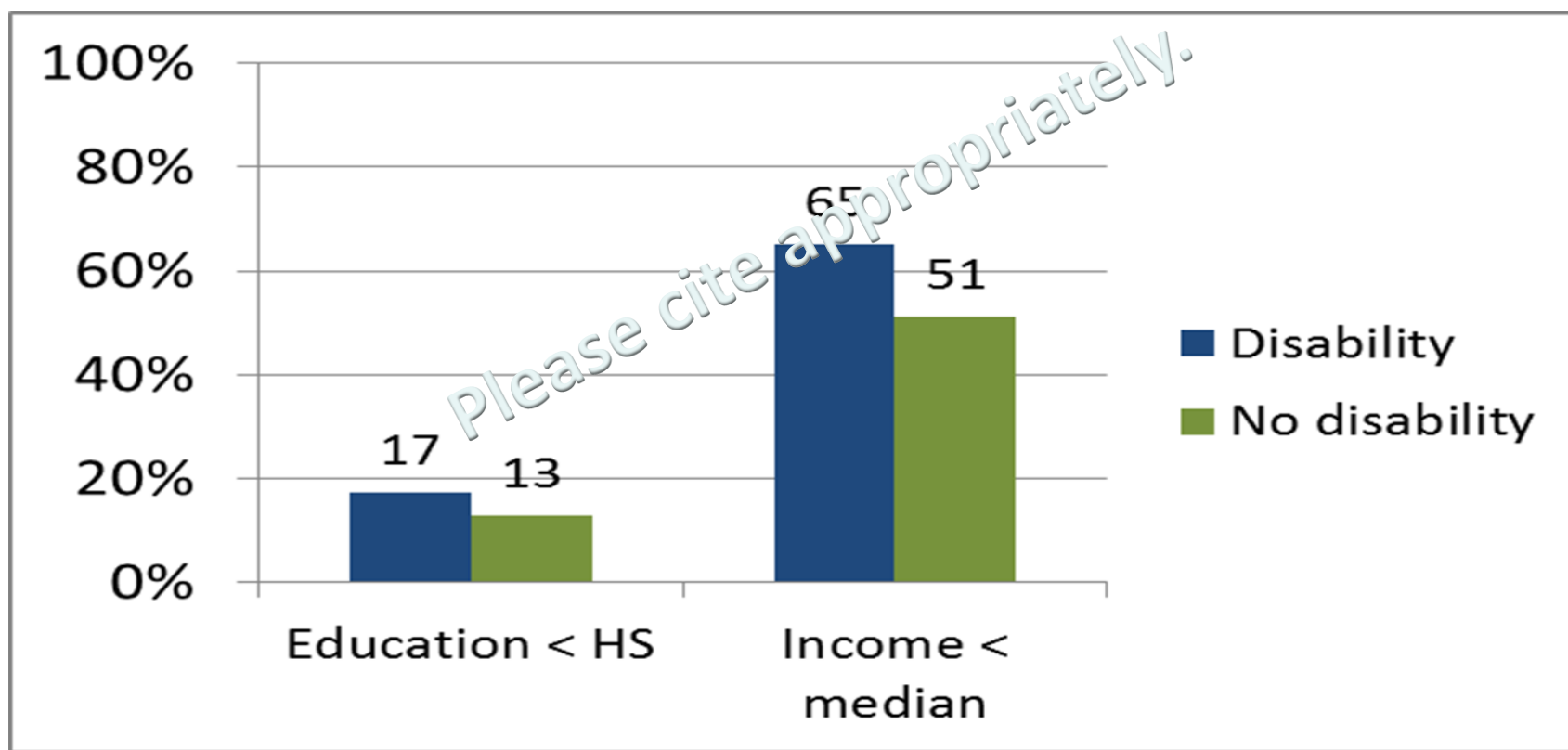
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### Socio-economic



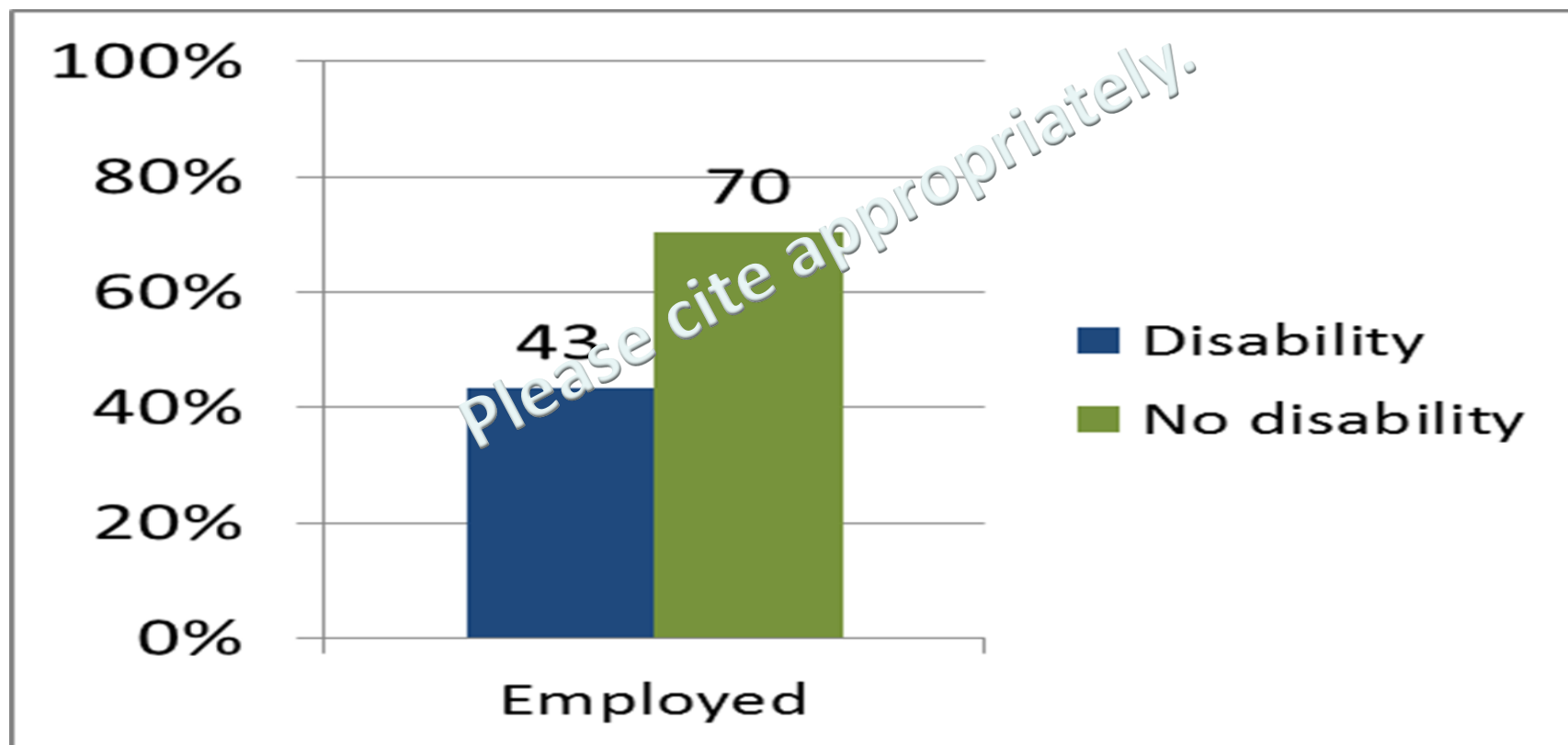
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### Socio-economic



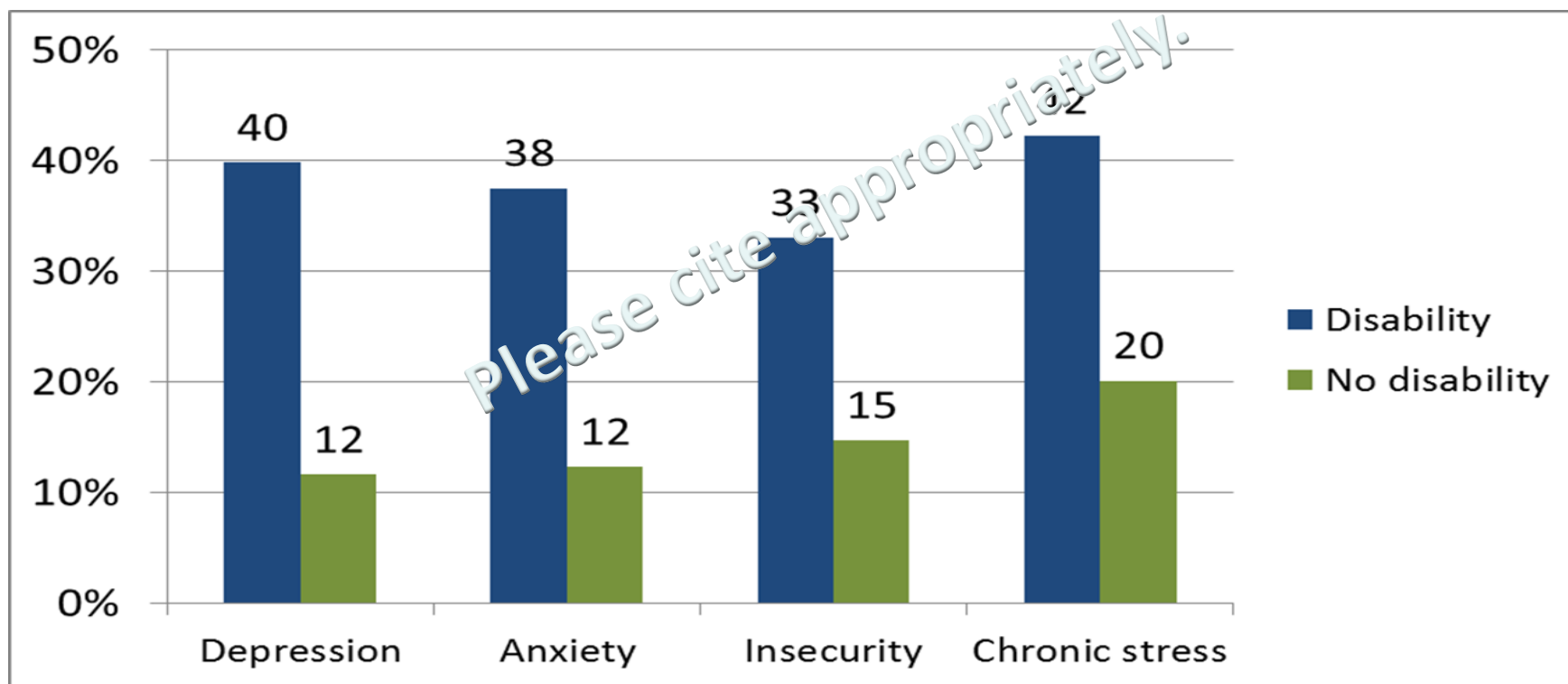
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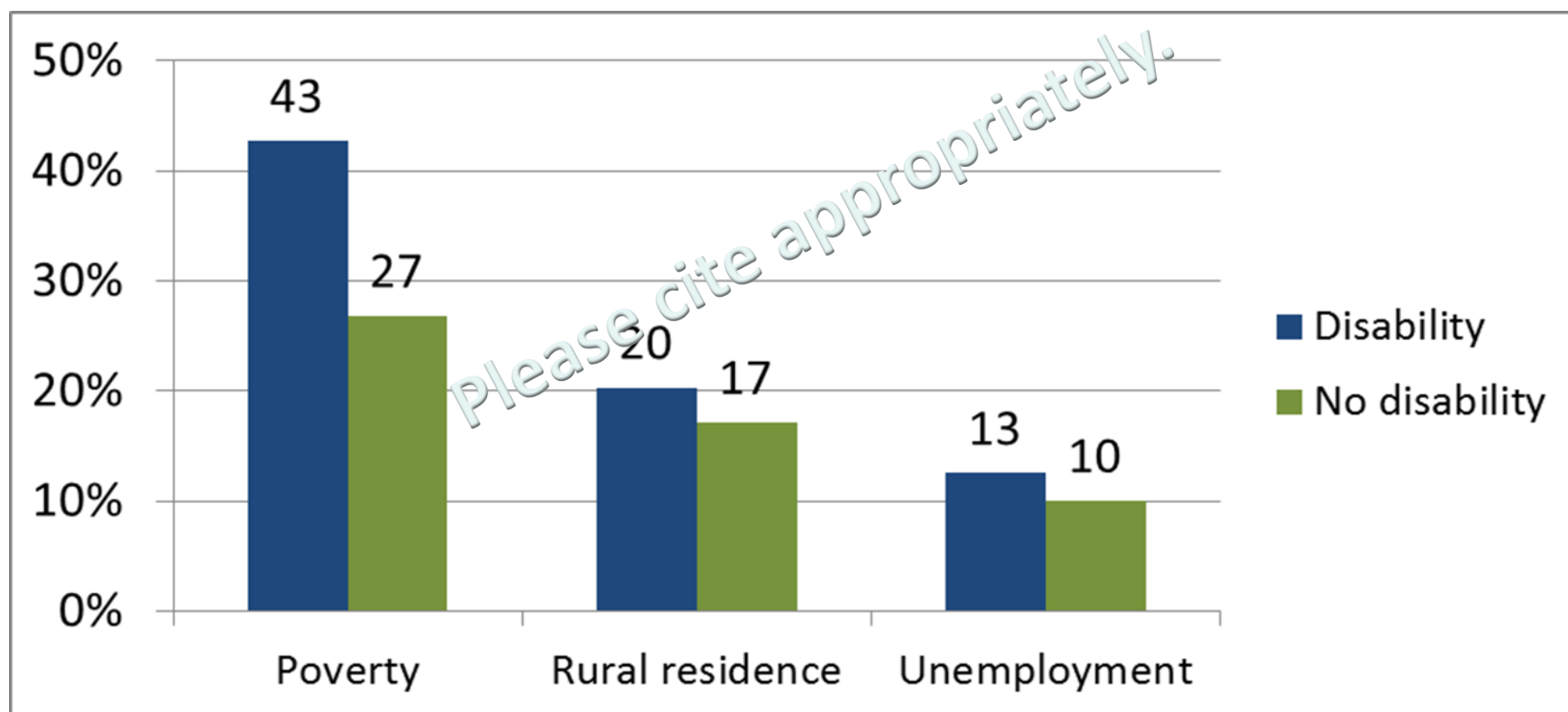
### Psychosocial



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## Community & Societal





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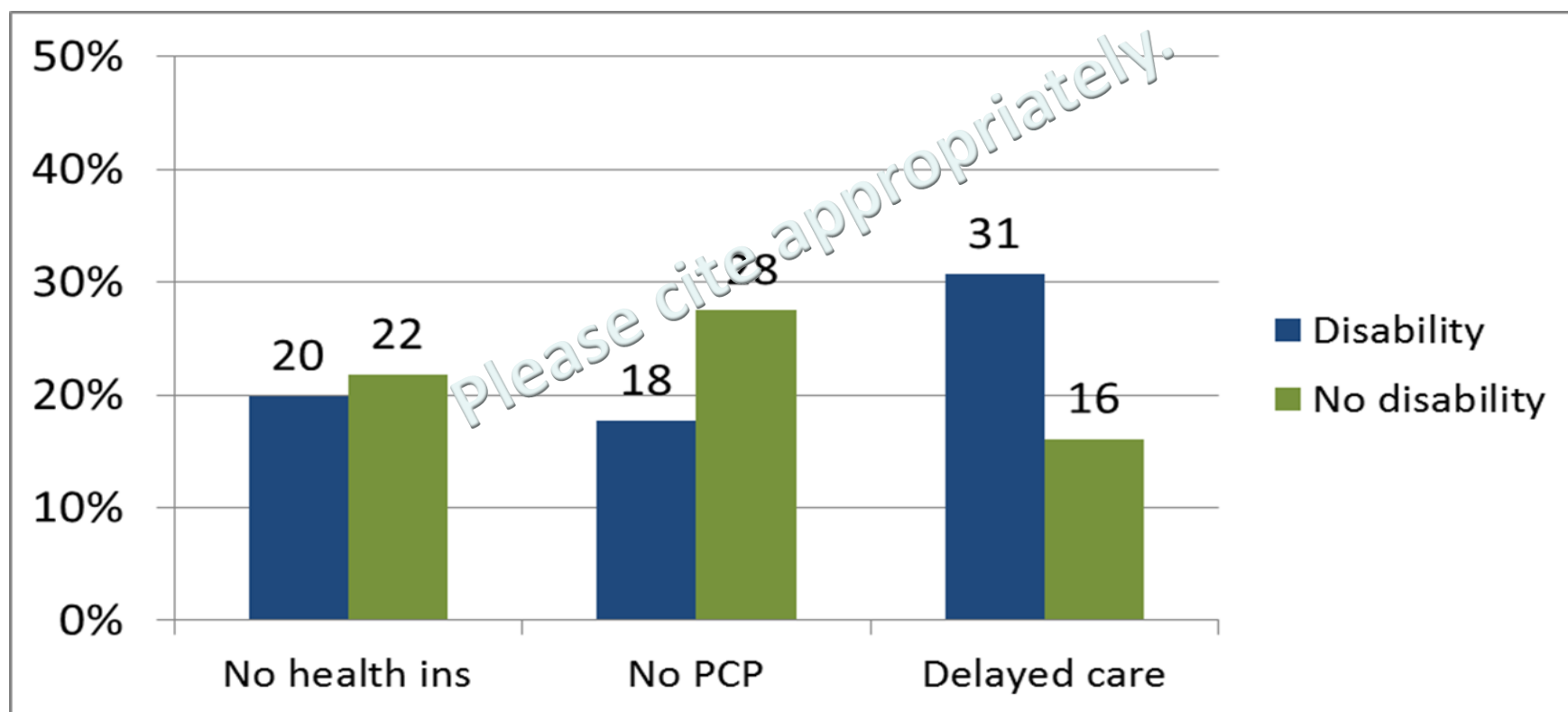
# SYSTEM ATTRIBUTES



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## Access to Health Care







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# DISEASE INDUCING BEHAVIORS



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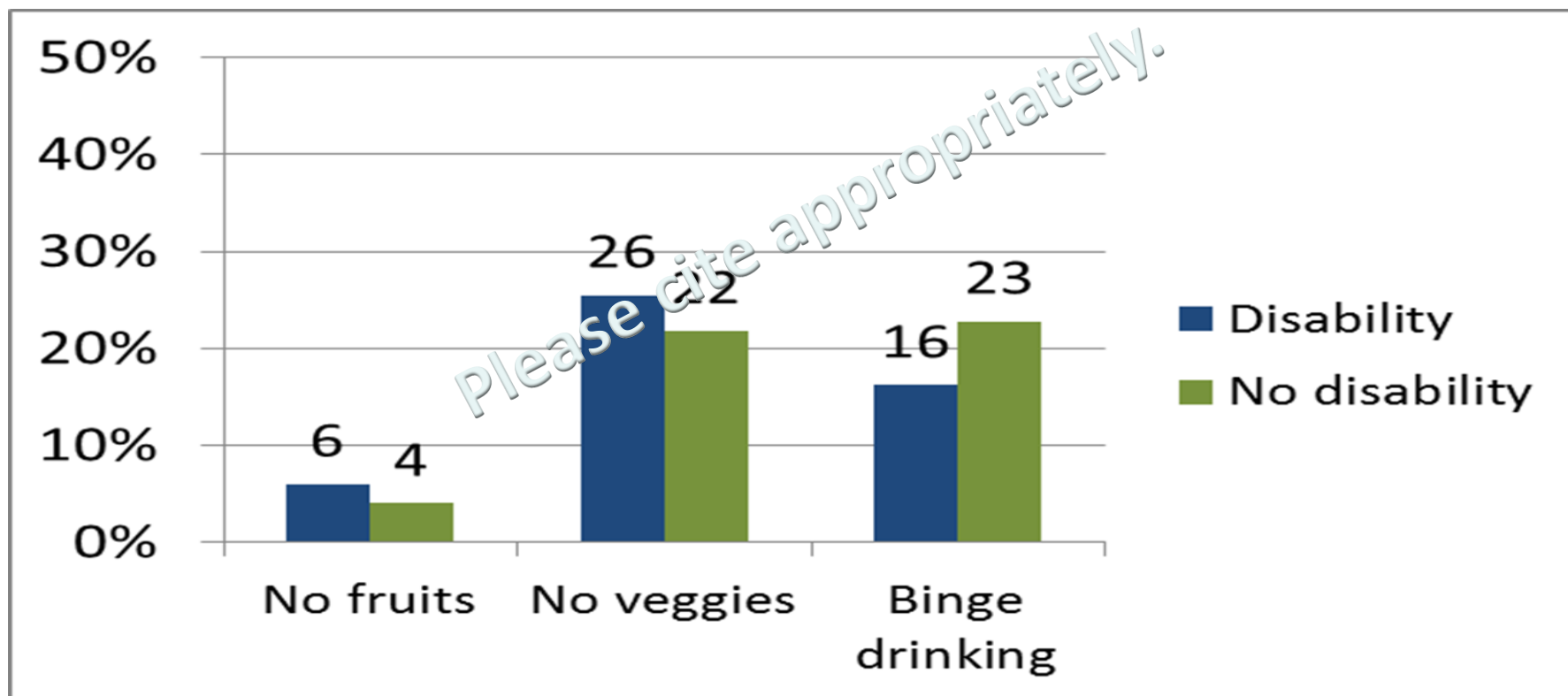


## Smoking & Inactivity





## Diet & Alcohol





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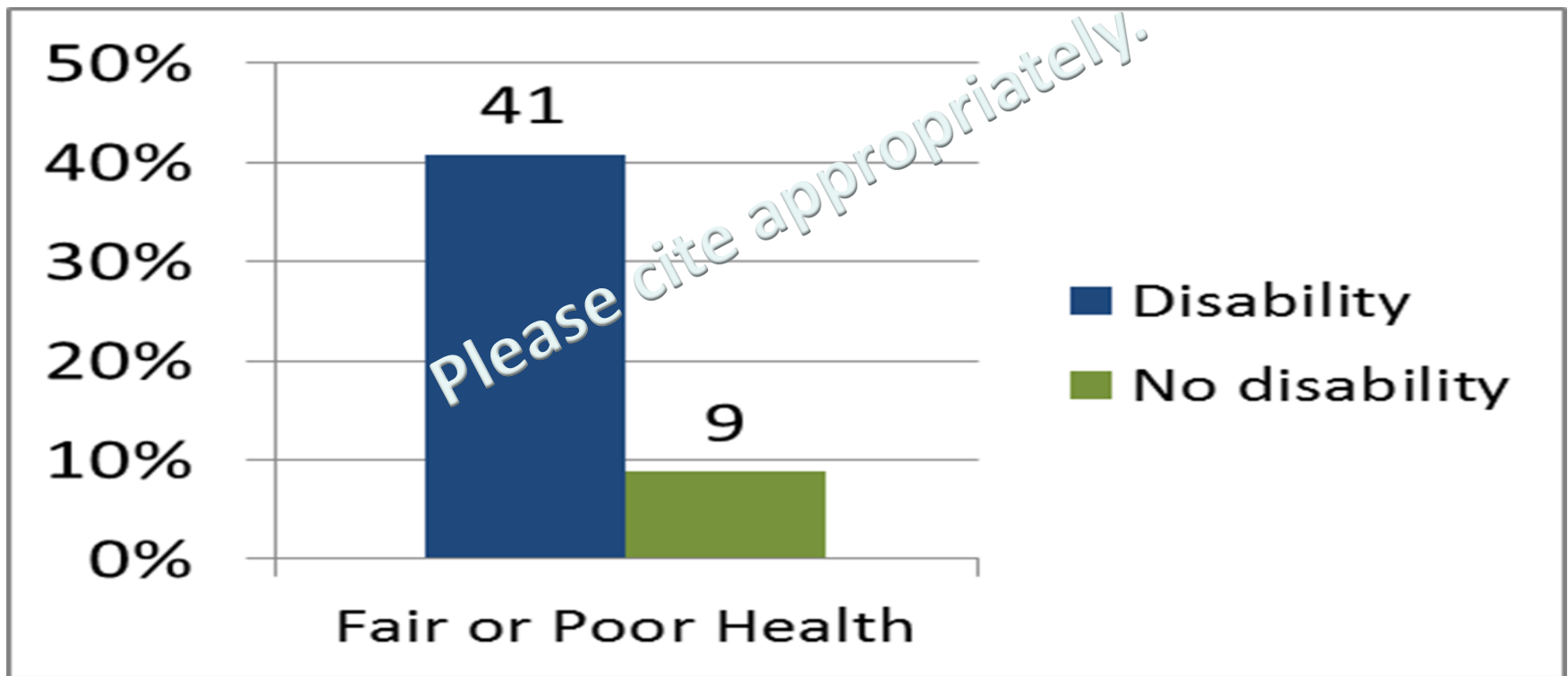
# HEALTH OUTCOMES



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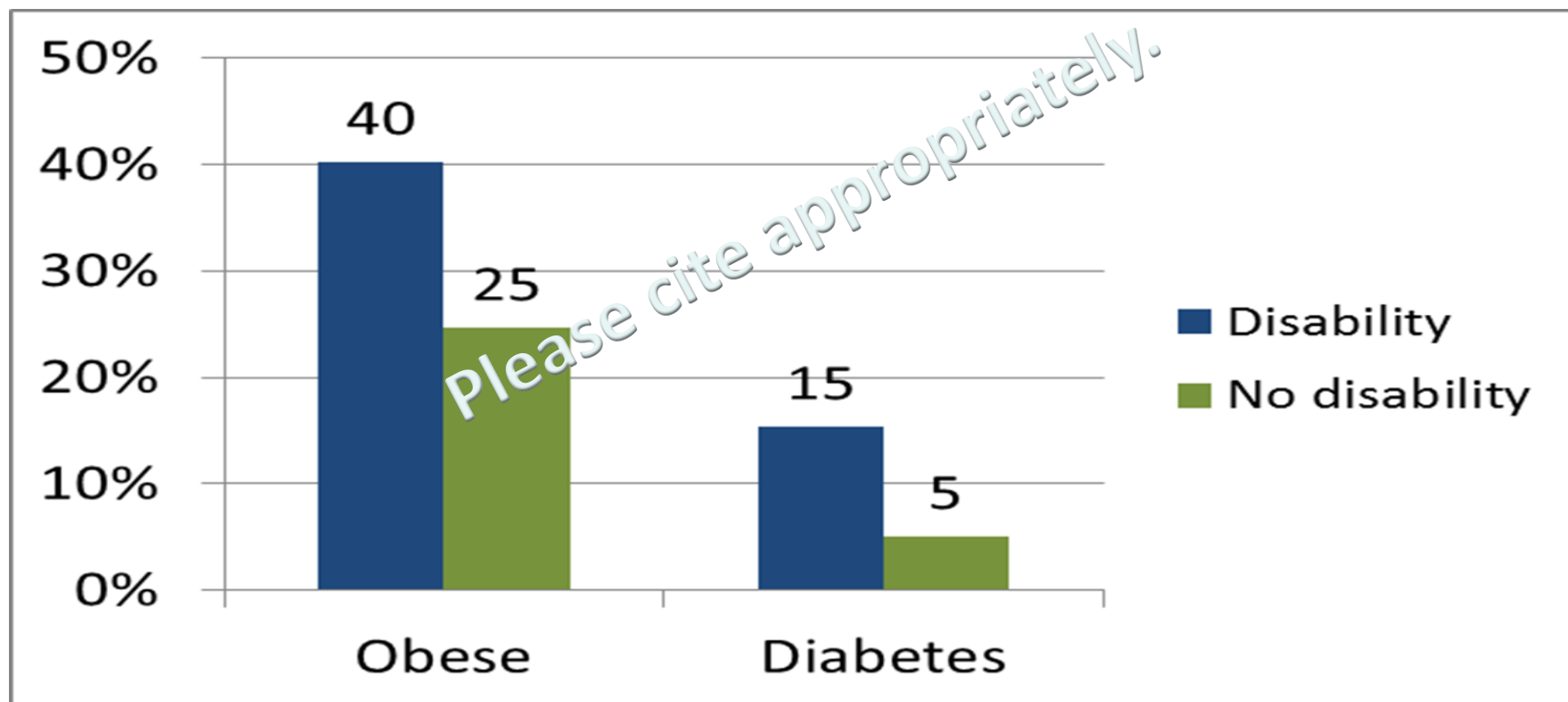


## Self-reported Health



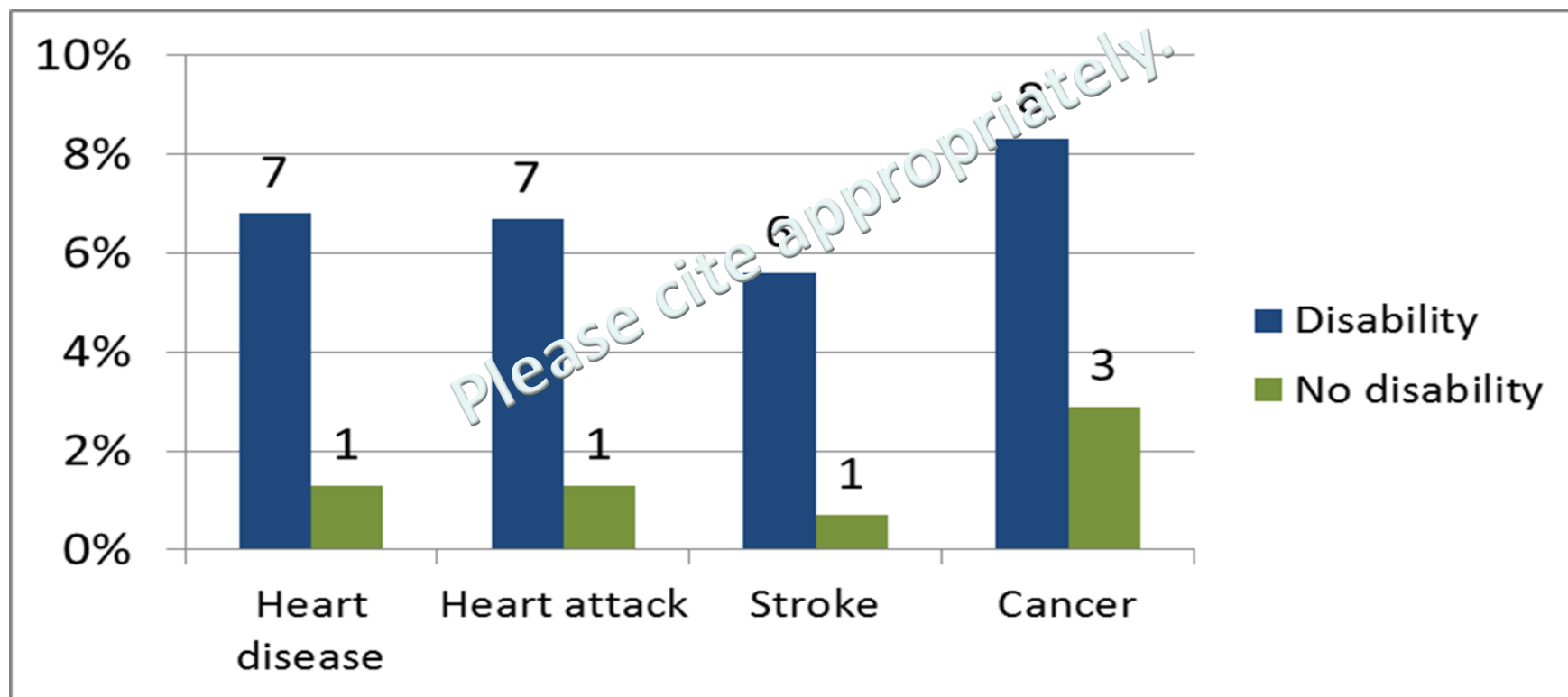


## Obesity & Diabetes





## Cardiovascular Disease & Cancer





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# DISABILITY & RACE / ETHNICITY: COMPARING THE GROUPS

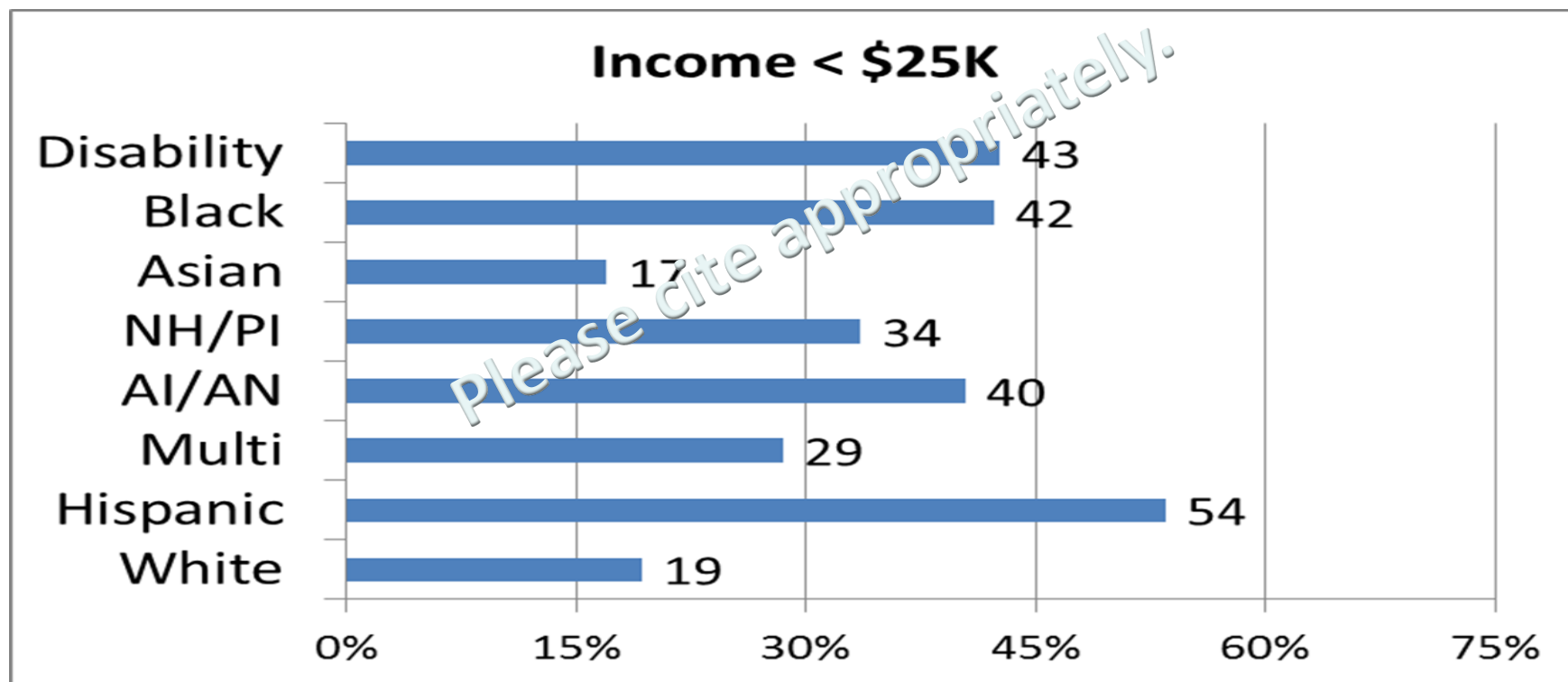


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## Social Determinant

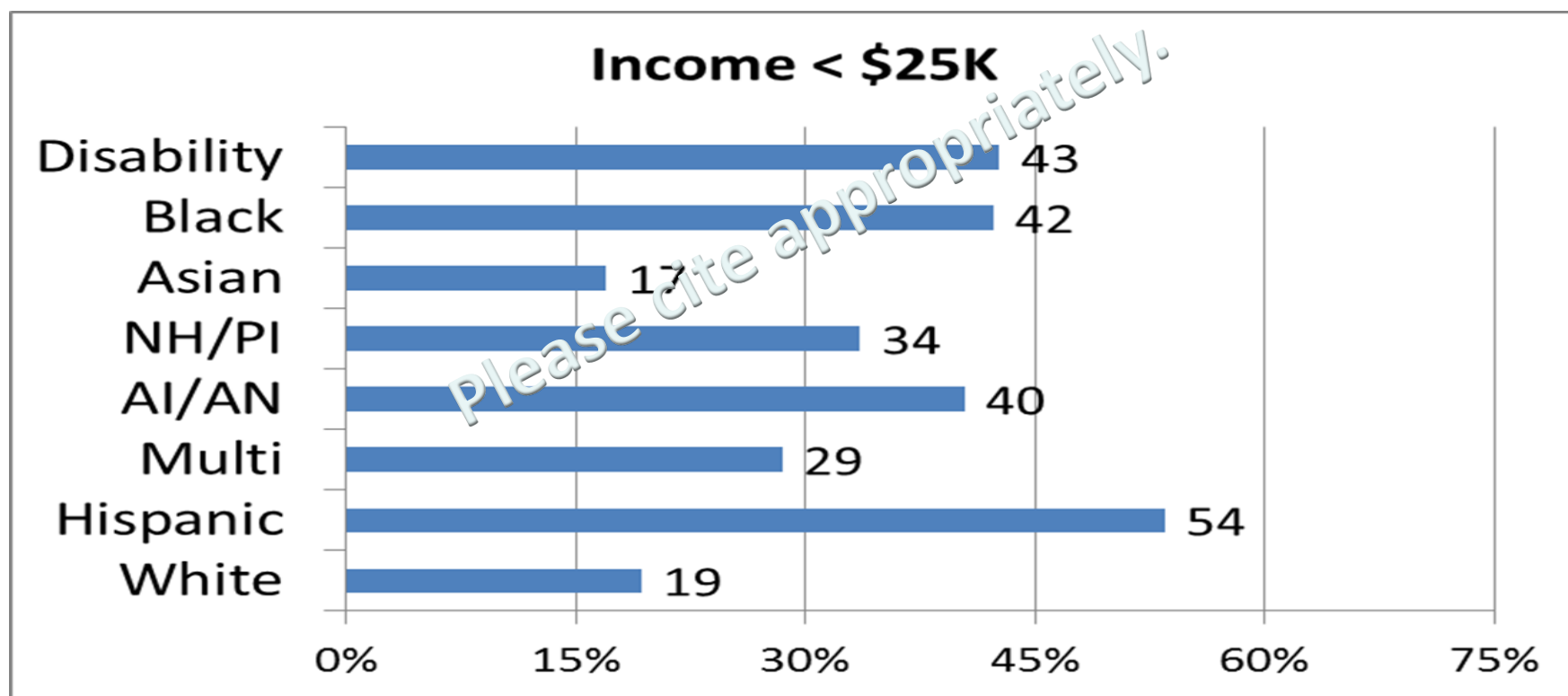




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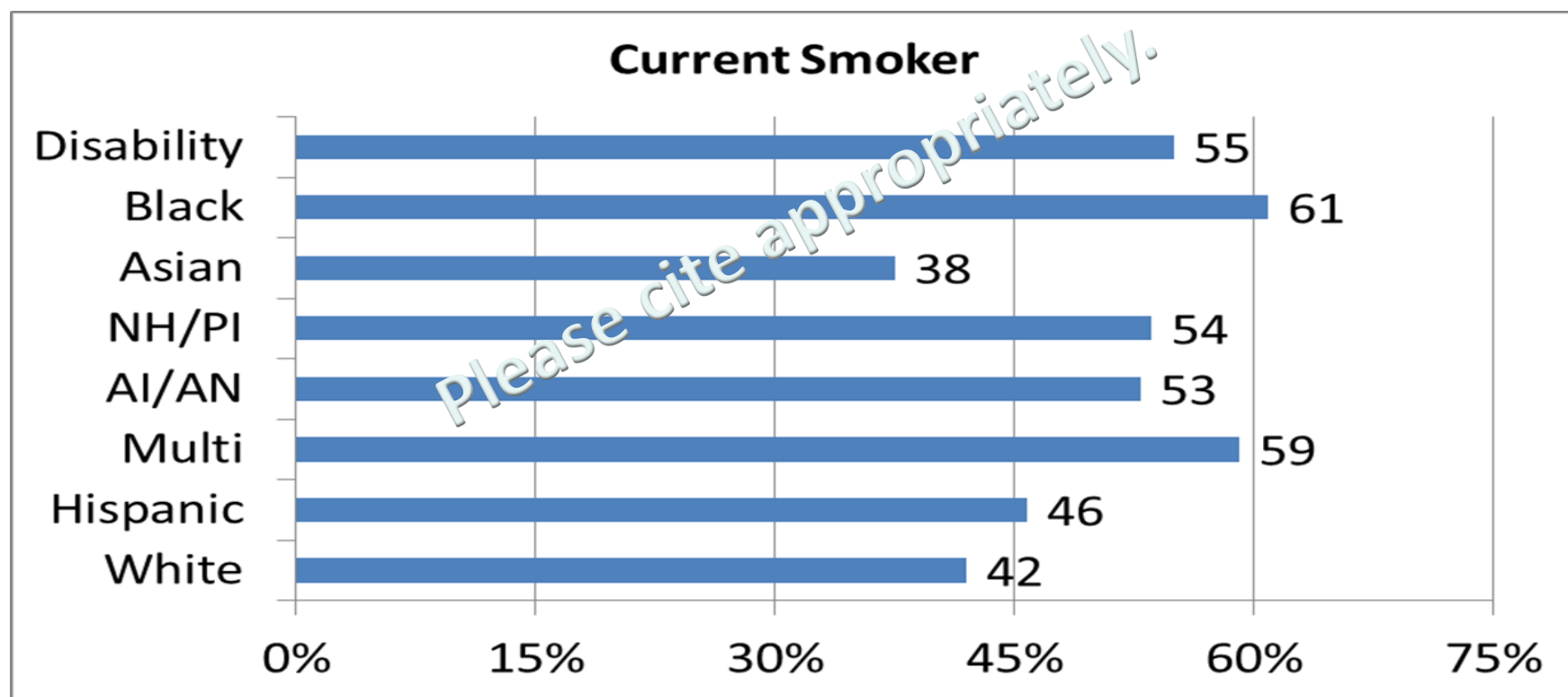
### System Attribute



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## Disease Inducing Behavior

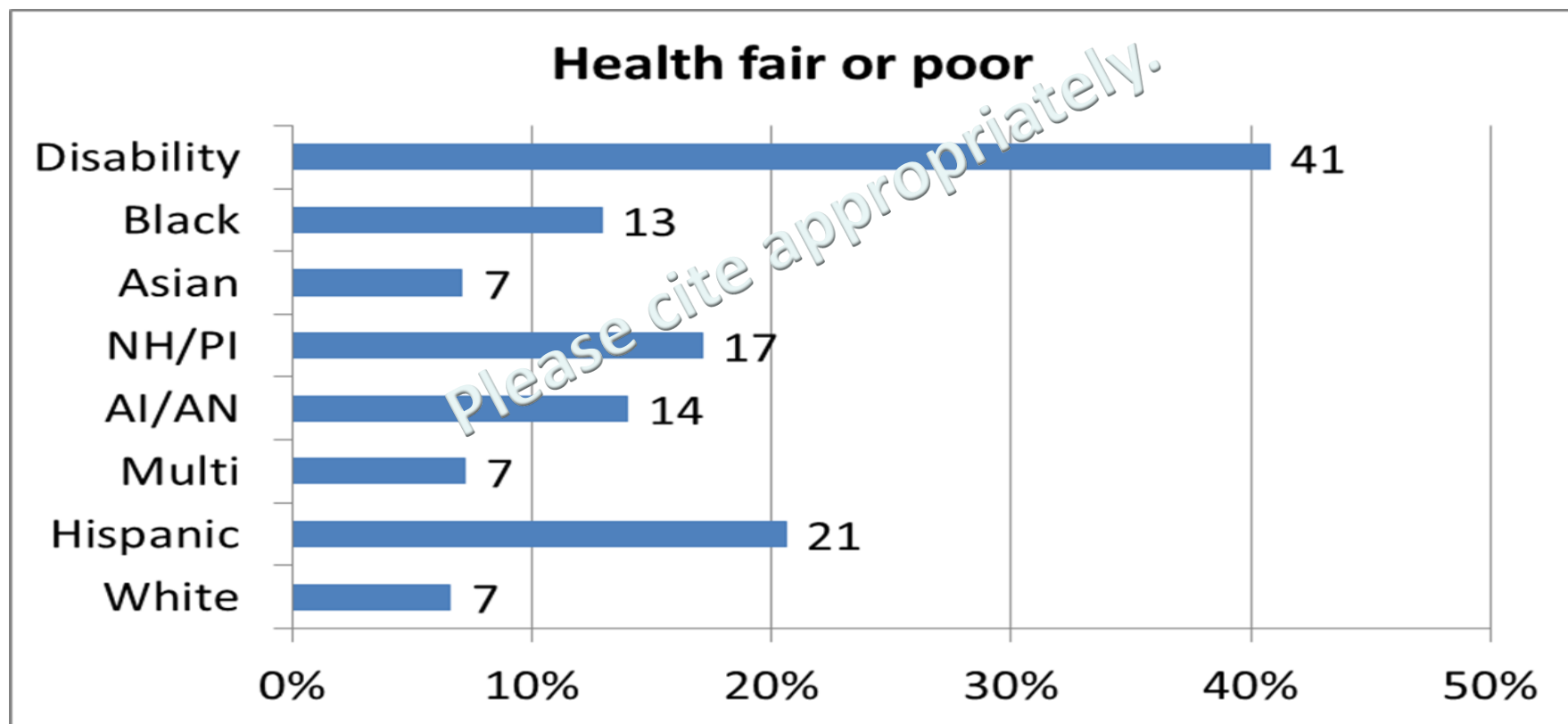




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### Health Outcome



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# INTERSECTION OF DISABILITY & RACE / ETHNICITY



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# Prevalence of Disability in Racial / Ethnic Groups

Race / Ethnicity	Disability Prevalence
Black	22.0
Asian	10.2
AI/AN	23.4
NH/PI	32.7
Other	31.7
Hispanic	15.9

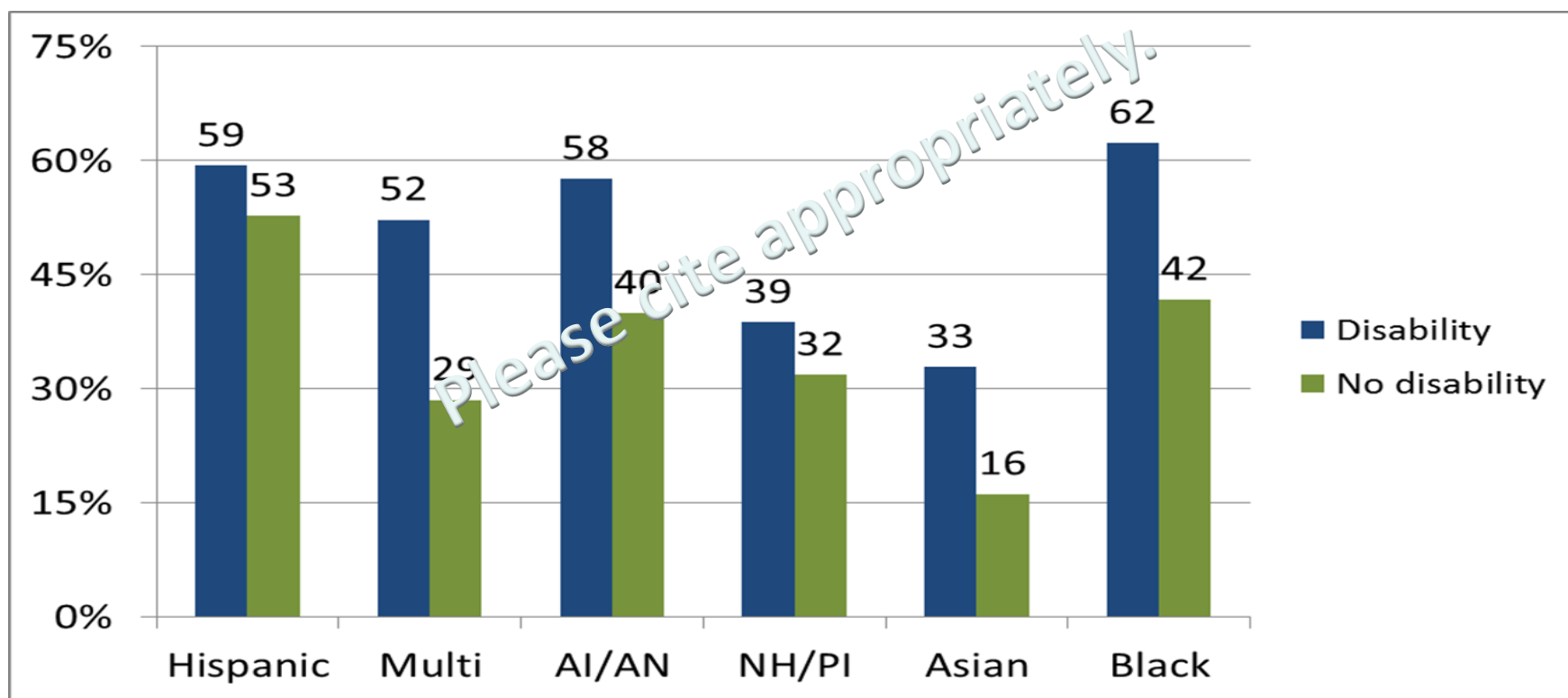




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### Social Determinant - Poverty



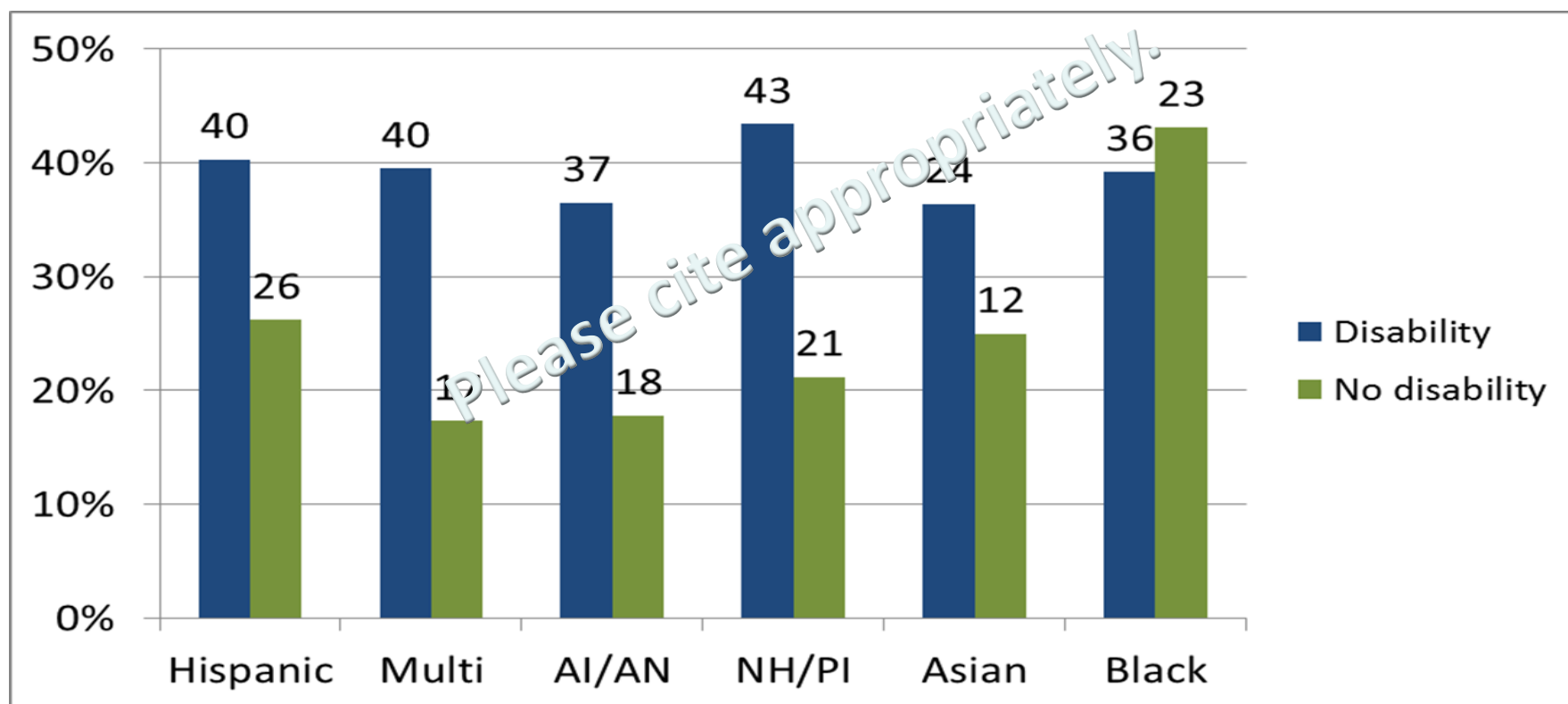
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### System Attribute - Delayed Care



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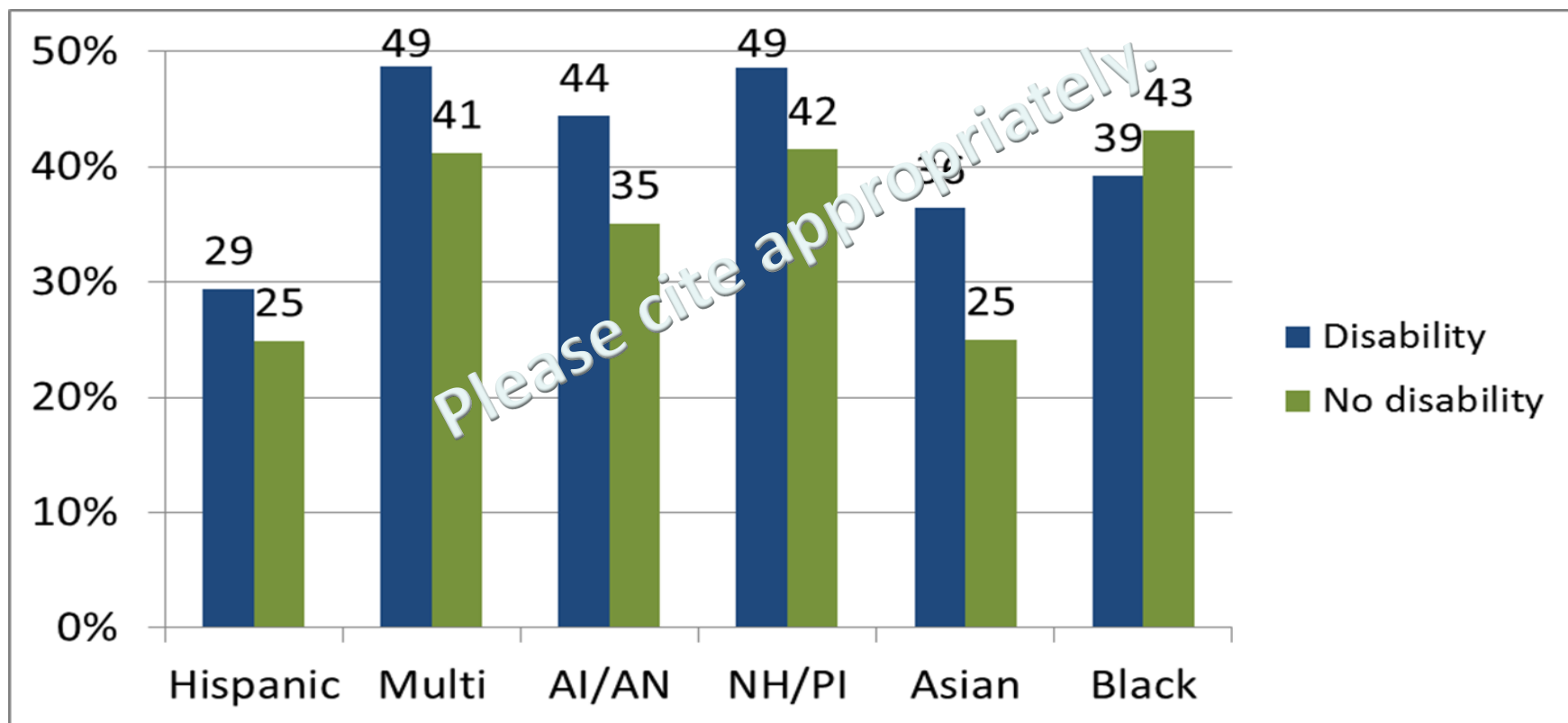




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### Disease Inducing Behavior - Smoking



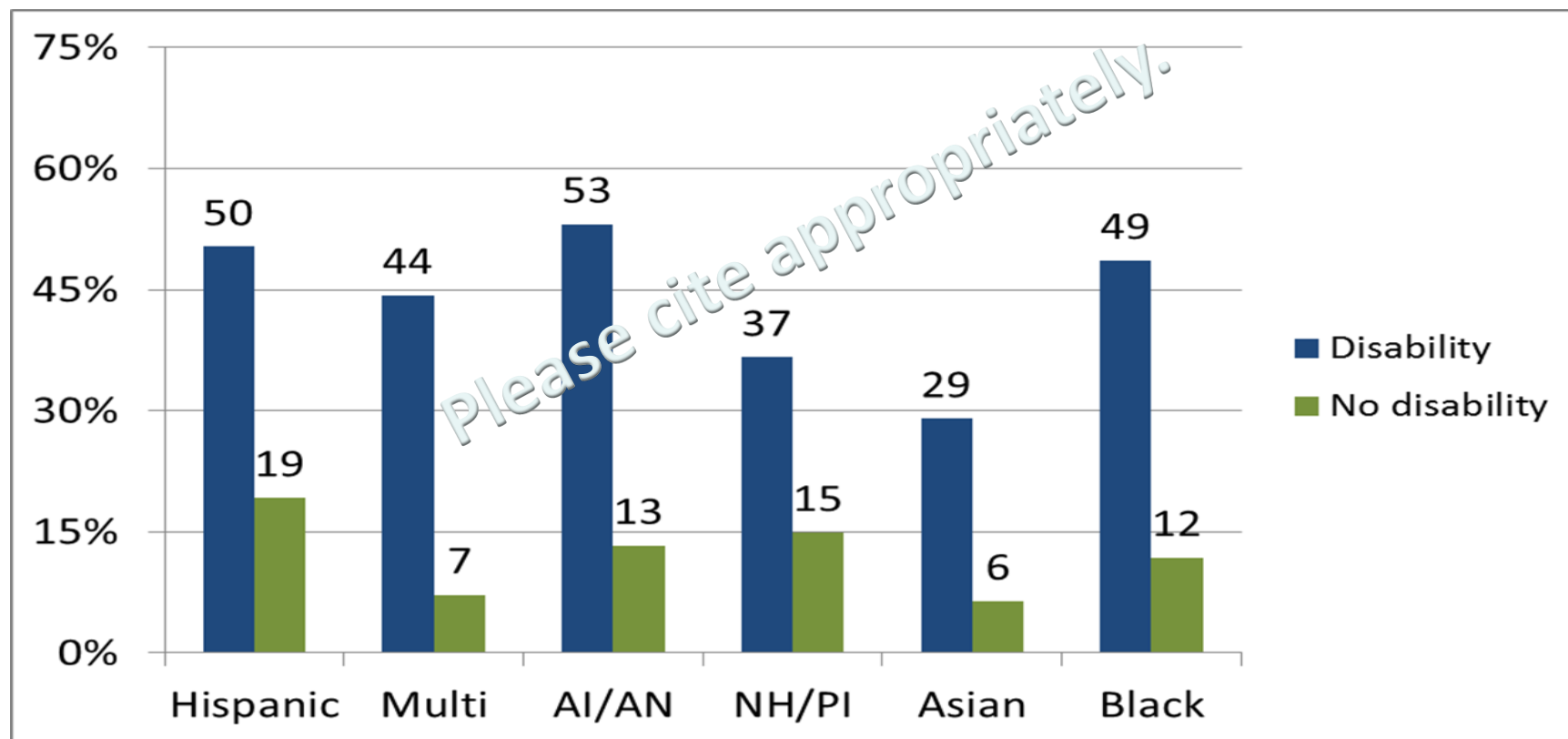
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### Health Outcome – SRH Fair/Poor



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## Summary

- Individuals with disabilities experience significant health disparities compared to the non-disabled population
- Individuals with disabilities experience high rates of disparities compared to non-disabled Racial / Ethnic minority groups
- Minorities with disabilities experience high rates of health disparities





## Conclusion

- HHS Advisory Committee on Minority Health issued report in 2011 (“Assuring Health Equity for Minority Persons with Disabilities”)
- Disability and Health Disparities Report drafted but ????
- Funding for disability and public health programs present in only 18 states





## Conclusion

- Infusion of disability population into mainstream public health limited
- Use of disability as an outcome confuses public health and others, limits commitment to programming
- Disparity research is under-funded and limited





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## Questions Later?

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