



**CENTER FOR CLINICAL AND
TRANSLATIONAL SCIENCE**



4rd Annual Community Engagement and Research Symposium

Building on Partnership Strengths to Improve Community Health

Friday, November 7, 2014; 8:00 AM - 4:00 PM
Albert Sherman Center, UMass Medical School, Worcester, MA

Poster Titles, Authors, and Abstracts

Abstracts Available: www.umassmed.edu/ccts/community

Find complete posters submitted to us at: http://escholarship.umassmed.edu/chr_symposium/

1. Cancer Surveillance and Outreach in Carlisle, Massachusetts: An Analysis of MDPH Cancer and Environmental Health Data in a Small Town Context

David Estabrook, MPH Candidate, UMass SPHHS; Intern, Carlisle Board of Health; Linda Fantasia, Health Agent, Carlisle Board of Health; Catherine Galligan, Board Member, Carlisle Board of Health; With assistance from collaborators from several departments of the Massachusetts Department of Public Health (MDPH)

Introduction: The Carlisle Board of Health (BOH) sought to understand how cancer affects its town (population under 5,000), using data on expected and observed cancer incidence provided by the Massachusetts Cancer Registry (MCR). This project examined cancer incidence data summarized by city/town in five-year intervals, evaluated demographic and environmental factors that could contribute to cancer, and provided recommendations for cancer outreach. Methods: MCR city/town reports from 1995-2009 were examined to identify community cancer trends. A literature review focused on cancers of concern to guide outreach efforts. Data on contributing environmental exposures and health behaviors were explored to identify potential risk factors in Carlisle. Individual- and community-level recommendations were issued based on the data and literature. Results: Observed cases of breast cancer and melanoma in women and colorectal cancer and prostate cancer in men exceeded the number of expected cases. Bladder cancer in men and lung cancer in men and women were somewhat lower than expected. There was insufficient evidence of causation by local environmental exposure. Discussion: Excess cancer cases in Carlisle cannot be interpreted as a cancer cluster. Individuals should be aware of important risk factors and control lifestyle-related factors for common types of cancer. The BOH can monitor data on potential environmental exposures and provide ongoing communication with Carlisle residents about cancer in the community through social media, the local newspaper, and town events. Broad educational outreach on specific risk factors, including sun exposure, arsenic in drinking water, and youth tobacco use should be considered to foster healthy behaviors.

2. Integrating Complementary Therapies into an Outpatient Cancer Center

Lynn Gerrits, MA – HealthAlliance Hospital, Simonds-Hurd Complementary Care Center
Jean Louis (Lalou) Begue, Lic.Ac., Lynn Rochefort, LMCT, Julie Pepper, RYT, Rosemary Nolan, LCMT, Susan Stockdale, LCMT

Patients being treated for cancer often experience incapacitating side effects such as fatigue, nausea and vomiting, pain, peripheral neuropathy, and anxiety to name a few. This can lead to missed treatments resulting in disruption of care, as well as the erosion of determination and spirit.

The Simonds-Hurd Complementary Care Center of HealthAlliance Hospital, located on the hospital's Burbank Campus in Fitchburg with the Simonds-Sinon Regional Cancer Center, offers services that support the body's innate ability to heal. Its complementary therapies are non-invasive, non-pharmacologic adjuncts to mainstream medical care, not to be used as a substitute. Research has shown these therapies can improve patients' strength and control of the physical and emotional symptoms associated with cancer treatment and result in an enhanced sense of well-being. With that in mind, therapies have been offered to patients in our Cancer Center since September 2012, funded by a grant. These therapies are safe, evidence-based practices delivered by trained and licensed practitioners, and include acupuncture, massage and yoga. Patients are referred for therapies or request on their own.

Patient feedback, utilization management, staff and provider observations, and testimonials are used to evaluate the effectiveness of the therapies. Based on these results, therapies have been shown to reduce physical symptoms and improve emotional wellness and quality of life. Given these findings, there is promise in demonstrating the value that these therapies bring to traditional medical care and that they can become an integral part of overall cancer care.

3. Evaluation of WHO-endorsed 'see and treat' cervical cancer screening in HIV-positive and HIV-negative women in Cameroon

Geneva DeGregorio¹, Pius M. Tih², Louise Maranda¹, Richard Wamai³, Rebecca Ogembo³, Edith Welty², Thomas Welty², Simon Manga², Lily Haritu², Kathleen Nulah², Zacharie Sando⁴, Karen Kalmakis⁵, Lisa Kennedy Sheldon⁶, Javier G. Ogembo¹, Leslie Bradford¹

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Background: Invasive cervical cancer (ICC) is the second leading cause of cancer mortality among women in Cameroon. To decrease the burden of ICC, the Cameroon Baptist Convention Health Services (CBCHS) implemented the WHO-endorsed 'see-and-treat' cervical cancer screening program using visual inspection with acetic acid (VIA) enhanced by digital cervicography. Our aim was determine the prevalence and predictors of a positive screen, rates of same day treatment, and prevalence of cervical

intraepithelial neoplasia (CIN) and ICC. Methods: We completed a retrospective analysis of 33,730 CBCHS patients screened between 2007 and 2013. Results: Of the 33,660 cases with valid VIA data, 9.5% of women screened VIA-positive, 62.7% were VIA-negative and 27.8% were considered “uncertain” due to poor visualization of the cervix or concurrent cervicitis. After covariate-adjustment in a multivariable logistic regression model, HIV-positive women were 1.33 times more likely to screen VIA-positive than HIV-negative women [95% CI: 1.16-1.54, $p < .001$]. Other factors associated with VIA-positive screens were rural screening location, gravidity, age at sexual debut and number of lifetime sexual partners. Among women eligible for same day cryotherapy, only 43% accepted the treatment. Pathology specimens ($n = 750$) collected from women with VIA-positive lesions ineligible for cryotherapy identified 30% of cases as ICC and 70% as CIN. Conclusions: The CBCHS successfully implemented the see-and-treat screening program in Cameroon, screening over 34,000 women in 7 years. However, less than of half eligible patients opted for same-day treatment. Further studies are required to better identify barriers to implementing same day treatment protocols.

4. HPV Knowledge Amongst College Students and the Effectiveness of a Health Education Program, Pilot Study

Brittany Tolman, Worcester State University, UMMC: Division of Colon & Rectal Surgery
Stephanie Chalupka, EdD, RN, PHCNS-BC, FAAOHN, Associate Dean for Nursing; Worcester State University

BACKGROUND: Human Papillomavirus (HPV) is the most common sexually transmitted infection in the United States, affecting approximately 79 million Americans. The population with the highest incidence of genital HPV is young adults between the ages of 15 and 24, accounting for nearly 49% of the new cases each year. There is no cure for HPV therefore prevention and education is paramount to reduce transmission rates amongst this vulnerable population. OBJECTIVES: The objective of this pilot, education program at Worcester State University was to educate the students about HPV, the benefits of receiving the vaccination, and safe sex practices. As a result HPV vaccination rates and HPV knowledge would improve, thus causing a decrease in transmission rates. METHODS: This study utilized 60 undergraduate students between the ages of 18 and 24 at Worcester State University and provided them different education forums; 10 minute classroom discussion, and an HPV awareness week with events. The student’s level of HPV knowledge and vaccination rate was examined by a pre to post-survey. CONCLUSIONS: By implementing a health education program there was an overall trend towards increased HPV knowledge in college students between the ages of 18-24. Participants averaged 79% (10.3/13) for the HPV knowledge questions answered correctly, compared to the 66% (8.7/13) initially. There was a trend towards increased vaccination rates for HPV ($n=27$). By increasing the student’s knowledge regarding HPV, the student’s perception of the HPV vaccine became more positive. There was no statistically significant increase of condom use amongst participants.

5. YouthConnect Worcester: A Consortium Delivering Positive Outcomes for Health, Education and Family Stability

Judi Kirk, YouthConnect Worcester and Boys & Girls Club of Worcester; Patty Flanagan, YWCA Central Massachusetts; Ron Hadorn, Boys & Girls Club of Greater Worcester; Linda Cavaoli, YWCA Central Massachusetts; Beth Folcarelli, You, Inc.; Victoria Waterman, Girls Inc. of Worcester; Sam Martin, Worcester Youth Center; Gordon Hargrove, Friendly House; David Connell, YMCA of Central Mass

YouthConnect Worcester provides high quality, year round, neighborhood-based youth development opportunities for recreation, education and culture to isolated and underserved Worcester youth age 5-24 (focusing on the middle school years) who reside in Worcester's most at risk neighborhoods. We do this through the establishment of a seamless, inclusive youth-serving consortium, modeled on best practice, utilizing a common system of measures to drive efficient use of resources for impact, and built on a framework that delivers positive outcomes in the areas of health, education, and family stability. Partners include: Boys & Girls Club of Worcester, Friendly House, Girls Inc. of Worcester, YMCA of Central MA, Y.O.U. Inc., YWCA of Central MA, and Worcester Youth Center. Building a high degree of trust, they learn from, share with, and support each other.

YouthConnect aligns closely with the five domains within the Greater Worcester Region Community Health Improvement Plan (CHIP) providing physical activity and nutrition education (Domain I), embedded mental health services (Domain II), preventive support (Domain III), violence prevention (Domain IV) and participation in activities to eliminate racism and impact health disparities (Domain V).

Each partner brings their particular expertise to the table combined with the collective power of the consortium. We also utilize supports from a widening circle of supporting partners providing expertise to fill identified gaps in services including: mental, physical, and sexual health, college & work readiness, risk behavior & violence prevention, civic engagement & peer leadership, LGBT resources, food & shelter, funding and others.

6. Youth Health Benchmarks in the context of a Regional Health Improvement Plan

Samantha Arsenault, Clark University Worcester; Cassandra Andersen, Worcester Division of Public Health

The Greater Worcester Community Health Improvement Plan (CHIP) proposes a set of goals and objectives with the vision of Worcester being the healthiest city in New England by 2020. As a part of the plan, the Worcester Regional Youth Health Survey (RYHS) was conducted by the Worcester Division of Public Health during the 2013-2014 academic years. The RYHS allows the progress toward CHIP goals to be assessed, as well as the identification of additional areas for improvement. Findings will include the results of adolescent health behavior questions from the survey and those CHIP objectives that they inform, which include: healthy eating and active living, behavioral health, primary care and wellness, violence and injury prevention, and health equity and disparities. Progress towards meeting local CHIP goals will be framed by a comparison to national and state-wide data sets. A total of 8,703 youth participated in the survey from grades 9-12. The survey contained standardized questions that were taken from validated national surveys. The survey questions measured the prevalence of health-risk behaviors among youth and the community conditions which provide protective factors as well as the perceived behavioral standards.

7. From Rural to Urban: Determining the Prevalence of Opioid Abuse in a Community+

Seth Peters, MPH, City of Worcester Division of Public Health

Chief of Epidemiology & Health Protection Services

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(Ph.D. Candidate 2018, 1st Faculty of Medicine, Charles University, Prague) (ESF CZ.2.17/3.1.00/36064)

It is fairly common to hear news reports of an increasing opioid epidemic across the United States. This includes use of prescription narcotic pain medications and illicit narcotics such as heroin. Determining the true prevalence of opioid addiction in a community is a daunting task. Generally speaking, many people who are addicted to using prescription opiates or injecting heroin are not counted in the healthcare system unless they overdose or are actively seeking recovery. Locally, based on data collected from police and hospitals, the incidence of opioid overdose appears to be rising. The City of Worcester Division of Public Health (WDPH) is currently collecting data from Worcester area hospitals, police, emergency medical service providers, inpatient and outpatient treatment programs, and community organizations. WDPH will routinize the way this data is collected and analyzed to monitor the trend of Opioid Addiction and Recovery in the City of Worcester and contiguous towns that participate in the Central Massachusetts Regional Public Health Alliance (CMRPHA).

8. Community strategies to deal with the opioid abuse epidemic

Francis Melaragni, MBA, CMA, MCPHS University; Carly Levy, MPH, CPH, MCPHS University

Governor Patrick declared a public health emergency in response to the opioid abuse epidemic that Massachusetts communities are facing. In response to this public health emergency the Town of Billerica and MCPHS University have collaborated in studying, compiling, and analyzing the practices and strategies that various communities in Massachusetts and throughout the United States are employing to prevent, mitigate, and manage opioid abuse. The strategies being employed are numerous and include things such as curriculum development and deployment, training of bystanders and first responders, and working with and educating healthcare professionals.

In addition to studying other community strategies, the Billerica-MCPHS project will use the Substance Abuse and Mental Health Services Administration (SAMHSA) Strategic Prevention Framework (SPF) to assess the needs, capacity, and appropriate approaches in the Town of Billerica. The use of the SPF from SAMSHA will provide a structured framework for Billerica, and also allow ongoing evaluation of the results to enable assessment of outcomes.

The implication of this study will be to provide a catalog and analysis of strategies being employed by various communities who are responding to the opioid epidemic. In addition, it offers a pilot community that will collect and analyze outcomes for their effectiveness in dealing with the opioid epidemic. This information will be shared with other like communities and interested stakeholders.

9. Center for Promotion of Health in the New England Workplace: A Total Worker HealthTM Center for Excellence

Suzanne Nobrega¹, MS, Nicole Champagne¹, EdD, Robert Henning², PhD, Nicholas Warren³, ScD, Martin G. Cherniack³, MD, Laura Punnett, ScD¹, and the CPH-NEW Research Team, ¹University of Massachusetts Lowell, Lowell MA, ²University of Connecticut Storrs, Mansfield, CT, and ³University of Connecticut Health Center, Farmington, CT

The Center for the Promotion of Health in the New England Workplace (CPH-NEW) implements and evaluates workplace program models for integrating health promotion with occupational health interventions, with a strong emphasis on musculoskeletal, cardiovascular, and mental health outcomes; the underlying role of work organization; and the importance of worker involvement in program design and implementation. The Center is a joint initiative of the University of Massachusetts Lowell and the University of Connecticut, with numerous private and public sector partners. It is one of four Total Worker Health Centers for Excellence funded by NIOSH.

CPH-NEW has two intervention research projects and an outreach/ dissemination initiative. In Pro-Care II (Promoting Caregivers' Physical & Mental Health via Trans-disciplinary Intervention), CPH-NEW is working with a large chain of nursing care centers to identify organizational quality indicators associated with health, safety, and satisfaction for employees and residents. The HITEC II (Health Improvement Through Employee Control) study features a Participatory Action Research design in the Corrections sector, where employee teams develop integrated workplace protection and health promotion programs. The HealthyandSafe@Work outreach and dissemination project provides employer education, training, and tools to facilitate job stress interventions and adoption of integrated health protection/ promotion strategies in the workplace. A Healthy Workplace Participatory Program online toolkit (www.uml.edu/cphnewtoolkit) facilitates workplace adoption of key CPH-NEW methods and practices, currently in use by local employers. Key community partners include the Massachusetts Department of Public Health, the Massachusetts Coalition for Occupational Safety and Health (MassCOSH), and the Worksite Wellness Council of Massachusetts.

10. An Economic Analysis of a Safe Resident Handling Program in Nursing Homes

Supriya Lahiri, PhD, Saira Latif, PhD and Laura Punnett, Sc.D, Ernest Boakye-Dankwa, MSc; UMass Lowell

Background: Occupational injuries, especially back problems related to resident handling, are common in nursing home employees and their prevention may require substantial up-front investment. This study evaluated the economics of a safe resident handling program (SRHP), in a large chain of skilled nursing facilities, from the corporation's perspective. Methods: The company provided data on program costs, compensation claims, and turnover rates (2003-2009). Workers' compensation and turnover costs before and after the intervention were compared against investment costs using the "net-cost model." Results: Among 110 centers, the overall benefit-to-cost ratio was 1.7 and the payback period was 1.98. The average annualized net savings per bed for the 110 centers was \$143, with a 95% confidence interval of \$22 - \$264. This was very similar to the average annualized net savings per Full Time Equivalent (FTE) staff member, which was \$165 (95% confidence interval \$22 - \$308). However, at 49 centers costs exceeded benefits. Conclusions: Decreased costs of worker injury compensation claims and turnover appear at least

partially attributable to the SRHP. Ongoing research examines center-specific factors that enhance program success, and improve measures of turnover costs and healthcare productivity.

11. Underreporting of Stress and Negative Emotions Among Correctional Employees

Christina Mignano¹, Pouran Faghri¹, Tania Huedo-Medina¹, Martin Cherniack²

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²Ergonomics Technology Center, University of Connecticut Health Center, Farmington, CT

Corrections is recognized as a high stress work environment, but correctional officers have also been observed to underreport stress. This study sought to examine prevalence of reported stress, negative emotions (feeling blue or worthless), and positive emotions (feeling happy or calm) among correctional employees and to examine the effects of reported stress and overall emotions on health behaviors (diet, exercise, and sleep quality). All employees at two correctional institutes were invited for participation in the Well Source Health Risk Assessment (HRA) (n=317). Descriptive analysis revealed that a majority of corrections employees reported no/few stress signals, with the percent reporting no stress signals ranging from 81.4- 91.2%. A majority of participants reported infrequent negative emotions, with a large skew (skewness of -0.924 to -2.060). Reporting of positive emotions was more evenly distributed (skewness of 0.169 to -0.556). Structural equation modeling (SEM) utilizing Mplus software showed higher self-reported stress had no effect on diet or exercise quality, but negatively affected sleep quality (B=-0.23, p=0.001). Overall emotions directly affected all three health behaviors of diet (B=0.163, p=0.006), exercise (B=0.163, p=0.006), and sleep quality (B=0.318, p<0.001), with better overall emotions resulting in better health behaviors. The non-normal distribution of reported stress and negative emotions (feeling worthless and blue) and the lack of association between reported stress and health behaviors may suggest that correctional employees underreport stress and negative emotions on a self-reported HRA survey. When common available survey instruments are used, it is important to look at multiple emotional characteristics, both positive and negative.

12. Sleep quality, body weight and health behavior in employees at high stress jobs: Is there a connection?

Christina Mignano, Research Assistant, University of Connecticut

Employees at high stress jobs are at potential risk for overweight and obesity. Stress and emotional characteristics may effect individual's health behaviors and ultimately affect weight status. This study is an assessment of the relationship between six emotions and stress characteristics, health behaviors (diet, exercise, and sleep quality), and weight status among employees at two correctional facilities. Height, weight, and body mass index (BMI) were directly measured. Emotional characteristics and health habits were self-reported on a standardized and validated questionnaire designed for use in corrections (n=317). Measurement models were conducted creating latent variables to build structural models including mediation effects. The models were analyzed using a structural equation model approach (SEM) with MPlus software. 88% of employees were overweight or obese (BMI > 25). Higher reported stress had a negative association with sleep quality (B=-0.23, p=0.001). More positive emotional characteristics were

associated with better diet quality ($B=0.163$, $p=0.006$), exercise quality ($B=0.322$, $p<0.001$), and sleep quality ($B=0.318$, $p<0.001$). BMI was negatively related to diet ($B=-2.167$, $p<0.001$) and exercise quality ($B=-0.129$, $p=0.001$). BMI was also negatively associated with self-assessment of personal energy ($B=-0.162$, $p=0.006$), an effect that was mediated by exercise ($B=-0.098$, $p=0.007$) and diet ($B=-0.078$, $p=0.002$). Among corrections officers, poor sleep quality and high stress were independent sources of concern with even greater concern about excess weight being their consequence. Our evidence suggests that these effects contribute to unhealthy behavioral practices (poor eating patterns and lack of physical activity).

13. Perceptions of workplace wellness between nursing home management and employees

Kyleigh Kriener, CPH-NEW, University of Massachusetts Lowell; Laura Punnett, Rebecca J. Gore, ProCare Research Team

Background/Aims: Wellness programs are introduced into the workplace with the intent of improving worker health. However, perceptions of a program and the in-house resources policies that support it, such as availability of healthy foods or promotion of healthy behaviors, can differ between employees and administrators. This might have implications for program success. Our previous research has shown discrepant opinions regarding opportunities for employee to voice opinions and become involved in solving occupational health and safety problems. Methods: Within a large nursing home company, administrators of skilled nursing facilities were asked about their current wellness programs and plans for wellness programs, as well as how they promoted healthy behaviors to their workers. Separately, individual employees were surveyed on related topics. The primary goal of this investigation is to compare the perceptions of employees and administrators about wellness program features. Results: Survey data from 24 facilities were collected in 2012-2013. A total of 24 administrator surveys and 2,642 employee surveys were analyzed to date. Most administrators reported offering chronic disease screening programs, weight loss programs, family-friendly work scheduling, and flex time. Additionally, the majority of the administrators indicated that there was scheduling and job flexibility so that employees could participate in wellness programs or activities. In contrast to the administrators' perceptions, the majority of employees attributed lack of participation in wellness programs to the timing which conflicted with their other responsibilities (either work or family). Discussion/Conclusions: Other comparisons between responses of administrators and employees are being examined. For example, employees were asked to identify specified positive organizational changes in the presence of the wellness program; these will be compared with the administrators' perceptions of the aforementioned changes. Additional attention will be given to comparing opinions of employees and management about the food environment in the workplace. Discrepant perceptions can represent problematic conditions for employee engagement and empowerment.

14. Organizational features related to quality of worker and resident experience in nursing homes

Ernest Boakye-Dankwa, Laura Punnett, Rebecca Gore, Laura Kernan; UMass Lowell

Background: Workers and residents in nursing homes share a common environment. The quality of residents' experience may be measured through the frequency of adverse outcomes. Workers' wellbeing is also reflected in a variety of indicators such as work-related injuries. However, there has been little empirical examination of whether workers' and residents' outcomes are correlated. Because these questions do not involve formal hypothesis testing, we selected cluster analysis. Methods: Center-level data sets were obtained from corporate offices of a company that owns or manages over 200 skilled nursing facilities (SNF's). We organized the database by cross-walking the data files from each center using three sets of unique identifiers for each center, to ensure accurate matching. Initial analysis was limited to data for calendar year 2012.

Results: The respective cluster sizes are 65, 48, and 87. The R-squared statistic measures the variance explained in each variable by cluster centroids. This statistic indicates that clusters separate residents outcomes like falls, pressure ulcer and satisfaction score compared to other variables. The cluster means showed that cluster three performed extremely well on employee's outcome and residents' outcome compared to other two. Discussion/Conclusions: Organization features of a nursing home may affect both workers and residents. Our goal is to identify those features that best explain the heterogeneity of experiences at the center level. Future analyses will validate the cluster solutions for stability and generalizability.

15. Quality of Life and Musculoskeletal Disorders in Overweight and Obese Nursing Home Employees

Winnie S.Y. Chin, MS, CPH-NEW; Pouran D. Faghri, MD, MS, FACSM; Tania B. Huedo-Medina, PhD; University of Massachusetts Lowell

Objective: To determine the extent musculoskeletal (MS) pain in the low back and knee (weight-bearing (WB) joints), shoulder and wrist (non-weight (NWB) bearing joints), and exercise self-efficacy mediates associations between overweight and obesity levels based on BMI (4 levels: overweight, obese class I, II, or III), physical function, emotional role, social interference, and physical activity (PA) levels. Design: Cross-sectional study. Setting: Four long-term nursing home facilities in the Northeast U.S. Participants: 99 overweight or obese (BMI > 25) nursing home employees. Interventions: Self-reported survey administered to employees who met inclusion and exclusion criteria. Main Outcome Measure(s): General Health Status, Physical function, Emotional Role, Exercise Self-Efficacy Scale (ESE), physical activity, and pain frequency experienced at each joint. Results: Reported pain frequency were 66.3%, 54.4%, 42.2%, and 24.1% for lower back, knee, shoulder, and wrist, respectively. Higher obesity levels were associated with lower physical function ($r=-0.109$, $p=0.284$). PA decreased with higher obesity levels ($r=-0.248$, $p<0.05$), particularly in moderate PA ($r=-0.293$, $p<0.05$). Obesity was associated with a lower ESE ($r=-0.239$, $p<0.05$). Wrist pain significantly mediated the effect of obesity on moderate physical function, emotional role, and ESE. ESE was a significant mediator between obesity and moderate and vigorous PA. Conclusions: Overweight and obese nursing home employees are at higher risk for developing musculoskeletal disorders due to high demand, low control jobs, and the associated

biomedical compromises while working. To increase the effectiveness of weight loss interventions for this population, the mediating effects of MS pain with higher levels of obesity should be considered.

16. Leaders Care: Mitigating Violence against Emergency Department Staff

Ann M. Lak, MS, RN Adjunct Faculty at MPHS University Manchester, Nursing School

Engaging Emergency Department clinicians in identifying fears and challenges about safety will support a more secure environment. Identifying staff perceptions regarding safety guided intervention development to maximize security.

A survey identified staff perceptions of security, and was repeated after the implementation of mitigation interventions in a New Hampshire community hospital Emergency Department. Staff members, Security Officers, and Patient Registrars were invited to participate in anonymous online surveys pre- and post-mitigation intervention implementation. Data were analyzed for significant differences in responses pre- and post- interventions. Following the initial survey, interventions addressing staff concerns were developed and implemented. In the post-intervention survey, significant differences were noted in 5 of 11 staff concerns. Staff security is a moving target in this environment. Leaders must look at the team as a whole. Interventions designed will drive ongoing educational initiatives, policy revision, and clarification of responsibilities among team members in order to improve safety.

17. Impact of safe resident handling programs in nursing homes on outcomes after work injury

Alicia Kurowski ¹, Glenn Pransky ², Laura Punnett¹

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Background: Manual handling of residents has resulted in excess musculoskeletal injuries among nursing home workers. Safe Resident Handling Programs (SRHPs) are an effective strategy to reduce risk. Their impact on Return-to-Work (RTW) and re-injury has not been evaluated. **Methods:** A nursing home corporation introduced a three-year SRHP program, including resident handling (RH) equipment, staff training, policies, and maintenance. Following three years of periodic training, SRHP management was transferred to centers. Lost-time workers' compensation claims (WCCs) for 136 centers covered three years pre-SRHP and six years post-SRHP. Claims were assigned time periods based on program implementation dates. RH-related and back-related claims were identified. Length of disability (LOD) and injury recurrence were determined and compared over time to quantify effects of the SRHP. **Results:** In 2000-2010, there were 3,263 lost-time WCCs, of which 1,308 were RH-related. Across time periods, downward trends in LOD were observed for all claims. However, shorter duration claims (disability < 6 months) showed no changes. Reductions in recurrent RH-related claims were observed across time periods, but not among other types of claims. Mean paid indemnity and medical costs were about three times higher for claimants with recurrent injuries compared to those with a single injury. **Conclusions:** No reduction in claim LOD could be attributed to the SRHP. However, reductions were observed in recurrent claims, resulting in lower costs. Since back pain is inherently recurrent, results suggest the SRHP helps

workers remain at work. The impact on recurrent claims was sustained following the end of the external training program.

18. Investigation of physical workload and sleep quality in rehabilitation professionals

Kotejshyer R, Zhang Y, Buchholz B, Punnett L; ProCare research team, University of Massachusetts Lowell

Physical and occupational therapists seek to achieve functional independence in patients. This potentially contradicts therapists' use of lift equipment, exposing them to physical risk of heavy loads and awkward postures. Our own data indicate that musculoskeletal symptom prevalence, workers' compensation claim rates and costs are similar for therapists and nursing aides, an occupational group known to be at high risk of musculoskeletal problems. However, there has been little quantification of physical exposures and associations between workload and health effects such as musculoskeletal health or sleep quality. We are conducting a pilot study to analyze the physical workload of therapy tasks in nursing homes using a combination of systematic observation with PATH ('Postures, Activities, Tools and Handling') to record work postures and manual handling, and a motion capture device (MoCap) to record trunk, arm and leg postures. An accelerometer (Actisleep) is worn for 72 hours continuously to estimate energy expenditure, metabolic rate, steps taken, and physical activity intensity on and off work. Total sleep time, sleep latency, wake after sleep onset, sleep efficiency, and sleep fragmentation index will be recorded. High-risk activities at work will be identified and compared among job titles. Correlation and regression analysis will be performed to analyze associations between physical workload, leisure-time physical activity, and the outcomes of musculoskeletal disorders and sleep quality, with adjustment for demographics and psychosocial factors. Identifying specific exposures and appropriate control measures could be highly valuable for healthcare institutions and the rehabilitation professional community.

19. Building Partnerships for Healthier Connecticut Workers: The Occupational Safety and Health Core Interest Group (OSH-CIG) of UConn Health

Jennifer Cavallari, UConn Health; Alicia Dugan, UConn Health; Mazen El Ghaziri, UConn Health; Jennifer Garza, UConn Health
Sara Wakai, UConn Health; Kelly Wallace, UConn Health

The Occupational Safety and Health Core Interest Group (OHS-CIG) core members are based out of the UConn Health Division of Occupational and Environmental Medicine (DOEM) with funding provided by the Connecticut Institute for Clinical and Translational Science (CICATS). The OSH CIG mission is to perform translational research to improve the health and safety of Connecticut workers. The first goal for achieving the OSH CIG mission is to develop and facilitate a productive, integrated community of stakeholders committed to improving occupational health and safety of Connecticut workers. The integrated communities of stakeholders include researchers and affiliates, professionals practicing occupational safety and health, leaders and members within community organizations, leaders and members within labor unions, and CT public health officials. We are developing a productive, integrated community through the following activities: needs assessment, website development, academic talks and

discussions, community activities, and grant development. Members are invited to attend academic talks and discussions that provide a forum to learn and discuss research and practice topics in Occupational Safety and Health including Occupational Medicine Colloquium (monthly), Scholarly discourse group (monthly), Occupational Health Writing Group (monthly). Community and practice-based activities are designed to provide a forum to share information on Occupational Health and Safety and include general and topic specific forums. Lastly, the OSH CIG seeks to procure funding to maintain OSH CIG related activities via Community-Based Participatory Research focused grant. Individuals interested in more information or becoming a member can contact Jenn Cavallari (Cavallari@uchc.edu).

20. Predictors of nursing staff voluntary termination in long-term care facilities

Yuan Zhang, Ph.D.¹ Laura Punnett, Sc.D.,¹ Rebecca Gore, Ph.D.,¹ ProCare Research Team¹

¹University of Massachusetts Lowell

Background and Objective: Nursing staff turnover is recognized as a large problem in the healthcare sector in many countries. Most attention has been devoted to understanding employee turnover from the facility level, with less attention paid to the work environmental predictors of nursing staff leaving employment at the individual level. **Methods:** Questionnaire surveys were collected among nursing staff in 18 long-term care facilities on up to five occasions between 2006 and 2012. Voluntary termination data were provided by the company with a complete list of staff terminations in these facilities between May 2006 and March 2012. “Cases” were those who had left employment voluntarily after answering a survey administered by the investigators. “Controls” were survey respondents still employed and matched to cases on age, job category (CNA, LPN, RN), and survey occasion. One control was randomly chosen from the set of possible matches for each case. **Results:** Conditional regression models suggested that evening shift work was a contributing factor to voluntary termination (HR=1.81, $p<0.01$), while working other jobs was a protective factor (HR=0.67, $p<0.05$). Intention to leave predicted later voluntary termination (HR=1.20, $p<0.05$) and did not mediate the association of the other two factors. **Conclusions:** This study suggests that voluntary termination from long-term care work is affected by work scheduling issues. Future work might include qualitative studies to elicit nursing staff opinions about reasons for turnover in the long-term healthcare sector.

21. Mindfulness is associated with sleep quality among patients with fibromyalgia

Yuan Zhang¹, Lori Lyn Price², Nani Morgan³, Lucas Morgan⁴ and Chenchen Wang²

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Background/Purpose: Previous literature suggests that mindfulness-based interventions may be effective in reducing chronic pain and depression. Fibromyalgia patients commonly experience sleep disturbance, which partially attributes to chronic pain and depression. We hypothesize that mindfulness could be associated with fibromyalgia patients' sleep quality, and the effect may be explained through reducing symptoms of chronic pain and depression. **Methods:** We conducted a secondary analysis of baseline data from a randomized controlled trial comparing effects of Tai Chi and aerobic exercise in patients with

fibromyalgia. Pearson correlations were run to examine the associations of mindfulness with sleep quality and disturbance, chronic pain, and depression. Multivariate linear regressions were run to examine the predicting effect of mindfulness on sleep quality and disturbance; as well as the potential mediating effect of chronic pain and depression. Results: This study included 160 fibromyalgia patients with an average age of 51.9 years, primarily female (92%). Patients reporting higher levels of mindfulness tended to report better sleep quality ($p<0.01$) and less sleep disturbance ($p<0.01$), as well as lower chronic pain ($p<0.01$), and less depression ($p<0.01$). The linear regression modeling reported that mindfulness significantly predicted sleep quality and disturbance. The association between mindfulness and sleep quality/disturbance was partially mediated through chronic pain and depression. Conclusion: Mindfulness may be associated with fibromyalgia patients' sleep quality, and the effect could be explained through affecting the symptoms of chronic pain and depression. Longitudinal studies are needed to evaluate whether improvement in mindfulness are associated with improvement in sleep quality of fibromyalgia patients.

22. Insomnia symptoms and falls among older Puerto Rican adults

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Background/Purpose: The risk for falls is notably high among the elderly population. Insomnia symptoms are common in this population, and may contribute to the risk for falls. However, whether the effect of insomnia on falls is independent of depression, cognitive impairment, or depression or sleep medication use is not well understood. Methods: Cross-sectional data were collected with older Puerto Rican adults in Massachusetts from 2008 to 2010. ANOVA and cross-tabulation analysis were run to examine associations of insomnia, depression, cognitive impairment, depression or sleep medication use with falls in the past year. Multivariate robust Poisson regressions were run to examine the independent effect of insomnia on falls, with adjustment of possible confounders. Results: This study included 958 Puerto Rican adults with an average age of 59.4 years, and 71.3% female. Insomnia ($p<0.01$), depressive symptomatology (CES-D score ≥ 16) ($p<0.05$), and use of depression or sleep medication ($p<0.01$) were each significantly associated with falls. Older age, female gender, and higher BMI were also associated with falls, but cognitive impairment (MMSE score ≤ 23), smoking, alcohol use, physical activity, and osteoporosis at the femoral neck or spine were not. Insomnia and use of depression or sleep medication remained significantly associated with falls after adjusting for depressive symptomatology and cognitive impairment, along with age, gender, and BMI. Conclusion: Insomnia was independently associated with falls among older Puerto Rican adults. Longitudinal studies are needed to further evaluate whether changes in insomnia independently predict changes in falls in the elderly population.

23. Engaging the Deaf Community in Behavioral Health Research: Insider, Outsider, and Ally Perspectives

Wyatte C. Hall, Ph.D.; Melissa L. Anderson, Ph.D.; Marlene Elliott, CI/CT; Douglas M. Ziedonis, M.D., M.P.H.; UMass Medical School

Targeted recruitment of minority, non-English speaking, and underserved populations into behavioral health research is a critical concern given their severe disparities in mental health problems, substance use disorders, and access to health care. Unfortunately, researchers often lack the necessary skills to recruit from within these populations, resulting in low rates of participant enrollment and retention. Similar challenges are seen within the Deaf community, a sociolinguistic minority group of at least 500,000 Americans whose primary language is American Sign Language (ASL). Although this group has significant behavioral health needs, they are frequently a “silent” group to medical professionals and nearly non-existent in the literature. This is further complicated by a lack of ASL-fluent clinicians and researchers, as well as a limited number of qualified ASL interpreters. As such, a Deaf health task force recently identified three key directions for the future of Deaf research: to (1) “address health inequities,” (2) “increase inclusion and surveillance,” and (3) “provide greater empowerment and self-determination in health care and research.” The current poster will present perspectives of four professionals who conduct behavioral health research within the Deaf community - one Deaf community member, two hearing allies who work within the community, and one hearing mentor who works in the general population. Challenges to be explored include marginalization of Deaf people within a medical disability framework; historical and current oppression within behavioral health systems; and, cultural insensitivity among clinicians and clinical researchers. To address these challenges, key considerations for effectively recruiting, engaging, and retaining Deaf research participants will be presented: linguistic accommodation, awareness of “hearing world” perceptions, confidentiality, respect, and sharing of information.

24. Exploring Integrated Access to Healthy Foods as a Preventative Health Measure: Farm to Health Center Initiative

Alicia Cianciola, Community Harvest Project, Inc.; Elizabeth Rosen, UMASS Medical School; Kathryn Bailey of UMASS Medical School; Rachel Erdil, UMASS Medical School

Food insecurity for a household is defined by limited or uncertain availability of nutritionally adequate and safe foods, or limited or uncertain ability to acquire acceptable foods in socially acceptable ways. Across the nation, 14.5% of families have experienced food insecurity over the course of the past year. At the Family Health Center of Worcester, 67% of screened patients positively identified as food insecure. The Farm to Health Center Initiative (FTHCI) is collaboration between UMass Medical School students, Family Health Center of Worcester physicians and the Community Harvest Project aimed at addressing high rates of food insecurity.

The Farm to Health Center Initiative strives to improve access to healthy foods for patients in need, to incorporate food insecurity screening into patient care, and to educate health care providers about food insecurity. FTHCI is led by UMASS Medical School students and Community Harvest Project at Family Health Center of Worcester. In 2014 the partnership initiated the first site blending health center services and food security resources in Worcester. Integration of access to healthy foods is imperative to

improving and maintaining patient health. We seek to better measure and evaluate the impact of access to this produce on recipients and the community for improved planning and programming.

- How can this opportunity best serve patients and improve care at the health center?
- How can we better inform or train physicians and staff to integrate food security resources into their routine care?

25. Finding Mother Child Dyads with the Familial, Associational & Incidental Relationship initiative (FAIR)

Thomas M. English, PhD¹, Michael J. Davis, BA¹, Rebecca L. Kinney, MPH¹, Ariana Kamberi, MBA¹, Wayne Chan, MSME MSEE¹, Rajani S. Sadasivam, PhD¹, and Thomas K. Houston, MD MPH FACMI^{1, 2}

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Identifying familial linkages in a phenotypic data warehouse can be valuable in cohort identification, and beginning to understand interactions of diseases among families. The goal of the Familial, Associational, & Incidental Relationships (FAIR) system is to identify an index set patients' relationships through elements in a data warehouse. Using a test set of 500 children, we measured the sensitivity and specificity of available linkage algorithm (e.g.: insurance id and phone numbers) and validated this tool/algorithm through a manual chart audit. Sensitivity varied from 16% to 87%, and specificity from 70% to 100% using various combinations of identifiers. Using the "i2b2" warehouse infrastructure, we have now developed a web app that facilitates FAIR for any index population.

26. Connecting the Uninsured to Coverage and Care

Deborah Gurewich, PhD, Assistant Professor, Center for Health Policy and Research, University of Massachusetts Medical School Worcester; Linda Cabral, MM, Senior Project Director, Center for Health Policy and Research, UMass Medical School;

Laura Sefton, BA, Research Coordinator, Center for Health Policy and Research, UMass Medical School

Background and Methods: The UMMS Center for Health Policy and Research (CHPR) completed an evaluation for the Blue Cross Blue Shield of Massachusetts Foundation's Connecting Consumers to Care program, which supported 13 community-based agencies in the 2011-2013 grant cycle to help the uninsured enroll in and maintain health insurance coverage. Qualitative case studies of the grantees examined the operational practices they adopted to outreach to and enroll consumers in insurance, facilitate consumer self-sufficiency, and collaboratively problem-solve to minimize system-level barriers.

Principal Findings: Grantees adopted extensive and innovative strategies to outreach to uninsured consumers, including direct outreach within their own organizations as well as at other locations. They also trained community members and staff from other community organizations to identify, outreach to and refer consumers needing assistance with coverage. Grantees provided enrollment assistance via workshops and renewal reminder prompts to consumers to minimize gaps in coverage. Grantees' practices for advancing consumer self-sufficiency focused on educating consumers and developing extensive materials to enable consumers to access health care and maintain coverage with increasing

independence. Across all efforts, grantees developed relationships with state agencies, professional associations, and advocacy groups which, in turn, enabled grantees to more effectively resolve specific barriers to coverage and care. Conclusions: Study results suggest that grantees played a critical role in facilitating access to coverage for vulnerable, hard-to-reach populations. Employing culturally competent outreach and enrollment staff, establishing strong and extensive intra- and inter-organizational relationships, and developing tools and guides for consumers all contributed to successful practices.

27. Building Community Partnerships to Promote Heart Health among Hispanic Adults living in the Boston area: The Heart Healthy Initiative for Hispanic Adults Program (HIP)

Sabrina E. Noel¹, PhD, RD; Shioban E. Torres², DrPH; John Griffith², PhD; Katherine L. Tucker¹, PhD

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Few culturally appropriate interventions have been designed to address cardiovascular (CVD) disparities experienced by U.S. Hispanics. Engaging in community-based participatory research has been proposed as a viable approach to reducing CVD disparities. Involving community partners in research improves community buy-in, quality of data collection and recruitment and reduces mistrust of research.

The Heart Healthy Initiative for Hispanic Adults Program (HIP) is a 1-year multilevel culturally tailored intervention that includes weekly group educational sessions, Zumba classes and interactions with an embodied computer agent to improve heart health among 150 Hispanics (45 to 75 y). HIP has partnered with multiple community-based organizations including Boston Centers for Youth and Families (BCFY), Inquilinos Boricuas en Accion and La Alianza Hispania to plan and implement the program in four Boston communities.

A total of 89 participants have been recruited since April of 2014 and two of four intervention groups are underway. Our community partners have been instrumental in recruiting and retaining participants by engaging in face-to-face recruitment, meeting with potential participants to discuss program benefits; promoting the study at community events; and posting flyers in key community locations. These partnerships have led to new opportunities including working with a local Spanish radio station to promote health and awareness of the program. Holding the intervention at the BCYF sites has been integral as it is well trusted and easily accessible to the community. Community engagement can lead to effective recruitment and coordination of an intervention due to the joint commitment and accountability to the research program.

28. Building a Coalition to Promote Health Literacy in Central Massachusetts

Bet Key Wong, MSN, RN, CNOR, Dr. Lillian R. Goodman; Department of Nursing, Worcester State University

Founded by graduate nursing students at Worcester State University (WSU), the Central Massachusetts Health Literacy Project (CMHLP) is an academic-community partnership with the vision of a healthier

Central Massachusetts through health literacy efforts. Current health indicators of the greater Worcester area suggest that there is great need for building health literacy capacity. Although students are considered learners, many WSU graduate nursing students have roots in Central Massachusetts and have years of experience as health care providers. They come from diverse cultural, linguistic, and health care backgrounds. Their combined health care experiences and ability to interpret and perform scholarly work contribute to their ability to assess health literacy needs of local residents, identify the best health literacy practices, and formulate innovative solutions to poor health literacy. CMHLP members have worked with Worcester Refugee Assistance Program, Elder Services of Worcester, and Central Mass/MetroWest Transitions in Care Collaborative. CMHLP members are not outsiders who come into a community to study and leave. Their commitment to the Worcester area not only helps sustain the collaborative but provides the important everlasting connection between the university and local community.

29. Implementation of Health Literacy Practices in Designing a Program for Reduction in Hospital Readmissions from Door to Home

Marlene Goodale Worcester State University; Stephanie Chalupka, EdD, RN,PHCNS-BC, FAAONN, Associate Dean for Nursing

In collaboration with the Central Mass/MetroWest Transitions in Care Collaborative (CMTCC), the Central Mass Health Literacy Project, designed and implemented a training program utilizing plain language to help reduce hospital readmissions. 21 transition care coaches were trained to look for red flags associated with 13 medical conditions responsible for high rates of hospital readmissions. Coaches met eligible Medicare patients in the hospital and followed them in the community for 30 days post discharge. The collaborative was funded by section 3026A of the Affordable Care Act. In 2012, we worked with Elder Services of Worcester, leading agency of CMTCC, to implement the training program. Readmission rates have decreased in the target population and CMTCC received additional 2 years of funding from CMS for their transition care program.

Improving transitions from the hospital to other care settings, improving quality care to reduce readmissions for high risk patients and providing measurable savings to Medicare should be our community's goal.

30. The IPE Plexus for MCPHS University: Building the Interface between Education, Practice and the Community

Lily S. Hsu, Associate Provost for Academic and Professional Affairs, MCPHS University

Interprofessional Education (IPE) is when two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes (WHO, 2010). MCPHS University is dedicated to preparing students for successful health careers through excellence in teaching, scholarship, research, professional service and community engagement. Quality healthcare for individuals and our community will depend on future health professionals who understand and embrace IPE. We believe that all health professions education needs to include IPE throughout the curriculum. The MCPHS University IPE Plexus is looking to build relationships with a broad group of community and professional

organizations to create a university-wide curriculum that engages our students in 1) developing a deep understanding of how to effectively communicate with patients, family members and other practitioners, 2) working with individuals, community groups and other health professions in ways that are respectful and based on shared values and mutual trust, 3) developing teamwork and collaborative practice models that will provide optimal care for the patient and his/her family and 4) using knowledge of their own health profession role and responsibilities in a collaborative setting so that appropriate and compassionate health care is provided without creating unnecessary costs or burdens to the patient. Our desire is to partner with other health care and community based organizations to create an IPE curriculum that engages our students and faculty with our partners in a shared experience with the goal of improved health care for all.

31. Making Women's Health Connections - Between Researchers and to Resources

Martha E. Meacham - Project Manager, Lamar Soutter Library, University of Massachusetts Medical School

Elaine Martin - Director and PI, Lamar Soutter Library, University of Massachusetts Medical School

Len Levin - Head of Education & Clinical Services, Lamar Soutter Library, University of Massachusetts Medical School

Lisa Palmer - Institutional Repository Librarian, Lamar Soutter Library, University of Massachusetts Medical School

The Lamar Soutter Library at the University of Massachusetts Medical School has recently completed the second year of a National Library of Medicine grant funded project; the Women's Health Resources Dissemination Outreach Project. The goals include assisting women's health researchers by providing them with access to information and making them more aware of opportunities, collaborations, and available resources. This, ultimately, enables both an improvement in women's health and the advancement of women in academic medicine. Moreover, by supporting women's health research and women researchers through the objectives of this project, women researchers build connections, knowledge, and skills. This facilitates meaningful contributions and fosters greater promotion and leadership opportunities for these women. This poster describes the goals, activities, and progress of the project through the completion of the second year. Specific programs and initiatives are highlighted, with an emphasis on efforts to foster collaboration between and advocacy for all women and women health researcher at UMMS and affiliated organizations. This includes the multi-year endeavor to build, recruit, and showcase women's health researchers in a specific collection of eScholarship@UMMS, the library's institutional repository. Promotion and outreach, of both the project and the resources, was major component of the second year. Additionally, programming was developed that helped researchers better communicate their work to the media and public. Other programs, lessons learned, successes, and future goals are noted.

32. Bring Diversity to Nursing (BDN): Building a Better Nurse of the Future

Jacqueline S. Dowling, PhD, RN, CNE; Karen Devereaux Melillo, PhD, ANP-C, FAANP, FGSA; Lisa Abdallah, PhD, RN, CNE; Margaret Knight, PhD, PMHCNS-BC; Shellie Simons, PhD, RN; Laura Hajjar BSM; Ashley Theroux Hand, MS RN; UMass Lowell School of Nursing

Preparing students to enter the nursing profession is an important and challenging task. There is an urgent need for nurses with diverse backgrounds to be at the forefront of health policy, administration, academia and research. Curricula must provide students with the knowledge, attitudes and skills necessary to lead the next generation of nurses. In response to the demand for competent nurse leaders, the Massachusetts Department of Higher Education Nurse of the Future (NOF) Core Competencies Initiative (2010) identifies six leadership competencies (i.e. systems thinking, critical thinking and problem-solving, communication and multidisciplinary teamwork, effective role modeling, delegation, and change). The purpose of this study is to evaluate the success of the Bring Diversity to Nursing (BDN) leadership academy and students' achievement of the NOF leadership competencies.

The leadership academy facilitates workshops addressing self-awareness, the role of a nurse as a leader, and essential leadership skills. Students participate in leadership activities of peer tutoring, after-school workshops for middle/high school students, mentoring minority high school students interested in nursing, orienting freshmen in a summer boot camp, or becoming an officer in campus, state or national nursing associations. Content analysis of qualitative data from leadership papers and portfolios reveal six themes: able to influence others, shows personal reflection, cultivates confidence, values critical-thinking processes, seeks personal development, and exhibits role model behavior. BDN students exemplify and demonstrate notable leadership development. Future recommendations include: enhancing professional nurse networking, encouraging greater participation in professional conferences, and increasing opportunities to practice skills related to delegation, systems thinking, and change.

33. A Nurse Practitioner Model for Delivering Primary and Coordinated Care to Adults with Disabilities - CLASS Inc., Lawrence, MA and Academic Partners, Brandeis University and University of Massachusetts Lowell

Bob Harris, President, CLASS, Inc., Lawrence, MA; Marji Warfield Erickson, PhD, PI, The Nathan and Toby Starr Center on Intellectual and Developmental Disabilities, Brandeis University; Lisa Accardi, Director of Health and Clinical Services, CLASS Inc., Lawrence, MA; Lisa Abdallah, PhD, Associate Professor, Chair, School of Nursing, University of Massachusetts Lowell; Karen Devereaux Melillo, PhD, ANP-C, FAANP, FGSA, Professor, Interim Dean, School of Nursing, University of Massachusetts Lowell; A. James Lee, PhD, Associate Professor, Department of Community Health and Sustainability, University of Massachusetts Lowell, Lowell, MA

The project will (1) design and plan the implementation of a nurse practitioner model for delivering primary and coordinated care to adults with disabilities who are receiving day habilitation services, and (2) evaluate the design and planning processes using a participatory and iterative approach. The project is a collaborative effort between a university-based research center, provider agencies, a nursing school, and government officials. Products include a logic model of the intervention, materials for training nurses

to provide care and service coordination, and an analysis of the process to disseminate lessons learned, support a demonstration project and encourage replication efforts.

34. Building Healthier Communities through Participatory Research: The Institute for Community Health

Lisa Arsenault, Epidemiologist III, Institute for Community Health; Adriana Bearse, Research Associate II, Institute for Community Health; Eileen Dryden, Senior Scientist/Assistant Director of Evaluation, Institute for Community Health;

Emily Chiasson, Director of Service Delivery and Project Operations, Institute for Community Health; Justeen Hyde, Senior Scientist/Director of Research and Evaluation, Institute for Community Health; Claritza Abreu, Board of Directors Chairperson, Institute for Community Health; Lise Fried, Executive Director, Institute for Community Health

Organizational Background and Services: The Institute for Community Health (ICH) is a national research and consulting organization located in Cambridge, MA that helps communities develop their capacity to create sustainable solutions to complex public health challenges. Founded in 2000 by three healthcare systems, ICH has a long-standing history of delivering breakthrough, actionable approaches to public health by combining real world practice with academic research. ICH provides expert professional services in five key service areas: participatory research, evaluation, needs assessment, strategic planning, and training. **Approach:** Core to ICH's approach are the development of long-term partnerships, a commitment to co-learning and capacity-building across all stages of research, and a deep appreciation for the diverse experiences, perspectives, values and resources that partners contribute to community health improvement. **Expertise and Clients Served:** ICH's expertise and participatory methodology are tailored to meet the needs of clients ranging from academic hospitals and community health centers to public health departments to schools and community-serving organizations across the state of Massachusetts, regionally, and nationally. ICH has over 20 staff with backgrounds ranging from epidemiology and public health to medicine and anthropology and has experience covering a wide range of healthcare and social service topic areas, from public health infrastructure improvement to teen pregnancy and substance abuse prevention to health disparities and chronic disease outcomes to improvements in primary care. ICH welcomes the opportunity for future collaborations with researchers, clinicians, and community-based organizations to improve community health across the state and beyond.

35. Flipping the Gaze: What do Academic Research Staff Know about the Ethical Challenges Faced by their Front-line Research Workers?

Kenneth A. Richman, PhD, Professor of Philosophy and Healthcare Ethics, IRB Chair, MCPHS University; Emily E. Anderson, PhD, MPH, Neiswanger Institute for Bioethics, Stritch School of Medicine, Loyola University Chicago; Leslie B. Alexander, MSS, PhD

Mary Hale Chase Professor in the Social Sciences and in Social Work and Social Research, Chair, Bryn Mawr College IRB,
Bryn Mawr College

Background: Street-level research workers in community-engaged research face ethical issues outside the scope of principal investigators' experiences and concerns. This is particularly true of community research workers (CRWs), who come to their work with significant connections to the community being studied. CRWs face additional or different ethical issues compared with traditional research assistants (TRAs), who perform the same kinds of tasks with similar marginalized populations but do not share ties with participants. Previous study: In-depth interviews were conducted with street-level research workers who worked for studies on a variety of health issues. The primary aim was to explore how CRWs understand and approach the responsible conduct of research. Publications from this study describe:

- Three types of front-line research workers: single-role CRWs, whose work is limited to research tasks, dual-role CRWs, whose work also includes providing services or education, and TRAs
- Differences in how CRWs and TRAs talked about what it means to conduct research ethically
- Self-reported misbehaviors in research by front-line research workers, and the contexts in which misbehaviors occurred
- The role of research setting (institutional/community) in shaping ethical decisions by CRWs
- The variety of ethical obligations perceived by CRWs.

Future plans: We hope to build on our previous research by taking our findings to PIs who hire CRWs to 1) refine our description of CRWs and 2) identify areas of discordance between the views/behaviors of CRWs and the views/behaviors of PIs, as well as between each of these and federal research ethics guidance.

36. Live Well Springfield (LWS) -- A Community Transformation Initiative Springfield MENU Program Evaluation

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Many low-income and disadvantaged Americans have a poor quality diet, which increases obesity and chronic disease risk. According to the Massachusetts Department of Public Health, Springfield is among the top five poorest cities in the state. To promote health awareness and healthy eating behaviors among Springfield residents, the Mason Square Health Task Force, a Live Well Springfield (LWS) partner, created a 6-session nutrition curriculum entitled The MENU Program. Curriculum topics include: MyPlate guidelines, budget shopping and cooking, healthy restaurant choices, label reading, diet and chronic disease, and food justice. The program was available to residents in targeted LWS communities. The pilot (Phase 1) was completed in January 2014. The MENU Program was offered again to Mason Square residents from May-August 2014 (Phase 2). Pre-and post-surveys were administered at sessions #1 and #6 to assess nutrition-related knowledge, attitudes and behaviors. Brief process evaluations were administered at the end of each 60 - 90 minute session to identify program strengths and limitations. A total of 17 people participated (n= 11, Phase 1), (n=6, Phase 2). Preliminary survey analysis revealed positive changes in fruit/vegetable intake, and positive responses to MyPlate, portion control, and nutrition label reading sessions. Program changes resulting from evaluation of Phase I process data

included reduced session length (from 90 to 60 minutes); more handouts on MyPlate, portions and nutrition labels; and increased time between sessions (from 1 to 2-3 weeks). Analysis of survey data is currently underway to identify changes in nutrition knowledge, behavior, and attitudes among all participants.

37. LIVE WELL SPRINGFIELD (LWS) – A PROCESS EVALUATION

Laura Fries, Department of Public Health, University of Massachusetts Amherst; Elena Carbone, Department of Nutrition, University of Massachusetts Amherst; Kathy Wicks, Partners for a Healthier Community, Springfield, MA; Elaine Puleo, Department of Public Health, University of Massachusetts Amherst

Background: In 2012, The Pioneer Valley Planning Commission received a Community Transformation Grant from the Centers for Disease Control and Prevention (CDC) to improve opportunities for healthy living for Springfield. These strategies are led by the Live Well Springfield (LWS) coalition. There are four working groups: Go Fresh, Food Justice, Built Environment, and Marketing; as well as a Leadership Team. Methods: A process evaluation is currently underway to explore the cohesion among the working groups; the effectiveness of the larger coalition; and the sustainability of the movement going forward. Data are being gathered through an in-depth study of working group meeting minutes, attendance at meetings, and interviews with the project manager. Results: Preliminary data review suggests that LWS working groups and the greater coalition are highly functioning and can be sustainably maintained into the future. Data also suggest that belonging to the LWS coalition is mutually beneficial for the movement and the organizations that pledged to support it. Best practices elucidated by data collection include: consistent meetings; ongoing contact in between meetings; a trained and consistent meeting facilitator; and shared resources between both working group members and coalition organizations. Opportunities for improvement include employing a consistent method for decision-making and improving coalition-wide communication methods. Discussion: Findings from the process evaluation can help guide LWS by identifying best practices as well as areas in need of improvement. The information will be helpful to other coalitions seeking external funding.

38. Live Well Springfield (LWS) – A Community Transformation Initiative: Preliminary Results of the Evaluation of LWS.org

Jesse Mushenko, Elena Carbone, Joseph Krupczynski, Kathy Wicks*, Elaine Puleo
University of Massachusetts Amherst; *Partners for a Healthier Community, Springfield, MA

The Live Well Springfield (LWS) movement promotes healthy living by increasing awareness of food and physical activity. A key LWS strategy was the design and development of a website, livewellspringfield.org. In addition to local health/event information, the website features 16 narratives depicting residents practicing healthy lifestyle choices. A survey was developed to measure perceived quality and satisfaction with the website and the eHealth Literacy Scale (eHEALS) was incorporated to assess users' literacy skills. Readability of content was assessed using the FRY readability measure. The survey was accessible via the LWS homepage, Facebook page, and emailed directly to potential

respondents. Survey data were entered and analyzed in Excel. Two, hour-long focus groups were also conducted to assess message style preference and perceptions of health message effectiveness (narrative vs. fact-based). Focus groups were video/audio recorded, transcribed verbatim, coded and emergent themes identified. Usage increased gradually since the April 17th launch, totaling 2,599 sessions/6,565 page views through September 10th. Average visit duration was 00:02:29, with 2.53 pages viewed. Mean eHEALS score was 4.28 of 5.00 from 35 survey responses. Mean user satisfaction was 4.69 (max=5.00;SD=0.55), and mean likelihood to return was 4.74 (SD=0.53). Readability of stories was assessed at an eighth grade level. Survey data suggest respondents felt very knowledgeable and confident using eHealth resources and were likely to use the LWS site again. Preliminary analysis of transcripts suggests participants enjoyed both narrative and fact-based health messages, regardless of initial preference. Final results will inform revisions and contribute to ongoing LWS activities.

39. Acceptability of a Novel Smartphone Application for Rhythm Evaluation in Patients with Atrial Fibrillation

Daniel J. Amante, MPH, Thomas M. English, PhD, Jane S. Saczynski, PhD, Nada Esa, MD, Iryna Nieto, MD, Ki Chon, PhD, David D. McManus, MD ScM; University of Massachusetts Medical School

Background: Investigators at UMass Medical School and WPI co-developed a novel smartphone application (app), PULSESMART, that detects atrial fibrillation (AF). AF is the world's most common, serious heart rhythm problem. In its early stages, most cases of AF are paroxysmal (pAF), making them difficult to identify early in the course of disease. Long-term cardiac monitoring is frequently needed to diagnose and prevent complications from AF, such as stroke. Home monitoring for AF can be clinically impactful but existing technologies have cost or methodological limitations. Data are needed on the potential acceptability and usability of heart rhythm monitoring applications. Aim: Our aim was to examine patient acceptability of using a pAF detection app. Methods: 52 patients with pAF underwent rhythm assessment using the app and completed a standardized questionnaire. We looked specifically at responses to 3 questions: 1) how easy was it to use? 2) How important could it be for you? And 3) to what extent does it fit into your daily life? Results: The mean age was 68.5 years and 69% female. The majority of patients reported the app was easy to use (73%), could be important to them and their health (84%), and would fit into their daily lives (78%).

Conclusions: After use of the pAF detection app, most patients reported positively. The results suggest that older persons with, or at risk for, pAF may benefit from smartphone-based arrhythmia detection platforms. Further work is needed to assess the feasibility of at-home or in-clinic app use.

40. Measuring the Health Impact of Medical-Legal Interventions on Low-Income Patients

Medha D. Makhlouf, J.D., Central West Justice Center; Valerie Zolezzi-Wyndham, J.D., Community Legal Aid

Research shows that nearly all of the low-income people in the United States have at least one civil legal problem that negatively affects their health. Family Advocates of Central Massachusetts (FACM) is a medical-legal partnership that aims to improve the well-being of vulnerable families by helping patients

address legal issues linked to health status, such as access to necessary public benefits, substandard housing, education issues, immigration status, and protection from abusive relationships. The partnership includes Community Legal Aid and its subsidiary, Central West Justice Center, and three medical partners: UMass Medical School, UMass Memorial Children's Medical Center, and Edward M. Kennedy Community Health Center. Medical providers are the sole community connection for many low-income families. Without legal care that is coordinated with medical care, they face an uphill battle in overcoming the social determinants of health that contribute to pervasive race- and class-based health disparities. When families ask their providers for help with issues that cannot be resolved in an exam room or with a prescription, FACM steps in. The poster will facilitate an interdisciplinary community-research dialogue about evaluating the social determinants of health. We are reassessing our existing outcomes measurement tools to better measure, evaluate, and share the health impact of medical-legal interventions. We welcome input from researchers and community organizations about alternative validated measures that may help us measure and demonstrate the connection between access to legal services and improved health.

41. Improving Public Health Practice, Education, and Research by Facilitating Collaboration Across Academic and Practice Communities

Laura Overton, MA, Community Engagement Organizer, Worcester Division of Public Health; Marianne Sarkis, Ph.D., Assistant Professor, Clark University

The Center for Public Health Practice (CPHP) represents the formal arrangement between academic institutions and the Worcester Division of Public Health/Central Massachusetts Regional Public Health Alliance (WDPH/CMRPHA). The CPHP provides mutual benefits in teaching, research, and service, with academia informing the practice of public health, WDPH/CMRPHA informing the academic program. This formalized partnership is meant to enhance public education, training, research, and service, by facilitating collaboration across the academic and practice community. The WDPH/CMRPHA works across four service areas: Community Health, Health and Medical Preparedness, Environmental Health, and Epidemiology/Public Health Nursing. A coordinator works with each service area to identify research questions, needs, and deliverables, and connects with academic institutions to identify faculty who are willing to become leads on collaborative and inter-disciplinary projects. The model of CPHP allows knowledge to be used and built upon, minimizing research fatigue of the community, and is designed to respond to public health questions efficiently, collaboratively, and in a sustained manner. In collaboration with WDPH/CMRPHA, faculty uses their knowledge, experience, and topical expertise to design focused projects that answer specific questions that are part of a broader study or initiative. Deliverables will be shared with WDPH/CMRPHA and engaged stakeholders. Reports and data are archived and are accessible to the next group of students so that research and goals/projects of WDPH/CMRPHA are advanced with as little replication as possible.

42. Nhyira Ba – A Ghanaian Healthy Pregnancy Program “By the community, for the community!”

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Aims: To use an evidence-based participatory action research strategy to facilitate and promote a Healthy Pregnancy Program in the Ghanaian population in Worcester, MA. This ongoing initiative is driven by community members (Ghanaian women and men, university faculty and students, health care center, and community-based organizations) who use a strength-based approach to communicate positive messages through established cultural communication channels. Background: Despite access to one of the best systems of health care in the country, infant mortality presents a paradox to health care providers and public health researchers. In Worcester, MA the rates to blacks and Hispanics are significantly higher than whites suggesting that the disparity might be due to social determinants and trust in the health care system rather than biological predispositions or access to health care. Worcester is home to sizable community of African refugees and immigrants primarily from Ghana. It is not surprising, then, that the majority of infant deaths are to African-born mothers. Results: Results in less than one year: 1) An empowered community-based Working Group focusing exclusively on activities in the Ghanaian community; 2) 4 videos scripted by community members in Twi (Ghanaian language) on healthy eating during pregnancy, providing culturally appropriate nutritional information for Ghanaians, self-care during pregnancy, and promotion of Text4Baby; 3) Facebook page with 234 Likes so far; 4) Brown bag lunch with providers at UMASS medical to teach about communication styles around Ghanaian food and nutrition; 5) Ongoing collaborative teams consisting of faculty, students, community members, elders, and providers.

43. Systems and Psychosocial Advances Research Center (SPARC) (table)

Jonathan C. Clayfield, M.A., L.M.H.C.

Abstract: The Systems and Psychosocial Advances Research Center (SPARC) in the UMass Department of Psychiatry is a designated Massachusetts Department of Mental Health Research Center of Excellence. We are a multi-disciplinary team of researchers, trainers, policy-advisors, and persons with lived experience dedicated to conducting research, technical assistance, training and dissemination of information to enhance behavioral health treatment outcomes and services for children, adolescents, young adults, and adults living with behavioral health conditions.

44. Conquering Diseases: Engaging our Community in Research (table)

Sarah Rulnick and Tatiana Held, UMass Conquering Diseases Program

The UMass Conquering Diseases Program connects our research community and our community of patients, consumers, and community members. The Conquering Diseases Program, an NIH CTSA funded core, is sponsored by the UMass Medical School. We provide a variety of services for researchers and community members. Services include - Community Resource Center: Conquering Diseases staff helps community members find studies in their area of interest and helps researchers recruit volunteers for their studies. We list currently recruiting studies on our website; produce a monthly newsletter and attend

community events. We welcome the community to our suite where visitors can learn about currently recruiting studies; use the computer to learn about their condition; or just relax with a cup of tea or coffee. Volunteer Registry: The Conquering Diseases Program also maintains a database of volunteers from the community who are interested in participating in research studies. A UMass IRB docket number is required in order for researchers to access volunteer contact information. Biorepository: The BioRepository arm of the Conquering Diseases Program collects blood samples from UMass patients who consent to donating a specimen to be used in research. The de-identified samples are broken down into their components and frozen for future use by researchers. Let us know how we can help you: Sarah.Rulnick@umassmed.edu - 508-856-2556 – UMass, 55 Lake Ave, Ambulatory Care Center – 1st Floor, Suite 36