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| Total Worker Health as an Approach to Improve Population Health | Concurrent Session 5.3  
Day 3 – Thursday  
May 10th, 2018  
2:40 – 3:55pm |

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| TWH as a Strategy to Reach and Engage Low Income Workers in Health Promotion Interventions  
Bradley Evanoff1, Jaime R. Strickland1, Ann Marie Dale1  
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Blue-collar, service, and hourly wage workers are less likely to have access to health promotion services or worksite supports for health than are white-collar workers, and lower SES workers are less likely to participate in available worksite health promotion programs when they are available. This low participation among low-wage and minority workers may be due to ineffective marketing of programs, workplace structural barriers to participation, inflexible work schedules, or to other issues related to low income. These populations are also faced with higher risks of unhealthy behaviors, higher rates of chronic diseases, more hazardous and physically demanding work, and higher rates of work-related injury and illness, as well as lower access to health care or preventive services outside of the workplace. Thus, health disparities accumulate, as the workers who could most benefit from integrated and effective TWH programs are least likely to be reached and engaged.  
While the workplace offers a potentially effective setting for health promotion programs, few programs have explicitly addressed lower SES workers, and national data demonstrate that this population is not being reached or engaged. We suggest that two factors limit current efforts. First, most worksite interventions target only individual behavior, despite growing evidence that the work environment and work organization have strong effects in shaping health behaviors. Although environmental interventions alone have not proven effective in studies of weight loss, recent literature has demonstrated greater weight loss in workplace-based interventions that included an environmental component, and suggested that future interventions should include | Bradley Evanoff, MD, MPH  
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environmental components as well as personal components. Second, most worksite weight loss programs have relied on a topdown approach, and often seem designed for salaried office workers rather than for hourly wage, manual, or minority workers. Participatory approaches that involve workers in the design of workplace interventions are an alternative to the top-down approach that can result in interventions that are more relevant and acceptable to workers, leading to increased engagement and effectiveness. Participatory approaches have been successful in reducing workplace injuries and physical hazards among low SES workers, but have been tested in only a few workplace interventions such as Working Well Trial, which used worker participation to promote and build awareness, improve skills, and promote maintenance of healthy eating behavior.

Worksite interventions offer a potentially important public health tool for reaching low SES and minority workers, a high risk population difficult to reach through traditional means. TWH programs for low-wage workers can improve reach, effectiveness, and sustainability of health promotion if they embrace more innovative design and engagement methods beyond those used in current workplace health interventions, and explicitly incorporate changes in the work environment to facilitate healthy individual behaviors.

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Total Worker Health as a Public Health Strategy: The Nebraska Experience
Lisa Henning1, Heather Vanover1
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Public health has traditionally been focused on reaching vulnerable populations through community venues such as schools, public health clinics, senior and ethnic centers. Nebraska launched public health initiatives addressing the health of a workforce as a means of improving overall population health, in a state where 25% of the workforce earns 125% of poverty level or less. 92% of adult minorities work in Nebraska, making worksite health interventions a viable option to reach vulnerable populations with health disparities.
WorkWell was formed in 1986 through collaboration between the Lincoln-Lancaster County Health Department and community business leaders. In 2013, WorkWell merged with the Nebraska Safety Council to better address the Total Worker Health needs of the entire workforce. Today there are three wellness councils in Nebraska.
WorkWell created the Governor’s Award of Excellence in Worksite Health Promotion to encourage businesses to build evidence-based worksite health programs regardless of employer size or resources. Until the award was developed, metropolitan areas often had programs for employee wellbeing, but little work was being done in rural areas of Nebraska.
Following announcement of the Governor’s award, many local public health departments requested assistance in order to provide their own local businesses with technical support. The Worksite Wellness 101 curriculum was created and trainings were conducted for 15 local health departments across Nebraska. The 101 curricula then became the starting point for the development of the National Health Worksite Program (NHWP) curriculum, created by WorkWell Director, the West Virginia Wellness Council, a small business expert, the NHWP contractor, and the CDC.
248 companies have received the Governor’s award by demonstrating that they follow evidence-based worksite health guidelines.

Evaluation efforts through the Nebraska Safety Council/WorkWell are demonstrating positive results in employee health and wellbeing using standard metrics including Body Mass Index, the Surgeon General Guidelines for Physical Activity, and tobacco use. Since implementing evidence-based guidelines, the 2016 Governor’s Award applicants reported an 8.7% reduction in tobacco use (number smoking =4292), 2.9% reduction in obesity (n= 2775 with BMI 30 or greater), and a 16% increase in those meeting the Surgeon General Guidelines for Physical Activity (n=5409). Over the past two years, Nebraska’s statewide Behavioral Risk Factor Surveillance System has shown a slight decline in diabetes diagnoses and in tobacco use, possibly indicating a link between the success of workplace interventions and overall population health. In conjunction with the Nebraska Safety Council, we are evaluating associations between lower health risks and decreased risks of injury, and will present results of these ongoing analyses.

The Nebraska experience shows that worksite based health programs can be a viable approach to reaching vulnerable populations and reducing health disparities; our state has created unique partnerships focused on work safety as well as employee health and wellness.

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A Community-based Approach to Total Worker Health
Lorraine M. Conroy, ScD, CIH1, Jeni Hebert-Beirne, PhD, MPH2, Maria Velazquez3, Dolores Castaneda2
Precarious employment, defined by Kalleberg as “uncertainty as to the duration of employment, multiple possible employers or a disguised or ambiguous employment relationship, a lack of access to social protection and benefits usually associated with employment, low pay, and substantial legal and practical obstacles to joining a trade union or bargaining collectively” is increasing especially in certain segments of the economy. Workers engaged in precarious employment are more likely to be minority and/or foreign-born, to have lower levels of education, experience higher levels of stress, and work in dangerous conditions that puts them at greater risk of occupational injury and illness and workplace fatalities. Addressing the health of people at work is now recognized as an important strategy to improve population health. However, worksite health protection and health promotion interventions for people in precarious employment are limited or non-existent.

The Greater Lawndale Healthy Work project, a research project in the UIC Center for Healthy Work (a NIOSH-funded Center of Excellence in TWH) is exploring community-level approaches to address the occupational health needs of precariously employed workers residing in two Chicago communities. Our aim is to first understand, and then develop interventions tailored to, the experience of precariously employed workers in two high-hardship communities. Partnering with community organizations, we adapted a Mobilizing Action for Planning and Partnership (MAPP) Community Health Assessment model to examine precariously employed workers’ needs and assets. Our research team includes the faculty investigators, research assistants and student volunteers, and community researchers (community residents and representatives from community-based organizations). The first year of the project involved training in research methods for our students and the community researchers followed by qualitative data collection and analysis. We employed concept mapping to help answer the question “how does work impact your health?” Focus groups were conducted to better understand how residents in each community experience work and key informant
interviews were used to understand the needs and assets, with respect to work, in each community. Three hundred community residents participated in either the brainstorming or rating and sorting phases of concept mapping. Twelve focus groups and twenty interviews were completed. Themes emerging from the first year of the project indicate that stress related to unemployment, underemployment, or uncertainty of maintaining employment is one of the most important drivers of worker health.

The uncertainty of employment is related to a cycle of exploitation that manifests through violations of labor and human rights; and fear of losing employment prevents workers from exercising their employment rights. Our research is showing that the relationships between precarious work and health are complex and are unlikely to be effectively addressed through workplace approaches alone.

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TWH2018 Abstract - NEMC : Entry # 5121
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Reaching low wage and precarious workers with Total Work Health® programs: A community-based approach
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The Total Worker Health (TWH) concept has evolved to include a broad range of organizational policies, practices, and programs that influence working conditions and the health, safety and well-being of workers. Beyond the factors directly related to the work environment, the TWH vision aims to include programs that consider the needs of workers and families in the context of their community. Changes in the economy, especially since the economic recession of 2008, have caused an increasing proportion of workers to be employed in temporary or nonstandard work arrangements and these workers may be difficult to reach with TWH programs at their worksites. Taking together these factors raise potential new directions for TWH projects through collaborations with community health researchers and community-based organizations to expand the reach of the TWH approach.

As part of the CDC Workplace Health Research Network the New York University-City University of New York Prevention Research Center partnered with a major New York City Latino community-based organization to explore potential directions for integrating work-related factors into their ongoing healthy eating/active living (HE-AL) public health programs. We conducted six focus groups which included construction, restaurant, domestic, home care and community health workers to explore workers’ attitudes and perceptions about how work factors might influence their sense of health and wellbeing broadly and more
Specifically how these factors might relate to HE-AL intervention ideas. Several major themes emerged. First workers, when prompted, reported well-recognized barriers such as workplace food access, time constraints, high work demands and lack of workplace social support. Other emergent themes pointed to potential directions to incorporate into community-based intervention projects. Across the various low wage occupations workers emphasized the central role of communication in the workplace, both as stressors and as a potential pathways to improve the work environment and promote health. Additionally workers underscored the importance of work, and its positive elements. To varying degrees that largely depend on the job, positive notions about work were experienced simultaneously alongside negative impacts, providing meaningfulness that contributed to overall health because the importance of work is embroiled with other aspects of their lives – their selves, families, and relationships with their co-workers. The importance of work, in engendering a sense of purpose, pride and having the ability to help others, was central to their own conceptions of health. These themes will be incorporated into a newly funded community-based participatory research project with the same community-based organization to reduce exposures to cleaning chemicals and promote health and well-being among Latina domestic cleaning workers.

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Abstract Topic