



Healthy Worksite • Healthy Workforce • Healthy Communities

Mental Health and Chronic Disease in the Workplace

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.*

Comorbidity

- Multiple coexisting diseases.
 - 68% of adults with mental disorders have medical conditions²
 - 29% of adults with medical conditions have mental disorders³

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

³ IBID

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	

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

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.

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.

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.

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.

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/>

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

~ 36,000 Americans die by suicide each year

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

Tough Realities

Age: 14-18

**2.9 million
had serious
thoughts of
suicide**

**2.3 million
made a plan**

**1.3 million
attempted
suicide**

**~ 1,000 (14-17)
die by suicide
each year¹**

**8.4 million
had serious
thoughts of
suicide**

**2.2 million
made a plan**

**1.1 million
attempted
suicide**

**~ 35,000 (18 & ↑)
die by suicide
each year²**

Age: 18 and ↑

Sources:

23

1. SAMHSA, 2012

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

SUICIDE: Data and Disparities

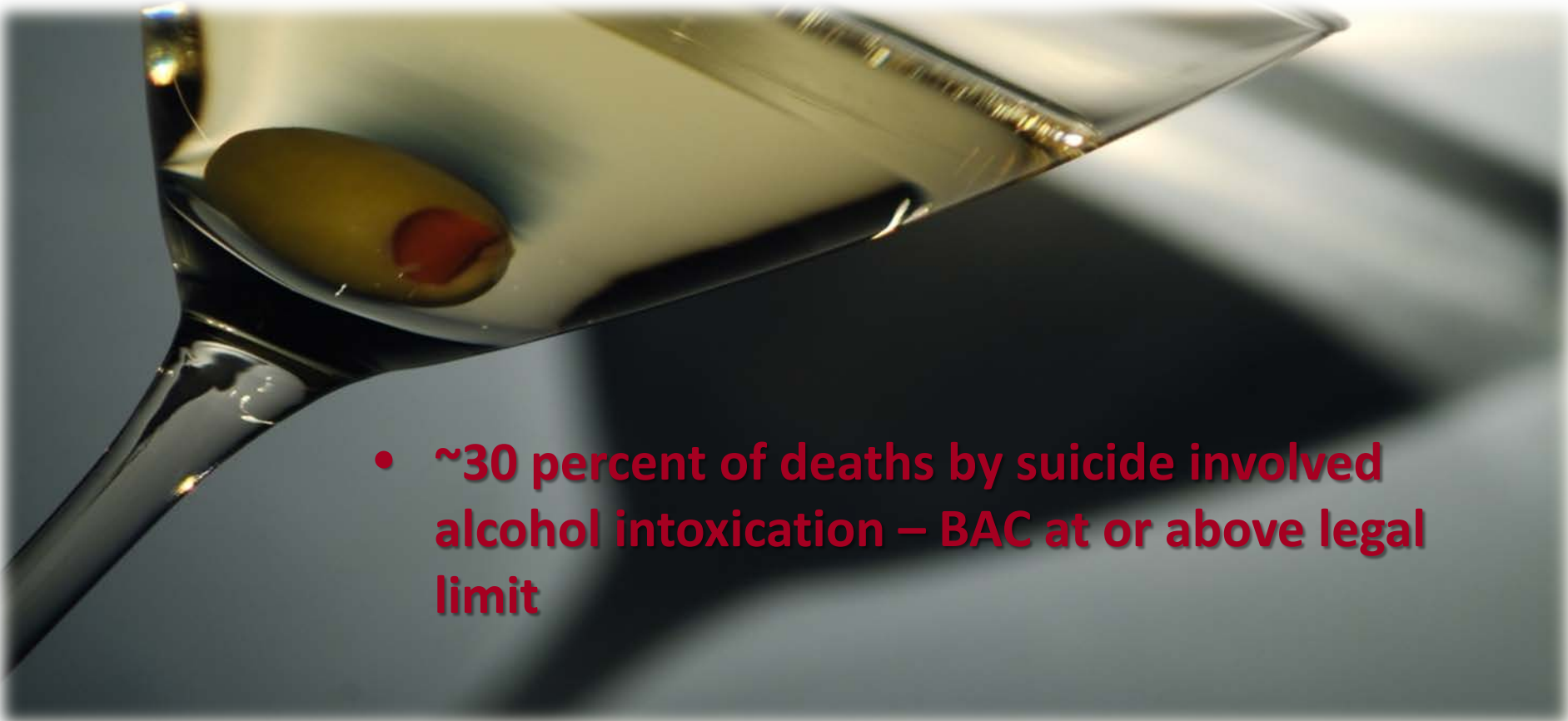
→ Suicides

- 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

- 
- **~30 percent of deaths by suicide involved alcohol intoxication – BAC at or above legal limit**

Source: National Center for Health Statistics 2009

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 population¹

90 percent of individuals who die by suicide had a mental disorder²

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 days¹
- ~ 8.6 percent hospitalized for suicidality are predicted to eventually die by suicide²

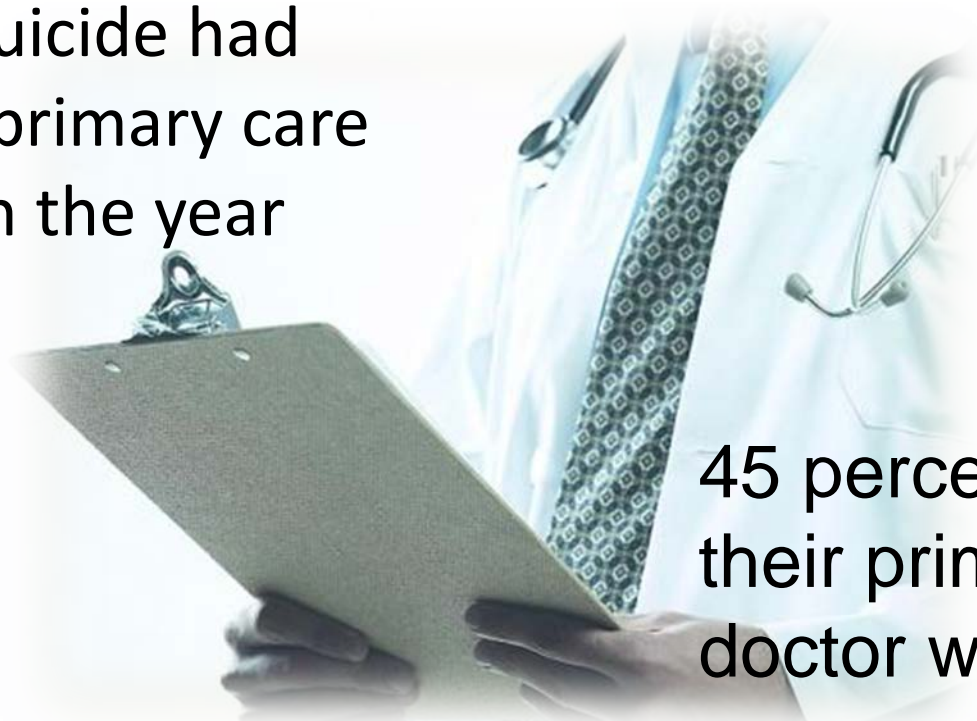
Sources:

1. SAMHSA, July 2011

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

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...

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

Any MI:
45.1 million

**37.9 %
receiving
treatment**

SUD:
22.5 million

**18.3 %
receiving
treatment**

Diabetes:
25.8 million

**84 %
receiving
treatment**

Heart Disease:
81.1 million

**74.6 %
receiving
screenings**

Hypertension:
74.5 million

**70.4%
receiving
treatment**

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

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

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

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

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 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

Action Alliance for Suicide Prevention

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

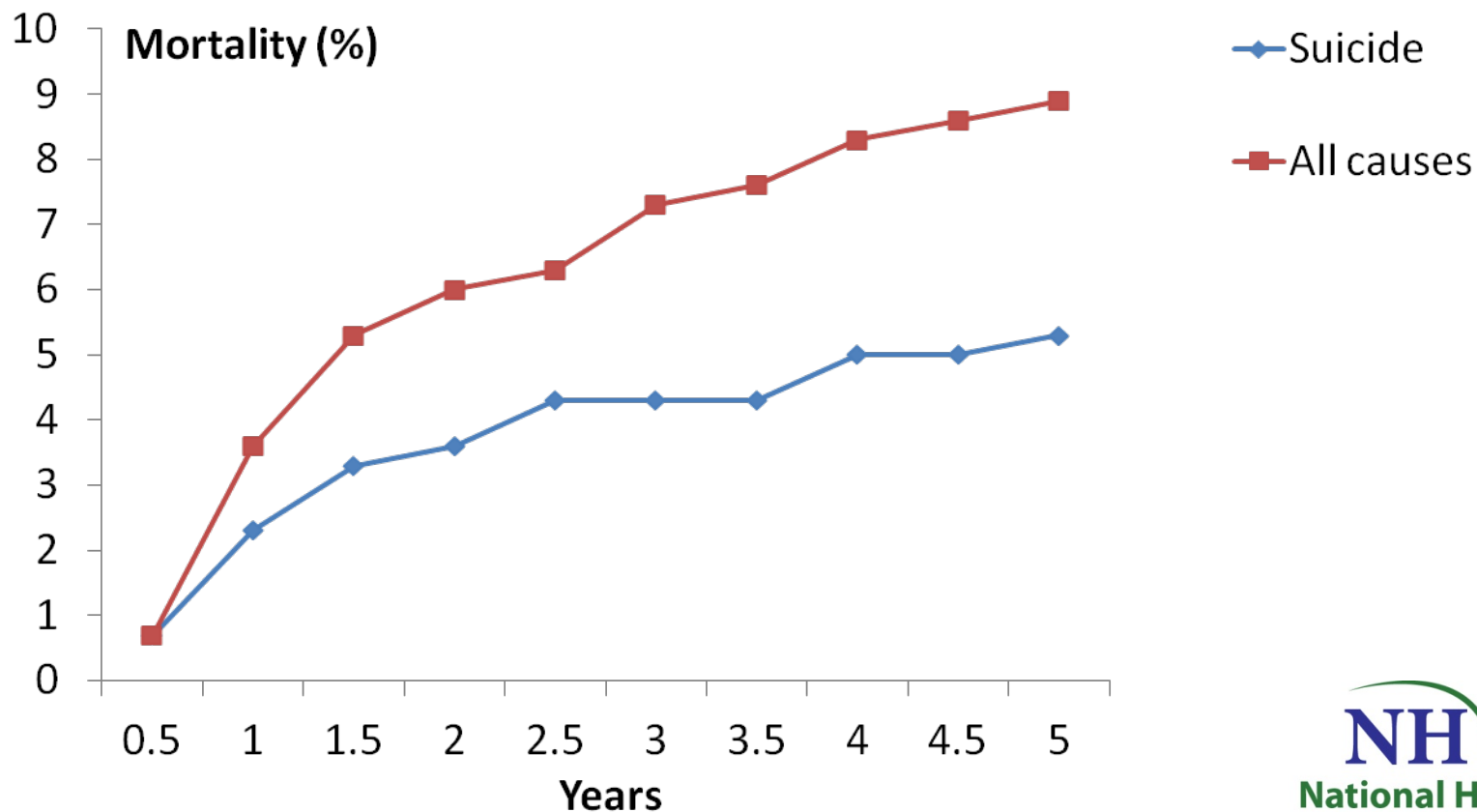
Five Major Suicide Prevention Components

- 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



Follow up study of serious suicide attempts

Mortality from suicide, all causes after 5 years



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 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



Veterans



veterans
mental
health

**VETERANS
HOTLINE**

**1-800-273-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](#)

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:

[Home](#) | [Contact](#) | [Privacy](#) | [Accessibility](#)



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

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

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Weekly Spark

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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

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National:

[What's wrong with a child? Psychiatrists often disagree](#)

State:

Customized Information

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Are you or
someone you love
at risk of suicide?

NATIONAL
SUICIDE
PREVENTION
LIFELINE™
I-800-273-TALK
www.suicidepreventionlifeline.org

NATIONAL
SUICIDE
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LIFELINE™
I-800-273-TALK
www.suicidepreventionlifeline.org

Get the facts and take
appropriate action.

NH
National Healthy
worksites™



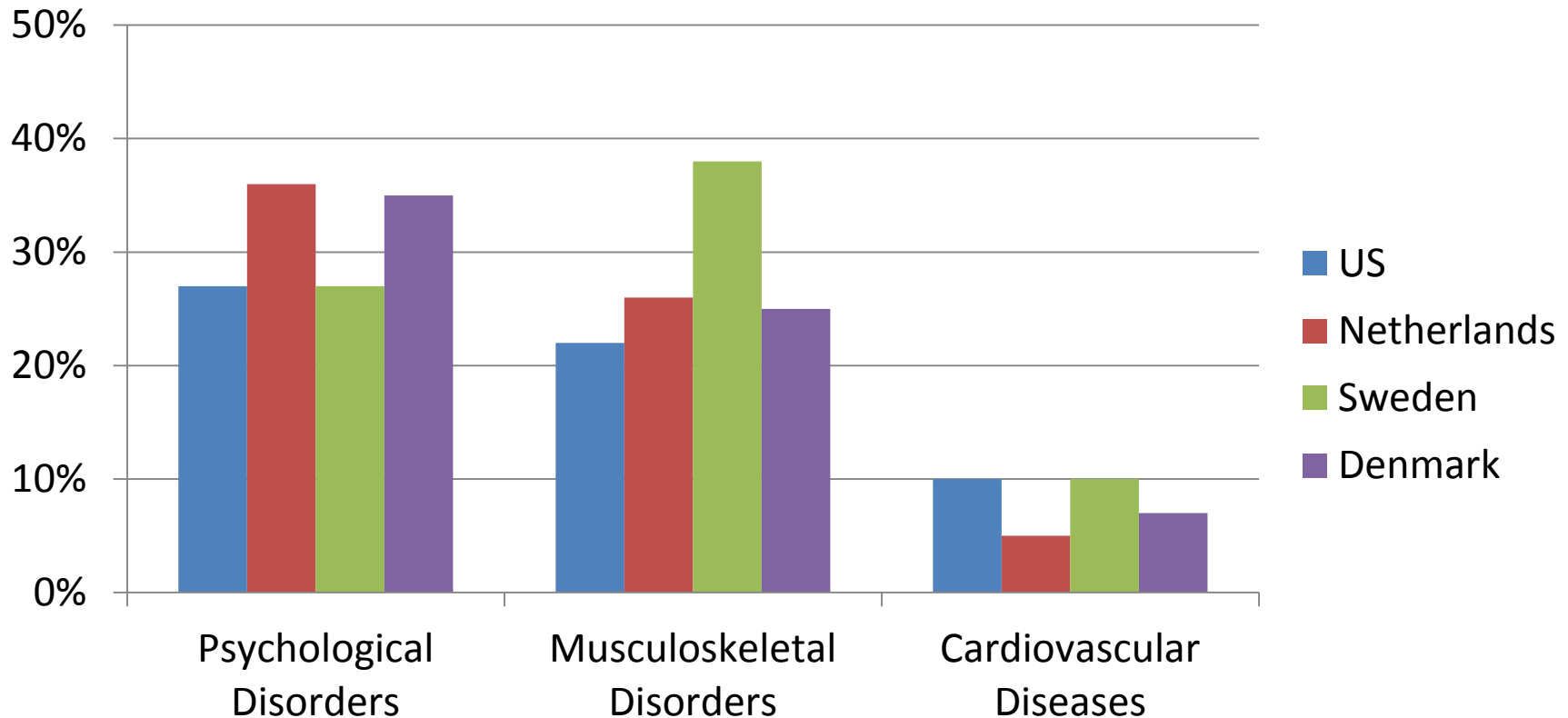
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration
www.samhsa.gov

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

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

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.

A stressful work organization can cause chronic diseases

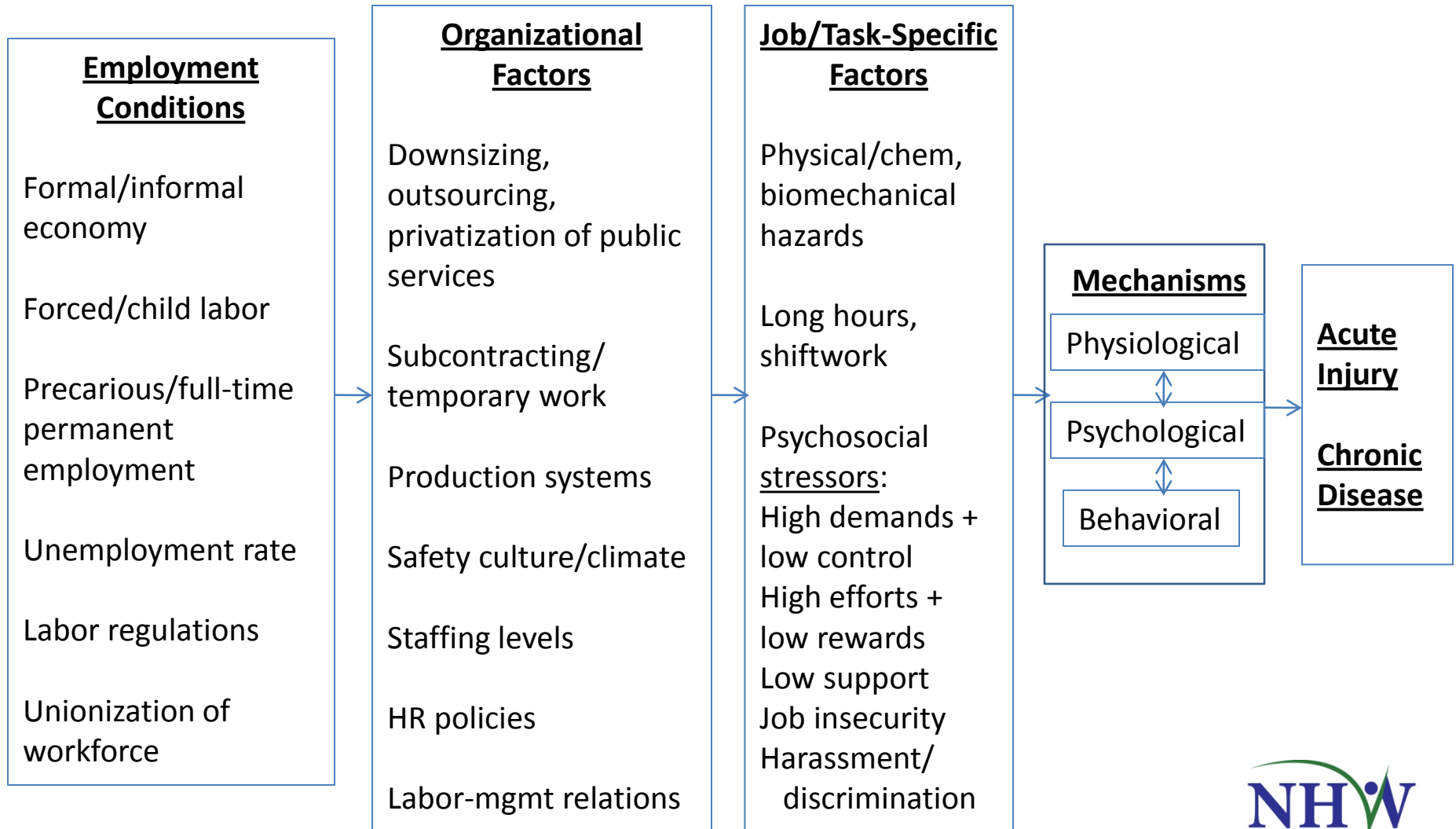
- ❑ Large and growing body of research: the way work is organized is an important risk factor for these three chronic diseases
 - also for: acute injuries, diabetes, sickness absence, disability pensions

- ❑ **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.

What is work organization?

(adapted from NIOSH model)



What is a stressful work organization?



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)

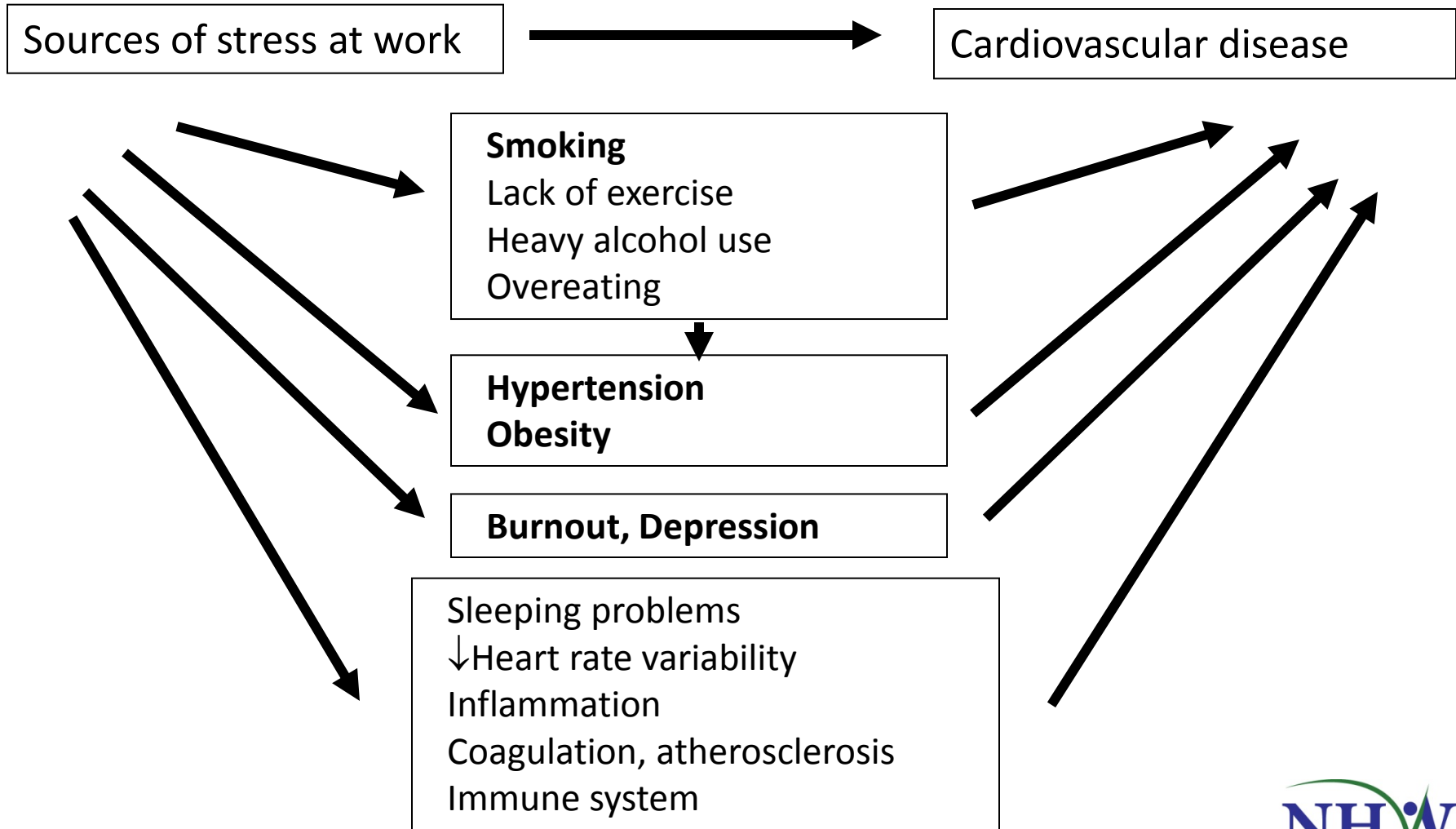
- ❑ Men with job strain 50% more likely
- ❑ Women with job strain 70% more likely to receive disability pensions (Sweden)

Sultan-Tareb H, et al. *Int Arch Occup Environ Health* (2011) 84:911–925.

LaMontagne 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

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.

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.

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

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

NIOSH: TOTAL WORKER HEALTH™

Integrating:
Health Protection (Occupational Health) &
Health Promotion



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

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.

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**

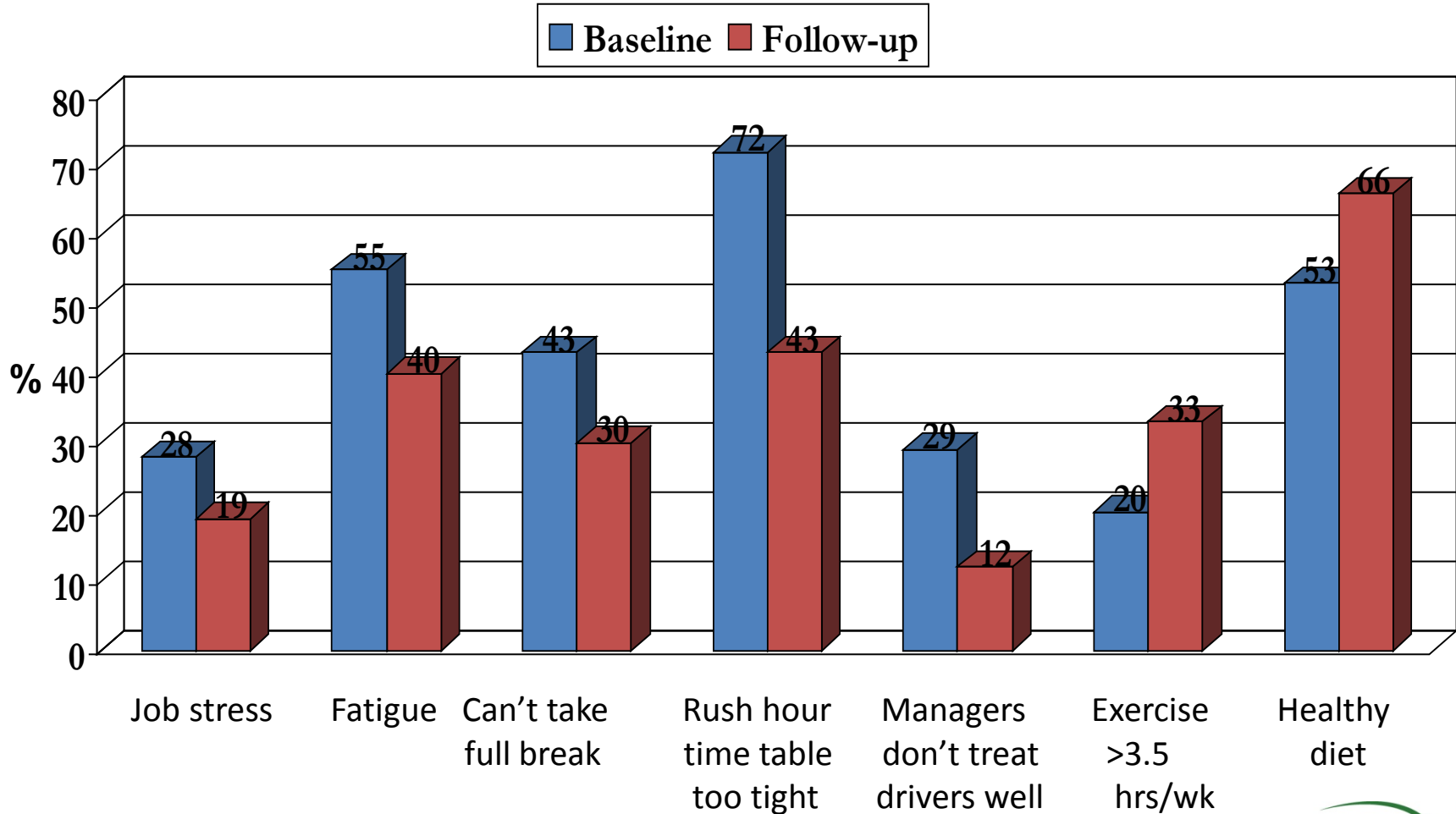
Poulsen KB, Jensen SH, Bach E, Schostak JF. *Educational Action Research* 2007; 15(1): 75–106.

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.

Copenhagen Healthy Bus project: Reducing cardiovascular risk



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

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

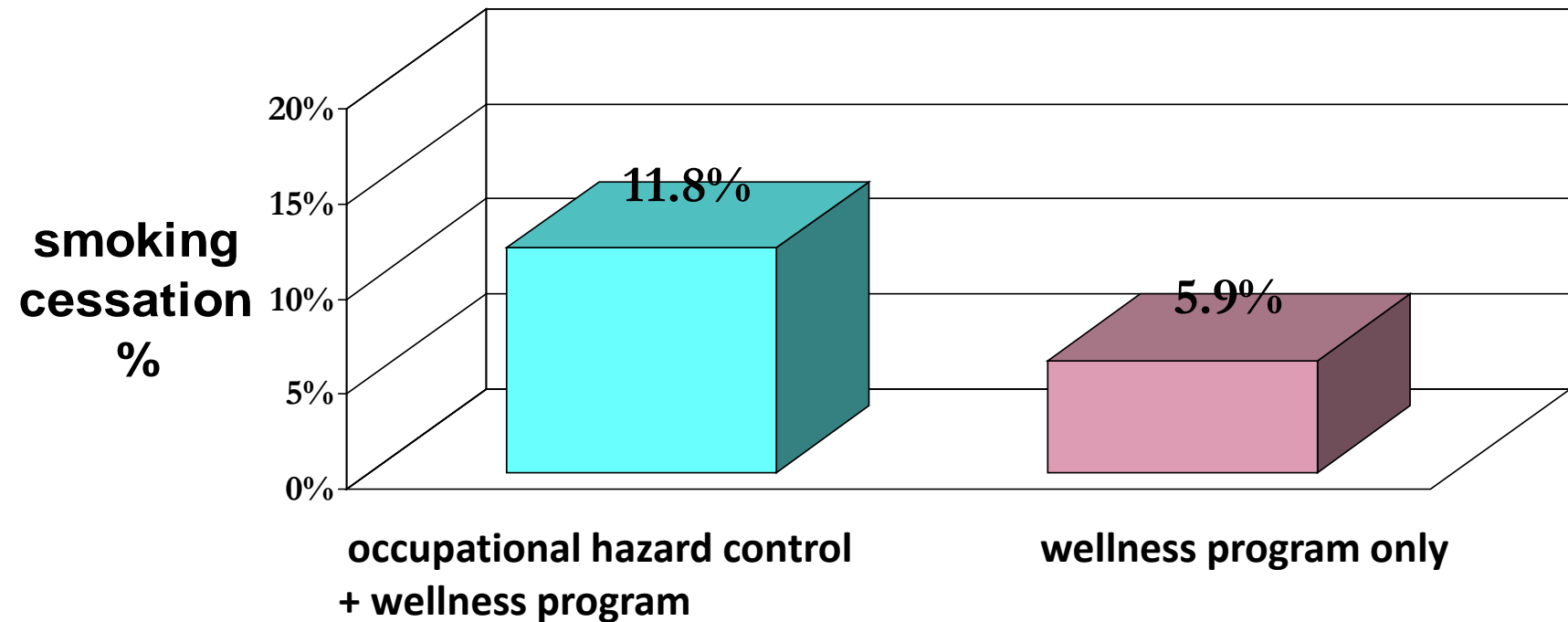
Quebec hospital workers: Intervention vs. control hospital (after 3 yrs)

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

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

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.

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

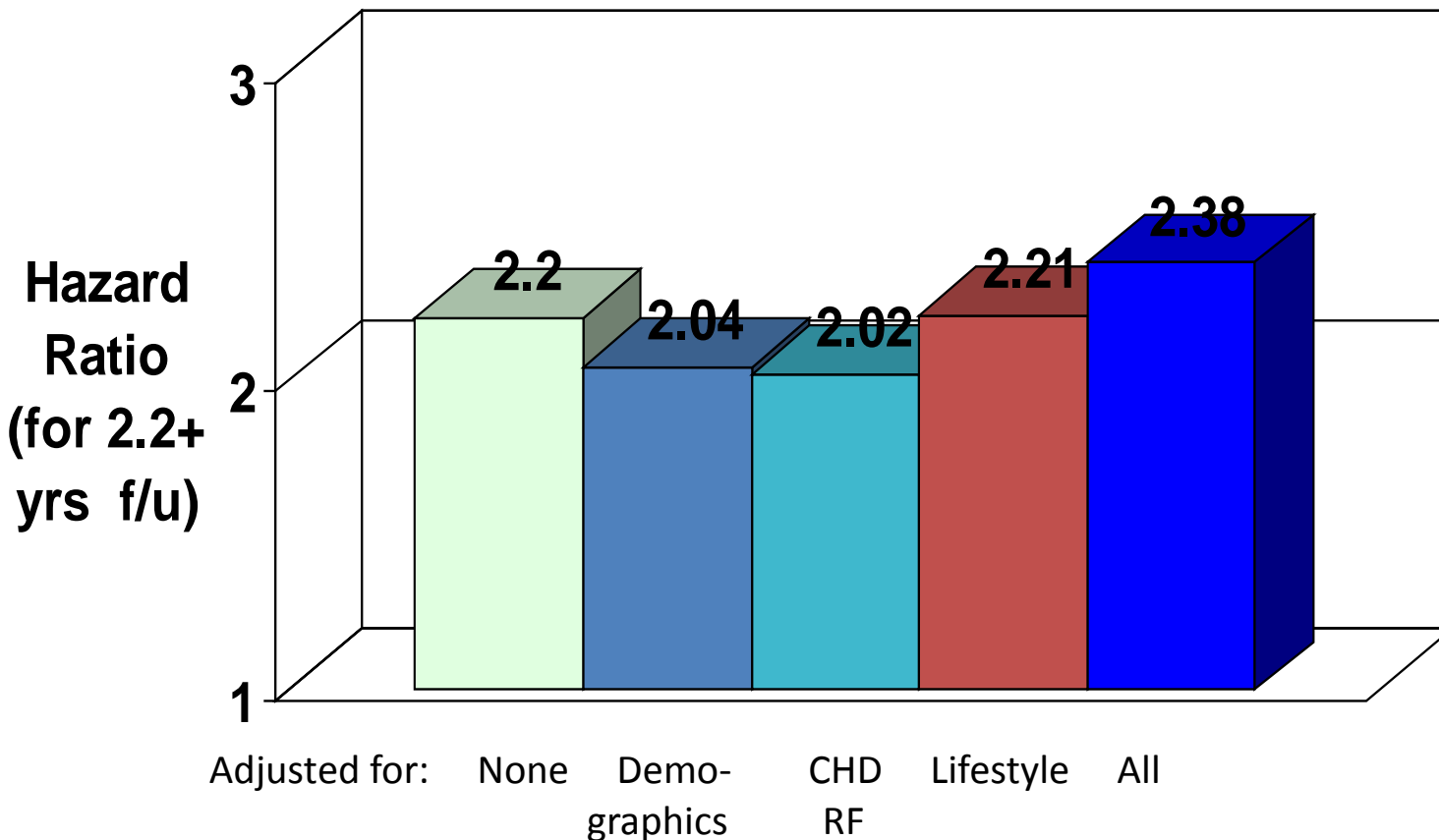


Healthy Aging & Aging Productively At Work



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.

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 Medicine* 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.

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 Medicine* 2000 Jan;37(1):1-5.

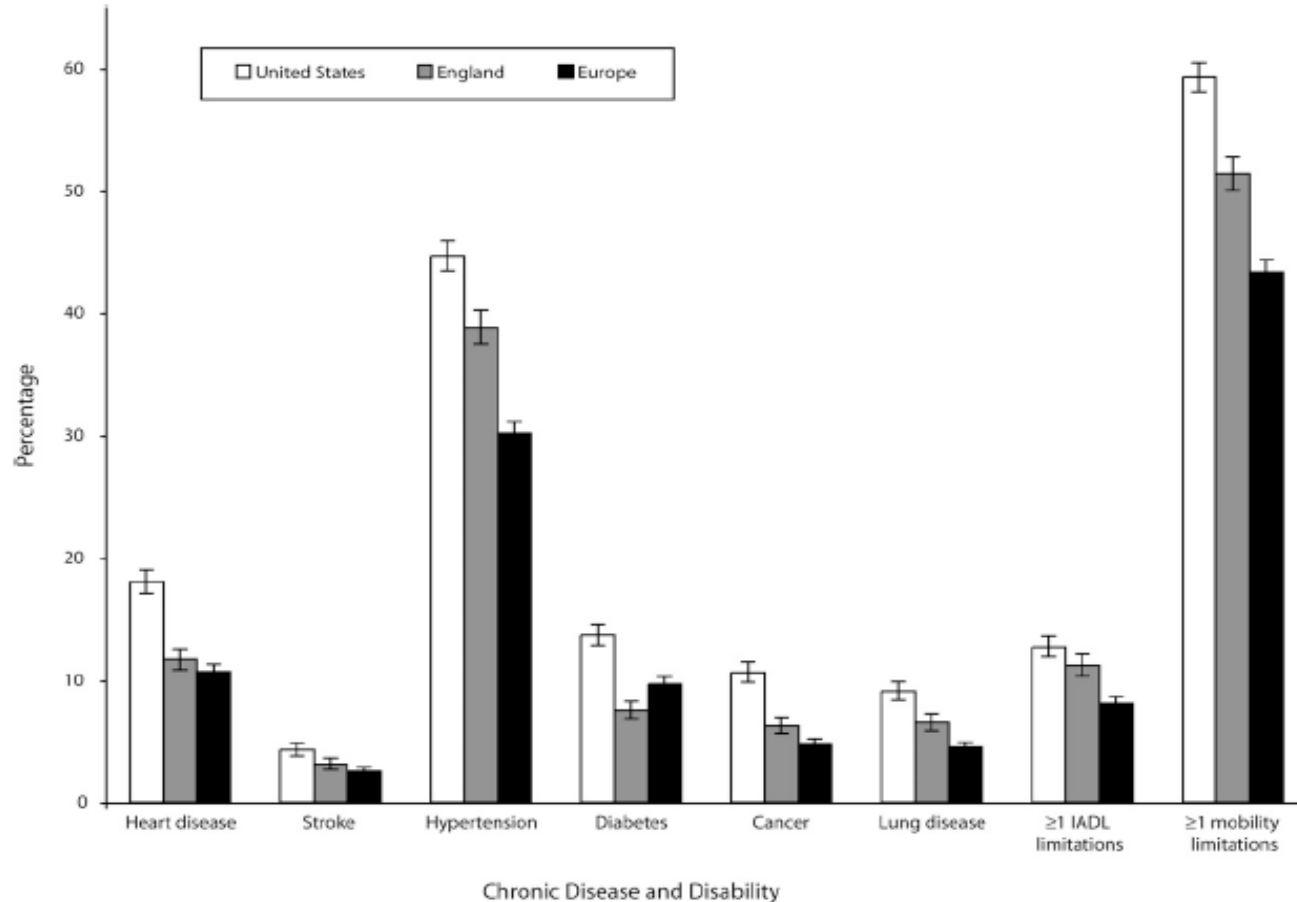
LaMontagne AD, Keegel T, Louie AM, Ostry A, Landsbergis PA. *Int J Occup Environ Health* 2007;13:268–280.

Belkic K, Schnall P, Landsbergis P, Baker D. *Occupational Medicine: State of the Art Reviews*. 2000;15(1):307-321.

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



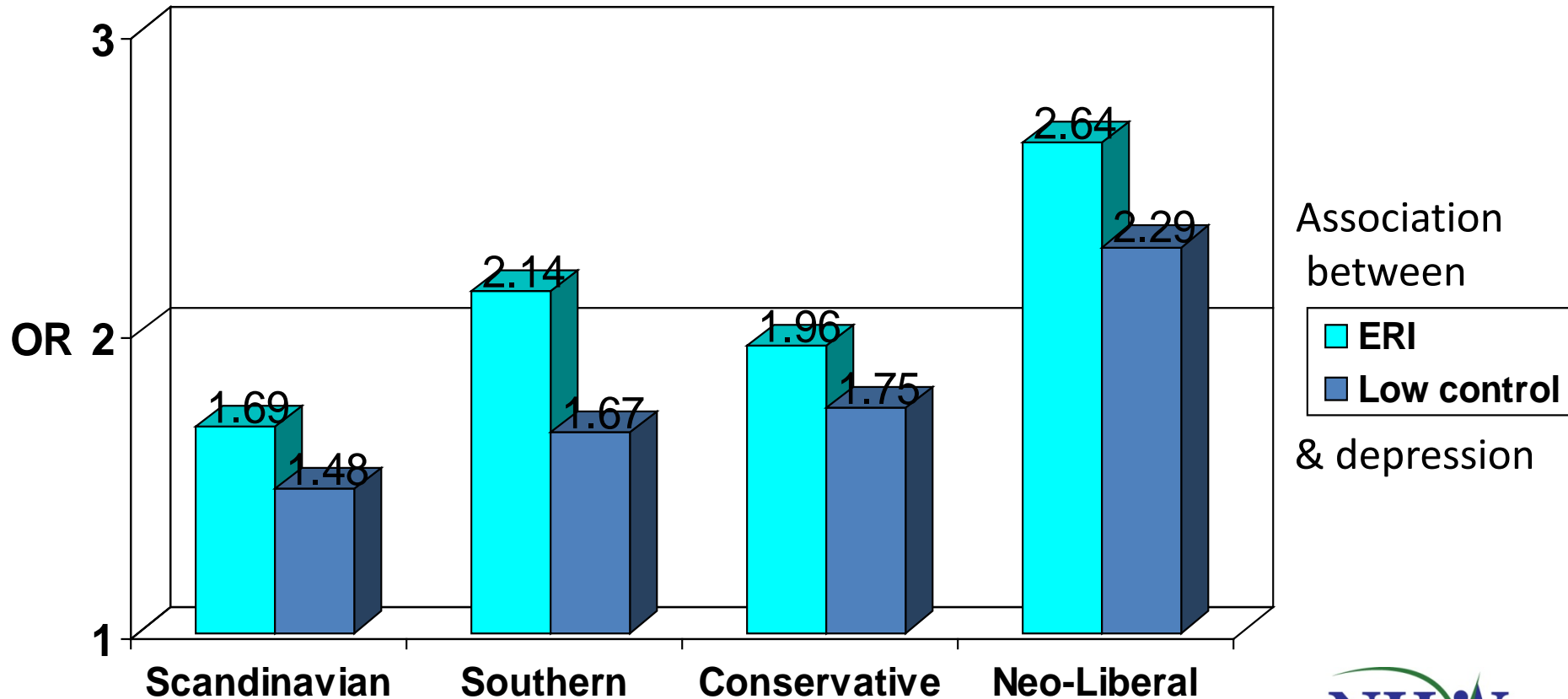
Notes. HRS = Health and Retirement Survey; ELSA = English Longitudinal Study of Ageing; SHARE = Survey of Health, Ageing and Retirement in Europe; IADL = instrumental activities of daily living. Model adjusted for age and gender; lines indicate 95% confidence intervals.

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.

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.

UNHEALTHY WORK

CAUSES, CONSEQUENCES, CURES



EDITORS
Peter L. Schnall
Marnie Dobson
Ellen Roskam

CRITICAL APPROACHES IN THE HEALTH SOCIAL SCIENCES SERIES
SERIES EDITOR: RAY H. ELLING

 BAYWOOD PUBLISHING COMPANY, INC.
AMITYVILLE, NEW YORK

For further
information:

NIOSH

Total Worker Health

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

Unhealthy Work:

Causes, Consequences, Cures

<http://www.baywood.com/books/previousbook.asp?id=978-0-89503-335-2>

**Center for Social
Epidemiology**

<http://www.workhealth.org>


NH_W
National Healthy
worksite™

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CDC Worksite Health Promotion Resources

www.cdc.gov/WorkplaceHealthPromotion

www.cdc.gov/NationalHealthyWorksite/

CDC Home
Centers for Disease Control and Prevention
Your Online Source for Credible Health Information

Workplace Health Promotion

The workplace and the health of the workers within it are inextricably linked. Ideally, workplaces should not only protect the safety and wellbeing of employees but also provide them opportunities for better long-term health and enhanced quality of life. Effective workplace programs, policies, and environments which are health-focused and worker-centered have the potential to significantly benefit employers, employees, their families, and communities. This site is a toolkit for workplace health protection and promotion. It provides information, tools, resources, and guidance to practitioners interested in establishing or enhancing workplace health and safety programs.

Recommendations and Guidelines

A Purchaser's Guide to Clinical Preventive Services: Moving Science into Coverage
Developed in collaboration with the Centers for Disease Control and Prevention (CDC), the Purchaser's Guide translates clinical guidelines and medical evidence, providing large employers with the information they need to select, define, and implement preventive medical benefits such as colorectal cancer screening and tobacco use treatment.

Workplace Health Toolkit Model
A coordinated approach to workplace health promotion results in a organized and comprehensive set of programs, policies, benefits, and environmental supports designed to meet the health and safety needs of all employees. This toolkit involves a stepwise process that includes assessment, planning, implementation, and evaluation of workplace health activities.

CDC Home
Centers for Disease Control and Prevention
CDC 24/7: Saving Lives. Protecting People.™

National Healthy Worksite Program

Become a Healthy Worksite

Program Overview
Program Overview and information on CDC's Role. How CDC is creating sustainable workplace health programs. Other FAQ Resources...

Resources
CDC and program resources as well as Regional, State, and County Health and Worksite Health Resources

Training
Worksite health training for non-health professionals to assist in the delivery of a comprehensive, evidence-based wellness program

Toolkit
Assessment Tools, Implementation Guides, Tools, and other Resources...

Program News

- Worksite Health 101 Training Manual** (PDF - 4,352KB)
- Webinar: The Case for Worksite Health, Leadership and Culture** June 19, 11-2:30 p.m. EDT
- Webinar: Aging in the Workforce** July 19, 1-2:00 p.m. EDT
- Webinar: Assessment and Data Collection** Sept. 12, 1-2:30 p.m. EDT
- Webinars: More Information** Click here.

Million Hearts™
Get Involved

NHWP Communities
Local and State Resources, Training Opportunities, Participating Employers and Contacts.



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>