



## APHA Meetings: Online Program

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**262090** Physically demanding work and physical activity in health care workers: Developing key messages for integrated interventions

*Tuesday, October 30, 2012 : 3:10 PM - 3:30 PM*

*Jack Dennerlein, PhD* , Environmental Health, Harvard School of Public Health, Boston, MA  
*Oscar Arias, MD* , Environmental Health, Harvard School of Public Health, Boston, MA  
*Peter Umukoro, MD* , Environmental Health, Harvard School of Public Health, Boston, MA  
*Sonja Stoffel, PhD* , Centre for Sport and Exercise Education, Camosun College, Victoria, BC, Canada  
*Glorian Sorensen, PhD, MPH* , Center for Community-Based Research, Dana-Farber Cancer Institute, Boston, MA

Since physically demanding jobs provide both risk and prevention challenges to all-case morbidity of workers our goal was to describe how work contributes to physical activity and describe the physical demands of a job for health care workers. Using accelerometers we measured the physical activity of 50 patient care workers from two urban acute care hospitals for 7 days. For one shift we also collected data on torso bending using an inclinometer to describe the physical demands of a job. At the end of the seven days participants completed a brief questionnaire including self-reported measures of physical activity, pain, fatigue, and functional limitations. Based on the accelerometer data, six participants met the WHO guidelines for physical activity. Work provided some moderate activity for 7 participants, but only one met the recommended guidelines. The frequency of bending measured with the inclinometer was within physiological limits defined by NIOSH and due to the short nature in duration was correlated with minutes of light and lifestyle physical activity. Minutes of moderate and vigorous activity outside of work was negatively correlated with self-reported vigorous activity at work, fatigue, and functional limitations. Self-reported levels of physical activity were not correlated with directly measured activity levels or with the inclinometer data. While these data are cross-sectional, they provide a basis to develop key messages for worker health interventions on the balance of the physical demands of work and achieving recommended physical activity.

### Learning Areas:

Chronic disease management and prevention  
 Occupational health and safety  
 Other professions or practice related to public health

### Learning Objectives:

Participants will be able to describe the contribution of work in meeting recommended levels of physical activity in a small cohort of patient care unit workers.

**Keywords:** Physical Activity, Workplace Safety

### Presenting author's disclosure statement:

**Qualified on the content I am responsible for because:** I have been the principal or co-principal of multiple federally funded grants on worksite health protection and promotion.

**Any relevant financial relationships?** No

I agree to comply with the American Public Health Association Conflict of Interest and Commercial Support Guidelines, and to disclose to the participants any off-label or experimental uses of a commercial product or service discussed in my presentation.

Back to: **4334.0: Toward Total Worker Health: Integrating Occupational Health and Worksite Health Promotion**

