Presentation Title	Place in Schedule
Using CPH-NEW's Healthy Workplace Participatory Program to Advance Total Worker Health for Different Occupational Groups	Concurrent Session 1.6 *Day 2 – Wednesday* *May 9th, 2018* *1:00 – 2:15pm*
Description of Presentation	**Presenter Name(s) And Credentials**
Symposia Session Organizer: A.G Dugan Overview of Symposium Session - Abstract Title: Implementing the Healthy Workplace Participatory Program to Advance TWH in Four Occupational Groups: Lessons Learned (Overall Symposium Abstract) List of Paper Coauthors, indicating presenting author: Nobrega, S.,* Dugan, A.G., & Cavallari, J. * Presenting author Since 2006, the Center for Promotion of Health in the New England Workplace (CPH-NEW), a NIOSH Total Worker Health Center for Excellence, has been conducting participatory action research, evaluating the effectiveness of integrated program models that emphasize a participatory, macroergonomic approach to addressing work organization as determinant of a broad range of worker health and safety outcomes. From 2009 to 2012, CPH-NEW conducted a research to practice study to harness the Center's knowledge from prior and ongoing work in Total Worker Health (TWH) participatory action research, and to develop a suite of program tools into a Healthy Workplace Participatory Program (HWPP) Toolkit. The HWPP toolkit fills a gap in TWH translational research by enabling workplace safety and health practitioners to implement their own participatory TWH program. In 2014, CPH-NEW launched a dissemination effort to make the HWPP toolkit widely available as a freely accessible online toolkit. Ongoing evaluation and monitoring has enabled the HWPP Toolkit developers to track the extent of program uptake in	Alicia Dugan, PhD *UConn Health* Jennifer Cavallari, ScD, CIH *UConn Health* Jaime Strickland, MA *Washington University School of Medicine* Jennifer Zelnick, MSW, ScD *Touro College Graduate School of Social Work* Suzanne Nobrega, MS *University of Massachusetts, Lowell*

research and practice settings, and to gather additional data on the success of program implementation in a range of occupational
settings. This symposium will highlight the experiences of academic researchers using the HWPP to advance TWH with four
different occupational groups and settings. These include correctional supervisors addressing poor sleep, transportation public
employees addressing hearing conservation, low-wage hospital personnel addressing obesity, and child welfare workers
addressing obesity. Each presenter will describe how they adapted the HWPP implementation process and materials to each
workplace setting, interventions developed, organizational outcomes achieved, and lessons learned with the program, as
appropriate. Lessons learned and experiences shared by the presenters will be relevant to researchers and practitioners
interested in implementing the HWPP or similar participatory TWH programs in other occupational sectors or settings.

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PAPER #1 - Abstract Title: Efficacy of a Sleep Intervention Developed with Correctional Supervisors Using the Healthy Workplace Participatory Program

List of Paper Coauthors:
Dugan, A.G.*, Namazi, S., Rinker, R., Preston, J., Steele, V., Brown, M., Lemelin, C., Keel, D., Sheppard, Z., Semple, S.,
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Problem Statement: The life expectancy of correctional workers is lower than the national average and their health problems are not often addressed in research. Most health interventions are typically customized to the needs of correctional officers and not correctional supervisors (CSs), the middle managers in correctional facilities. CSs report work stress due to a high level of responsibility combined with low organizational support, potentially posing health risks. In 2014, the Correctional Supervisors Council (CSC), the union of correctional supervisors working at the Connecticut Department of Correction (DOC), partnered with the Center for the Promotion of Health in the New England Workplace (CPH-NEW) to form a design team (DT) to develop and implement participatory Total Worker Health™ (TWH) interventions for CSs.

Procedures: CPH-NEW's Healthy Workplace Participatory Program (HWPP) toolkit was first used by the DT to identify sleep as a priority intervention topic. The DT then used the HWPP Intervention Design and Analysis Scorecard (IDEAS) tool to design the Healthy Sleep Intervention, composed of a Healthy Sleep Training and a smartphone-based Sleep Tracking App. The intervention was implemented with 101 CSs and evaluated with two intervention arms. Group A (n=51) only received the training and took

three surveys: before the training, and at 1 and 3 months after the training. Group B (n=50) used the app for two weeks before receiving the training and took five surveys: before and just after using the app, before the training, and at 1 and 3 months after the training. Quantitative data was analyzed to assess the efficacy of the app alone and the training alone, to examine whether the app plus training resulted in better outcomes than the training alone, and to assess relationships among the perceived appeal of the app and the training with key dissemination and implementation (D&I) outcomes (adoption, sustainability, diffusion). Analyses/Results: We used repeated-measures t-tests to compare pre- and post- outcomes for participants who only used the app and who only attended the training, and found that outcomes improved through the app alone and training alone (Table 1). We used between-groups t-test to compare Group A and Group B post-training outcomes, and found that Group B had significantly higher sleep quality than Group A. We used between-groups t-tests to compare the perceived appeal (low vs. high) of the app and training on D&I outcomes, and found participants who perceived the app and training had higher appeal gave higher ratings on D&I outcomes than those who perceived lower appeal. Conclusions: This study demonstrates the utility of using participatory interventions to protect and promote worker health. The app and the training were efficacious in improving sleep quality and increasing knowledge and use of healthy sleep practices. Sleep quality was highest among participants who used the app and the training in combination. We demonstrated that D&I outcomes can be achieved by designing participatory interventions with high appeal to end users. Based on this study's results, the Healthy	

Sleep Intervention will become a core component of the CS's annual health and well-being training day. Contact Info for Coauthors: Sara Namazi, MS Graduate Assistan t UConn Health, Divis ion of Occupational and Environmental Medicine 263 Farmington Ave, Farmington, CT 06030 (860) 966-1982 namazi@uchc.e du Robert Rinker, MS 11/15/2017 Print Preview : TWH2018 Abstract - NEMC : Bulk Print Retired Executive Director, Connecticut State Employee Association Correctional Supervisors Council of CSEA SEIU Local 2001 760 Capital Avenue, Hartford, CT 06106 860-608-4158 rdrinker@csea 760.com Julius Preston, BS President, Correcti onal Supervisors Council of CSEA SEIU Local 2001 Captain, Connecticut Department of Correction 760 Capital Avenue, Hartford, CT 06106 860-608-4158 preston@csea 760.com Vincent Steele, MS Retired Executive Vice President, Correctional Supervisors Council of CSEA SEIU Local 2001 Retired Lieutenant, Connecticut Department of Correction 760 Capital Avenue, Hartford, CT 06106 860-608-4158 vsteele@csea 760.com Milagros Brown Executive Vice P resident, Correctional Supervisors Council of CSEA SEIU Local 2001 Lieutenant, Connecticut Department of Correction 760 Capital Avenue, Hartford, CT 06106 203-525-0087 mbrown@csea 760.com Charles Lemelin	

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PAPER #2 - Abstract Title: HearWell: Using the CPH-NEW Intervention Design and Analysis Scorecard (IDEAS) Tool to Develop Interventions for Hearing Health in Transportation Workers List of Paper Coauthors: Cavallari JM*, Rusch L, D ugan AD, Henning RH *Presenting author Problem Statement: The US Occupational Safety and Health Administration (OSHA), mandates a hearing conservation program (HCP) when workers are exposed to noise above the threshold action level. While OSHA HCP content is specified (audiometry, noise monitoring, employee education, exposure control, recordkeeping), there are no program delivery guidelines. Typically, HCPs are delivered as top-down organizational interventions where workers are passive program recipients. We sought to improve HCPs by adopting the participatory and root causes approach developed by the Center for the Promotion of Health in the New England Workplace (CPH-NEW) as part of the Healthy Workplace Participatory Program (HWPP). The program, called HearWell, seeks to protect and promote hearing health via an integrated approach involving behavioral changes by workers and changes to work organization through the Intervention Design and Analysis Scorecard (IDEAS) Tool. We piloted HearWell among transportation maintainers who perform seasonal tasks including snow plowing, tree removal, road paving, and mowing and are often exposed to noise levels above the OSHA action level. Current results are part of a larger study evaluating the effectiveness of HearWell versus a traditional HCP. Methods: Following the HWPP, we identified and trained a facilitator, formed a steering committee (SC) of key management	

stakeholders, administered an employee survey on hearing safety and health, and formed a design team (DT). The DTs consisted of 5-6 maintainers from 2 regional garages within the state Department of Transportation, and met for 1-hour biweekly. Employees used 5 steps of the IDEAS Tool to 1) identify contributing factors as root causes to hearing loss, 2) develop a wide range of intervention objectives and activities, 3) set key performance indicators (KPIs) to evaluate their own intervention ideas, 4) rate and form a select set of intervention proposals, and 5) rank and put forward the best intervention proposals for SC consideration. Results: The DTs met over 13 meetings. In IDEAS Step 1, workers identified health and safety problems and contributing factors related to hearing loss. Themes included noise in the workplace, hearing protection problems, lack of training and knowledge, as well as safety climate. In Step 2, the DTs brainstormed solution activities with specific activities suggested in the areas of policy, training, hearing protection devices (HPD), noise level and hearing awareness, and equipment. In Step 3, the DTs identified KPIs which in Step 4 were applied to the solution activities (from Step 2). In Step 4, the interventions were grouped and rated and selected in Step 5. The DTs crafted and ranked 4 intervention packages within the following themes: policy, hearing (noise) awareness, hearing protection device (HPD) options, and HPD allowance (Table 1). 11/15/2017 Print Preview : TWH2018 Abstract - NEMC : Bulk Print Conclusion: DTs were able to identify a range of interventions that could occur at the company level (via policy change) down through the individual level (training) and further differentiated the need for a range of training (15 minute tailgate talks through 2-	

hour hands-on training). In the next steps of the IDEAS Tool, the proposed interventions will be presented to the SC for
modification, rating, approval, implementation and assessment.
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PAPER #3 - Abstract Title: Using Participatory Methods In A Workplace Weight Loss Program For Low-Wage And Hourly
Healthcare Workers
List of Paper Coauth ors:
Jaime R. Strickland,* Ann a Kinghorn, Ann Marie Dale, & Brad Evanoff
* Presenting author
Background: Worksite health programs often target only the individual, ignoring work organization and work environment factors
that affect behavior. Further, most worksite weight loss programs have relied on a top-down approach, rather than a participatory
approach based on employee involvement in the design of interventions. This can be especially problematic for low wage and

hourly workers, who may have inflexible work schedules that do not allow them to participate in health programs, lack of access to information at the worksite, or low health literacy. While participatory approaches have been successful in reducing workplace injuries and physical hazards, few workplace weight loss interventions have adopted a participatory approach. Participatory approaches can aid in the design and implementation of worksite interventions that enhance the workplace environment to support healthy behaviors and that are relevant and acceptable to workers, thus increasing participation in the interventions. Methods: As part of the "Working for You" (WFY) study, a workplace randomized controlled trial for weight loss, approximately 11 separate work units will take part in a participatory program to address negative health influences in the work environment. Modeled after the Healthy Workplace Participatory Program, the program uses the IDEAS tool to guide front line workers through the process of identifying workplace hazards and brainstorming possible solutions. The program also incorporates elements of human-centered design (HCD), a creative problem solving process that considers both workers' perspectives and organizational context to develop effective and sustainable solutions. Each enrolled work unit will have its own design team, allowing each team to identify problems relevant to their work and their coworkers. The program is designed to run for two years with the expectation that the research team will facilitate the process for the first year, gradually transitioning leadership to the design team. Results: To date, six groups have begun the WFY participatory program and two more are scheduled to begin by the end of 2017.	

At the time of the conference, we will report on the progress of three teams from diverse work settings in one healthcare system: custodial, food service, and laboratory. We will highlight facilitation methods such as journey mapping and rapid prototyping and will present preliminary process evaluation data measuring engagement, reach, and early outcomes. We will also discuss common challenges such as team member engagement and buy-in from middle management. Discussion: The WFY program uses a participatory approach to address workplace hazards that make it difficult to eat healthy, get physical activity, and maintain a healthy weight. The program seeks to engage low- wage and hourly workers, an underserved and understudied population at high risk for obesity, diabetes, and other weight-related conditions and injuries. If effective, this program could be readily disseminated for use in other workplace settings. Contact Info for Coauthors: Anna Kinghorn, MS Clinical Research C oordinator Washington University School of Medicine Division of General Medical Sciences 4523 Clayton Avenue, Campus Box 8 005 St. Louis, MO 63110 Email: akinghorn@w ustl.edu Phone: (314) 362-8761 Ann Marie Dale PhD, OTR/L Associate Professor of Medic ine Washington University School of Medicine Division of General Medical Sciences 4523 Clayton Avenue, Campus Box 8 005 St. Louis, MO 63110 Email: amdale@wus tl.edu Phone: 314-454-8470 Bradley Evanoff, MD, MPH Professor of Medicine Washington University School of Medicine Division of General Medical Sciences 4523 Clayton Avenue, Campus Box 8 005	

St. Louis, MO 63110 Email: bevanoff@wu stl.edu Phone: 314-454-8638 PAPER #4 - Abstract Title: Using the Healthy Workplace Participatory Program to Understand and Improve Health in Child Welfare Workers List of Paper Coauthors: J. R. Zelnick,* R. Bond, & M. Myers * Presenting author Background & Problem Description: Administration for Children's Services (ACS) workers in New York City (NYC) provide legally mandated child protective services that include investigating abuse/neglect, removing at-risk children, and supporting at-risk families through social services. Our 2015 study of the human service workforce in NYC found ACS workers are at high risk for adverse health effects, health behaviors, and work stress. A 2015 consultant-based investigation of ACS workplace health resulted in no management action and poorly disseminated results. Union membership is a potentially health-promoting resource for NYC ACS workers. Since successful Total Worker Health (TWH) interventions depend on worker participation, labor unions are potential credible partners. We designed a union-based participatory pilot TWH project using the Healthy Workforce Participatory Program (HWPP) to investigate workplace health and health priorities among NYC ACS workers. Procedures: In collaboration with Local 371 of the Social Service Employees Union (SSEU), District Council 37, AFSCME, a committee of ACS workers (design team of 8 people) was recruited to participate in a TWH process based on the Healthy Workplace Participatory Program using the Intervention Design and Analysis Scorecard (IDEAS). The design team engaged in	

structured meetings and conducted a worksite health survey (N=81). Focus groups were convened to engage the workforce (N=30) in interpreting the health survey results. The design team will use this data to inform selection of a health issue, and use IDEAS step 1 (root cause analysis) and step 2 (set measurable health objective, brainstorms activities to help meet that objective). The final product will be a proposal to management to implement a worksite intervention. Results: Stress, high blood pressure, poor eating habits, overweight, and lack of exercise were identified as key health concerns. Work organization factors contributing to these concerns included lack of discretion, high caseload, intense surveillance, threat of liability for case outcomes (child death), low control, and mandatory overtime. Barriers to the union-based HWPP/IDEAS process included cynicism, high profile child deaths which divert attention of the agency (and delayed project progress); unpredictable work schedule; guilt/shame over health behaviors. Facilitators of the HWPP/IDEAS process included strong support of union leadership; strong shop-floor organization, respected committee members with strong work ethic; trust in union strength; contract language protecting time for meetings during workday; support of upper level ACS administration through the NYC city government health and wellness initiative. Conclusions: Our key innovation is using the HWPP/IDEAS process in a unionized workforce with strong protection of workplace meetings. Initiation through the union capitalized on trust and combatted cynicism related to failed management-based health initiatives. We showed that it is possible to engage the workforce using the IDEAS tool steps 1 and 2 to develop a proposal to	

management that has a high degree of acceptability and buy-in among the workforce, setting the stage for successful advocacy and implementation. Contact Info for Coauthors: Richard Bond, MPA, LMSW SSEU Local 371, AFSCME DC 37 SSEU Local 371Wellness Committ ee co-chair Child Protective Specialist Supervisor Level-II (CPSS-II)/IRTC 817 Broadway, New York, NY 10003 718-218-6137 (Office); 646-584-5463 (Cell) richard.bond@acs.nyc.gov Mary Myers CPSSII SSEU Local 371, AF SCME DC 37 BCW Chapter Chair 817 Broadway, New York, NY 10003 Division of Child Protection 718-262-1632 Mary.Myers@a cs.nyc.gov	