

# Evaluation of CDMSP in the workplace:

## Implications for increasing intervention dose to improve employee health

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# Overview

- Background on chronic disease in the workplace
- Compare CDSMP participant characteristics for those who attended workshops in workplace vs. non-workplace settings
- Discuss factors associated with increased intervention dose
- Identify barriers to CDSMP adoption in the workplace
- Discuss strategies to increase participant reach



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# Chronic disease in the workplace

- Chronic diseases and conditions are among the most common, costly, and preventable of all health problems
  - Heart disease, stroke, cancer, diabetes, obesity, and arthritis
- About half of all adults (117 million people) have one or more chronic health conditions
  - 25% of all adults have two or more chronic health conditions



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# Chronic disease in the workplace

- 86% of all health care spending in 2010 was for people with 1+ chronic condition
- Diabetes alone costs \$245 billion annually (\$176 billion in direct costs)
  - \$69 billion in decreased productivity – being absent from work, less productive at work, or not able to work at all because of diabetes
- Arthritis costs \$128 billion annually



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# Chronic disease in the workplace

- Disease management is an increasingly important component of workplace health promotion
- Chronic diseases are multi-dimensional and affect all aspects of people's lives, especially work:
  - 22% - 49% of employees experience difficulties meeting physical work demands
  - 27% - 58% have problems meeting psychosocial work requirements
- Can lead to job loss or premature departure from the workforce



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# The Chronic Disease Self-Management Program (CDSMP)

- Designed to help participants develop self-management skills to cope with chronic disease
- Topics include physical activity and healthier eating, pain and fatigue management, improving communication, medication management, and improving sleep
- Effective evidence-based program for improving health status and reducing healthcare costs

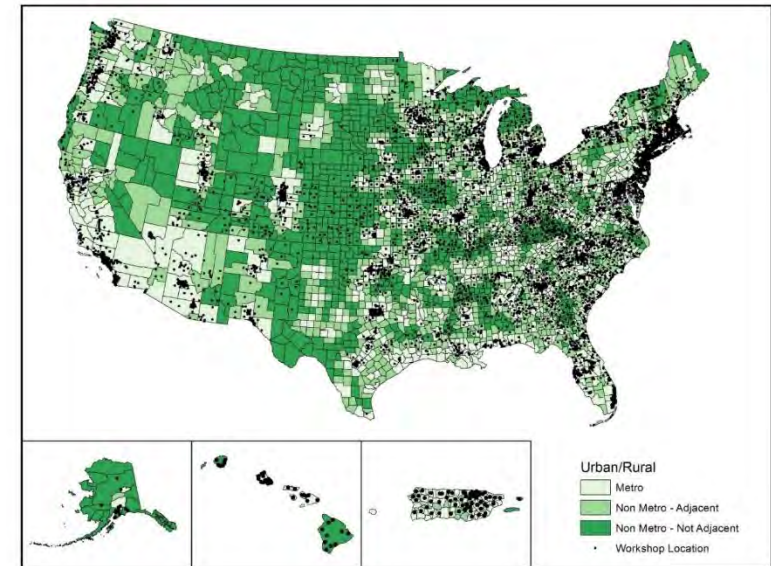


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# CDSMP in the U.S.

- Data from participants enrolled in CDSMP workshops delivered from 2009 to 2016
  - Initially supported by American Recovery and Reinvestment Act (ARRA)
  - National data repository: 83 grantees spanning 47 states
- Over 300,600 participants reached
  - Only 0.7% attended workshops in workplace settings
- Data analyzed from 51,967 participants with complete sociodemographic data



\*Counties served and workshops delivered



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# What is different about worksite participants?

- Compared characteristic of participants who attended workshops in workplace settings relative to other settings (senior centers, healthcare organizations, etc.)
- Of the 51,967 participants, ~1% (n=514) attended a workshop at a worksite
- Compared to non-worksite participants, worksite participants:
  - Younger (64.4 years vs. 54.8 years)
  - Live with others (54.5% vs. 76.1%)
  - Hispanic (7.3% vs. 13.8%)
  - High school education or less (41.4% vs. 32.9%)
  - American Indian/Alaska Native (2.2% vs. 15.8%)
  - Attended 4+ of 6 workshop sessions (75.7% vs. 79.8%)
  - African American (20.7% vs. 8.0%)



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# Factors associated with increased intervention dose (ordinal regression)

- Among the 514 workplace participants, increased attendance was observed among:
- Older
- Male
- A/PI
- AI/AN
- Other/Multiple Races
- Higher Education

	Coefficient	P	95% CI	
			Lower	Upper
Age	0.01	0.029	0.00	0.02
Female	-0.45	0.026	-0.84	-0.05
Male	--	--	--	--
Hispanic	-0.33	0.211	-0.85	0.19
Non-Hispanic	--	--	--	--
Other/Multiple Races	0.56	0.033	0.04	1.08
Native Hawaiian	0.08	0.886	-1.06	1.22
American Indian/Alaska Native	0.72	0.011	0.16	1.29
Asian/Pacific Islander	0.79	0.009	0.20	1.38
African American	0.30	0.355	-0.34	0.94
White	--	--	--	--
Education	0.25	0.009	0.06	0.43
Rural Residence	0.07	0.796	-0.43	0.56
Lives with Others	-0.15	0.437	-0.54	0.23
Number of Chronic Conditions	-0.08	0.118	-0.19	0.02
Number of Participants Enrolled in Workshop	-0.03	0.147	-0.08	0.01



# Discussion

- Need for workplace chronic disease management programs
- CDSMP has been effective in community settings, but little is known about its effectiveness in workplace settings
  - Despite widespread availability, adoption is low in worksite settings
  - Higher attendance in workplaces vs. community settings, thus opportunity to serve younger working adults with adequate intervention dose
- Findings indicate a need to tailor CDSMP to worksites to increase adoption and diversify reach (e.g., males)



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# Overcoming barriers to CDSMP adoption

BARRIERS	Solutions through Translation
Content	Relevant to the needs of younger, working adults Adding and subtracting activities, swapping examples
Time/Scheduling	Divide 2.5-hour sessions into more shorter sessions Offer on or off work time Not entire departments go at a time For shift workers, share time on and off the clock
Incentives	
Organizational Readiness	



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