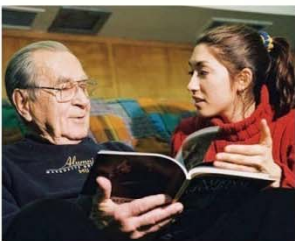COLLEGE OF PUBLIC HEALTH
The University of Georgia

Determinants of Alcohol Dependence in a Racially Diverse Sample of Young Men

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Presenter Disclosures

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

"No relationships to disclose"

Research Questions

- How do alcohol use trajectories differ between White and Black men?

- Do the determinants of alcohol use trajectories differ between White and Black men?

- Specifically, how does age at first use of alcohol affect the initial level and growth rate of getting drunk?

Adolescence

- Increased risk taking or rebelliousness

- Initiation of alcohol use occurs

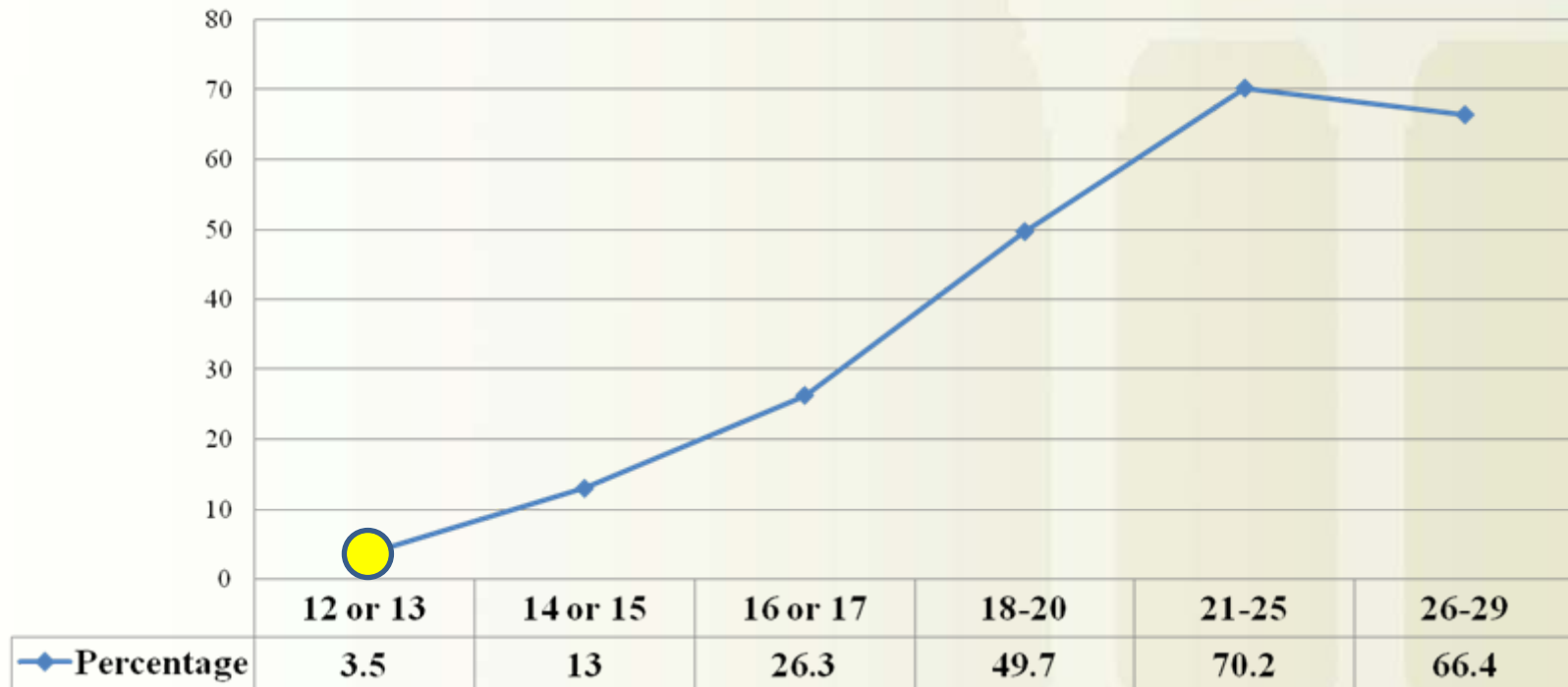- Steep increases in alcohol use tend to occur in this time period

Young Adulthood

- Social transitions
  - Employment, college, marriage
- Young adult drinkers that are not in college are typically ignored

Current Alcohol Use by Age: 2009 Survey on Drug Use and Health

	12 or 13	14 or 15	16 or 17	18-20	21-25	26-29
Percentage	3.5	13	26.3	49.7	70.2	66.4

Substance Abuse and Mental Health Services Administration, (2010). Results from the 2009 National Survey on Drug Use and Health: Summary of National Findings

Current, Binge and Heavy Alcohol Use Among Persons Aged 12 to 20 years old, by Gender: 2009 National Survey on Drug Use and Health
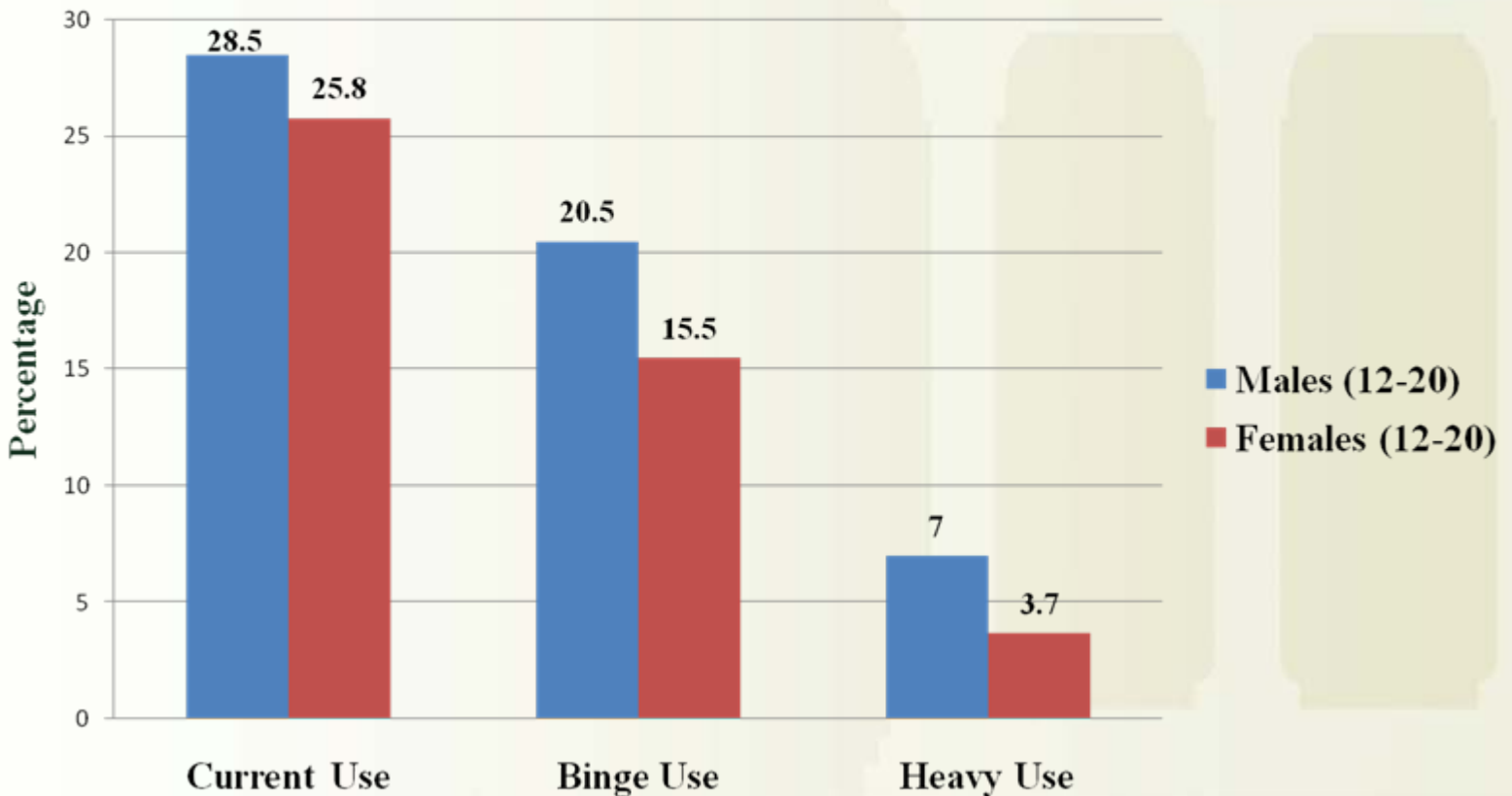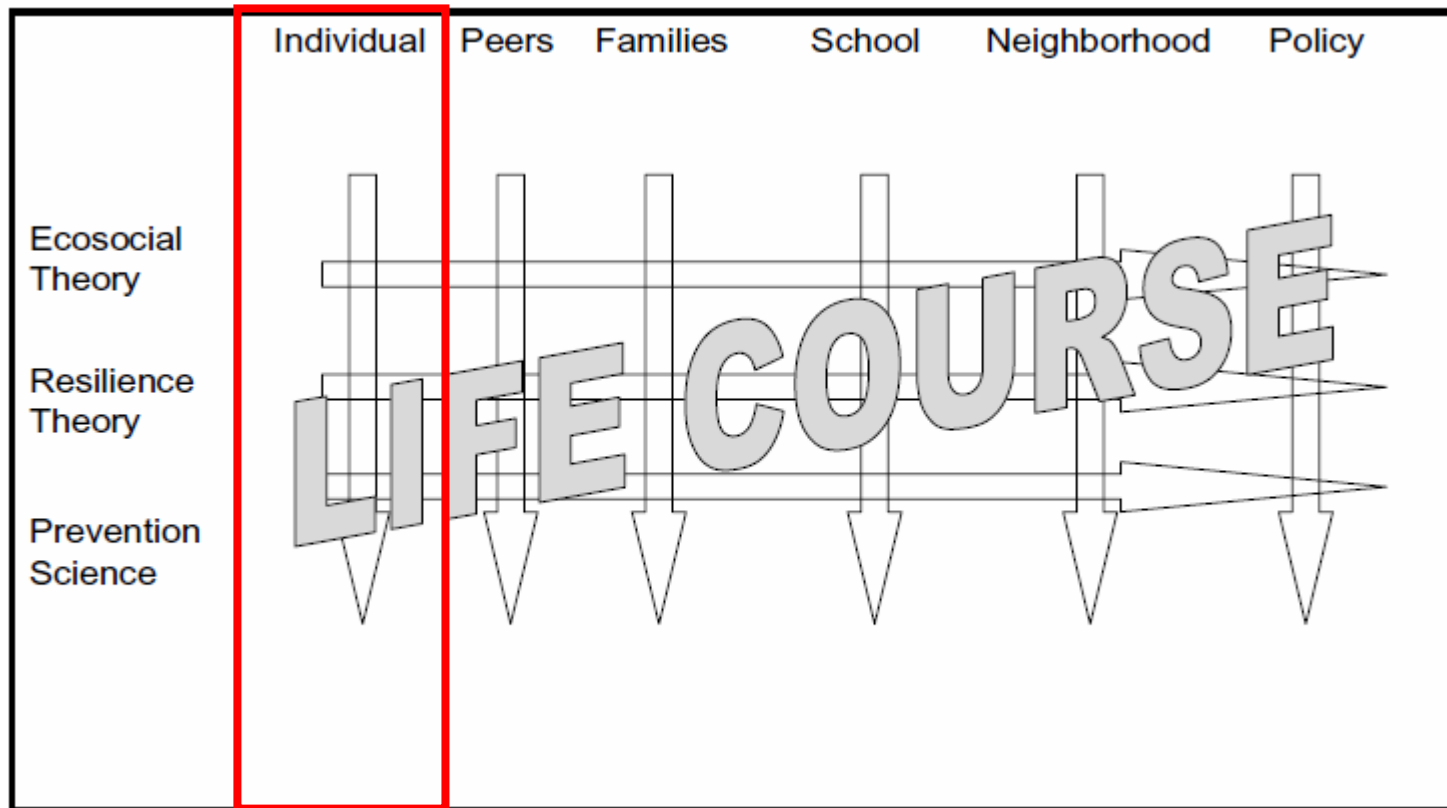
Black/White Disparities

- **Compared to White males:**

  - Black males (18 to 24) had fewer days of drinking frequency, heavy episodic drinking and intoxication.

  - Black males (18 and older) had patterns of drinking that are not significantly different.
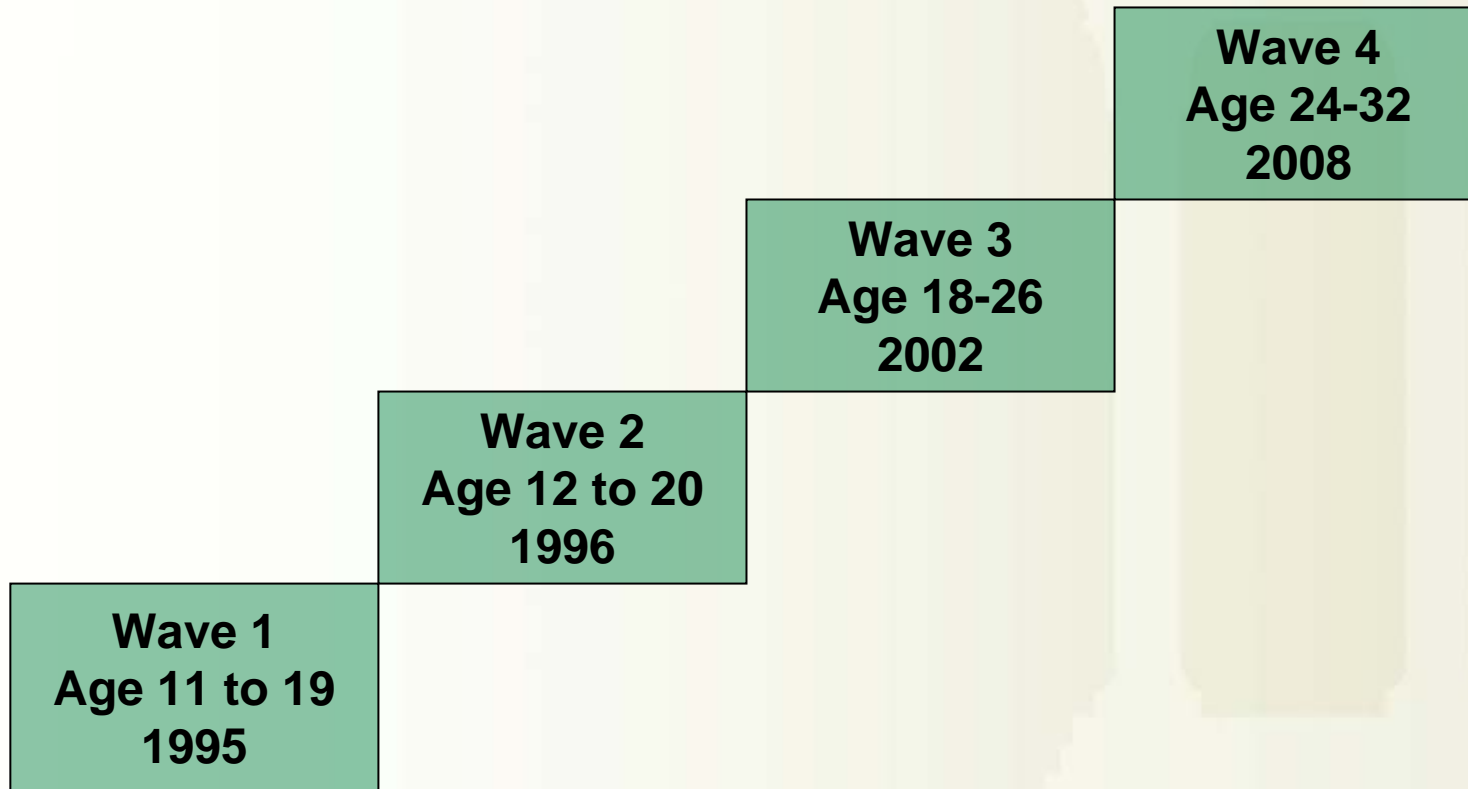
Cross-Cutting Framework for Understanding Alcohol-Related Disparities Among Young People
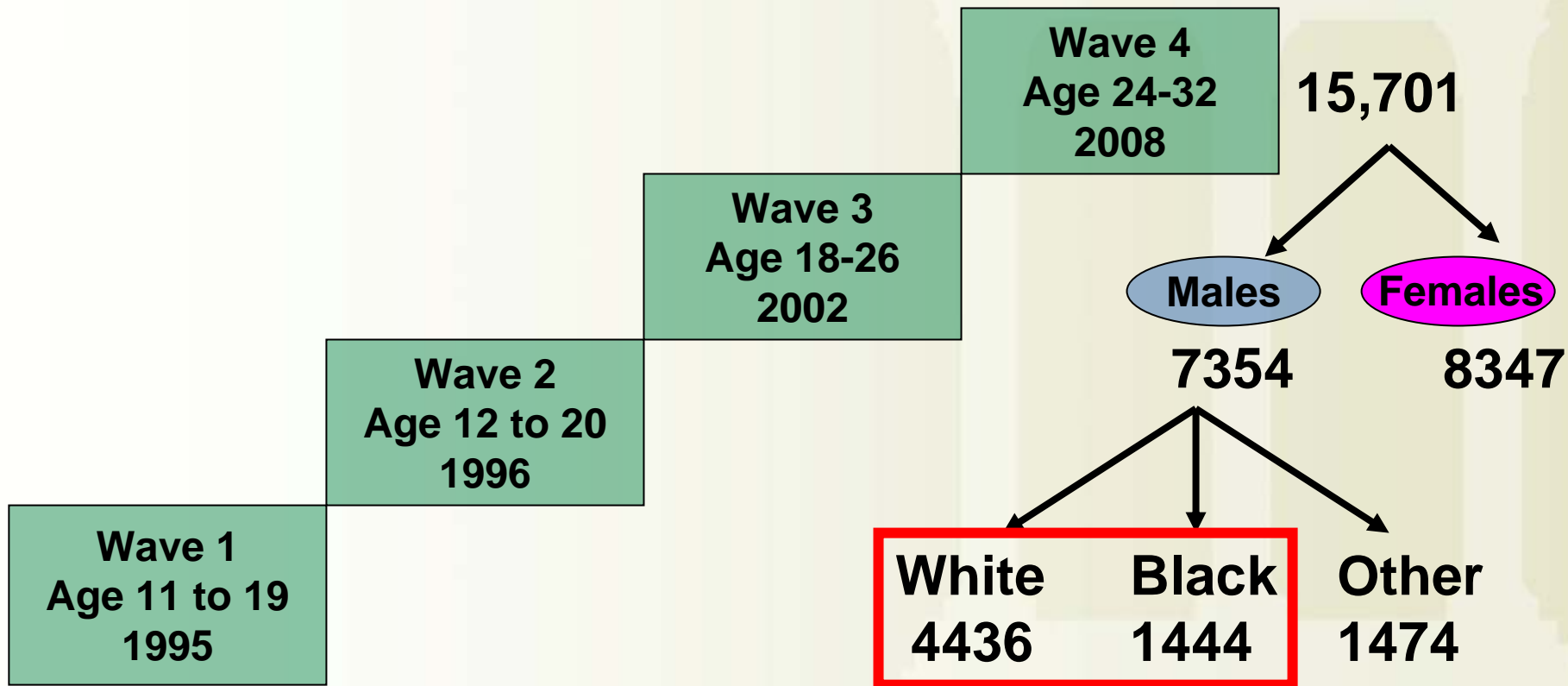

Godette, D.C., Headen, S., and Ford, C.L., 2006. Windows of opportunity: fundamental concepts for understanding alcohol-related disparities experienced by young black in the United States. *Prevention Science,* 7 (6), 377-387.

DATA: National Longitudinal Study of Adolescent Health (ADD Health)

Wave 4
Age 24-32
2008

Wave 3
Age 18-26
2002

Wave 2
Age 12 to 20
1996

Wave 1
Age 11 to 19
1995
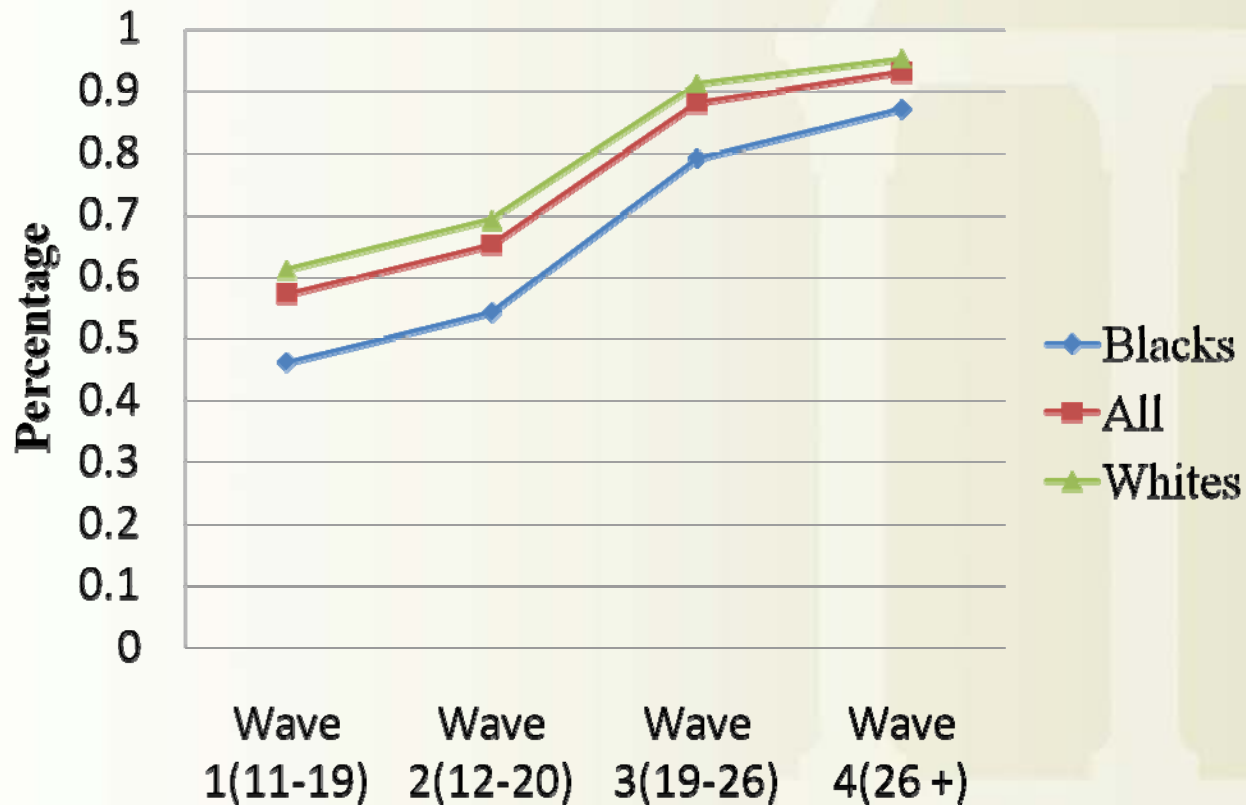
Descriptive Statistics: Wave 4

- 37% reported at least one DSM-IV alcohol abuse symptom in the last year.

- 27% reported at least one DSM-IV alcohol dependence symptom in the last year.

- 11% reported having three or more symptoms of alcohol dependence in the last year.

Analytic Method: Latent Growth Modeling

- Longitudinal panel data structure
- Structural equation modeling
- SAS Proc Calis
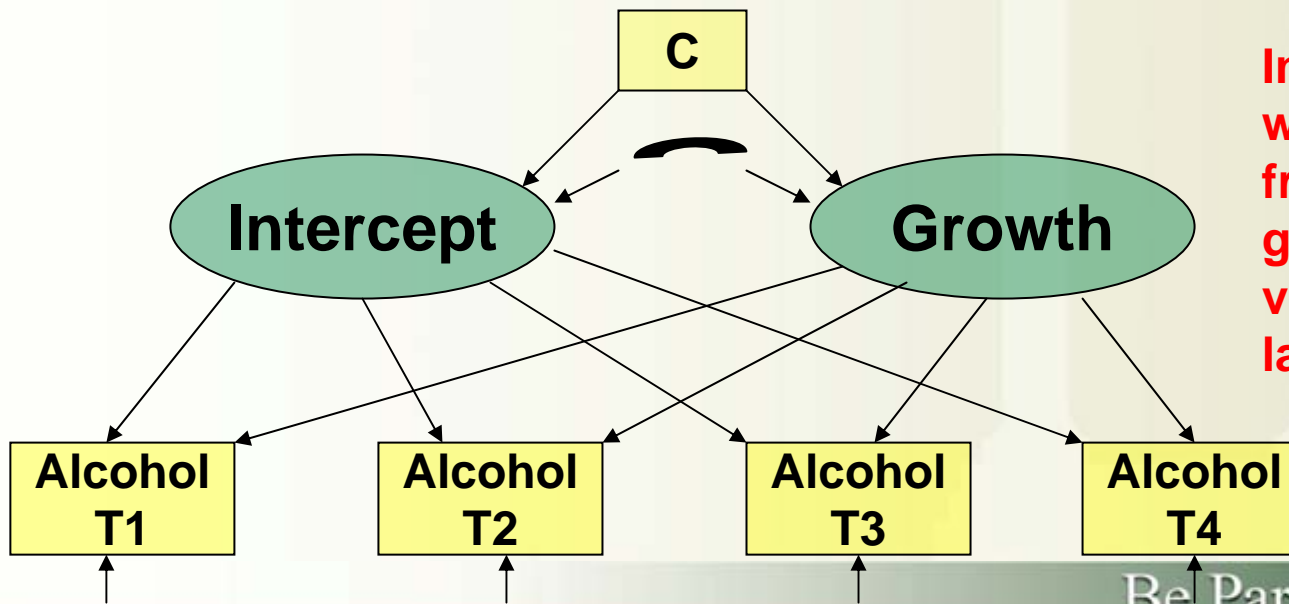
In these models, we study the frequency of getting drunk or very high in the last year.

Controlling for race in the conditional model shows that White men tend to start out getting drunk more frequently, and such behavior escalates at a faster rate than for Black men.

Parameter	All Men Unconditional	All Men Conditional
Sample Size	3287	3287
Regression Weights		
Latent Intercept	0.54	0.36
Latent Growth	0.54	0.24
Structural		
White on Intercept	--	0.21
White on Growth	--	0.34
Measures of Fit		
R-Squared		
Intercept	0.29	0.3
Growth	0.29	0.32

Estimating models separately for White and Black men shows that Black men start getting drunk less frequently, and such behavior escalates less rapidly. Less variance in the intercept and growth is explained for Black men.

Parameter	All Men Conditional	White Men Unconditional	Black Men Unconditional
Sample Size	3287	2462	825
Regression Weights			
Latent Intercept	0.36	0.56	0.48
Latent Growth	0.24	0.59	0.36
Structural			
White on Intercept	0.21	--	--
White on Growth	0.34	--	--
Measures of Fit			
R-Squared			
Intercept	0.3	0.32	0.23
Growth	0.32	0.35	0.13

Getting drunk later in the life course lessens the initial level of the behavior for both White and Black men, but the rate of growth for black men is especially slowed by waiting longer.

Parameter	All Men	White Men	Black Men
		Conditional	
Sample Size	3286	2445	811
Regression Weights			
Latent Intercept	0.89	1.09	0.84
Latent Growth	1.16	1.27	1.71
Structural			
White on Intercept	0.12	--	--
White on Growth	0.2	--	--
Age started on Intercept	-0.48	-0.56	-0.37
Age started on Growth	-0.84	-0.71	-1.44
Measures of Fit			
R-Squared			
Intercept	0.31	0.34	0.26
Growth	0.36	0.39	0.3

Conclusions

- Black men have lower initial alcohol use patterns, with lower rates of growth in alcohol use patterns over time.

- Controlling for race rather than modeling groups separately may mask differences in the alcohol use patterns of White and Black men.

- Including a control for age at first use improves our understanding of the rate of growth for Black men: starting later is particularly protective.

Cross-Cutting Framework for Understanding Alcohol-Related Disparities Among Young People

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