

Work and Health

National Disability Forum Presentation

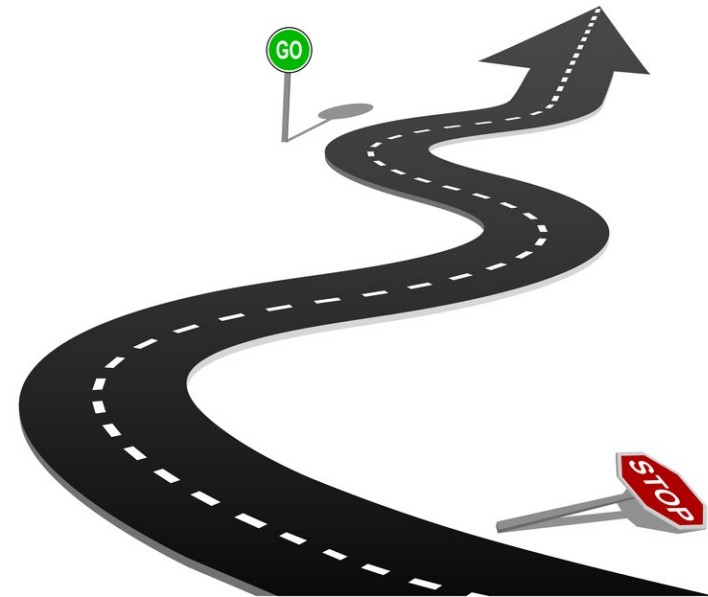
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The Plan

- Work and health relationship
- Worksite health programs
- Obesity and chronic disease prevention programs in worksites
- Work factors and nutrition



A bidirectional relationship

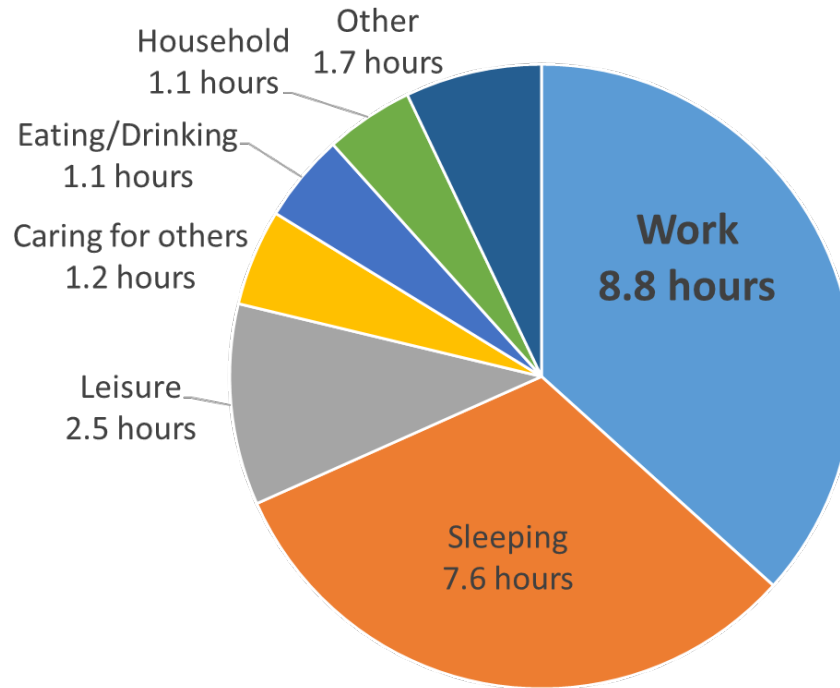
Work



Health



Most people spend nearly half of their waking hours at work



~ 150 million Americans work



86% of full-time workers are overweight, obese or have 1+ chronic conditions

Group	% of Full-time U.S. Working Population	Mean Unhealthy days per month	Estimated incremental missed work days for full-time workers	Estimated annual \$\$ of lost productivity due to absenteeism
Normal weight and no chronic conditions	13.9	.34	BASELINE	BASELINE
Normal weight and 1 to 2 chronic conditions	14.8	1.07	45,639,781	\$15,563,165,458
Normal weight and 3+ chronic conditions	5.3	3.48	69,943,339	\$23,850,678,489
Overweight or obese and no chronic conditions	17.9	.36	1,505,995	\$513,544,375
Overweight or obese and 1 to 2 chronic conditions	30.2	1.08	94,301,528	\$32,156,821,142
Obese or overweight and 3+ chronic conditions	17.8	3.51	238,457,008	\$81,313,839,758

Witters, D. & Agrawal, S. (2011 Oct 17). Unhealthy U.S. workers' absenteeism costs \$153 billion. Washington DC: Gallup. Available from: <http://www.gallup.com/poll/150026/Unhealthy-Workers-Absenteeism-Costs-153-Billion.aspx>.



Low-wage workers

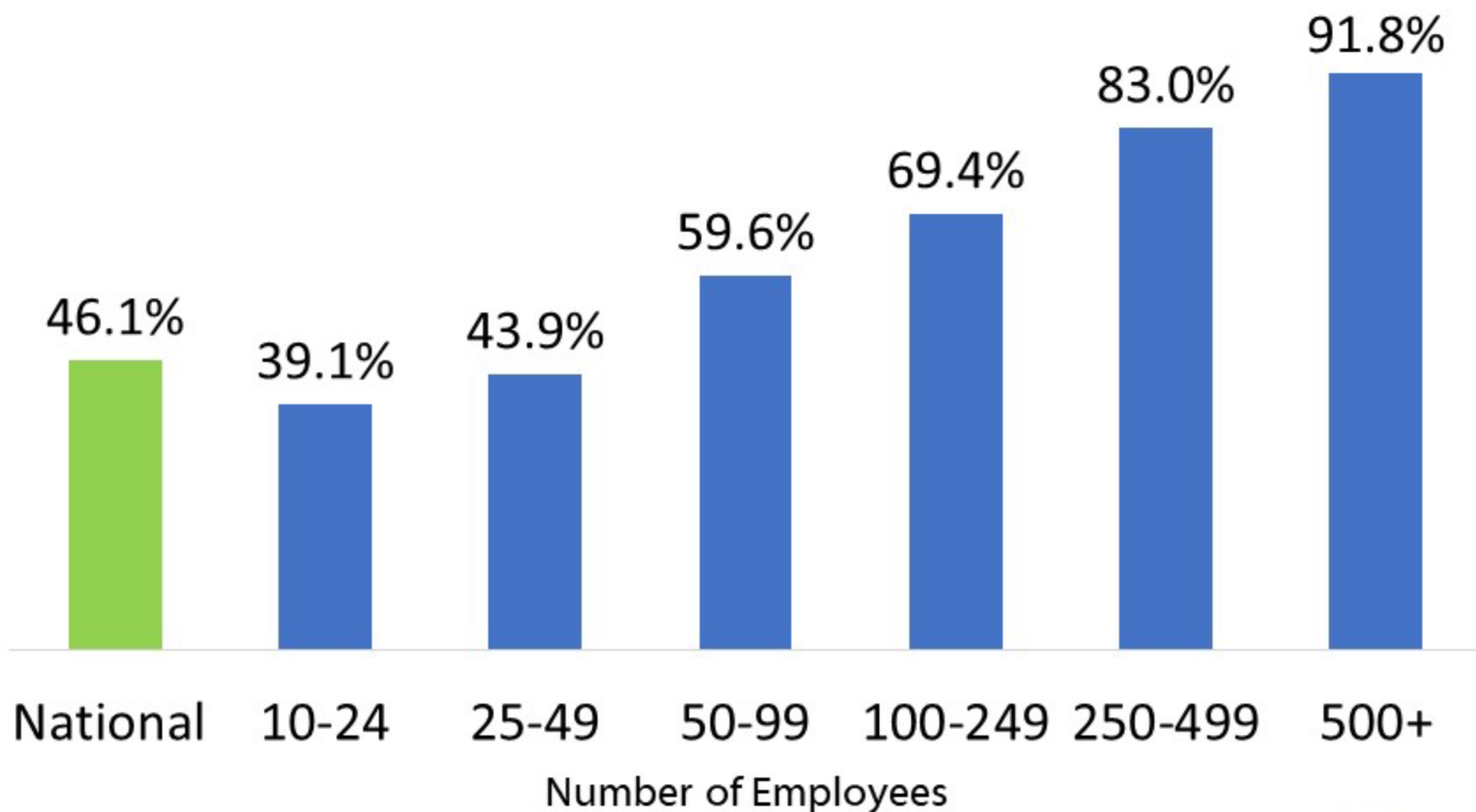
More likely...

- to experience dangerous working conditions
- to report going to work sick
- to have fewer workplace benefits like paid vacation days and health insurance
- to care for a sick or disabled family member

The Workplace and Health, July 2016, NPR/Robert Wood Johnson Foundation/Harvard T.H. Chan School of Public Health



Percentage of U.S. Worksites Offering Any Type of Health Promotion Program by Worksite Size, 2017

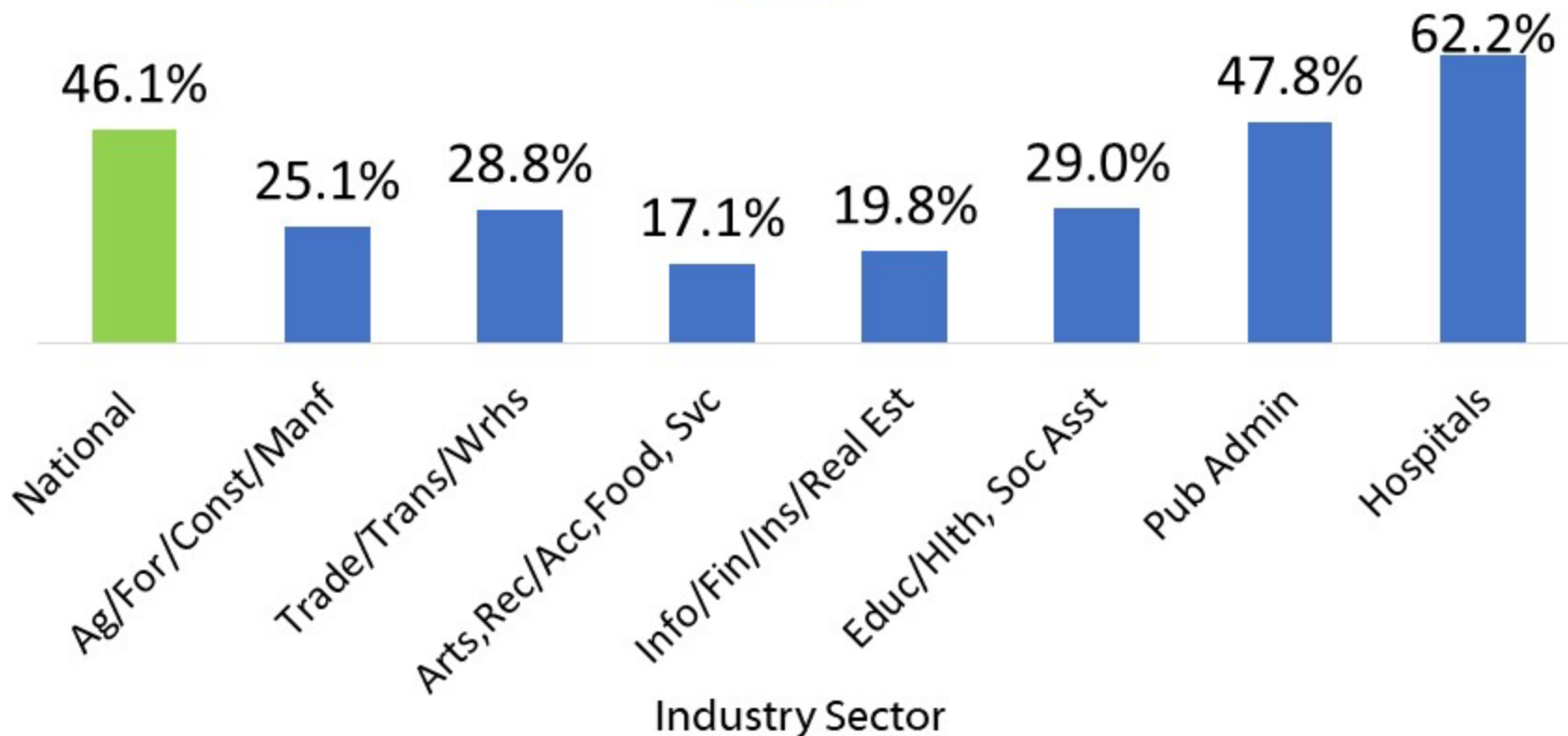


Note: Percentages based on weighted estimates.

Source: CDC Workplace Health in America Survey, 2017



Percentage of U.S. Worksites Offering Any Type of Health Promotion Program by Industry Group, 2017

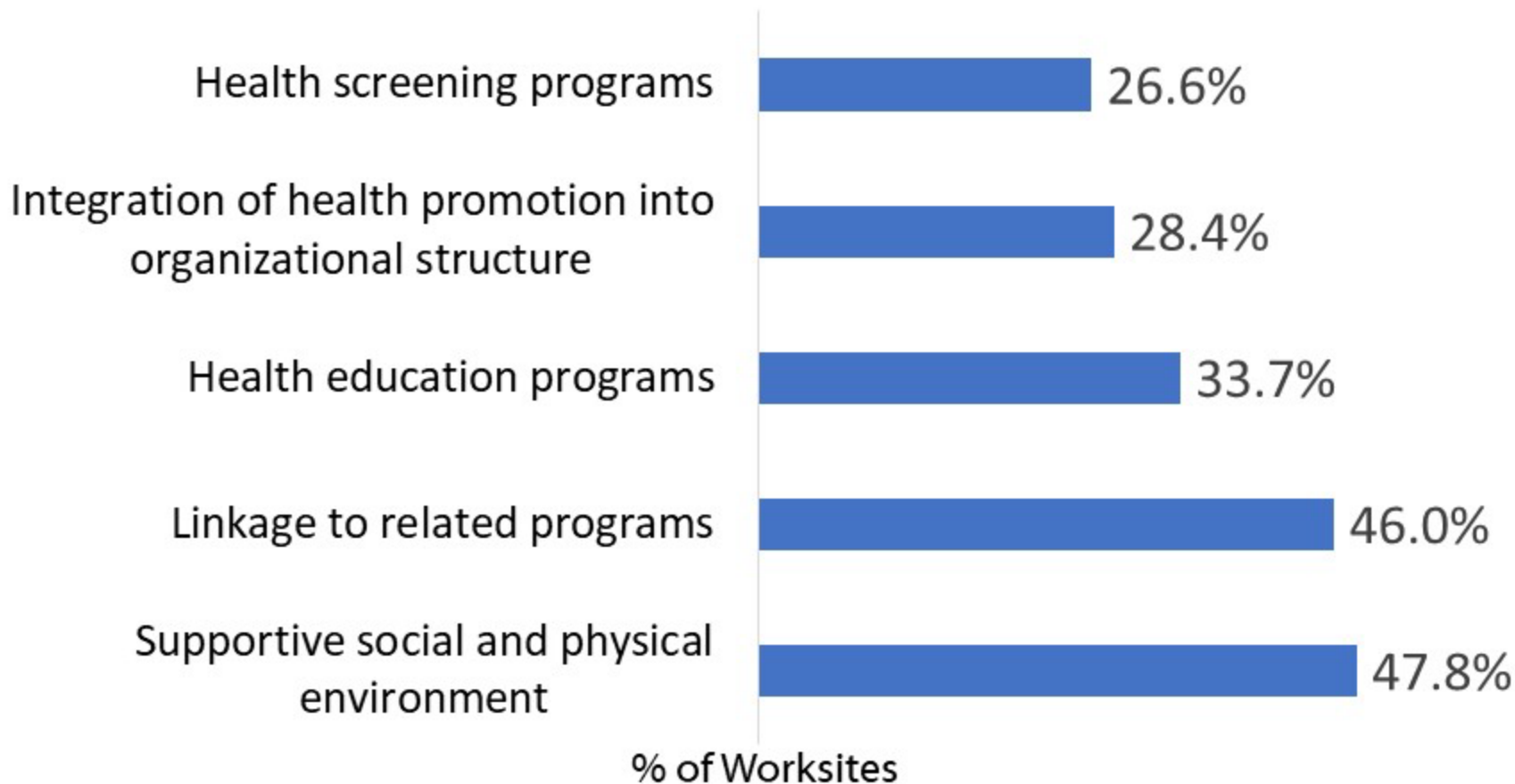


Note: Ag/For/Const/Manf = Agriculture, Forestry, Fishing; Mining; Utilities; Construction; Manufacturing
Trade/Trans/Wrhs = Wholesale/Retail Trade; Transportation; Warehousing
Arts, Rec/Acc, Food, Svc = Arts, Entertainment, Recreation; Accommodations and Food Service; Other Services
Info/Fin/Ins/Real Est = Information; Finance; Insurance; Real Estate and Leasing; Professional, Scientific, Technical Services;
Management; Administration Support; Waste Management
Educ/Hlth, Soc Asst = Education Services; Health Care & Social Assistance
Pub Admin = Local, State, and Federal Public Administration.
Percentages based on weighted estimates.

Source: CDC Workplace Health in America Survey, 2017



Percentage of U.S. Worksites with Each Element of a Comprehensive Health Promotion Program, 2017

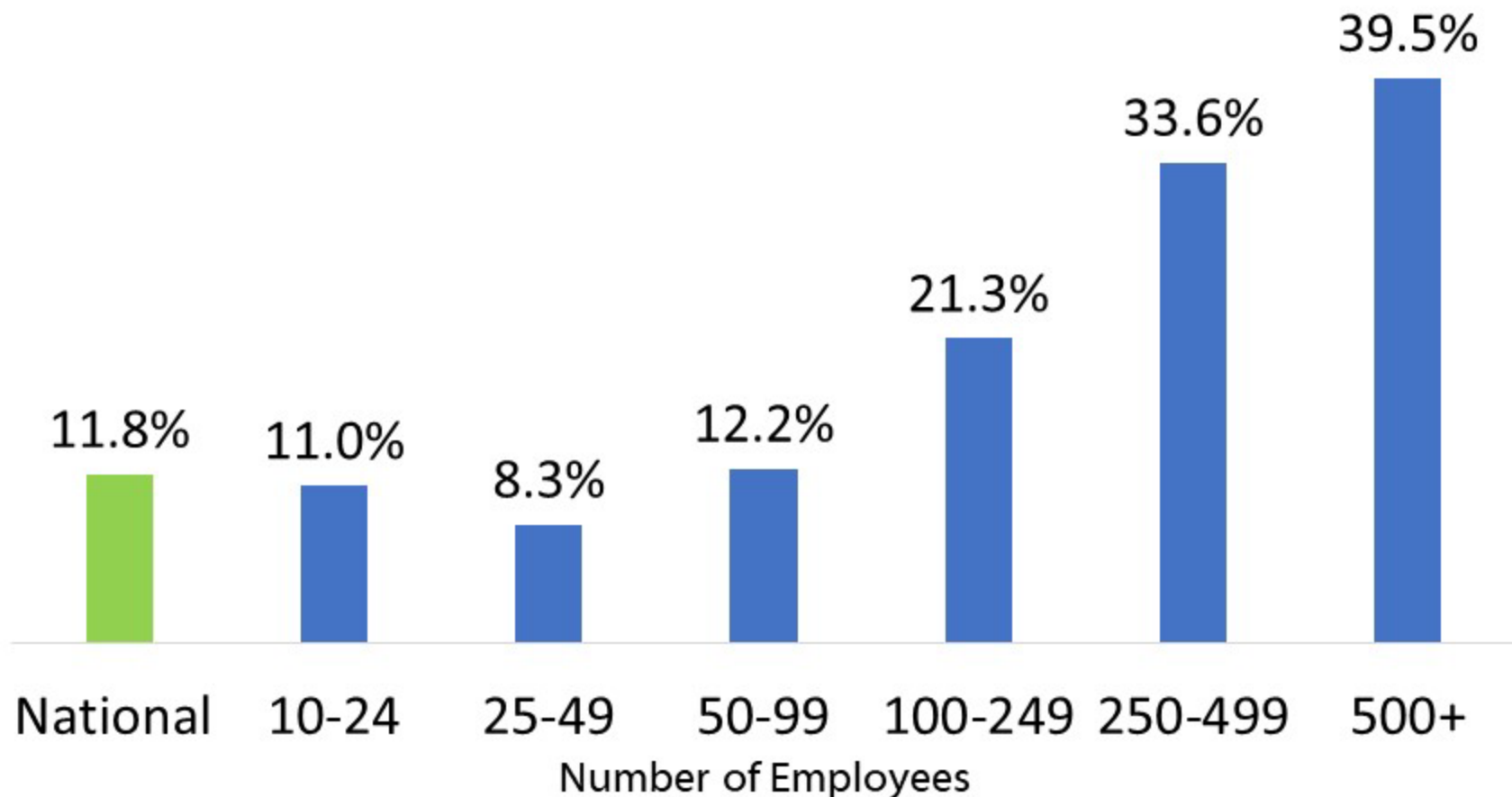


Note: 5 elements of a comprehensive health promotion program as defined by Healthy People 2010. Percentages based on weighted estimates.

Source: CDC Workplace Health in America Survey, 2017



Percentage of Worksites with All Five Elements of a Comprehensive Health Promotion Program by Worksite Size, 2017



Note: Elements of a Comprehensive Workplace Health Program as defined by Healthy People 2010: 1) Health education; 2) Links to related employee services; 3) Supportive physical and social environment for health improvement; 4) Integration of health promotion into the organizational culture; 5) Employee screenings with adequate treatment and follow-up.

Percentages based on weighted estimates.

Source: CDC Workplace Health in America Survey, 2017



Percentage of U.S. Worksites that Offered Specific Health Programs, 2017



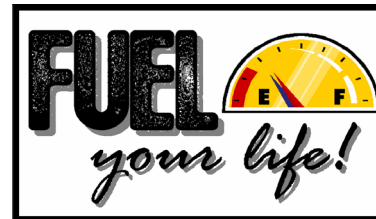
Note: Percentages based on weighted estimates.

Source: CDC Workplace Health in America Survey, 2017

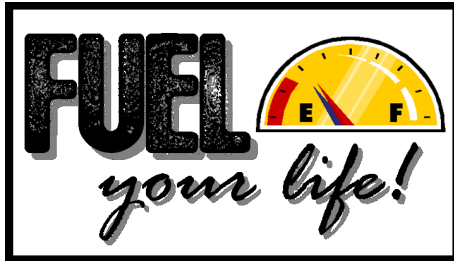


Obesity and chronic disease prevention programs

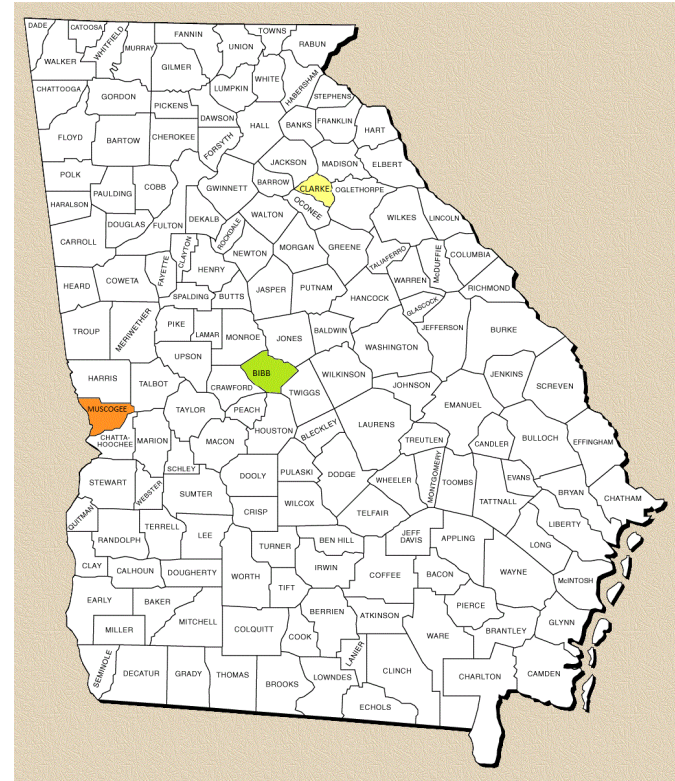
- FUEL Your Life: A worksite translation of the Diabetes Prevention Program
- Environmental Approaches to Obesity Prevention and Management at the Dow Chemical Company
- Putting CDSMP to Work: Live Healthy, Work Healthy



FUEL Your Life

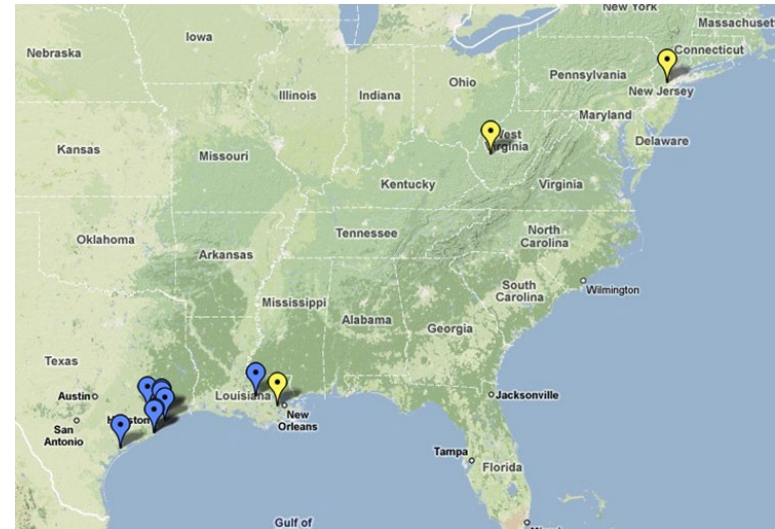


- Athens-Clarke County Consolidated Government
- Bibb County Government
- Columbus Consolidated Government

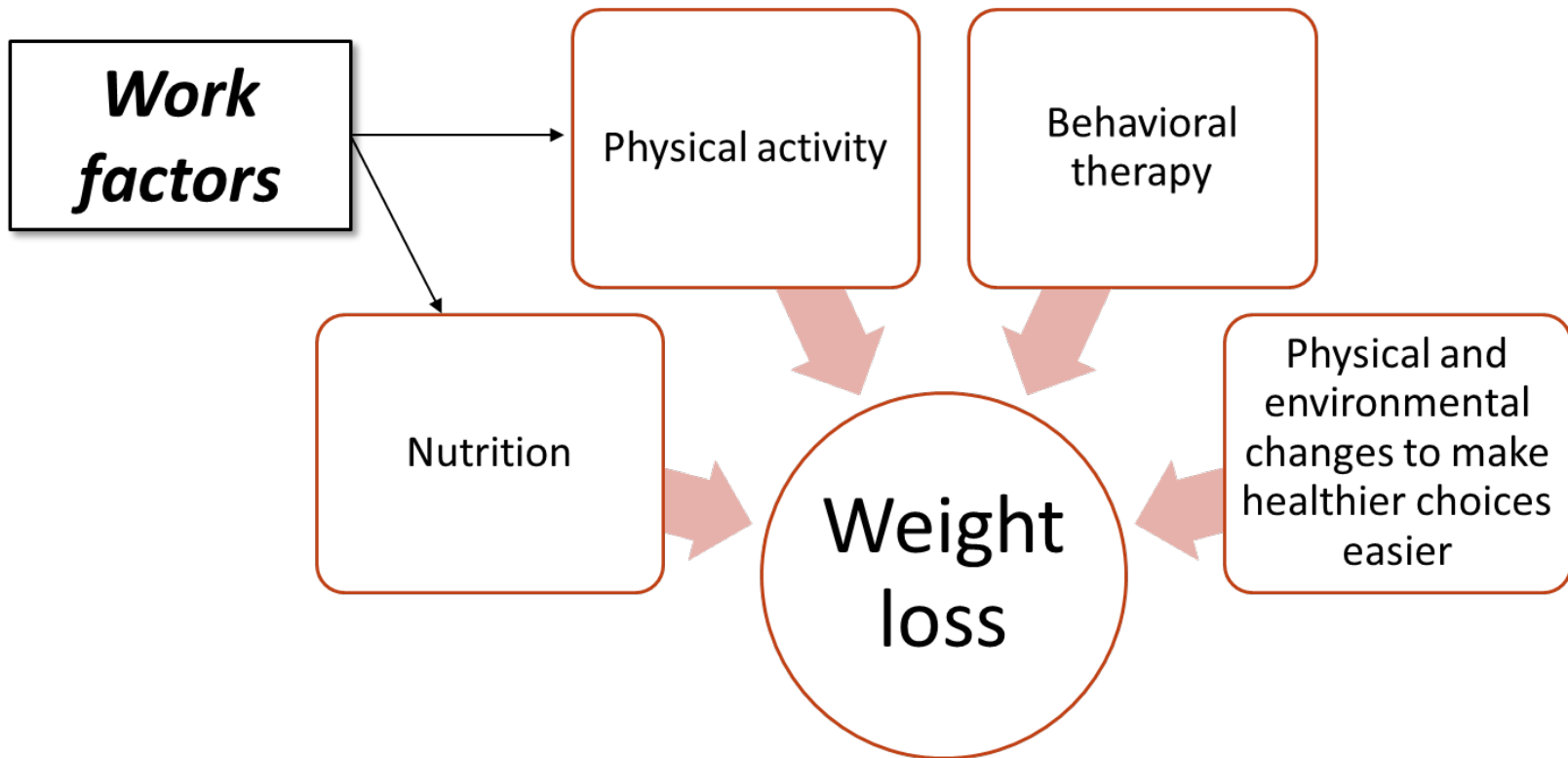


Environmental Approaches to Obesity Prevention and Management at The Dow Chemical Company

- Quasi-experimental
- 12 Dow Chemical Company worksites received environmental/ecological interventions at varying levels of intensity
 - Intervention sites: Texas (8) and Louisiana (1)
 - Control sites: New Jersey (1), West Virginia (1), and Louisiana (1)



Weight loss programs in the worksite achieve modest reductions in weight



A bidirectional relationship

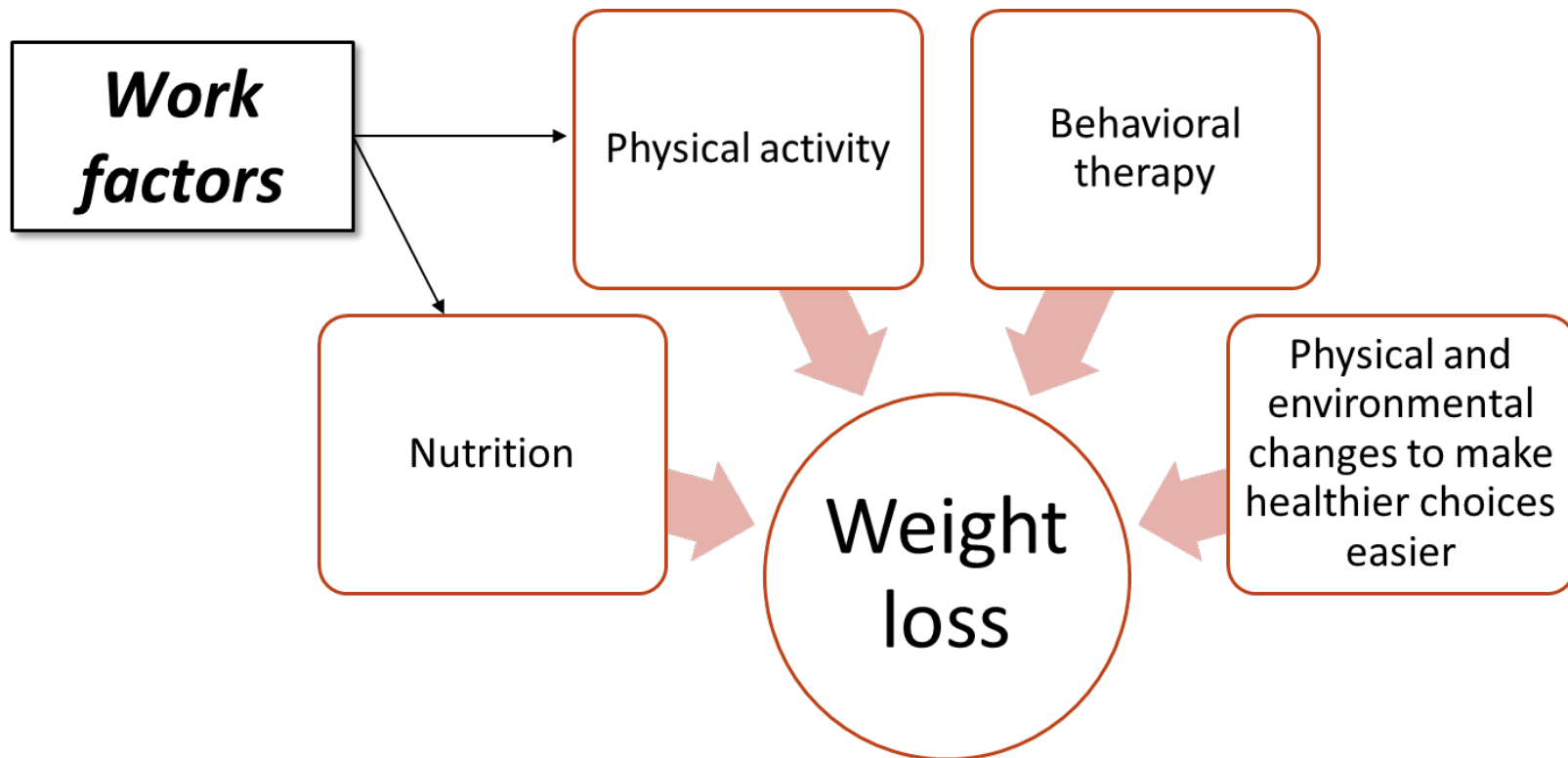
Work



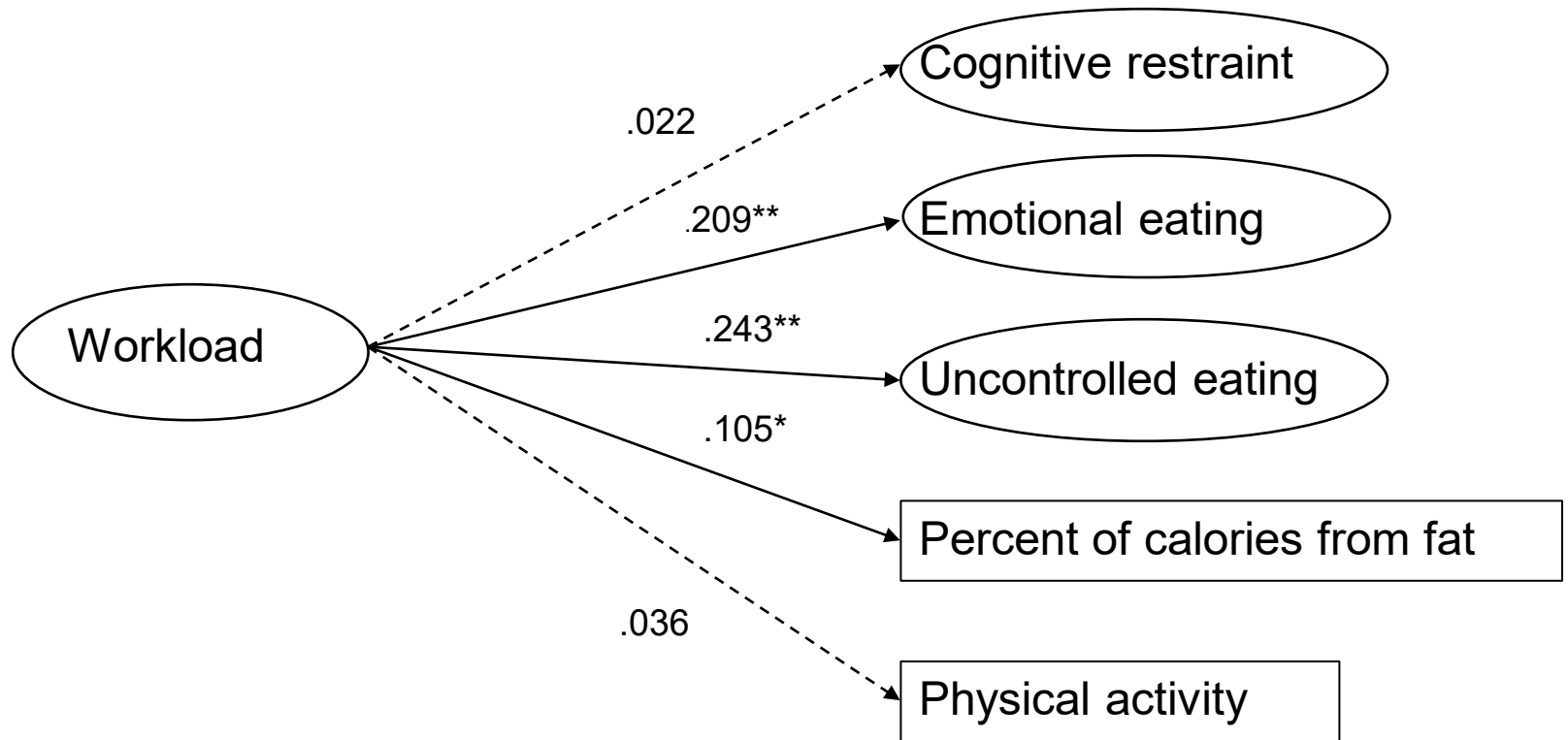
Health



Do work factors affect nutrition and physical activity behaviors?



Workload has a positive relationship with emotional eating, uncontrolled eating, and percent of calories from fat

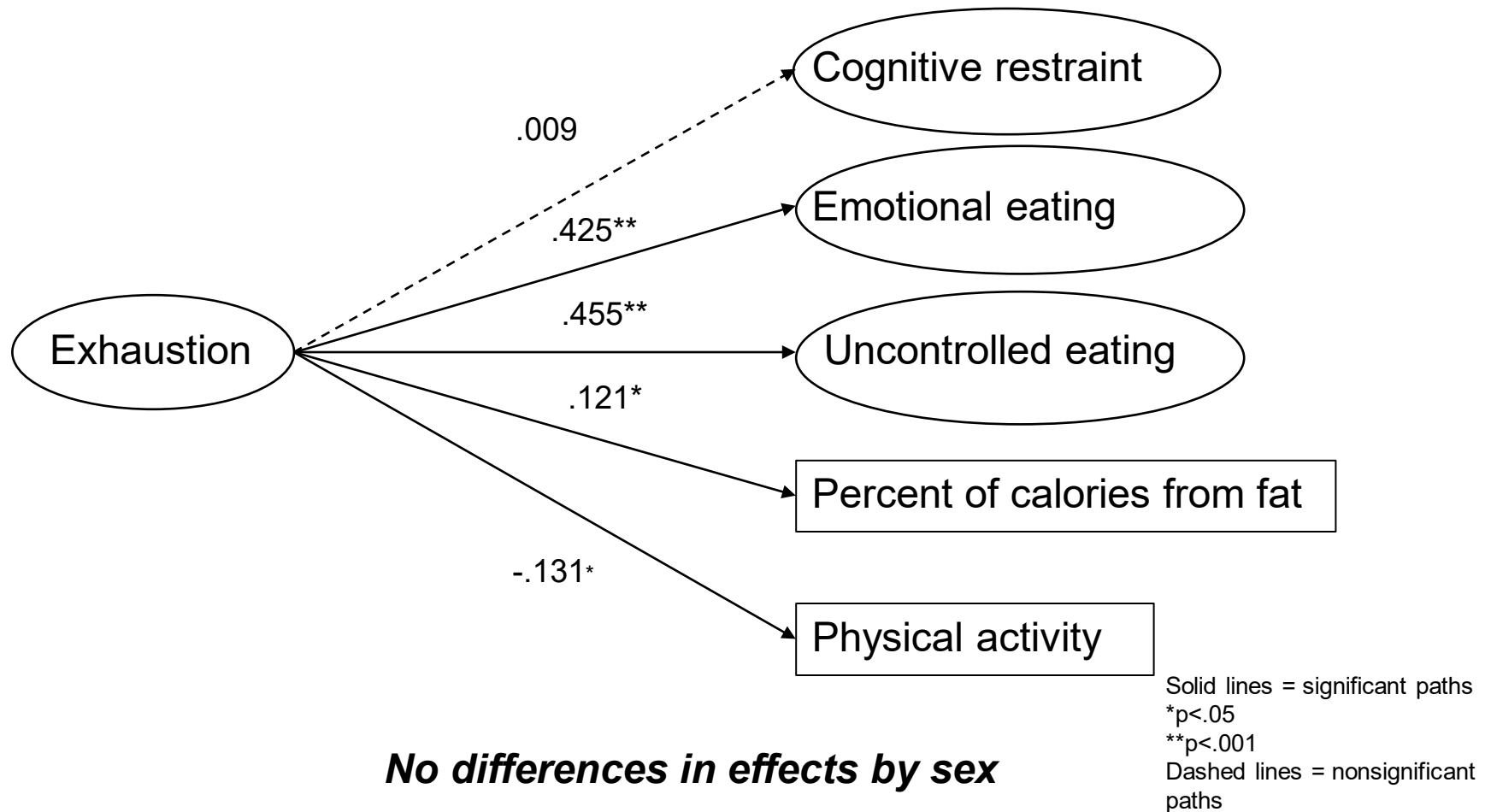


No differences in effects by sex

Solid lines = significant paths
*p<.05
**p<.001
Dashed lines = nonsignificant paths



Exhaustion has a positive relationship with emotional eating, uncontrolled eating, and percent of calories from fat AND negatively associated with physical activity



Effects of workload are mediated through exhaustion

Path	Coefficient	SE	p-value
Workload → Exhaustion → Cognitive restraint	-.045	.040	.271
Workload → Exhaustion → Emotional eating	.480	.065	<.001
Workload → Exhaustion → Uncontrolled eating	.432	.061	<.001
Workload → Exhaustion → % calories from fat	.687	.221	.002
Workload → Exhaustion → Physical activity	-41.690	10.786	<.001



Sex moderates the indirect relationship between workload and cognitive restraint

Path	Sex	Coefficient	SE	p-value
Workload → Exhaustion → Cognitive restraint	Males	.008	.051	.877
Workload → Exhaustion → Cognitive restraint	Females	-.158	.068	.019



Where do we go from here?

