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Unemployment Rates and Workers' Health Risks

How do workers' modifiable health risks
respond to the health of their industry?

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Presenter Disclosures

BRIAN GIFFORD

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

No relationships to disclose

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Background

- Recent media reports suggest that recession has some benefits for health
 - Reduced death rates
 - Less disposable income for vice
 - Less work-related stress, more time for exercise
- What about people who manage to keep their jobs in a downturn?
 - Less time for exercise?
 - More stress?
- Question of importance to employers
 - Purchasers of health and wellness benefits

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Research Questions

- How do workers' health risks relate to economic downturns in their industries?
 - Downturns:
 - Industry quarterly unemployment rate
 - YoY % change in industry's quarterly unemployment rate
 - Risks
 - Smoking
 - Drinking
 - Body weight
 - Exercise
 - Psychological distress

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Summary of Results

- Mixed evidence that economic downturns reduce health risks
- Levels of exercise improve with unemployment rate
 - Similar results whether employed or unemployed
 - No effect for YoY change
- Employed persons drink more as their industry's unemployment rises (YoY)
 - Slightly weaker correlation for NILF
 - No effect for unemployment rate
- No relationship between unemployment on psychological distress
 - Unlikely mediator of recessions and health risks at the macro-level

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Data

- NHIS 2005-2010
 - ~78,000 employed survey respondents
 - An additional ~37,000 NILF, ~5,000 unemployed workers as comparison groups
 - Health risks, industry, demographics, indicators of year and quarter of interview
- BLS
 - Industry unemployment rate
 - Rate during quarter of interview
 - YoY % growth in quarterly average
 - NILF assigned national rates, unemployed workers assigned rates for former industry

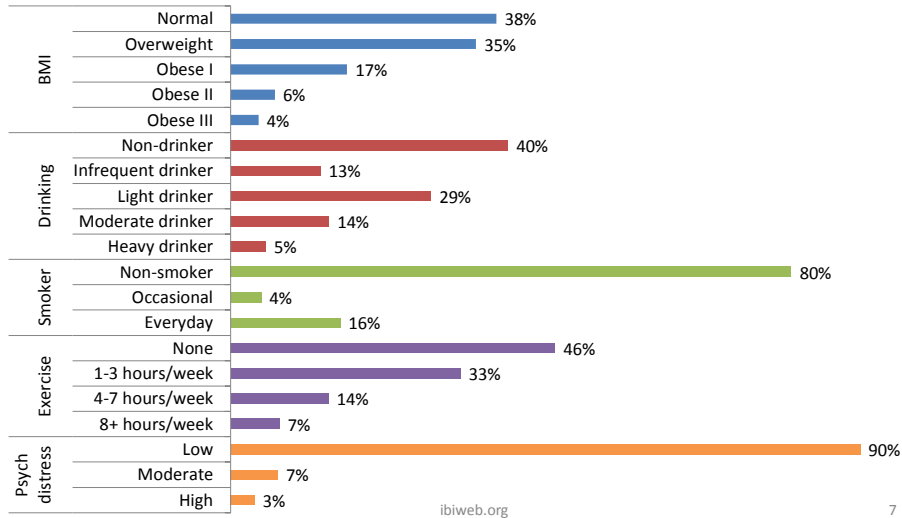
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Summary of outcome variables



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Ordinal Logistic Regression Linear Combinations

		BMI	Drinking	Smoking	Exercise	Psychological distress
Qrtly. Unemp.	Employed	0.0003	0.0033	-0.0023	0.0216***	0.0100
	NILF	-0.0111	-0.0140 #	0.0148	-0.0064 ###	-0.0066
	Unemployed	-0.0096	-0.0021	-0.0176 * #	0.0397*** #	-0.0091 #
YoY Δ in qrtly. Unemp.	Employed	0.0004	0.0008 *	0.0000	0.0006 +	-0.0009
	NILF	0.0002	0.0011 +	0.0006	0.0006	0.0006
	Unemployed	0.0011	0.0013 +	0.0010	-0.0001	-0.0007

Pseudo R-squared

0.022

0.058

0.073

0.050

0.073

N

115,065

116,338

117,850

115,308

117,434

Total effect differs from zero: + p<0.10, * p<0.05, ** p<0.01, *** p<0.001

Interaction effect differs from employed workers: † p<0.10, # p<0.05, ## p<0.01, ### p<0.001

$$Risk = \alpha + \beta_1 Unemployment\ rate + \beta_2 YoY\ Unemployment + \beta Industry + \beta Time + \beta Demographics + \epsilon$$

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Implications

- Macro-relationships sensitive to specification of operational definition of economic downturn
 - Raw vs. YoY, industry rate vs. state rates, etc.
- Longitudinal micro-analyses of employment exit and entry would likely provide clearer guidance
- Employers should not necessarily conclude that cutting benefits during downturns will not have repercussions on worker health and productivity