National Healthy worksite

Healthy Worksite • Healthy Workforce • Healthy Communities

Mental Health and Chronic Disease in the Workplace

National Center for Chronic Disease Prevention and Health Promotion
Division of Population Health

CDC

National Healthy worksite

National Healthy Worksite Program

Webinar Agenda

- Background and issues
  - Jamie Becker, MSW, LCSW-C
- Suicide Prevention
  - Richard McKeon, PhD, MPH
- Opportunities and Success Stories
  - Paul Landsbergis,PhD, MPH
- Q & A

Disclaimer: The findings and conclusions in this presentation are those of the author and do not necessarily represent the official position of the Centers for Disease Control and Prevention

Desired Outcomes

- Promote health and well-being
- A healthier workforce
- Higher productivity and motivation
- Reduced absenteeism and presenteeism
- Lower healthcare costs

Vital Link

"Mental illnesses and chronic diseases are closely related. Chronic diseases can exacerbate symptoms of depression, and depressive disorders can themselves lead to chronic diseases." [1]

[1] *Chapman DP, Perry GS, Strine TW. The Vital Link Between Chronic Disease and Depressive Disorders.*

National Healthy worksite

Comorbidity

- Multiple coexisting diseases.
  - 68% of adults with mental disorders have medical conditions[2]
  - 29% of adults with medical conditions have mental disorders[3]

2 The Synthesis Project, New Insights from Research Results, Policy Brief NO. 21, February 2011
3 IBID

National Healthy worksite

Most Common Mental Health Conditions in the United States

Anxiety Disorders	Mood Disorders
Panic disorder	Major depressive disorder
Obsessive-compulsive disorder	Dysthymic disorder
PTSD	Bi-polar disorder
Generalized anxiety disorder	
Phobias	

National Healthy worksite

Similar but Different

Leading Causes of Chronic Disease	Depression
Lack of physical activity	Lack of physical activity
Poor nutrition	Poor nutrition
Tobacco use	Tobacco use
Excessive alcohol consumption	Excessive alcohol consumption
	Lack of social support

Chronic Disease Statistics

- Key Chronic Diseases Identified by CDC
  - Heart disease, Cancer, Stroke, Diabetes, Arthritis, Obesity
- Chronic diseases are the No. 1 cause of death and disability in the U.S.[4]
- In 2009, 145 million Americans – almost half of all Americans – lived with a chronic condition. [5]
- Treating patients with chronic diseases accounts for 75 percent of the nation's health care spending.[6]
- Presenteeism is responsible for the largest share of lost economic output associated with chronic health problems.[7]
- The most expensive conditions in terms of presenteeism are arthritis, hypertension and depression.[8]

4 Kung HC, Hoyert DL, Xu JQ, Murphy SL. Deaths: final data for 2005. National Vital Statistics Reports 2008;56(10). Available from: http://www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_10.pdf

5 Anderson G. Chronic Care: Making the Case for Ongoing Care. Princeton, NJ: Robert Wood Johnson Foundation; 2010. http://www.rwjf.org/content/dam/web-assets/2010/01/chronic-care

6 Anderson G. Chronic conditions: making the case for ongoing care. Baltimore, MD: John Hopkins University; 2004.

7 Partnership to Fight Chronic Disease. Almanac of Chronic Disease: 2008 Edition. 2008.

8 American Hospital Association

National Healthy worksite

Mental Health Statistics

- In 2004, an estimated 25 percent of adults in the U.S. reported having a mental illness in the previous year.[9]
- Mental illness and substance abuse cost employers an estimated $80-100 billion annually in indirect costs. [10]
- More workers are absent from work because of stress and anxiety than due to physical illness or injury. [11]
- Presenteeism takes a larger toll on business than absenteeism. [12]
- It is estimated that up to one-third of individuals with a serious medical condition experience symptoms of depression. [13]
- Depression occurring with a physical illness is often overlooked.

9 Kessler RC, Chiu WT, Demler O, Walters EE. Prevalence, severity, and comorbidity of twelve-month DSM-IV disorders in the National Comorbidity Survey Replication (NCS-R). Archives of General Psychiatry, 2005 Jun;62(6):617-27

10 An Employer's Guide to Behavioral Health Services, National Business Group on Health, December 2005.

11 Marlowe JF: Depression's Surprising Toll on Worker Productivity, Employee Benefits Journal, March 2002, pp. 16-20

12 Stewart WF et al: Cost of Lost Productive Work Time Among U.S. Workers with Depression. JAMA, June 18, 2003, pp. 3135-3144.

13 Cleveland Clinic.

National Healthy worksite

Food for Thought: Diabetes

- In 2010, 8.3% of the U.S. population had diabetes. [14]
- In 2010, 79 million people had prediabetes. [15]
- The CDC Projects 1 in 3 people will have Type 2 diabetes by 2050 if current trends continue. [16]
- Studies suggest diabetes doubles the risk for depression. [17]
- 15-20% of people with diabetes also have depression. [18]

14 American Diabetes Association.

15 Ibid.

16 Centers for Disease Control and Prevention

17 Mental Health, N. (2012). Diabetes and Depression. Psych Central. Retrieved on September 4, 2012, from http://psychcentral.com/lib/2008/diabetes-and-depression/

18 American Diabetes Association.

National Healthy worksite

Potential Impact of a Chronic Illness

- Financial uncertainty
- Pain/fatigue
- Stress
- Unwanted job changes
- Lost opportunities for promotion
- Increased accidents
- Impact on work quality and customer service
- Negative self-image
- Feelings of hopelessness related to employability

Remove the Stigma

- Over 54 million Americans have a mental disorder in any given year though fewer than 8 million seek help. [19]
- A study found that even in businesses with EAPs, only 14% of the employees with depression ever access them. [20]
- Since the majority of people who need help do not seek it, employers have to be proactive—provide more education, training and resources to help employees help themselves.
- People feel shame, fear of losing their job, concerns about status, promotion, and how they will be perceived by others at work.
- Few, if any, employees will take mental health benefit concerns to leadership or HR.

19 Surgeon General's Report on Mental Health 1999

20 University of Michigan Depression Center, Thomas Carli, MD, director of community and corporate programs at the University of Michigan Depression Center.

National Healthy worksite

Health Involves More than Behavior Change

- Socio economics
- Genetic predisposition
- Mental health
- Working conditions
  - Chemical exposures
  - Excessive noise
  - Ergonomic issues
  - Overtime
  - Increased workloads/line speeds

Mental Health-Friendly Practices

- Encourage a culture of taking mental health seriously, from the top down.
- Have formal and informal policies about workplace conduct and how coworkers treat each other.
- Review benefit structure - Paul Wellstone & Pete Domenici Mental Health Parity and Addiction Act of 2008 (MHPAEA).
  - Communicate available mental health benefits to employees – EAP, health plan.
- Provide speakers on mental health topics from local mental health organizations.
- Incorporate resilience-building activities that protect against the effects of workplace stress, perhaps led by an employee with special expertise or interest, such as yoga, tai chi, or lunchtime fitness walks or workshops on problem-solving, effective communication, and conflict resolution.
- Hold a Mental Health Awareness Month or other visible mental health-friendly events/activities and educational/informational materials.
- Educate supervisors on how to speak with employees who show a decline in job performance.

National Healthy worksite

Employer Accommodations

- Work from home
- Flexible breaks
- Plan own tasks
- Work fewer hours/adjustable schedule/different hours
- Slower pace – limited duty
- Refer to wellness and/or EAP program

Successful Wellness Programs

- Customized - one size does not fit all
- Create culture of wellness, top down
- Comprehensive
- Tie incentives to ongoing performance, not one time success
- Offer incentives to spouses and dependents
- Healthy choices rewarded (carrot vs. stick)
- Privacy of health status guaranteed
- Consider the changing face of the workforce
  - More women, older workers
- Address employee well-being when a workplace tragedy/accident occurs

Successful Wellness Programs con't

- Increases employee understanding of how to use all available benefits
- Provide cost and quality information to participants
- Encourage use of preventive services
- Increase vendor and provider accountability
- Measure results of the wellness program
- Integrate safety and wellness programs
- Increase use of social media to get messages out

Address Lifestyle Factors

- "Twofers" – by addressing one behavior two conditions can be addressed – mental health and chronic illness.
  - Smoking
  - Poor nutrition
  - Stress
  - Lack of exercise

APA Psychologically Healthy Workplace Practices

- **Employee Involvement**
  - Programs that empower workers, involve them in decision making and give them increased job autonomy.
- **Health and Safety**
  - Programs that maximize the physical and mental health of employees through the prevention, assessment, and treatment of potential health risks and problems and by encouraging and supporting healthy lifestyle and behavior choices.
- **Employee Growth and Development**
  - Programs that provide an opportunity to gain new skills and experiences.
- **Work-Life Balance**
  - Programs and policies that facilitate work-life balance acknowledge that employees have responsibilities and lives outside of work and help individuals better manage these multiple demands.
- **Employee Recognition**
  - Programs that reward employees both individually and collectively for their contributions to the organization.

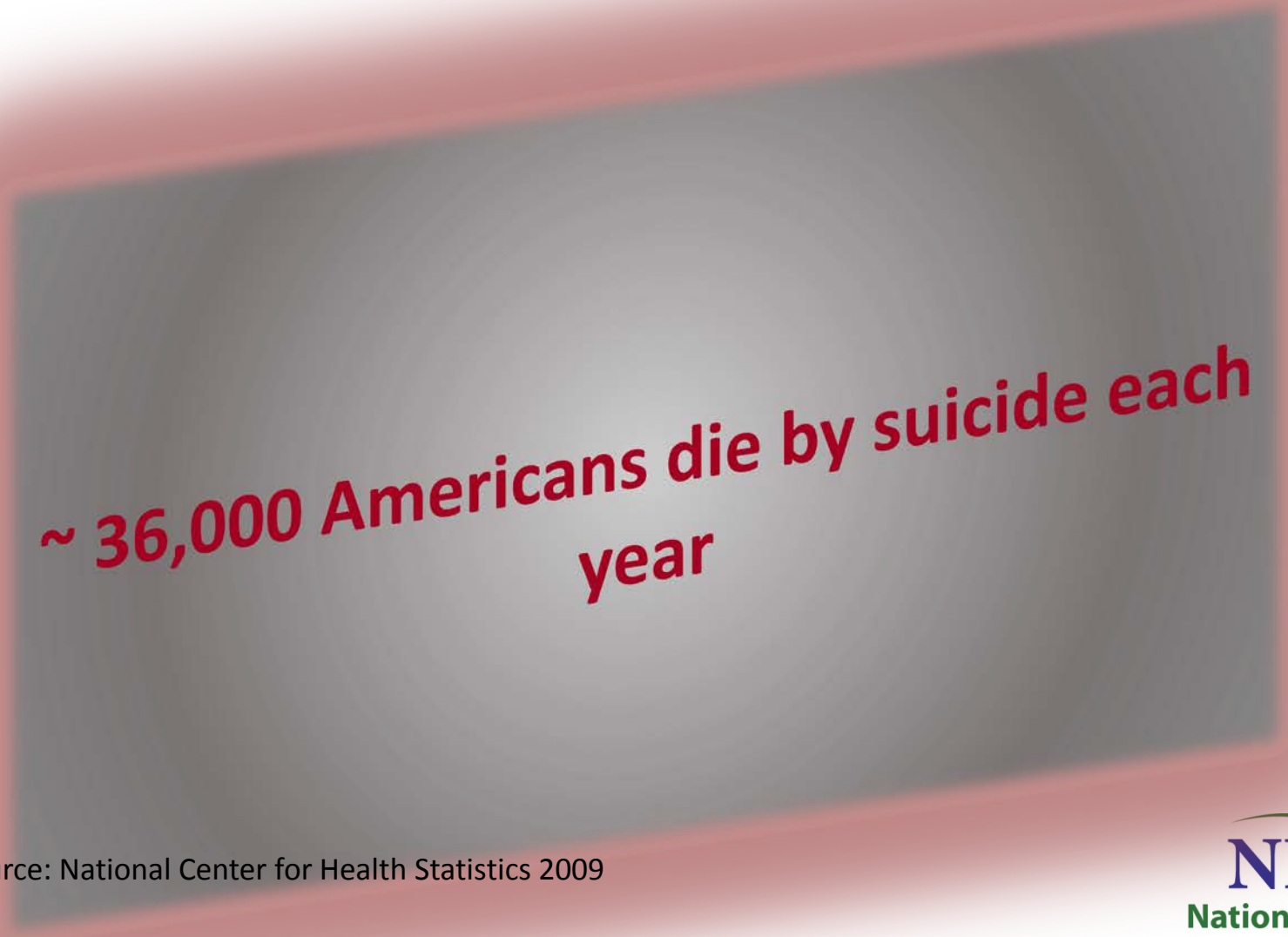
Source: http://www.phwa.org/resources/creatingahealthyworkplace/

National Healthy worksite

Easy/Lower Cost Changes

- Create culture of wellness
- Walking clubs
- Biggest loser competitions
- Vending machine adjustments
- Change cafeteria options and food placement
- No gym? Basketball net, volleyball net
- Subsidize fitness related purchase(s)
- Engage participants in wellness program development and design
- Job site based health fairs and screenings
- Mobile vans/buses
- Telephonic and/or video services

Staggering Reality



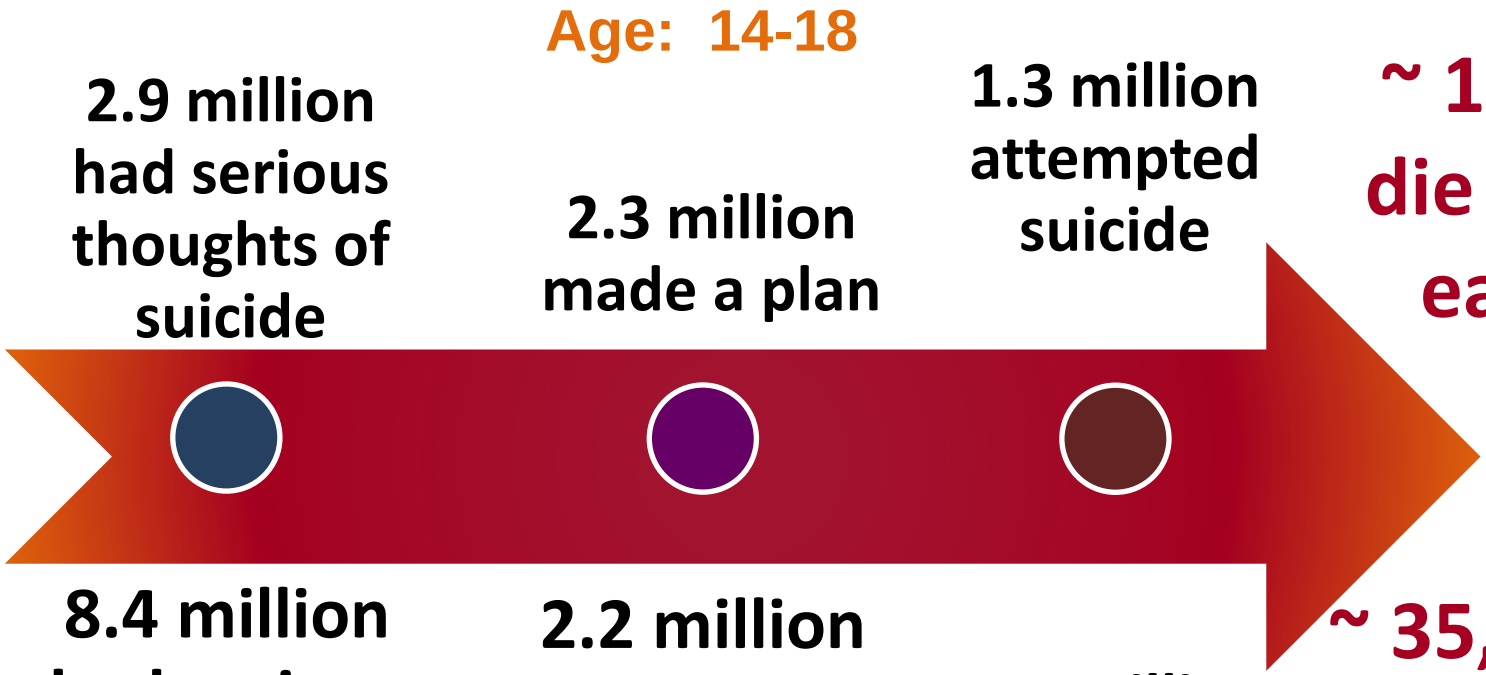
Source: National Center for Health Statistics 2009

Leading causes of death for selected age groups – United States, 2005

Rank	10-14 years	15-19 years	20-29 years	30-39 years	40-49 years	50-59 years
1	Unintentional Injuries	Unintentional Injuries	Unintentional Injuries	Unintentional Injuries	Malignant Neoplasms	Malignant Neoplasms
2	Malignant Neoplasms	Homicide	Homicide	Malignant Neoplasms	Heart Disease	Heart Disease
3	**Suicide**	**Suicide**	**Suicide**	Heart Disease	Unintentional Injuries	Unintentional Injuries
4	Homicide	Malignant Neoplasms	Malignant Neoplasms	**Suicide**	**Suicide**	Diabetes Mellitus
5	Congenital Malformations	Heart Disease	Heart Disease	Homicide	Liver Disease	Cerebro-vascular
6	Heart Disease	Congenital Malformations	HIV	HIV	HIV	Liver Disease
7	Chronic Lower Respiratory Ds	Cerebro-vascular	Congenital Malformations	Diabetes Mellitus	Cerebro-vascular	Chronic Lower Respiratory Ds
8	Influenza & pneumonia	Influenza and pneumonia	Diabetes mellitus	Cerebro-vascular	Diabetes Mellitus	**Suicide**

Source: CDC vital statistics

Tough Realities



Sources:

1. SAMHSA, 2012
2. Source: National Survey on Drug Use and Health (NSDUH), 2009 and 2010 (revised March 2012).

National Healthy worksite

SUICIDE: Data and Disparities

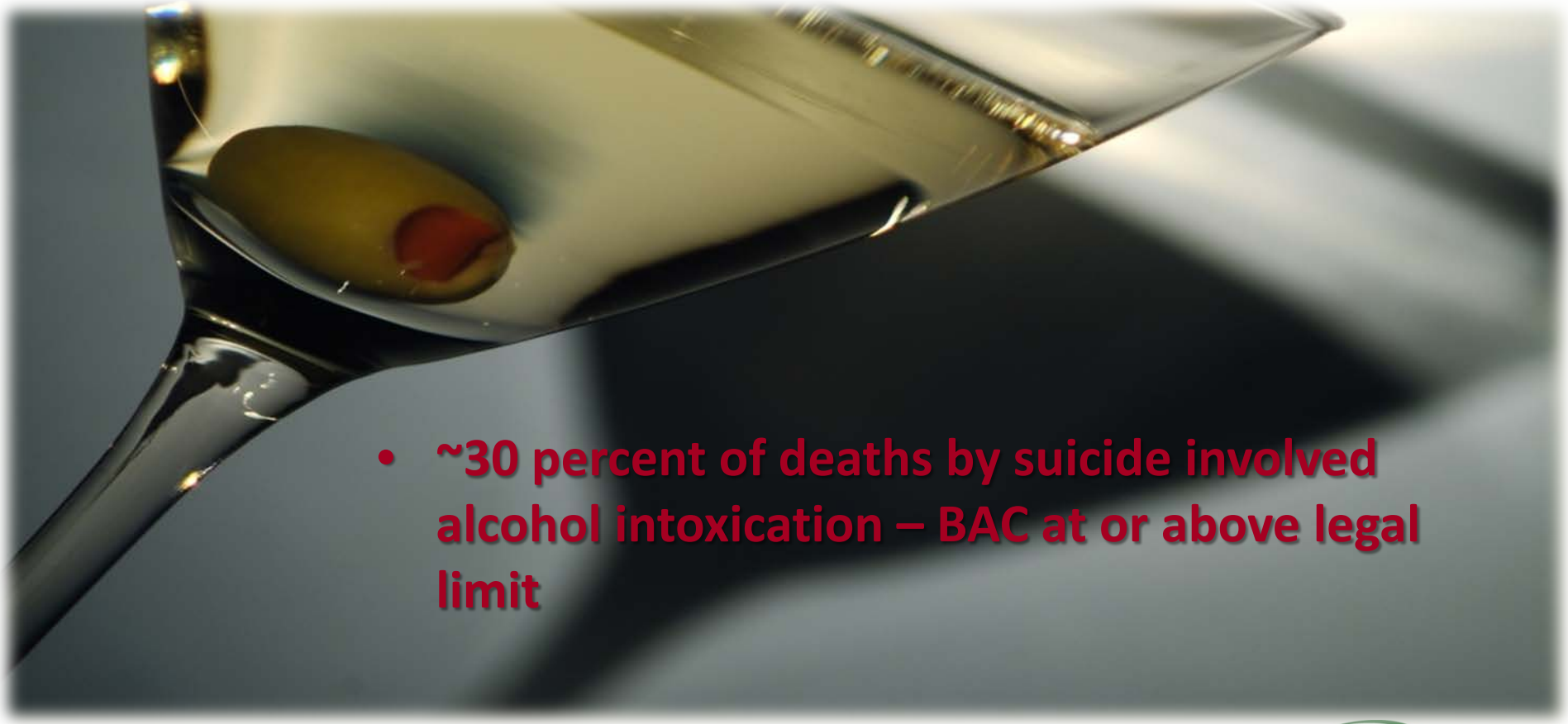
➔ **Suicides**

- 4 males : 1 female
- Highest risk: elderly white males (85+)
- Largest numbers: middle-aged (40-60) males at 2x's baseline rate of other Americans and working-aged males (20-64) = 60 percent of suicides
- Higher risk: young and middle-aged AI/AN

➔ **Suicide attempts**

- Female > male
- Rates peak in adolescence and decline with age
- Higher risk: LGBT youth and young Latinas

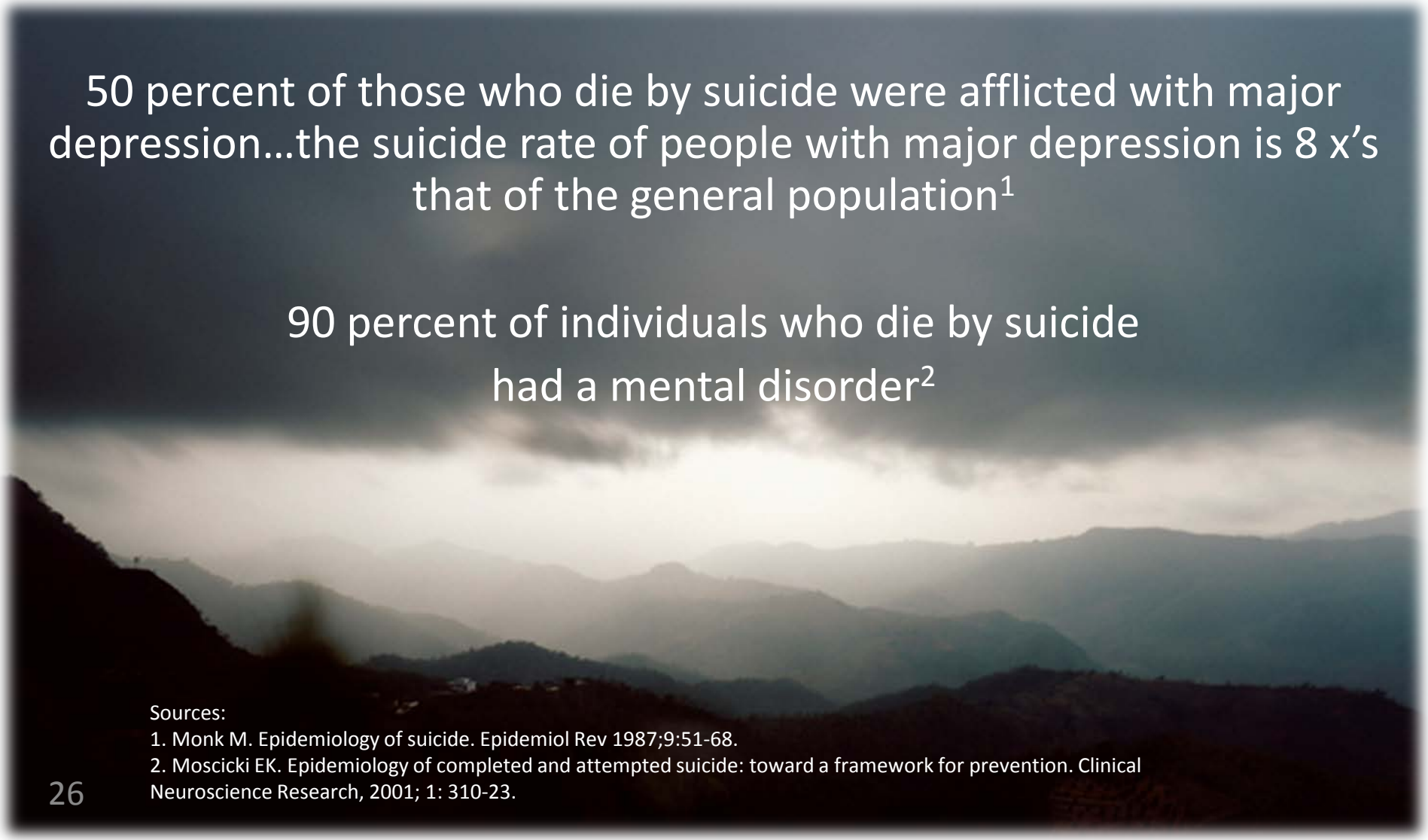
Tough Realities



Source: National Center for Health Statistics 2009

National Healthy worksite

Tough Realities



50 percent of those who die by suicide were afflicted with major depression…the suicide rate of people with major depression is 8 x's that of the general population[1]

90 percent of individuals who die by suicide had a mental disorder[2]

Sources:
1. Monk M. Epidemiology of suicide. Epidemiol Rev 1987;9:51-68.
2. Moscicki EK. Epidemiology of completed and attempted suicide: toward a framework for prevention. Clinical Neuroscience Research, 2001; 1: 310-23.

Missed Opportunities = Lost Lives

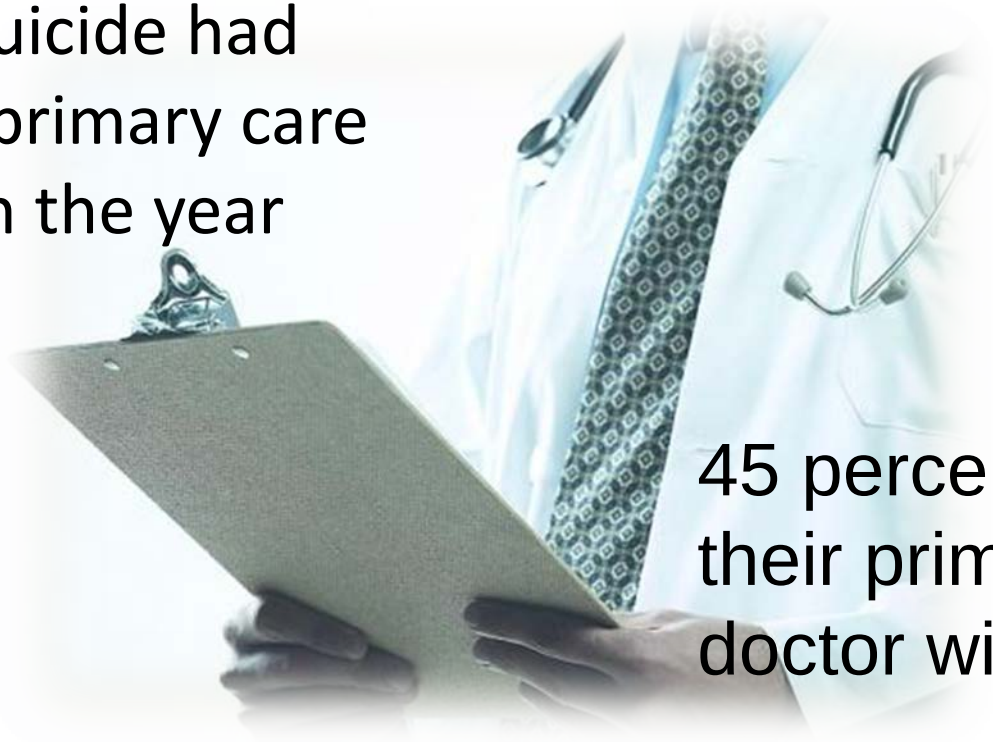
- Individuals discharged from an inpatient unit continue to be at risk for suicide
  - ~10% of individuals who died by suicide had been discharged from an ED within previous 60 days[1]
  - ~ 8.6 percent hospitalized for suicidality are predicted to eventually die by suicide[2]

Sources:
1. SAMHSA, July2011
2. Bostwick, John Michael;Pankratz, V Shane. Affective disorders and suicide risk: A reexamination The American Journal of Psychiatry; Dec 2000; 157, 12; ProQuest Social Sciences Premium Collection p.1925

NHW National Healthy worksite™

Missed Opportunities = Lost Lives

77 percent of individuals who die by suicide had visited their primary care doctor within the year



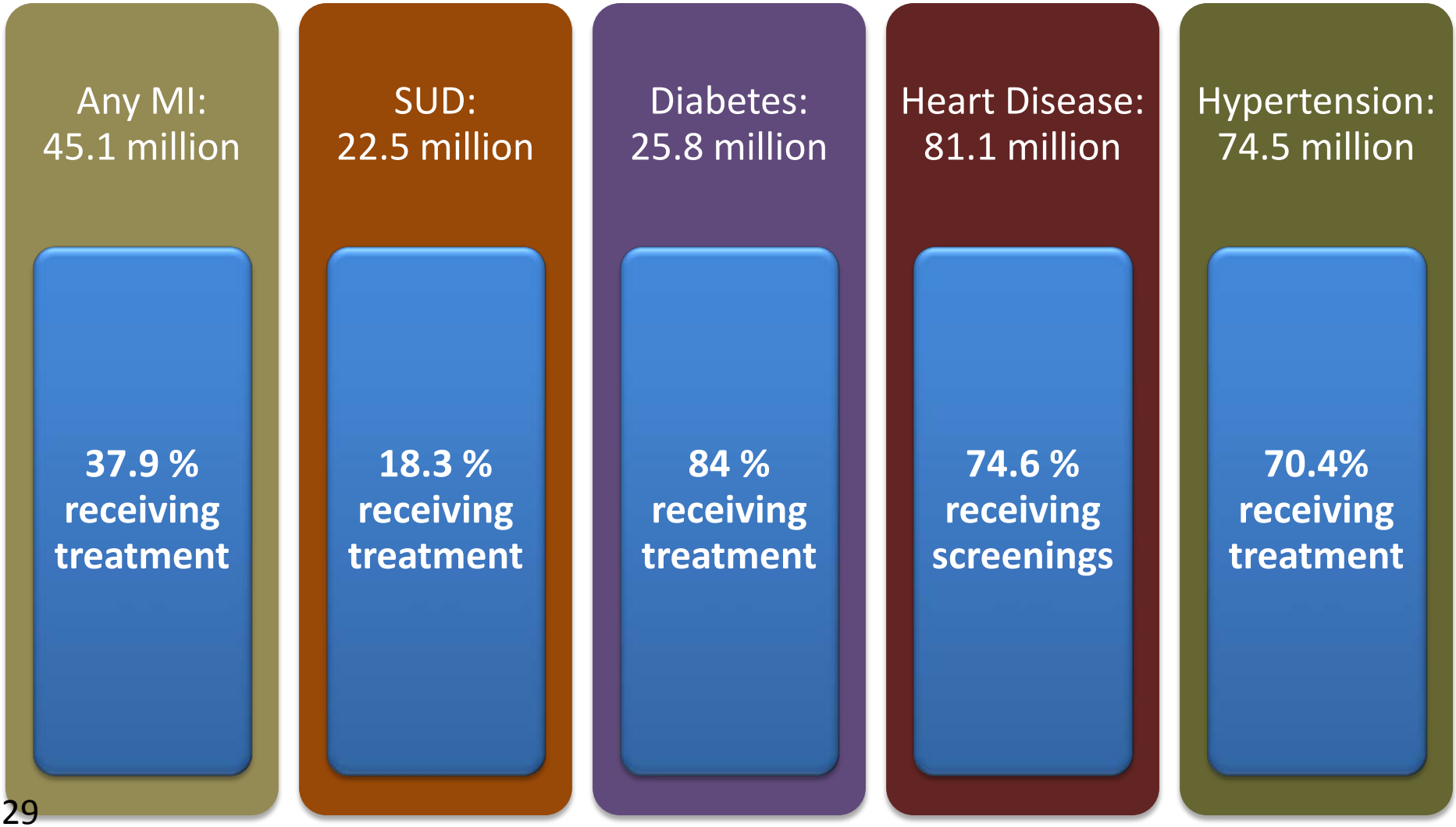
45 percent had visited their primary care doctor within the month

THE QUESTION OF SUICIDE WAS SELDOM RAISED...

Source: SAMHSA, July 2011

National Healthy worksite

Daily Disaster of Unprevented and Untreated Mental Illness (MI) and Substance Use Disorders (SUD)



National Strategy for Suicide Prevention-2012

- Four strategic directions
- Healthy and empowered individuals, families and communities
- Clinical and Community Preventive Services
- Treatment and Support Services
- Surveillance, Evaluation and Research

What Businesses and Employers Can Do

- **Implement organizational changes to promote the mental and emotional health of employees**
- **Ensure that mental health services are included as a benefit in health plans and encourage employees to use these services as needed.**
- **Train employees and supervisors to recognize coworkers in distress and respond appropriately.**

What Businesses and Employers Can Do

- **Ensure that counselors in an employee assistance program (EAP) are well equipped to assess and manage suicide risk.**
- **Ensure that mental health services offered to employees include grief counseling for individuals bereaved by suicide.**
- **Evaluate the effectiveness of workplace wellness programs in reducing suicide risk.**

Elements of a Mental Health-Friendly Workplace

The Mental Health-Friendly Workplace Circle

- Recruitment/Orientation
  - All qualified job applicants welcomed; diversity valued
  - EEO and ADA compliance, including reasonable accommodations and/or supported employment
  - Health insurance includes mental health
  - Short and Long term disability
  - Peer to peer counseling program
- Working: Wellness
  - Workplace wellness/Health promotion activities
  - Strong supervisor-employee working relationship
  - Supervisory training in mental health issues /awareness
  - Communication with employees about mental health policies an practices and the welcoming, stigma-and-discrimination-free workplace

Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, Workplaces that Thrive: A Resource for Creating Mental Health-Friendly Work Environments. http://www.promoteacceptance.samhsa.gov/publications/business_resource.aspx#circle

National Healthy worksite

Elements of a Mental Health-Friendly Workplace

- Working: Distress
  - Health care
  - Employee Assistance Program (or alternative resources in community)
  - Confidentiality safeguards
  - Management emphasis on problem solving and accommodations to promote job retention and to maintain productivity
- Away: Sick Leave or Disability
  - Continued health care
  - Strong supervisor-employee working relationship
  - Supervisor remains actively engaged with employee, including a plan to return to work
  - Peer to peer counseling (if desired to transition back to work)

Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, Workplaces that Thrive: A Resource for Creating Mental Health-Friendly Work Environments. http://www.promoteacceptance.samhsa.gov/publications/business_resource.aspx#circle

National Healthy worksite

Elements of a Mental Health-Friendly Workplace

- Return to Work
  - Continued peer to peer counseling
  - Continued supported employment
  - Continued supervisor encouragement/support
  - Should leaving the workplace become necessary, exit with dignity assured

Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, Workplaces that Thrive: A Resource for Creating Mental Health-Friendly Work Environments. http://www.promoteacceptance.samhsa.gov/publications/business_resource.aspx#circle

National Healthy worksite

What can supervisors do?

- DO NOT try to diagnose a problem
- Learn about mental illness and sources of help
- Recognize behaviors that signal distress such as:
  - Decreased productivity/Difficulty concentrating, making decisions or remembering things
  - Lack of cooperation/Displays of anger or blaming others
  - Safety risks, accidents
  - Frequent absenteeism/Consistent tardiness
  - Frequent statements about being tired
  - Complaints of unexplained aches and pains
  - Working excessive overtime over prolonged period
  - Alcohol or drug abuse

Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, Workplaces that Thrive: A Resource for Creating Mental Health-Friendly Work Environments. http://www.promoteacceptance.samhsa.gov/publications/business_resource.aspx#circle

NHW National Healthy worksite™

What can supervisors do?

- Use your skills to make the workplace feel safe and comfortable for all employees
- Discuss changes in the work performance with employee
- Maintain confidentiality
- Become familiar with the resources your company offers for assisting employee (ex. EAP)
- Recognize that an employee who is experiencing a mental illness may need a flexible schedule during treatment

Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, Workplaces that Thrive: A Resource for Creating Mental Health-Friendly Work Environments. http://www.promoteacceptance.samhsa.gov/publications/business_resource.aspx#circle

National Healthy worksite

National Action Alliance for Suicide Prevention

- A public-private partnership established in 2010 to advance the *National Strategy for Suicide Prevention (NSSP)*
- **Vision:** The National Action Alliance for Suicide Prevention envisions a nation free from the tragic experience of suicide
- **Mission**: To advance the *NSSP* by:
  - Championing suicide prevention as a national priority
  - Catalyzing efforts to implement high priority objectives of the NSSP
  - Cultivating the resources needed to sustain progress
- **Leadership:**
  - PUBLIC SECTOR CO-CHAIR, The Honorable John McHugh, Secretary of the Army
  - PRIVATE SECTOR CO-CHAIR, The Honorable Gordon H. Smith, President and CEO, National Association of Broadcasters

National Healthy worksite

Action Alliance for Suicide Prevention

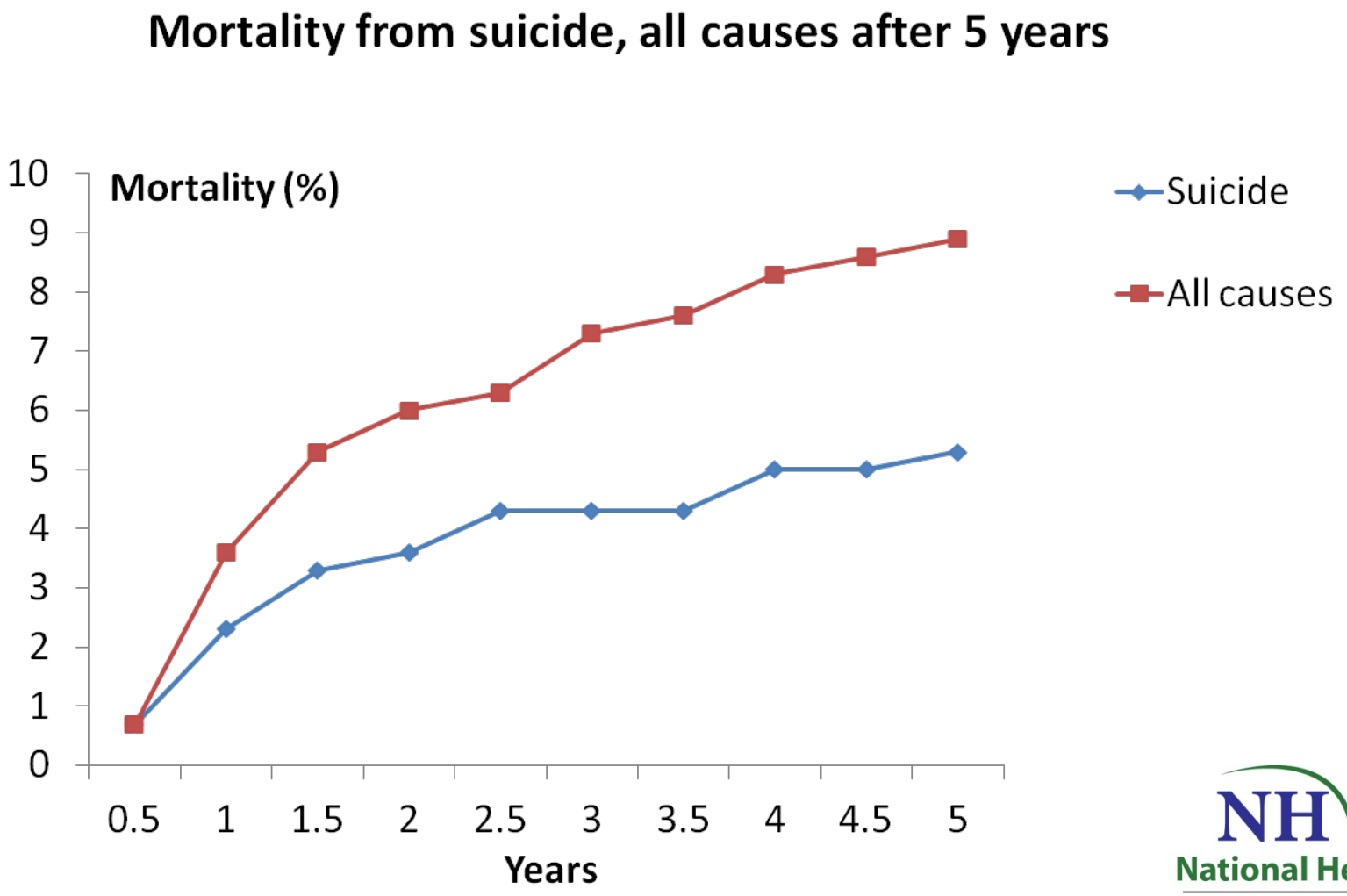
- Task Force on Suicide Prevention in the Workplace
- Building the business case
- Public service announcements
- Public-private partnership

Five Major Suicide Prevention Components

- Garrett Lee Smith State and Tribal Suicide Prevention Grant Program
- Garrett Lee Smith Campus Suicide Prevention Grant Program
- National Suicide Prevention Lifeline
  - Crisis Center Follow-up Grant Program
- Suicide Prevention Resource Center
- Native Aspirations

NHW
National Healthy
worksite

Follow up study of serious suicide attempts



Source: Beautrais AL. Subsequent mortality in medically serious suicide attempts: a 5 year follow-up. Aust N Z J Psychiatry. 2003 Oct;37(5):595-9.

Follow up study of serious suicide attempts

- Most deaths in the five-year follow-up period (62.5% of suicides; 59% of all deaths) occurred **within 18 months** of the index attempt.
- However, deaths (from suicide and all causes) continued throughout the entire five-year period.
- Clearly, there was a significant change of method in suicide attempt of those who died in the five-year follow-up period: **75%** changed from the method used at the index attempt (usually O/D) to a more lethal method (CO, hanging) that resulted in their death.

Source: Beautrais AL. Subsequent mortality in medically serious suicide attempts: a 5 year follow-up. Aust N Z J Psychiatry. 2003 Oct;37(5):595-9.

National Healthy worksite

National Suicide Prevention Lifeline

- National toll free number 1-800-273-TALK (8255)
- Calls routed automatically to the closest of 159 networked crisis centers
- Press “one” if a veteran or active duty military, SAMHSA, DVA,DOD collaboration
- Evaluation studies published June 2007 in Suicide and Life Threatening Behavior

NATIONAL SUICIDE PREVENTION LIFELINE
I-800-273-TALK

National Suicide Prevention Lifeline

Home | Get Help | Veterans | Get Involved | Spread the Word | Crisis Centers | Newsroom | About

Veterans Home | Resource Locator | Veterans Mental Health | Enrollment & Benefits | Spread The Word | FAQs | Contact

VETERANS HOTLINE

I-800-273-TALK
Veterans Press 1

What to expect when you call - Click play to hear the 1-800-273-TALK greeting with the option to press one if you are a U.S. military veteran.

MP3 WMA Transcript

Veterans

The Department of Veterans Affairs' (VA) Veterans Health Administration (VHA) has founded a national suicide prevention hotline to ensure veterans in emotional crisis have free, 24/7 access to trained counselors. To operate the Veterans Hotline, the VA partnered with the Substance Abuse and Mental Health Services Administration (SAMHSA) and the National Suicide Prevention Lifeline. Veterans can call the Lifeline number, 1-800-273-TALK (8255), and press "1" to be routed to the Veterans Hotline.

The Lifeline grant is funded by:

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration
www.samhsa.gov

Home | Contact | Privacy | Accessibility

NHW National Healthy worksite™

New Frontiers in Crisis Intervention

- Chat-Veterans chat initiated 2009
- Texting-Crisis texting services in Lifeline
- Social Networking Sites-relationship with Lifeline
- SAMHSA Summit and White Paper on suicide prevention and the new technologies

If you are in crisis, call the National Suicide Prevention Lifeline at 1-800-273-TALK

About SPRC
Suicide Prevention Basics
Featured Resources
State Information
Taking Action
News

Go
Additional Search Options

Email This Page
Contact Us

Weekly Spark
Sign up to receive news and announcements from SPRC.

Customized Information
Select Your Role

Quick Links
Calendar of events
Data
Evidence-based practices
Online library
Pressroom
SAMHSA Grantees
Youth

This Month Don't Miss...

SPRC to train 1300 Air Force personnel to assess and manage suicide risk
The US Air Force has awarded SPRC a contract to conduct workshops on Assessing and Managing Suicide Risk at 45 Air Force installations around the world. Read more.

SAMHSA AWARDS $25.7 Million in Suicide Prevention Grants to Universities, States, Tribes
SAMHSA has awarded 46 grants, totaling $25.7 million to support a broad array of activities across the country to prevent suicide, including grants funded through appropriations under the Garrett Lee Smith Memorial Act for youth suicide prevention. These most recent grants fund 34 campuses, nine states, and three tribal entities.

Louisiana and Mississippi to Receive $2.4 million for Youth Suicide Prevention
SAMHSA announced awards of $2.4 million over three years to Louisiana and Mississippi to develop and implement statewide suicide prevention and early intervention activities to benefit youth who are adversely impacted by the hurricanes of one year ago.

New curriculum helps mental health professionals manage suicide risk
SPRC and the American Association of Suicidology (AAS) announce a new workshop curriculum for mental health professionals and those working in EAP settings. The one-day workshop teaches competencies that are core to assessing and managing suicide risk.

More of "This Month Don't Miss"....

News Highlights

Subscribe to the Weekly Spark, our weekly Enewsletter. Click here to read more of this week's news.

National:
What's wrong with a child? Psychiatrists often disagree

State:

NATIONAL SUICIDE PREVENTION LIFELINE™

1-800-273-TALK

www.suicidepreventionlifeline.org

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration
www.samhsa.gov

Are you or someone you love at risk of suicide?

NATIONAL SUICIDE PREVENTION LIFELINE™

1-800-273-TALK

www.suicidepreventionlifeline.org

Get the facts and take appropriate action.

NHW National Healthy worksite™

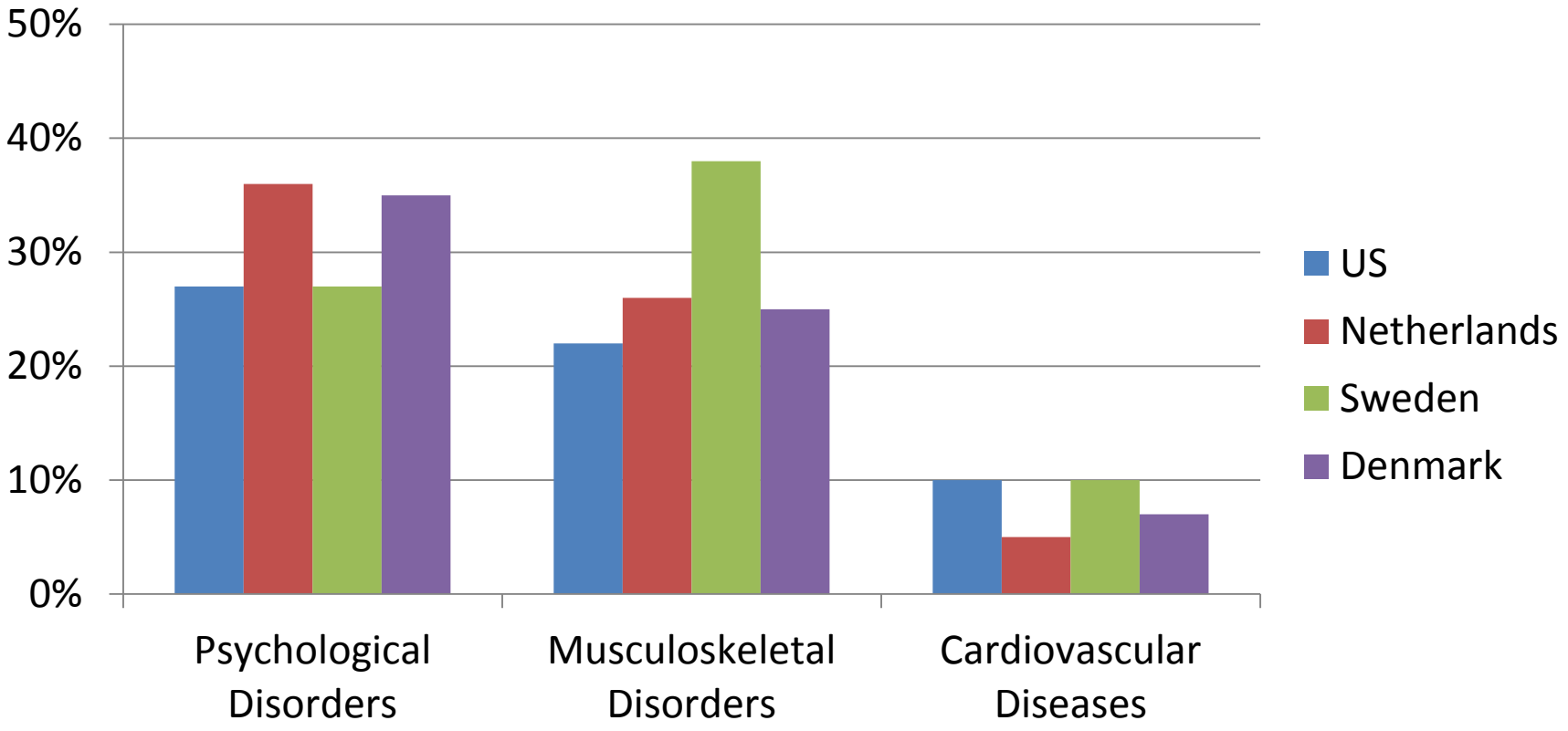
Suicide Warning Signs

Seek help as soon as possible by contacting a mental health professional or by calling the National Suicide Prevention Lifeline at 1-800-273-TALK if you or someone you know exhibits any of the following signs:

- Threatening to hurt or kill oneself or talking about wanting to hurt or kill oneself
- Looking for ways to kill oneself by seeking access to firearms, available pills, or other means
- Talking or writing about death, dying, or suicide when these actions are out of the ordinary for the person
- Feeling hopeless
- Feeling rage or uncontrolled anger or seeking revenge
- Acting reckless or engaging in risky activities—seemingly without thinking
- Feeling trapped—like there's no way out
- Increasing alcohol or drug use
- Withdrawing from friends, family, and society
- Feeling anxious, agitated, or unable to sleep or sleeping all the time
- Experiencing dramatic mood changes
- Seeing no reason for living or having no sense of purpose in life

National Healthy worksite

Major Sources of Disability



- 7-14% of workforce disabled in these countries
  - and % *increasing!*

Veerle Brenninkmeijer et al., 2003: Social Insurance in Sweden 2003, NSIB, 2003; Annual Statistical Report 2001, SSA, 2001; Jan Hogelund et al., 2002

National Healthy worksite

Cardiovascular Disease

- Heart disease and stroke
- #1 cause of death in the U.S. and other developed countries

Gaziano J. Global burden of cardiovascular disease. In: Zipes D, Libby P, Bonow R, Braunwald E, eds. Heart disease (pp. 1-19). London: Elsevier, 2004.

National Healthy worksite

A stressful work organization can cause chronic diseases

- Large and growing body of research: the way work is organized is an important risk factor for these three chronic diseases
  - also for: acute injuries, diabetes, sickness absence, disability pensions

- **Programs to improve work organization can potentially have benefits across a wide range of chronic diseases**

Landsbergis P, et al. Occupational Health Psychology (pp. 1086-1130). In Anna D (ed.) The Occupational Environment (3rd ed.). American Industrial Hygiene Association, 2011.

National Healthy worksite

What is work organization?
(adapted from NIOSH model)

Landsbergis P, et al. Occupational Health Psychology (pp. 1086-1130). In Anna D (ed.) The Occupational Environment (3rd ed.). American Industrial Hygiene Association, 2011.

What is a stressful work organization?

National Healthy worksite

Job strain (high demands + low control): important risk factor for chronic disease

- 7-25% of cardiovascular diseases
- 5-34% of psychological disorders
- 3-20% of musculoskeletal disorders due to job strain (France)

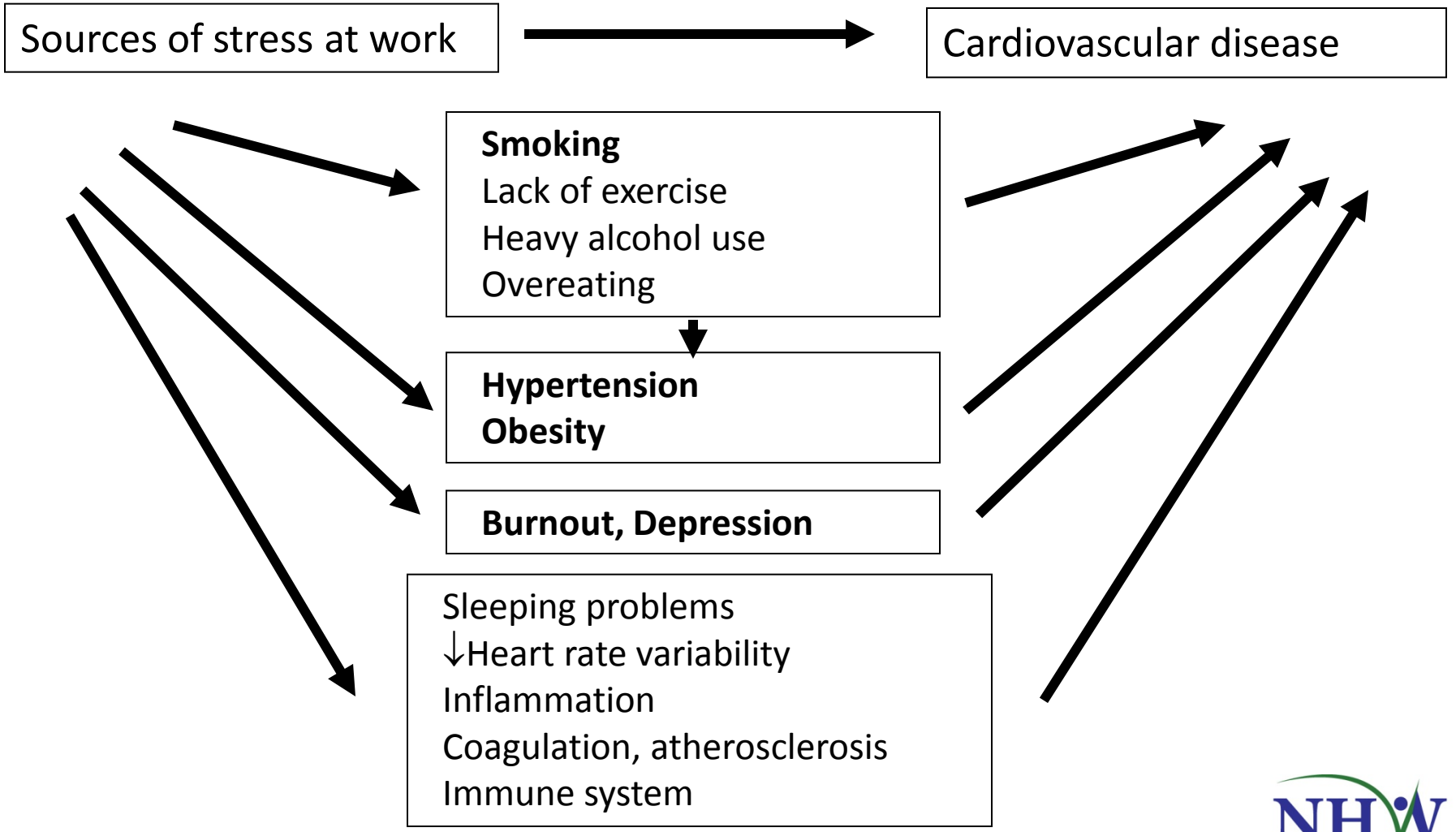
- 13-17% of depression due to job strain (Australia)

- Men with job strain 50% more likely
- Women with job strain 70% more likely to receive disability pensions (Sweden)

Sultan-Taıeb H, et al. Int Arch Occup Environ Health (2011) 84:911–925.
LaMontange AD, et al. BMC Public Health 2008;8(181):9.
Canivet C, et al. Int Arch Occup Environ Health DOI 10.1007/s00420-012-0766-4

National Healthy worksite

Job stressors & cardiovascular disease:
Potential pathways



Belkić K, Landsbergis P, Schnall P, Baker D. *Scand J Work Environment and Health* 2004;30(2):85-128.
Siegrist J, Rodel A. *Scand J Work Environment and Health* 2006;32(6):473-481.

National Healthy worksite

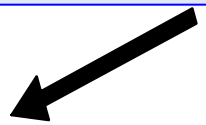
Job stressors & musculoskeletal disorders:
Potential pathways

Job design

- Production quotas
- Machine-paced work
- Repetition
- Increased force
- Awkward postures
- Longer duration
  - Few rest breaks
  - Overtime

Stress reactions

- Reduced blood flow to extremities
- Blood pressure rise
- Cortisol
- Muscle tension
- Weakened immune system
- Increased pain sensitivity



MUSCULOSKELETAL DISORDERS

Smith MJ, Carayon P. Work organization, stress, and cumulative trauma disorders. In Moon SD, Sauter SL (eds.). Beyond biomechanics: (pp. 23-42). Taylor & Francis, 1996.
Lang, J. Social Science & Medicine 2012;75:1163-1174.

National Healthy worksite

Lower income & blue-collar workers have: higher rates of chronic disease

- Workers in lower income or blue-collar jobs have more:
  - Cardiovascular disease (CVD)
  - CVD risk factors
  - physical & chemical hazards & job stressors
  - impact of job stressors on CVD & CVD RF
- *but,* less participation in health promotion programs

Landsbergis P, et al. Occupational Health Psychology (pp. 1086-1130). In Anna D (ed.) The Occupational Environment (3rd ed.). American Industrial Hygiene Association, 2011.

Workplace chronic disease prevention programs

Primary prevention

Laws, regulations → **National policy level**

Organizational policies
Collective bargaining → **Organizational level**
Temporary work, downsizing
Flexible scheduling policies
Work-family policies

Job redesign,
Labor-mgmt committees → **Job level**
Low job control
Social isolation
Long work hours, shiftwork

Secondary prevention

Health promotion,
Stress management → **Individual level**
Sub-clinical disease

Tertiary prevention

Tx, rehab, return-to-work → **Disease**

NHW National Healthy worksite™

NIOSH: TOTAL WORKER HEALTH™

Integrating:
Health Protection (Occupational Health) &
Health Promotion

http://www.cdc.gov/niosh/twh/

National Healthy worksite™

Integration of health promotion/occupational health for CVD prevention:

endorsed by the American Heart Association

- Need: “changes in the work environment to encourage healthy behaviors & promote occupational safety & health”
- “consider targeted….interventions for their more vulnerable employees that are specifically designed to engage those who are economically challenged, less educated, or underserved”
- “Worksite wellness programs should help working families balance work & family commitments & incorporate policies around child/elder/dependent care, telecommuting & flexible work schedules”

Carnethon M, et al. Worksite Wellness Programs for Cardiovascular Disease Prevention. A Policy Statement From the American Heart Association. *Circulation* 2009;120:1725-41.

National Healthy worksite

Copenhagen Healthy Bus project:
Reducing cardiovascular risk

- **Action research project, 1999-2004**
  - **>200 interventions to improve health, well-being and work environment of 3,500 Copenhagen bus drivers**
  - **Labor-management-researcher cooperation**

Poulsen KB, Jensen SH, Bach E, Schostak JF. *Educational Action Research* 2007; 15(1): 75–106.

National Healthy worksite

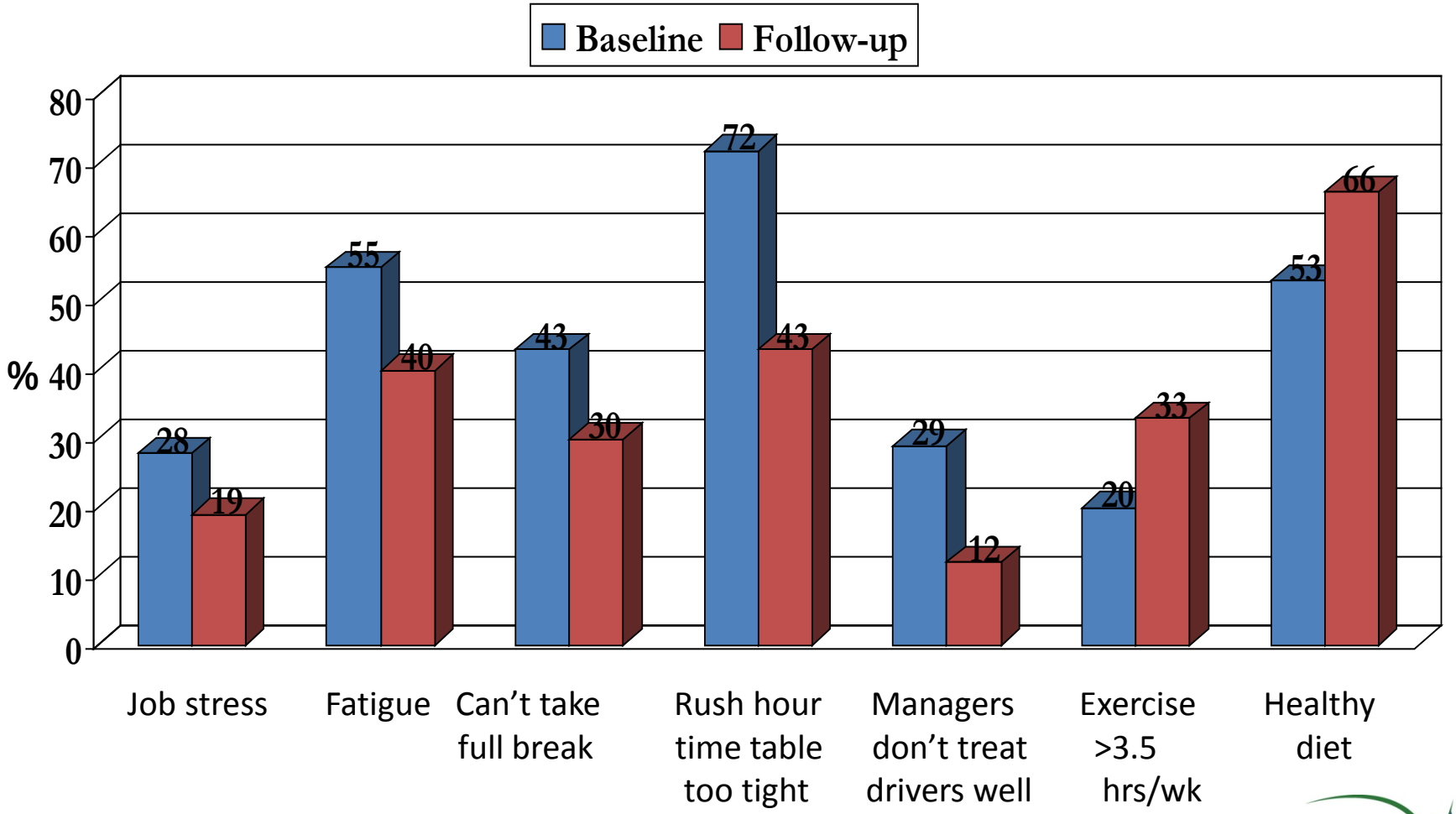
Copenhagen Healthy Bus project:
intervention examples

- Job characteristics/work organization
  - Test more flexible schedules
  - Better communication between management and drivers
- Life style
  - Smoking cessation, healthy diet courses
  - Fresh fruit available in garage
- Competence/education
  - Education of managers in personnel mgmt and communication
  - Courses on handling threats & violence; “know your bus”
- Physical work environment
  - More resources for bus preventive maintenance
  - Joint labor-management meetings

Poulsen KB, Jensen SH, Bach E, Schostak JF. *Educational Action Research* 2007; 15(1): 75–106.

National Healthy worksite

Copenhagen Healthy Bus project:
Reducing cardiovascular risk



Poulsen KB, Jensen SH, Bach E, Schostak JF. *Educational Action Research* 2007; 15(1): 75–106.

National Healthy worksite

Quebec hospital workers: Reducing psychological distress

- Employee surveys/interviews (job stressors, anxiety, depression)
- Labor-mgmt-researcher intervention team
- Feedback to management, employees and unions
  - Review of survey results
  - Targeted 56 adverse work conditions & recommended solutions
- Examples of intervention targets
  - Consultation with nurses on staffing, training plan & schedule
  - Ergonomic improvements
  - Improve team communication, support
  - Task rotation between nurses & aides
  - Job enrichment, training for nurses' aides
  - Reduce delays in filling open staff positions (nurses, clerks)
  - Discuss with doctors that nurses' work is taken for granted

Bourbonnais R, et al. *Occupational and Environmental Medicine* 2006;63:326-334.

Quebec hospital workers:
Intervention vs. control hospital (after 3 yrs)

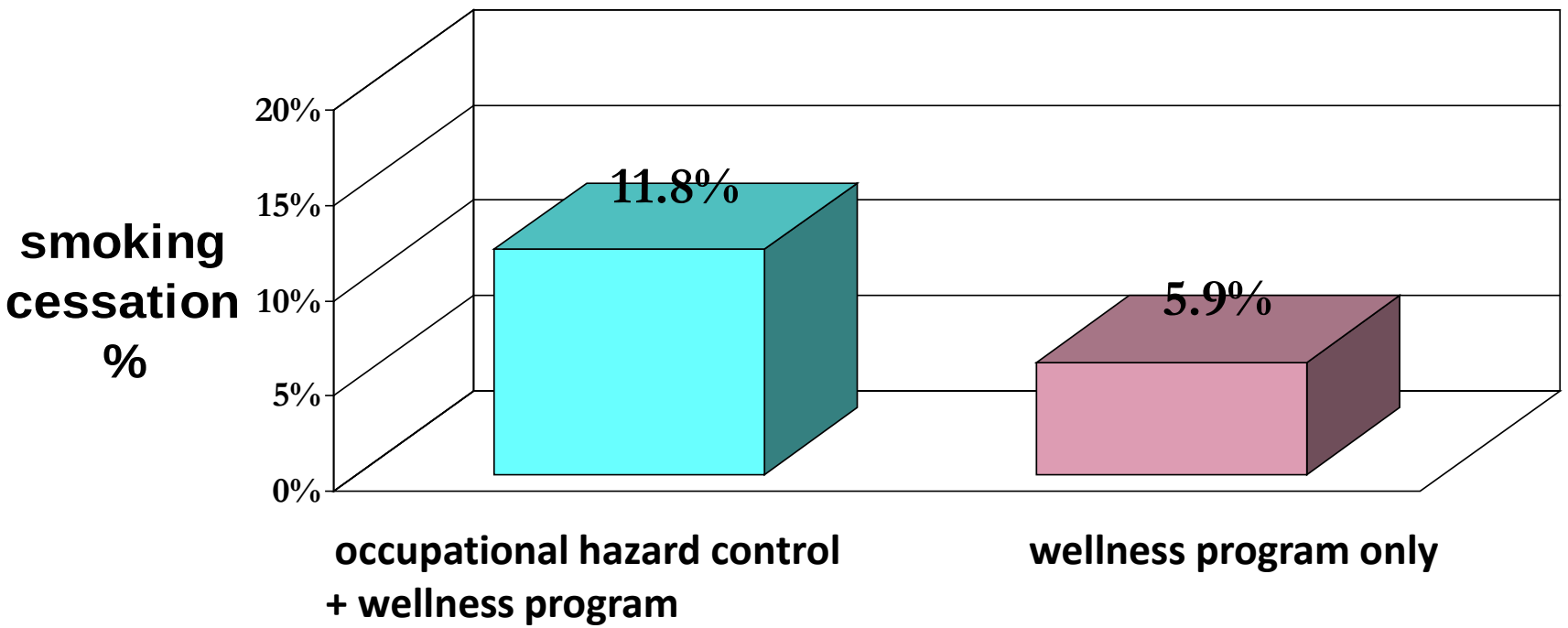
Greater reductions	Greater improvements	No difference
	Job characteristics	
Psychological demands	Control	Co-worker support
Physical demands	Supervisor support	Emotional demands
Efforts greater than rewards	Reward	
	Work quality	
	Health outcomes	
Anxiety, depression		Sleeping problems
Burnout		

Bourbonnais R, et al. *Occupational and Environmental Medicine* 2011;68:479-86.

NHW National Healthy worksite™

Smoking quit rate higher if occupational hazard control program + wellness program

(15 Massachusetts worksites)



Blue-collar workers given time-off for participation in both programs

Sorensen G, et al. *American Journal of Health Promotion* 1995;10(1):55-62.
Sorensen G, et al. *American Journal of Public Health* 1998; 88: 1685-1690.

National Healthy worksite

Hotel housekeepers: Reducing musculoskeletal disorders

- UC San Francisco Med School researchers & local hotel workers union, 1998
- Hotel housekeepers participated in
  - focus groups
  - survey development
  - hazard & symptom identification
- Ergonomic hazards
- Work intensification
  - More amenities
  - Less staff
- Results → union-management contract negotiating committee
  - 1999 contract: daily room quota from 15 → 14 or 13

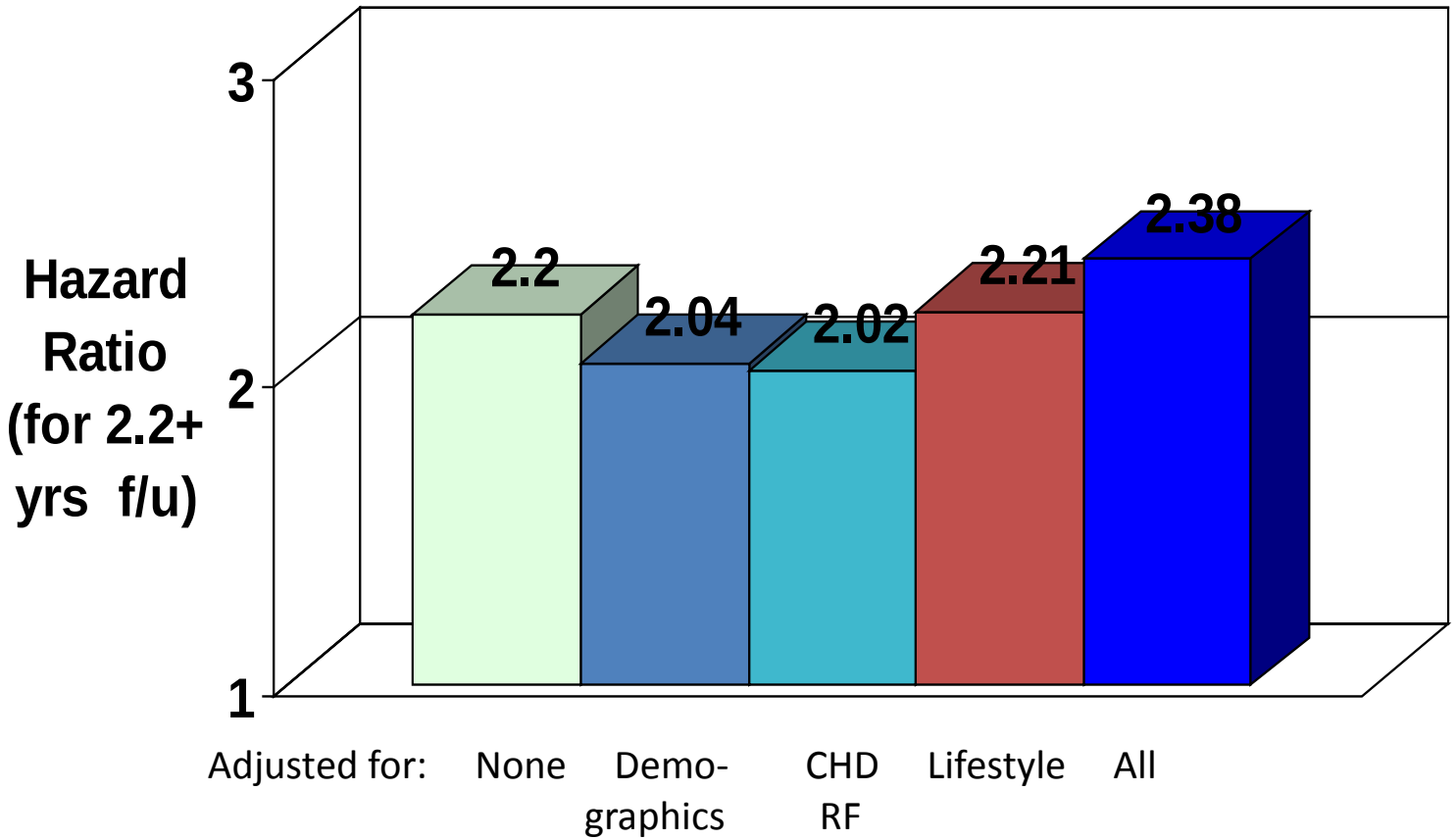
Lee PT, Krause N. J Public Health Policy 2002;23:268-285.
Creating Luxury, Enduring Pain. UNITE-HERE, April 2006.

National Healthy worksite

Healthy Aging & Aging Productively At Work

Chronic job strain predicts a 2nd heart attack

(Employed non-fatal AMI, 30 Quebec hospitals, age 35-59, 866 men, 106 women; 5.9 yr mean f/u (1996-2005): 206 cases fatal CHD, nonfatal AMI, unstable angina)



Exposed to job strain: baseline (RTW) + 2.2 yr later;

all p<.05;
If LVEF <40%, HR=8.0

Aboa-Éboulé C, Brisson C, Maunsell E, et al. JAMA 2007;298:1652-60.

National Healthy worksite

Occupational medicine clinics: To promote integrated worksite interventions

- Ask patients about work history, working conditions
- Diagnose & identify clusters of work-related chronic disease
- Treatment
- Prevention
  - Workplace assessments (IH, ergonomics)
  - Worker education
  - RTW guidelines, including workplace modifications
  - Help manage health promotion programs
- Trusted by lower-income or blue-collar workers

Herbert R, London M, Nagin D, Beckett W. *Am J Industrial Med*icine 2000 Jan;37(1):1-5.
LaMontagne AD, Keegel T, Louie AM, Ostry A, Landsbergis PA. *Int J Occup Environ Health* 2007;13:268–280.
Belkic K, Schnall P, Landsbergis P, Baker D. *Occupational Medicine: State of the Art Reviews.* 2000;15(1):307-321.

National Healthy worksite

Occupational medicine clinics: To promote integrated worksite interventions

- Potential
  - Conduct work site screening/surveillance
    - chronic disease, work organization
    - Identify high-risk occupations
  - Link cardiologists, psychiatrists, psychologists, social workers, health promotion experts, and occupational health specialists
  - Educate cardiologists & psychiatrists about work-related diseases

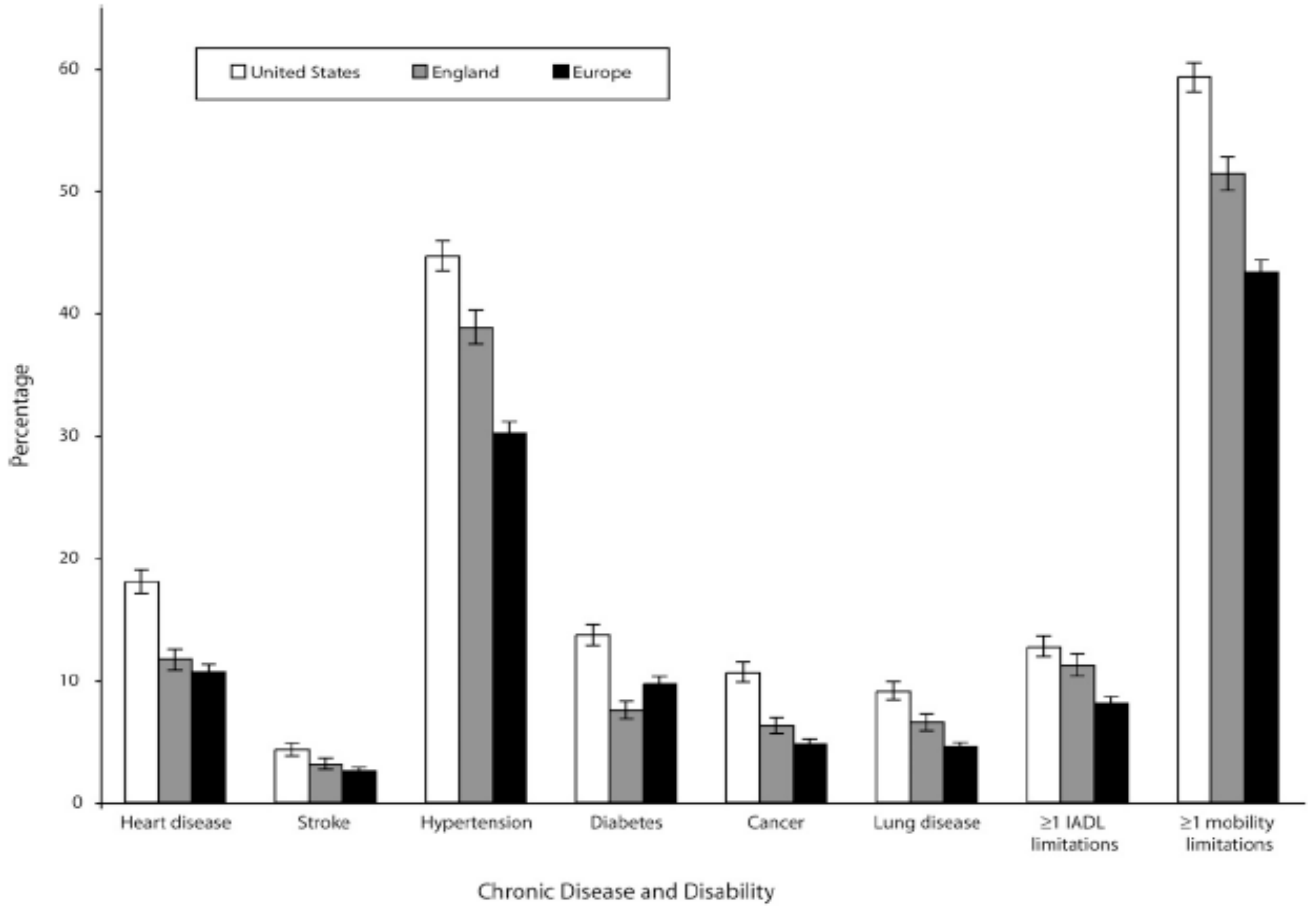
Herbert R, London M, Nagin D, Beckett W. *Am J Industrial Med*icine 2000 Jan;37(1):1-5.
LaMontagne AD, Keegel T, Louie AM, Ostry A, Landsbergis PA. *Int J Occup Environ Health* 2007;13:268–280.
Belkic K, Schnall P, Landsbergis P, Baker D. *Occupational Medicine: State of the Art Reviews.* 2000;15(1):307-321.

National Healthy worksite

U.S. national policy approaches to improving the work environment & employee health

- National laws
  - Existing (OSHA, NLRA)
  - Proposed (paid vacation time, sick leave)
- State laws
  - Minimum staffing levels (e.g., nurses)
  - Bans on mandatory overtime (health care workers)
  - Paid family leave, paid sick days
- Municipal laws
  - Paid sick days

U.S. has higher rates of chronic disease in middle age than European countries



Notes. HRS = Health and Retirement Survey; ELSA = English Longitudinal Study of Ageing; SHARE = Survey of Health, Ageing and Retirement in Europe; IADL = instrumental activities of daily living. Model adjusted for age and gender; lines indicate 95% confidence intervals.

FIGURE 1—Prevalence of chronic disease and disability among men and women aged 50 to 74 years in the United States, England, and Europe: HRS, United States, 2004; ELSA, England, 2004; and SHARE, Europe, 2004.

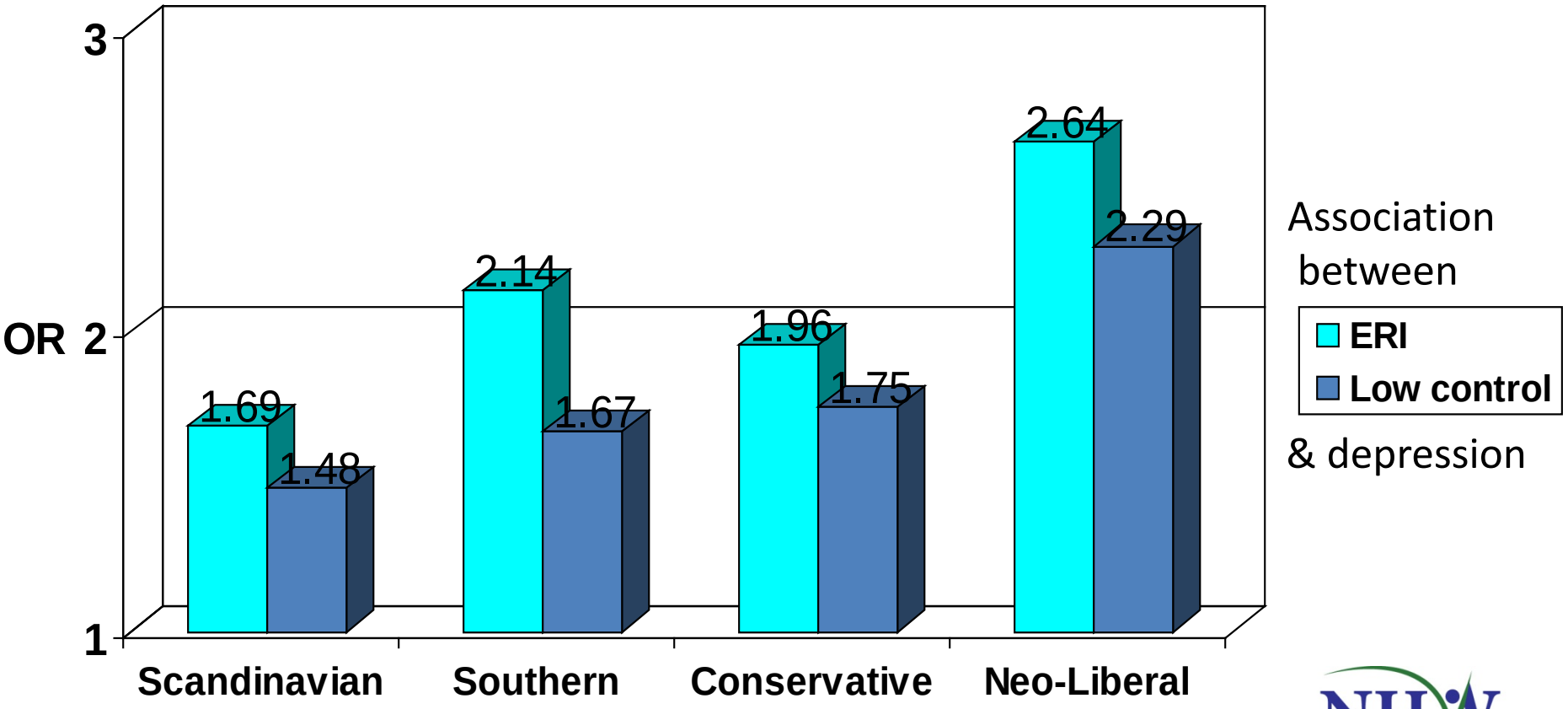
Avendano et al. March 2009, Vol 99, No. 3, American Journal of Public Health.

National Healthy worksite

National policies/laws make a difference:

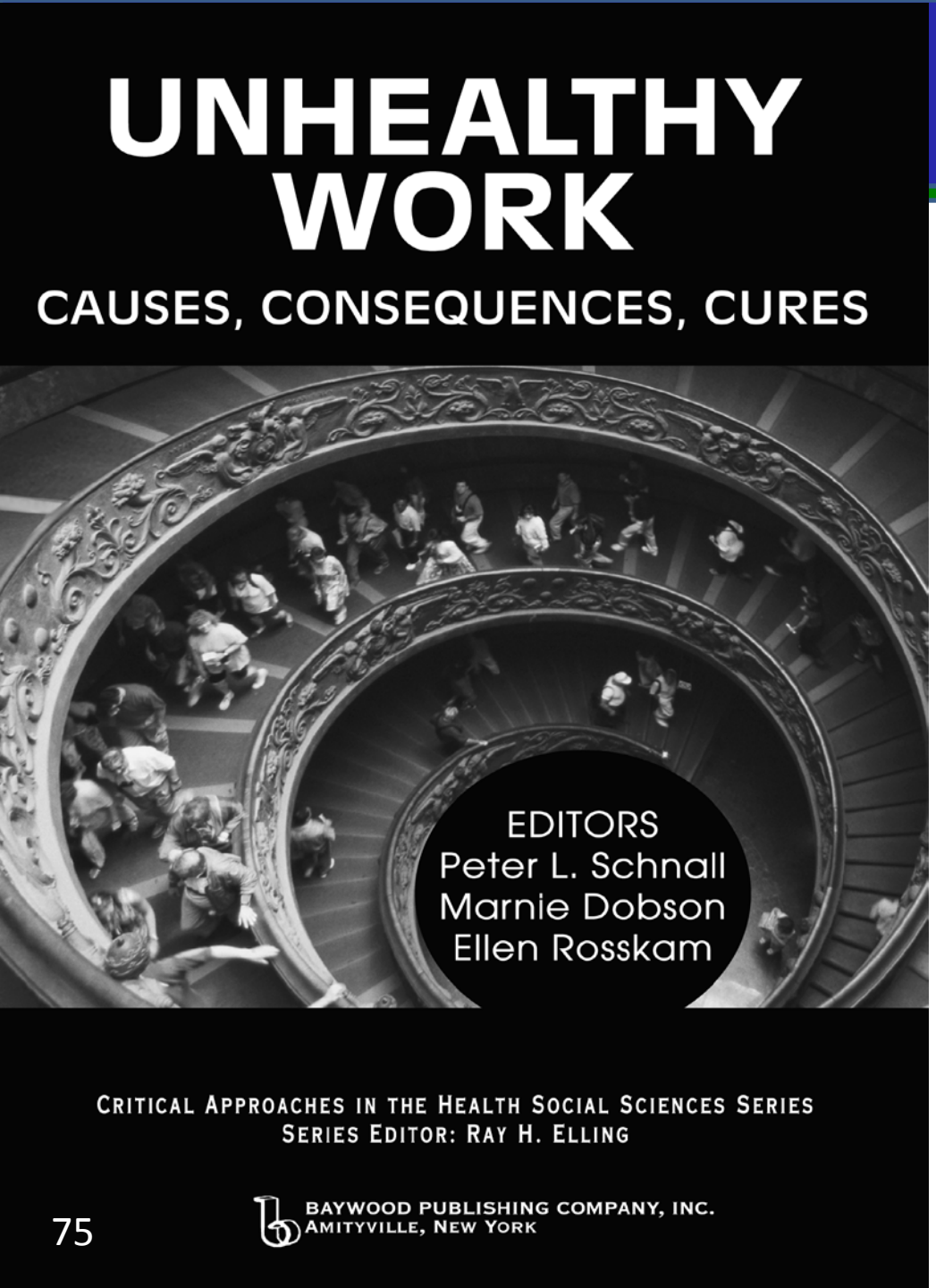
Assoc. between job stressors & depression varies by type of national policies

(5383 men, 4534 women, age 50-64, 12 European countries, 2004)



Dragano N, Siegrist J, Wahrendorf M. J Epidemiol Comm Health 2011;65(9):793-9.

National Healthy worksite



For further information:

NIOSH
Total Worker Health
http://www.cdc.gov/niosh/twh/

Unhealthy Work:
Causes, Consequences, Cures
http://www.baywood.com/books/previewbook.asp?id=978-0-89503-335-2

Center for Social Epidemiology
http://www.workhealth.org

NHW National Healthy worksite™

Thanks to:

- Peter Schnall, MD, MPH (University of California at Irvine)
- Robert Karasek, PhD (University of Massachusetts Lowell)
- Laura Punnett, ScD, MPH (University of Massachusetts Lowell)
- Carles Muntaner, MD, PhD (University of Toronto)
- Sherry Baron, MD, MPH (NIOSH)

National Healthy worksite

Contact information

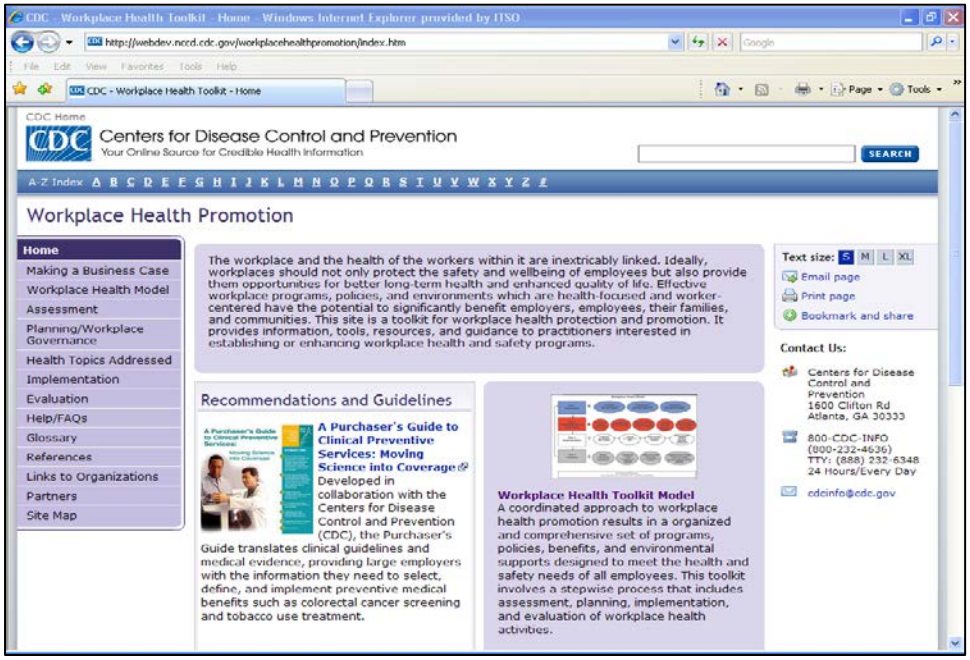
Name	Title	Organization	Phone	Email
Jamie Becker, MSW, LCSW-C	Associate Director, Health Promotion	LHSFNA		jamie@lhsfna.org
Paul Landsbergis, PhD	Associate Professor	SUNY School of Public Health		paul.landsbergis@downstate.edu
Richard McKeon, PhD.	Branch Chief, Suicide Prevention	SAMHSA	240-276-1873	Richard.mckeon@samhsa.hhs.gov

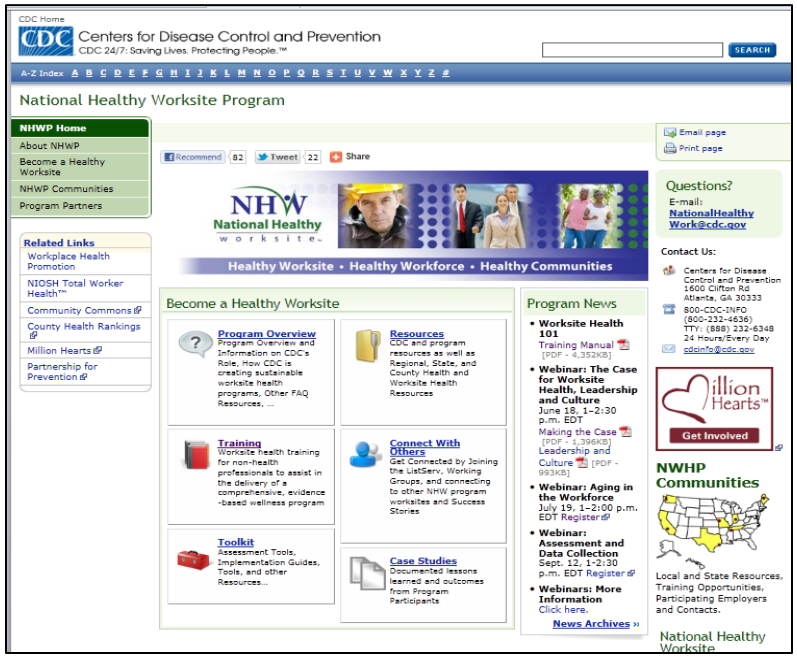
National Healthy worksite

CDC Worksite Health Promotion Resources

www.cdc.gov/WorkplaceHealthPromotion

www.cdc.gov/NationalHealthyWorksite/





NHW National Healthy worksite™

Upcoming Events

- **National Participant Program Implementation Webinar Training (3 of 5)**
  - Topic: “Planning”
  - Date/Time: January 14, 2013 at 1:00PM Eastern
  - Speakers:
    - Mari Ryan, MBA, MHP – Advancing Wellness
    - Lisa Erck – Massachusetts Department of Public Health
  - Registration Link: https://www3.gotomeeting.com/register/652441654

- **Healthy Worksite Webinar**
  - Topic: Community Partnership Building
  - Date/Time: February 11, 2013 at 1:00PM Eastern
  - Speakers:
    - Dawn Robbins - Oregon Public Health Division
    - Monica Vinluan– Y of the USA
    - Andrew Webber – National Business Coalition on Health
  - Registration Link: https://www3.gotomeeting.com/register/181923054

NHW National Healthy worksite™