

Beyond disadvantage: Understanding the contribution of income inequality to substance use

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Presenter Disclosures

Katherine Karriker-Jaffe, PhD

1. The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

No relationships to disclose

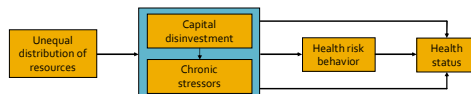
Income inequality

- Size of difference in income or resources between rich and poor
 - Distinct from socioeconomic status (SES) and standard of living
- Strong risk factor for mortality, morbidity, disability, and poor perceived health

Kawachi (2000)



How inequality affects health



Measuring inequality

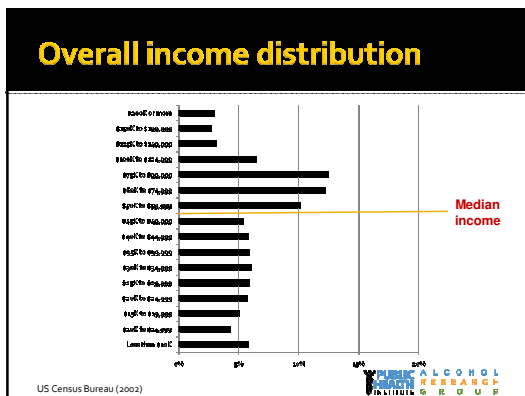
- Commonly measured for large areas (countries, states, counties) with substantial variation in residents' SES
- Can be measured overall or by comparing status of two different groups



Overall measures of inequality

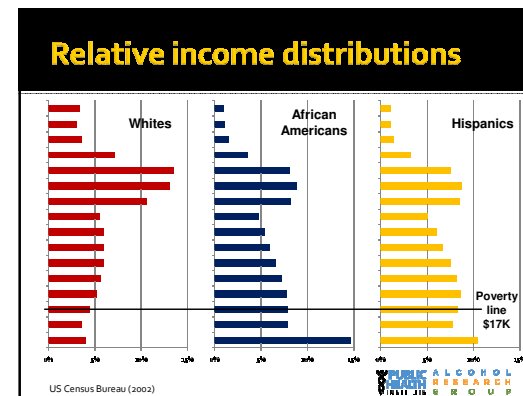
- Incorporate range and distribution of incomes and extent of income inequality
 - Robin Hood Index
 - Proportion of income that would have to be redistributed from rich to poor households to achieve equality
 - Gini coefficient
 - Complex calculation that captures the difference between an observed income distribution and a condition of complete equality





Race-based inequality

- Summarizes differentials in income between various racial or ethnic groups living in the same area
- Often used in studies of ethnicity and violence
- Relative measures
 - Differences in median incomes
 - Ratios of median incomes
 - Poverty ratios



Current study

Income, inequality and substance use

- Few studies have focused on how inequality may affect health risk behaviors
- For substance use:
 - Structural effects: Unequal capital investment may lead to differential exposure to alcohol outlets or illegal drug sales
 - Stress hypothesis: Social comparison may lead to distress from perceived inequality and relative deprivation, which may lead to substance use

Income, inequality and substance use

- Income inequality positively associated with
 - Frequency of drinking, volume of alcohol consumed, drinking to drunkenness
 - Marijuana use, drug overdose deaths
- These findings generally support stress hypothesis

Galea et al. (2003, 2007a); Elgar et al. (2005)

Income, inequality and substance use

- There are exceptions...
 - Income inequality negatively associated with alcohol dependence
 - Education inequality negatively associated with volume of alcohol consumed
- Affluence hypothesis also plausible
 - High inequality may reflect presence of more people with high SES, so substance use patterns may resemble those in high-income areas

Galea et al., (2007b); Henderson et al. (2004)

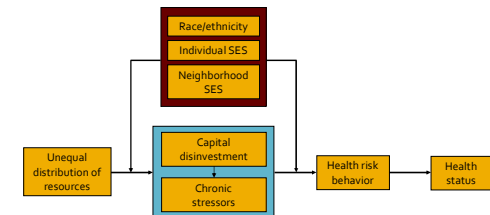


Research questions & hypotheses

- Is income inequality associated with alcohol use patterns and problems, and does the measure matter?
 - H1: Effects for stress-related outcomes will be more evident for race-based measures
 - H2: Effects for wealth-related outcomes will be more evident for absolute measure (Gini coefficient)



Research questions & hypotheses



Research questions & hypotheses

- For whom is inequality most important?
 - H3: Inequality will be most detrimental for disadvantaged individuals
 - Living in poor areas, with low household SES, or who are racial/ethnic minorities



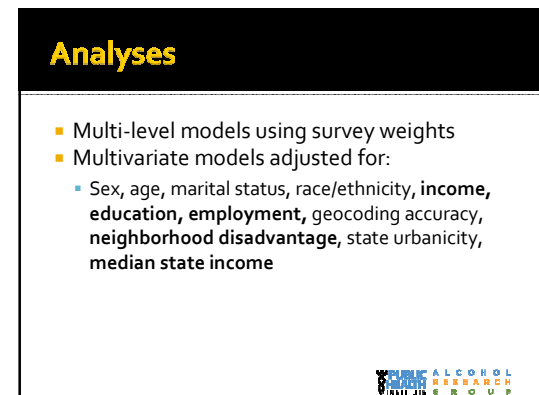
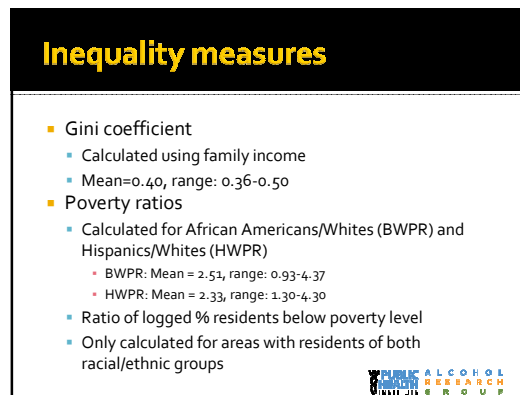
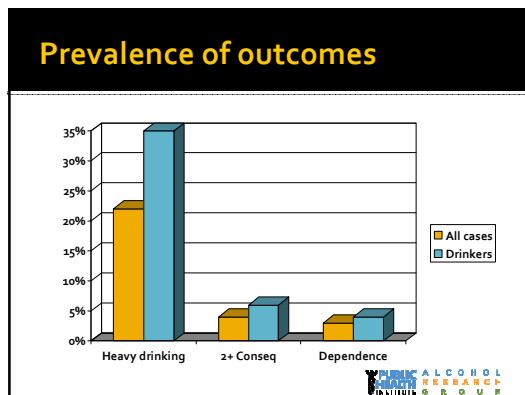
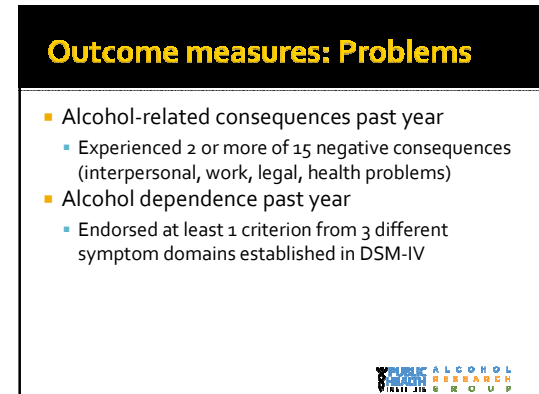
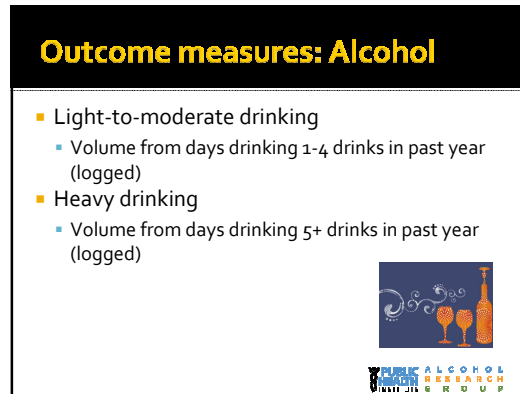
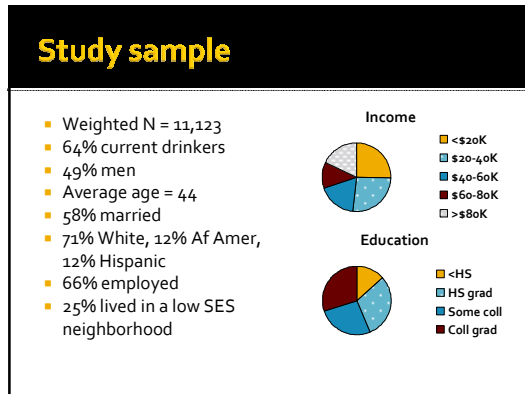
Methods

Survey dataset

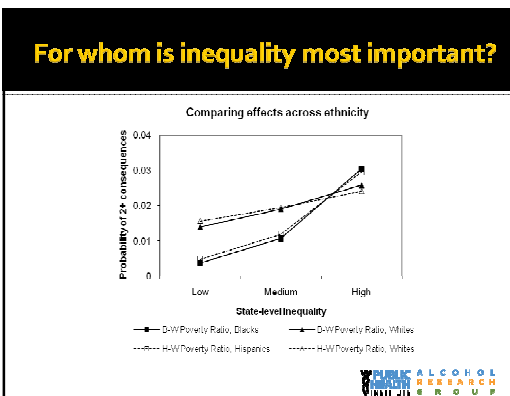
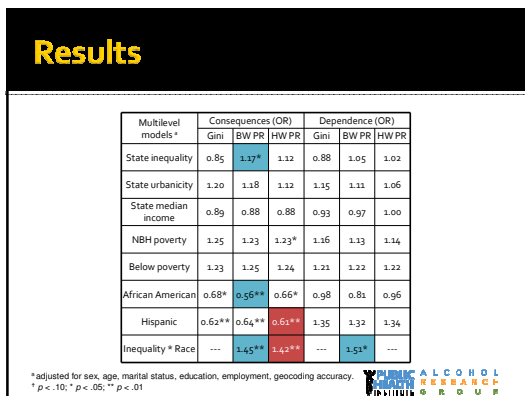
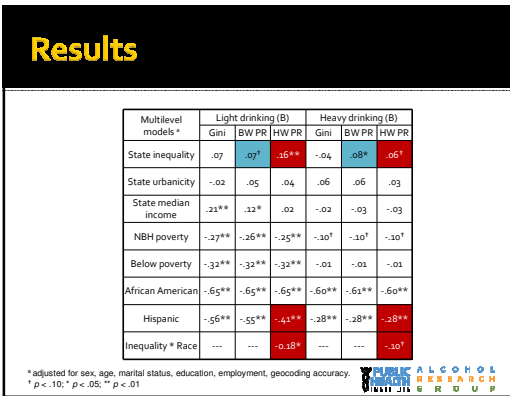


- Survey data from the 2000 and 2005 National Alcohol Surveys (N10 and N11)
 - RDD samples and computer-assisted telephone interviews
 - Oversamples of African Americans, Hispanics and low-population states
 - Response rates 58% (N10) and 56% (N11)
 - Post-stratification weights adjusting for sampling and non-response
- Linked with 2000 US Decennial Census at state and tract level





Results



- ### Results summary
- Mixed support for hypotheses
 - Inequality positively associated with light-to-moderate and heavy drinking
 - Relationships stronger for Whites than Hispanics
 - Suggests affluence hypothesis may be valid
 - Black-White and Hispanic-White poverty ratios associated with increased consequences for non-Whites in high-inequality areas
 - Effects of inequality independent from any of neighborhood and household poverty
-

Limitations and strengths

- Limitations
 - Response rates, incomplete geocoding
 - Restricted ranges of inequality variables
 - Interplay of segregation and inequality
- Strengths
 - National samples with ethnic and low-population oversamples
 - Good measures of variety of outcomes



Future research

- Use measures of race-based inequality and consider a range of outcomes
- Examine covariation of inequality and indicators of drinking culture
- Determine types of consequences experienced in states with high race-based inequality



Policy implications

- Gaps between rich and poor widen during recessions
- “Health in every policy”
 - Study effects of economic downturn and changing income distribution on drinking patterns and consequences of use
 - Support alcohol abuse prevention and treatment programs to mitigate negative consequences



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Questions?

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Thank you!

