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## Poster Session: 2018 Community Engagement and Research Symposium

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CENTER FOR CLINICAL AND  
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7<sup>th</sup> Annual Community Engagement and Research Symposium  
March 9, 2018  
Poster Abstracts

1. **Use of QSEN Based Simulation to Orient Nurse Educators: The Role of The Clinical Teacher**

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**Background:** Simulation has been well documented in the nursing literature as an effective strategy to prepare and teach students clinical based situations (Benner, Sutphen, & Day, 2010). Much of the literature addresses the implementation of simulation into nursing curriculum (Hayden, 2010) and the training of nursing faculty in the pedagogy of nursing simulation (Jeffries, 2008). However, the literature does not address how simulation can be used to train and orient new faculty to the clinical environment.

**Purpose:** The purpose of this simulation project was to utilize the six QSEN core competencies to create simulation templates to orient the novice clinical faculty member to the clinical environment.

**Project Questions:** 1) Does a simulation-based clinical nursing faculty orientation program increase self-perceived competence in the clinical nursing faculty role? 2) What are clinical nursing faculty's perceptions of a simulation-based clinical nursing faculty orientation?

**Methods:** The first phase of this project was to merge the QSEN competencies (Cronenwett et al., 2007) and their respective KSAs to create a template for simulation. Because the competencies are written for nurses, they needed to be adapted for nursing educators. Adapted KSAs for nurse educators were developed and scenarios were created for each of the QSEN competencies: (a) patient-centered care, (b) teamwork and collaboration, (c) evidence-based practice, (d) patient safety, (e) quality improvement, and (f) technology and informatics. The second phase was to pilot the six QSEN competency simulations on novice clinical educators.

2. **Breaking Down Barriers to Community Engaged Research: The Community Engaged Scholars Program**

Robin Toof, EdD , University of Massachusetts Lowell

Andrew Hostetler, PhD, University of Massachusetts Lowell

Numerous UMass Lowell faculty members are currently involved in community-engaged teaching and scholarship. However, they often labor in isolation, unaware of each other's efforts, of the resources the University can offer to facilitate this work, and/or about opportunities for publishing in this area. Course-based service learning has become increasingly common, but there are few venues for community-engaged faculty to come together to talk about their experiences, support each other, and think deeply about the research dimension of engagement. There is also currently no formal support structure for community-based researchers on campus, aside from occasional meetings or events. Finally, many faculty members actively engaged in community service struggle to meaningfully integrate this work with their teaching and/or research, and to translate their work into publishable products. The Community Engaged Scholars Program is designed to help fill these voids. The program brings faculty together in a more structured way, establishing clear and tangible incentives and outcomes. The Community-Engaged Scholars Program fulfills the following specific objectives: 1.) foster interdisciplinary collaboration and mentorship among community-engaged researchers; 2.) strengthen the community of community-engaged scholars at UMass Lowell, and; 3.) increase faculty research productivity by facilitating the publication of community-based research. This poster will

summarize the efforts of this program and preliminary qualitative research conducted with the participants to determine the challenges and benefits of this program.

3. **Women in Search of Empowerment (WiSE): Smoking Cessation Intervention for U.S. Women Living with HIV**

Sun S Kim, College of Nursing and Health Sciences, University of Massachusetts Boston

Mary Cooley, Phyllis F. Cantor Center, Dana-Farber Cancer Institute

Sang A Lee, College of Nursing and Health Sciences, University of Massachusetts Boston

Jeanette Mejia, Transnational Cultural and Community Studies, University of Massachusetts Boston

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HIV infection is currently classified as a chronic illness primarily because of effective treatment regimens. As a result, the prevalence of non-AIDS defining cancers (NADCs) has increased three-fold among people living with HIV. Smoking is one of the major contributing factors to NADCs, and smoking prevalence is substantially higher in this population than the general U.S. population. Women living with HIV (WLHIV) smoke as much as their male counterparts. WLHIV smoke almost 3 times higher than the general U.S. female population, and African American women represent the majority of WLHIV followed by Latinas. We are currently conducting a two-arm randomized controlled trial (RCT) testing the efficacy of a new smoking cessation film that represents a storytelling narrative communication (SNC) approach intended to sustain nicotine abstinence for WLHIV (treatment arm) compared with an attention-control film (control arm). Participants in both arms receive the same HIV-tailored smoking cessation intervention (eight 30-minute weekly counseling sessions and nicotine replacement therapy for 8 weeks). We developed the smoking cessation film (SNC) with six WLHIV who successfully quit smoking and the length of their abstinence varies from 3 months to 15 years. The attention-control film is Women's Voices Women's Lives© where women talk about their experiences with HIV infection. A total of 50 participants will be recruited into the study and followed monthly over 3 months from the planned quit day. As of this date, 18 women (nine women in each arm) are enrolled in the study. Preliminary findings will be presented.

4. **Neonatal Resuscitation and Quality Improvement initiatives at Hôpital St Nicolas de Saint Marc, Haiti**

Deborah O'Dowd RN, CCRN, Worcester State University

According to statistics drawn from the World Health Organization, Haiti has one of the highest infant mortality rates in the Americas, at 52.2 per 1,000 live births as compared to 12.5 per 1,000 live births in the Americas overall (World Health Organization, 2016). One of the key factors in improving these numbers is to improve the availability and quality of care. Providing advanced education to Haitian nursing staff regarding the care of neonates is vital to improving the outcomes of this patient population. Additionally, providing a strong foundation in quality improvement methodology gives the nurses the tools they need to develop and implement their own quality improvement initiatives. In a collaborative education project with Partners in Health, a quality improvement formation was introduced at Hôpital St Nicolas de Saint Marc, in Saint Marc, Haiti. Additionally, the team taught two formations of neonatal resuscitation, with 18 and 19 nurses respectively, to help provide the nurses with the tools they need to utilize evidence based best practice at deliveries. Follow up in October included the introduction of an additional group of practitioners to QI methodology, and the groups are now being mentored through the development and implementation of independent projects.

5. **Exploring African American Baby Boomers' Perceptions of Electronic Health Records: A Case Study**

Alesha Ray, Northcentral University

Information exchange is a vital platform in health care. The transformation of health care resulting from the implementation of electronic health records (EHRs) will affect not only providers but also patients. However, viewing health records digitally has caused some concern among the African American patient population. This study addressed the perceptions of African American Baby Boomer patients about EHRs (digital health management) and what factors (inequalities, if any) impacted their views. Using critical race theory (CRT) as a theoretical foundation,

this qualitative research explored their perceptions of EHRs. The goals of the study were to (a) determine African American Baby Boomers' knowledge and use of information technology (IT); (b) record their perceptions of EHR and what factors (inequalities, if any) impacted their views of digital management; and (c) determine whether the participants lacked trust in the health care system. A focus group was conducted with 9 African American participants between the ages of 50 and 68 years. CRT was used to explore the rudiments of business and public administration by addressing dynamics of a specific group of people impacted by the public issue of EHRs. The findings provided understanding to the field of business and public administration so that government leaders and officials will be able to help resolve the challenges that this population faces and how this group will not be omitted from this change.

6. **Deaf ACCESS: Adapting Consent through Community Engagement and State-of-the-art Simulation**

Melissa Anderson, PhD; Timothy Riker, Kelly Wolf Craig, PhD; Kurt Gagne, Stephanie Halukin, Jonah Meehan, Emma Pici-D'Ottavio. University of Massachusetts Medical School.

One of the most severely underserved populations in the U.S. health system is the Deaf community - a sociolinguistic minority group that communicates using American Sign Language (ASL). A recent ASL health survey found startling disparities in obesity, domestic violence, and suicide compared to the general population. Further research on these disparities is lacking due, in part, to researchers' use of recruitment, sampling, and data collection procedures that are inaccessible to Deaf ASL users. Another barrier to Deaf people's research engagement is fear and mistrust of the biomedical community. Rather than recognizing Deaf people as a cultural group, doctors and biomedical researchers often follow the medical model of deafness, which aims to cure or fix hearing loss and, historically, has sought to eradicate deafness - an approach considered a form of eugenics among members of the Deaf community. To address these issues of inaccessibility and mistrust, our community-engaged research team is conducting a two-year R21 study funded by the National Institute on Deafness and Other Communication Disorder (NIDCD) to: 1) Identify barriers and facilitators to Deaf community involvement in research and develop a training video for researchers to improve the research informed consent process with Deaf participants; and, 2) Test the training video regarding delivering culturally and linguistically appropriate informed consent with Deaf research participants using an ASL interpreter. During the poster session, we will summarize our formative findings from Deaf community forums and focus groups, as well as exhibit clips of the researcher training video that is currently under development.

7. **Creating the Capacity to Screen Deaf Women for Perinatal Depression**

Kelly Wolf Craig, PhD; Melissa Anderson, PhD, MSCl; Kathleen Biebel, PhD; and Nancy Byatt, DO, MS, MBA, FAPM. University of Massachusetts Medical School.

There are approximately 1 million Deaf women in the U.S. who depend on American Sign Language (ASL) for communication. Although Deaf women become pregnant and enter motherhood at rates similar to hearing women, Deaf women attend fewer prenatal appointments, receive less information from their physicians, are less satisfied with physician concern and quality of communication, and are less satisfied with their prenatal care. These barriers persist after childbirth, leaving Deaf mothers with little professional support for struggles with postnatal healthcare, breastfeeding, and childcare.

Combined with pre-existing mental health disparities observed among members of the Deaf community, such barriers leave Deaf women especially vulnerable to development or exacerbation of depression during the perinatal period (i.e., during pregnancy or within one year postpartum). Expert groups recommend depression screening as a standard of perinatal care - the first critical step to direct women to treatment. Yet, available screening tools are not accessible to Deaf women due to documented low levels of English literacy and health literacy. It is, therefore,

critical to develop and validate tools to screen for depression among Deaf perinatal women so they may access the same standard of care as other perinatal women.

To address these barriers, our team is conducting a one-year, community-engaged pilot study to develop and perform preliminary psychometric analyses on an ASL translation of the Edinburgh Postnatal Depression Scale (EPDS). During the poster session, we will outline our unique community-engaged research methods, as well as exhibit the first draft of the ASL EPDS.

8. **Correlates of sleep quantity and quality among correctional nurses**

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Mazen El Ghaziri, PhD, MPH, RN, Assistant Professor, Solomont School of Nursing, Zuckerberg College of Health Sciences, University of Massachusetts Lowell.

Alicia Dugan, PhD, Assistant Professor, Department of Medicine, UConn Health, Farmington, CT.

**Background:** Correctional environment exposes nurses to unique physical and psychosocial work stressors, such as inmate violence and high safety concerns. Nurses often experience short and poor sleep, however, the quantity and quality of sleep in this special subgroup of nurses are under-explored. The study objective is to examine the work and health correlates of sleep quantity and quality among correctional nurses.

**Methods:** A web-based survey was administered to nurses within the Connecticut state correctional system. The All Employee Survey covered demographics, sleep quantity and quality, working conditions (shift work, work hours, safety climate, inmate-related violence, workplace bullying, physical and psychological demands, decision latitude, social support, and work-family conflict), health outcomes (musculoskeletal disorders and depression), and work outcomes (burnout, job satisfaction, and intention to leave).

**Results:** Among the 89 nurses (75.3% female; age 44.5±9.7 y) who completed the survey, 56.2% reported short sleep duration ( $\leq 6$  hrs/day) and 31.8% reported poor sleep quality. Bivariate analyses suggested short sleep duration was associated with night or rotating shift work, musculoskeletal disorders, and child care responsibility; poor sleep quality was associated with night or rotating shift work, depression, and lower education level.

**Conclusion:** Correctional nurses suffer a high prevalence of short and poor sleep. Similar to previous studies, we found that short and poor sleep were both associated with night or rotating shift work. Interventions targeting work schedule remodeling or shift work coping may promote sleep health of correctional nurses. Sleep quantity and quality share other different correlates, suggesting differentiating them in future research.

9. **Work- and leisure-time physical activity, musculoskeletal disorders, and sleep quality among rehabilitation employees**

Yuan Zhang, PhD, RN, Assistant Professor, Solomont School of Nursing, Zuckerberg College of Health Sciences, University of Massachusetts Lowell.

Rajashree Srinivasan Kotejoshyer, PhD, Post-Doctoral Research Fellow, University of Connecticut Health Center, Laura Punnett, Professor, Department of Public Health, Zuckerberg College of Health Sciences, University of Massachusetts Lowell

Bryan Buchholz, Professor, Francis College of Engineering, University of Massachusetts Lowell

**Introduction:** Physical and occupational therapists work to achieve functional independence in patients, contradicting their use of lifting equipment. They are exposed to risks of heavy loads, one of the primary contributors to musculoskeletal disorders (MSDs). Leisure-time physical activity (LTPA) may benefit sleep and musculoskeletal health. This study objective is to examine the associations of work-time and LTPA, MSDs, and sleep quality among rehabilitation employees.

**Methods:** Forty physical and occupational therapists and assistants wore ActiGraph GT3x for continuously 72 hours to assess work- and leisure-time steps, energy expenditure, metabolic rate, sedentary minutes; and total sleep time,

latency, and efficiency. Survey was collected on sleep quality (PSQI) and MSDs (moderate, severe, or extreme pain in at least one of six body regions).

**Results:** Among the 40 participants (82.5% female; age 39.6±11.1 y; BMI 26.9±5.5), 55.0% reported poor sleep quality (PSQI>5), and 31.6% reported MSDs. Total sleep time averages 432.5±46.6 minutes; latency averages 5.2±5.1 minutes; and efficiency averages 89.6±5.4%. Participants with MSDs reported lower sleep efficiency; and borderline poorer sleep quality, more work-time energy expenditure, and more leisure-time sedentary minutes. Poor sleep quality was associated with longer sleep latency, more leisure-time energy expenditure and metabolic rate.

**Conclusion:** Rehabilitation employees suffer a high prevalence of poor sleep quality and MSDs. As we expected, MSDs were associated with poor sleep quality and work-time physical activity. Future studies with a larger sample size are needed to further clarify the associations of MSDs and sleep quality with work- and leisure-time physical activities.

#### 10. **A Need for Alternative Housing Opportunities for the Mental Health Population**

Kimberly Silver Dunker DNP, RN, Worcester State University; Keona Gavin BSN, RN, Worcester State University

World Health Organization (2017) explains the health of an individual is determined by examining three components: their physical, social, and mental well-being. When an individual's health component is compromised, it is critical to maintain balance in the other remaining areas. As individuals who suffer from a mental illness begin to age, both their physical and mental well-being deteriorate due to limited mobility, chronic pain, loneliness, and loss of independence. In addition, they are at risk with limited housing options. They are too high functioning for nursing homes, yet require more specialized care than group homes can provide. Sylvestre (2007) states there are a variety of effective housing opportunities for mentally ill individuals; however these opportunities are not adequate because elderly individuals with mental illness require increased supports. Hobbs (2002) states 64% of mental illness individuals with community support need physical assistance with their ADL's. Positive residential outcomes occur when twenty-four hour trained staff addresses health and quality of life issues (Abrahamson, 2013). Therefore, the implementation of Medically Ill, Mentally Ill residential group homes that provide support in managing self-care as well as psychiatric care is needed (Eklund, 2012). The expected outcomes of this model will improve health outcomes and quality by creating nurse leadership opportunities. Nurse leaders will be responsible for collaborative care with health care providers and team members, promote teamwork skills, establish and maintain safety measures. Recommendations for the implementation of Medically Ill, Mentally Ill models consist of establishing quality standards and utilizing evidence-based practice.

#### 11. **Managing Addiction in Individuals involved with the Criminal Justice System through Court Mandated Programs**

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Gina Vincent, Ph.D., UMMS, Department of Psychiatry

John Ware, Ph.D., UMMS, Department of Quantitative Health Sciences

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Offenders are disproportionately impacted by addiction, with up to 60% meeting lifetime criteria for substance use disorders. They are at 12.7-fold risk for death from overdose within two months of discharge from detention. In the criminal justice system, specialty programs called Drug Treatment Courts (DTC) were developed, which in exchange for decreased sentence or immediate release into the community, mandate individuals to substance use treatment. Research has shown that DTCs are effective in reducing criminal recidivism and drug and alcohol use. However, rates of program non-completion (or dropout) and therefore return to drug and alcohol use, are unacceptably high, with some as high as 75%. Researchers have sought to identify variables that impact program dropout, to date with limited success. This pilot study (N=30) examined the impact of chronic conditions and health-related quality of life (QoL) on DTC participation, ultimately seeking to develop interventions that could be used to improve program retention and thereby reduction in criminal recidivism and addiction. Participants reported on their medical and

psychiatric conditions, with more than 70% having infectious diseases and many suffering from depression, hypertension, dental, and back and joint problems. The discussion will address how these conditions impacted QoL and DTC participation.

12. **Evaluation of the accessibility of structured exercise programs for pregnant women. An analysis of offerings at the YMCA's of Massachusetts**

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Ashley Medeiros - Tufts University School of Medicine Boston, MA

Vidya Iyer, MBBS, CCRP - Tufts Medical Center Boston, MA

Shobhana Parameshwaran, MD - Tufts Medical Center Boston, MA

Alissa Dangel, MD - Tufts Medical Center Boston, MA

The American Congress of Obstetrics and Gynecology recommends that exercise should be encouraged in women with uncomplicated pregnancies. Potential benefits of exercise include a decreased incidence of medical complications of pregnancy, including gestational diabetes and preterm labor. Additional benefits include decreased incidence of excessive maternal weight gain, cesarean sections and low birthweight of the newborn. The Massachusetts' rate of gestational diabetes was 4.7% in 2015 with 7.8% babies being born at low birth weight and 8.6% born preterm statewide. The aim of this project was to evaluate the availability of structured exercise programs tailored specifically to pregnant women, as a lack of options may limit a woman's ability to benefit from the health-protective effects of exercise during pregnancy. A telephone survey was conducted in 2017 to gather information about exercise programs available to pregnant women at YMCAs across Massachusetts. YMCAs were chosen because of their accessibility, affordability and history of health-centered initiatives. Our analysis revealed that of the 73 Massachusetts YMCA facilities contacted; only three indicated a specific class for prenatal exercise. Two offered prenatal yoga and the other a stretching class. This study revealed that easily accessible options for exercise tailored to pregnant women are currently limited at YMCA facilities in Massachusetts. This may reflect an overall limitation of exercise options for pregnant women. Further investigation regarding the specific barriers women face when attempting to exercise during pregnancy may provide valuable insight into how community organizations can help maximize the number of women who partake in exercise during pregnancy.

13. **Storybooks and Social Hooks: Developing Social-Emotional Learning and Reducing Challenging Behaviors Among Children with Emotional and Behavioral Disorders**

Amy L. Cook, University of Massachusetts Boston

The Storybooks and Social Hooks (SASH) project aims to reduce challenging behaviors among children with emotional and behavioral disorders (EBD) through the use of dialogic reading as its conceptual framework in a mixed reality environment. The SASH project seeks to ascertain whether the combined use of mixed reality simulations (MRS) with the SASH curriculum has an effect on reducing challenging behaviors over and above standard implementation of SASH. Testing of the SASH curriculum has demonstrated preliminary efficacy in SEL skill development and reduction of challenging behaviors among socially and behaviorally at-risk children (Cook, Silva, Hayden, Coddling, & Brodsky, 2017). We are looking forward to enhancing this research by revising and testing SASH curriculum efficacy. Plans for revision include embedding the use of mixed reality simulation in curriculum delivery, where students interact with cross-age avatar mentors in MRS as part of the SASH intervention to support SEL development in children with EBD. We will use multiple baseline design across 3 groups to investigate intervention effects. MRS have successfully been used with children with Autism Spectrum Disorder to teach behavioral skills by creating controlled environments for learning and practice (Aresti-Bartolome & Garcia-Zapirain, 2014). However, no research exists that explores the effects of using MRS as part of an SEL curriculum with students with EBD. We seek to ascertain whether the combined use of MRS with the SASH curriculum has an effect on reducing challenging behaviors over and above standard implementation of SASH.

**14. Keeping up with the times: Opportunities for applied research and quality improvement evaluation in a child partial hospital program**

Jill Donelan, Psy. D., Clinical Supervisor ; Child Partial Hospital Program at Baystate Medical Center, Assistant Professor of Psychiatry UMMS-Baystate

Stephanie Daly, MD Medical Director Child Partial Hospital Program at Baystate Medical Center, Assistant Professor of Psychiatry UMMS-Baystate

The Child Partial Hospitalization Program (CPHP) is a program of the Department of Psychiatry at Baystate Medical Center in Holyoke, MA. CPHP is an acute day treatment program offering a full range of clinical services within a highly structured setting for children and adolescents in need of psychiatric crisis intervention and stabilization. Methods of intervention are based on principles of trauma-informed care, Collaborative Problem Solving, and evidence-based interventions. The treatment model includes group psychotherapy, psychoeducation, recreational therapy, academic tutoring, psychiatric consultation, family engagement, and case management. Treatment goals include comprehensive assessment, conceptualization and referral to appropriate services as well as stabilization of high-risk symptoms.

The CPHP is constantly evolving as a result of the shifting healthcare landscape, developing models for mental health care, and changing demands from managed care systems. The challenge is to provide high quality care within this context. Current quality improvement efforts include refining the suicide risk assessment and management protocol, implementing Collaborative Problem Solving as a program model, and integrating trauma-informed assessment tools and practices.

Within this context, the CPHP is enthusiastically seeking research collaborators who share similar interests in completing applied research with this diverse, at-risk, and underserved population.

Goals of clinical relevance to the program which may be appropriate for applied research investigation include:

- improving safety (seclusion and restraint, staff injury, suicidal and self-harm behaviors, aggression, substance abuse)
- improving patient outcomes (readmission rates, successful transition to lower levels of care, decreased symptomatology, improved functioning)
- decreasing burnout, vicarious trauma and secondary traumatic

**15. Addressing Positive Suicide Screens in the Emergency Department: The Importance of Post-Discharge Follow-up**

Colette Houssan, MPH - UMass Med Dept. Emergency Medicine

Alexandra Morena, BS- UMass Med Dept. Emergency Medicine

Rachel Davis-Martin, PhD- UMass Med Dept. Emergency Medicine

Celine Larkin, PhD- UMass Med Dept. Emergency Medicine

Edwin D. Boudreaux, PhD- UMass Med Dept. Emergency Medicine

Suicide is the tenth leading cause of death and many of those who die by suicide have visited an emergency department (ED) in the months prior to their death. Thus, identification and treatment of suicidal ideation (SI) in the ED is essential to suicide prevention efforts. Although a recent effort to implement universal SI screening has identified more patients with suicide risk, there are still barriers to further risk assessment and intervention, including: patients being too ill, language differences, physician caseload, length of SI evaluation and intervention, staff availability and communication with emergency mental health (EMH) services, and stigma surrounding risk responsibility. To address these issues following the Zero Suicide Model, in November 2017 the pre-existing Behavioral Health Service (BHS) expanded their care to this population, improved communication with EMH to reduce patient burden, and implemented a follow-up call system to contact patients within 48 hours post-discharge.

Since November, 61 patients were identified as not receiving further SI evaluation or resources while in the ED. Twenty-four (39.3%) of these patients were successfully contacted by phone, with 15 (62.5%) receiving resources and 9 (37.5%) declining resources due to existing services. All patients with available addresses (86.8%) were sent Caring Contact Cards with information on suicide hotlines and psychiatric emergency services. By attempting calls multiple times, mailing resources, and being brief, yet detailed when evaluating, more patients' SI needs are being treated. The ultimate goal is to provide services to all patients who screen positive for suicide risk presenting to the ED.

16. **Lessons learned during the Integrative Medical Group Visits Randomized Controlled Trial for recruiting low-income racial/ethnic minority research study participants**

Paula Gardiner MD, Mandy Luo MPH. Boston University Medical School

**Background:** Integrative Medical Group Visits (IMGV) are an innovative program for delivering chronic pain and depression care. This randomized control trial compares the IMGV model to primary care appointments across three inner city clinics in Boston. Our participants largely identify as racial/ ethnic minorities, a historically challenging population for research recruitment.

**Methods:** This poster will share our methods and strategies in overcoming barriers related to recruitment of this patient population. Participants were recruited through provider referral, warm handoffs (face-to-face encounters with a research assistant during a clinical session), targeted letters or self-referred after seeing flyers or other study recruitment related materials. Trained research assistants either contacted or were contacted by patients for screening and consenting procedures.

**Results:** A total of 331 patients were consented and screened for inclusion in the study, and 154 were enrolled. Seventeen percent of those screened were male; fifty-nine percent identified as Black; with the site specific demographics similar to each site's patient population. Over the course of the study, in order to ensure a representative sample we changed our recruitment methods to enroll a greater number of male participants. Different patients responded to different recruitment methods, with older patients responding largely to targeted letters and younger patients responding to self-referral and provider referral ( $p=0.0003$ ,  $\alpha=0.05$ ). The most common reasons for declining participation were not being interested in groups or having schedule conflicts with the group schedule.

**Discussion:** Our varied approaches resulted in successfully recruiting our target number of participants.

17. **Photovoice Empowerment Activity: Engaging High Risk Youth in Civic Engagement and Leadership Program**

Ainat Koren, RN PhD, Associate Professor, UMass Lowell Solomont School of Nursing

High-risk youth have few opportunities to engage in the community and have their voices heard. Photovoice is a creative community-based participatory research methodology that has been successful in giving marginalized populations leadership roles in assessing their environment and advocating for positive change. This presentation will share results from a photovoice activity and a program evaluation of high-risk teens participating in a civic engagement and leadership program.

18. **Using Mixed Methods to Examine Factors that Influence Exercise Prescription Referrals from Health Care**

**Providers: A Community-Engaged Research Project**

Sarah M. Camhi, PhD (University of Massachusetts, Boston)

Julie Wright, PhD (University of Massachusetts, Boston)

Ana C. Lindsay, DrPH (University of Massachusetts, Boston)

Philip J. Troped, PhD (University of Massachusetts, Boston)

Gibbs Saunders MA (Healthworks Community Fitness, Dorchester, MA)

Laura L. Hayman PhD, RN (University of Massachusetts, Boston)

**Background:** The American College of Sports Medicine's Exercise is Medicine initiative supports promotion of physical activity by health care providers (HCPs). Exercise is Medicine recommends HCPs utilize strategies such as exercise prescriptions to increase and promote regular exercise and referrals to community-based exercise facilities (ExRx+). Research is needed to identify factors that will increase African-American patients' ExRx+ engagement since little is known about factors that serve as facilitators or barriers to adherence.

**Aims:** Using a community-engaged participatory research approach, the aims are to: 1) examine individual, interpersonal and environmental factors associated with ExRx+ adherence and 2) explore barriers and facilitators related to the referral process that are associated with ExRx+ adherence.

**Setting:** Healthworks Community Fitness, a non-profit women's fitness facility located in Dorchester, MA. Healthworks is the only gym in the Boston metro area which allows patients to exchange ExRx+ for a 3-month gym membership.

**Methods:** Based on a socio-ecological framework, the mixed-methods protocol includes qualitative and quantitative methods implemented sequentially in two phases to explore factors associated with ExRx+ adherence. Adherence will be operationally defined as: 1) activation: patient redeems the ExRx+ for membership and 2) utilization: attendance during the 3 month membership. Quantitative data will focus on the patient's individual (i.e, body mass index, self-efficacy) interpersonal (i.e, social support), and environmental (i.e, walkability, transportation) levels. Qualitative data will involve one-on-one interviews with patients, HCPs and Healthworks staff exploring facilitators and barriers to ExRx+ adherence. Results will inform the development of a culturally tailored intervention to promote ExRx+ adherence.

## 19. Development and Assessment of Sexual and Gender Minority Patient Resources Utilizing Cognitive Interviewing

### Techniques

Ryan M. Bottary, Department of Emergency Medicine, University of Massachusetts Medical School,

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Edwin D. Boudreaux, Department of Emergency Medicine and Department of Psychiatry, University of Massachusetts Medical School

**Research aims:** Sexual and gender minority (SGM) individuals report disproportionately high rates of suicidal ideation/behavior in community samples and are over-represented among those screening positive for suicidal ideation/attempts in the emergency department (ED). In the ED, several factors limit SGM patient care transitions, including limited information about appropriate/available post-discharge resources. The current study, which complements the ongoing System of Safety (SOS) effort, will address this gap by developing and implementing SGM patient-centered materials across a large healthcare system.

**Proposed Study Methods:** In Phase 1, we will conduct a rigorous review of local and national suicide prevention resources (in-person services, hotlines, online supports, peer support) and consult with SGM-serving organizations, SGM and suicide experts, and individuals with lived experience. Suicide prevention materials for SGM patients will be generated via accumulated findings and insights. In Phase 2, we will recruit SGM individuals from the Worcester community with lived experience with suicidal thoughts/behaviors to assess usefulness, usability and design elements of the materials. Participants will complete a three-part interview including (1) open-ended questions regarding resource preferences/utilization, (2) Think-Aloud/Probed-Questioning to assess participant impressions in real-time, and (3) usability ratings. Using these interviews, patient materials will be optimized iteratively. Phase 3 will use current SOS structures to implement patient materials across the UMass Memorial Healthcare System.

**Conclusion:** SGM patients are at increased risk of suicidal behavior and require tailored and acceptable supports in the community post-discharge. The present study will generate, validate and implement patient resources to address this need.

## 20. Worcester Emergency Distribution Site (EDS) Analysis

Hosana Mamata, MPH, University of Massachusetts Medical School

Nguendab Gwanyalla, MPH, University of Massachusetts Medical School

There have been multiple cases of large-scale natural disasters, bioterrorism, and disease outbreaks in the United States requiring rapid distribution of medical supplies. Emergency Distribution Sites (EDS) play an important role in public health emergencies. Well-established EDS allow communities to efficiently deliver medications and supplies to those who are at risk or have been exposed. The goals of this project were to: 1) Identify strengths and limitations of current EDS locations in the City of Worcester and 2) Provide recommendations for future EDS selections. Strengths of current EDS locations include familiarity of current EDS locations, established transportation and bus routes, and the widespread distribution of current EDS locations across Worcester. Limitations of current EDS locations include limited accessibility of sites for residents without reliable transportation, potential for community members to be reluctant to seek help from government-based organizations and EDS locations that are in potential flood zones. The recommendations suggest steps to improve efficient delivery of medical supplies and enhance community access to EDS locations during public health emergencies.

21. **The effect of AHA dietary counselling on intake of selected fatty acids among obese adults with metabolic syndrome**

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David Chiriboga, Division of Cardiovascular Medicine, University of Massachusetts Medical School  
Barbara Olendzki, Division of Preventive and Behavioral Medicine, University of Massachusetts Medical School  
Yunsheng Ma, Division of Preventive and Behavioral Medicine, University of Massachusetts Medical School

**Background:** The AHA dietary guidelines recommend obtaining 30-35 percent of energy intake (% E) for total fat, <7% E for saturated fatty acids (SFA), and <1% E for trans fatty acid (TFA). We aimed to evaluate the effect of AHA dietary counselling on selected fatty acid consumption among adults with metabolic syndrome (MetS).

**Methods:** Counselling on AHA diet was conducted among 119 obese adults with MetS from 2009 to 2014. Three randomly selected 24-hour diet recalls were collected at baseline and one-year study visits. Fatty acid consumption patterns over time were analyzed using paired-t test and linear mixed models.

**Results:** After one-year counselling, percentage of participants who complied with AHA recommendations increased from 25.2 to 40.2% for total fat <30% E (P=.02); from 2.5 to 20.7% for SFA <7% E (P<.01); and from 45.4 to 62% for TFA <1% E (P=.02). Significant decreases were observed for daily intake of total fat, SFA, and TFA (all P<.01). There was significant variation in SFA and TFA intake per meal, with higher intakes at dinner, in restaurants, and on weekends. SFA intake of all the meal types at home decreased, while dinner TFA intake at restaurant/fast food increased from baseline to one-year (all P<.05).

**Conclusions:** The AHA counselling increased the proportion of participants complying with AHA guidelines. However, the SFA intake from a large proportion of participants still exceeds recommended limits. Actions that encourage low-SFA and low-TFA food preparation at home, and public health policies that decrease SFA and TFA in restaurants and prepared foods are needed.

22. **Long Term Rehabilitation Training for People with Chronic Movement Dysfunction: Extending the Scope of Community Engagement and Research**

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Dawn Roberts, PT, PhD

Historically, rehabilitation services for adults with chronic movement dysfunction as a result of neurologic, musculoskeletal or cardiopulmonary injury or pathology have been provided during immediate post-onset periods, with few options for ongoing rehabilitation service or wellness-directed physical activity training over time. An evolving body of literature speaks to the importance of lifespan-oriented recovery that includes on-going physical activity programs for people living with chronic movement dysfunction. Significant barriers to participation in long-term rehabilitation activities include financial constraints, lack of skilled guidance, limited accessibility to fitness facilities, and lack of social support. There is no definitive understanding of the parameters of physical training

required to promote optimal health and functioning across the lifespan for people with chronic conditions. The Springfield College Department of Physical Therapy runs a number of community-based programs and research initiatives that serve small subsets of people with chronic movement dysfunction and that strive to evaluate the effects of long-term rehabilitation and training interventions for people with chronic conditions. These programs target those living with chronic effects of stroke, brain injury and neurodevelopmental conditions. Our initial research has been largely case-based, though we have a cohort study assessing the impact of physical activity training on social participation and physical functioning for community members with chronic movement dysfunction currently in development. Our wish is to extend the scope of these initiatives, and in particular the research arm, by expanding our partner network to include those with similar and complementary interests and areas of expertise.

23. **Working Dog Project: Collaboration with local service dog program, initiates large scale behavioral genetic study**

Brittney Logan, UMass Medial School Department of BioInformatics and Integrative Biology

Jessica Hekman, Kathryn Lord, Jesse McClure, Elinor Karlsson

An estimated 56.7 million Americans have some form of physical or mental disability (1); many seek assistance from working dogs to achieve greater independence. Despite decades of selective breeding and pedigree analysis to improve working dog programs, success rates hover ~50%. This low rate is costly for training programs, and means that dogs are available to only some of the individuals who could benefit. To address this challenge, we partnered with NEADS, a local service dog program, and the Theriogenology Foundation, in a large-scale behavioral genetics study aimed at identifying genetic variants. Genomic research will improve breeding selection and provide tests for placement of puppies into appropriate jobs. Focusing on a manageable pilot population of ~100 NEADS dogs, we collected DNA samples using saliva swabs. We also obtained behavioral phenotypes using a generalized behavioral evaluation. Next, we will use low-coverage sequencing and imputation to assay millions of variants, then use a genome-wide association study (GWAS) to associate behavioral phenotypes with genomic regions. We will use our existing Darwin's Dogs pet behavioral and genetic data to validate traits and regions identified in the working dog population. Currently, we are developing collaborations with larger working dog programs such as Guiding Eyes for the Blind in New York. Eventually, we will engage hundreds of service, guide, and military working dog programs. By comparing phenotypic and genomic profiles for dogs that do and do not succeed in training, we will increase success rates, and gain deeper understandings of what makes a successful working dog.

24. **Implementing 'At-the-Elbow' Training in the Emergency Department: Feasibility, Outcomes, and Lessons**

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Celine Larkin, PhD, University of Massachusetts Medical School, Department of Emergency Medicine

Esther Boama-Nyarko, MPH, University of Massachusetts Medical School, Department of Emergency Medicine

John Davey, BS, University of Massachusetts Medical School, Department of Emergency Medicine

Edwin D. Boudreaux, PhD, University of Massachusetts Medical School, Department of Emergency Medicine

**Introduction:** Individuals who die by suicide often make ED contact the year prior to death. In accordance with Joint Commission recommendations, universal suicide screening has been implemented across UMass Memorial Health Care EDs, in an effort to improve quality of care for patients with suicide risk. We developed clinician decision aids, clinical workflows, and electronic health record (EHR) items, and introduced them using an 'at-the-elbow' training model in the ED.

**Methods:** We programmed a data visualization application (Tableau), which pulls data directly from the EHR, to measure suicide-positive detection rates and physician secondary screener completion. Training logs were completed following every shift, and were used to identify barriers to training and lessons learned.

**Results:** Over an average of 3.4 weeks per site, 207 ED clinicians (79 physicians, 32 residents, and approximately 96 nurses) were trained across all five EDs; encounters usually took 5-10 minutes. Trainers successfully reached 79 of 104 attending physicians (76%) across all sites. Suicide-detection rates increased post-training for three units, and

secondary screening rates increased for four units. Three common barriers included understanding the definition of a suicide-positive screen; importance of physician secondary screening and how to use the tool for decision-making; and issues with nurse-physician communication of suicide risk.

**Discussion:** The 'at-the-elbow' approach was an efficient way of reaching the majority of ED clinicians and facilitated rapid-cycle improvement in response to emerging barriers. However, this approach was resource-intensive for project staff and not sustainable long term. Integration into onboarding and a 'train-the-trainer' model could improve sustainability.

25. **Inclusion of evidence-based healthy eating policies in Community Health Improvement Plans: A cross-sectional survey of US local health departments**

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**Introduction:** Evidence-based healthy eating (HE) policies can increase opportunities to engage in a healthy diet. The adoption of evidence-based policies into practice is limited and no study reports the status of HE policies nationally. Community Health Improvement Plans (CHIPs) strategically address health priorities, steer evidence-based strategy selection and implementation, and require collaboration. Local health departments (LHDs) are often key stakeholders. We aimed to determine the proportion of LHDs with a CHIP having evidence-based HE policies.

**Methods:** A national probability survey of US LHDs serving populations of <500,000 residents (30.2% response rate) was conducted. The analytic sample of 128 LHDs represented 1489 US LHDs. The presence of 13 evidence-based HE policies were reported in three areas: (i) increasing availability/identification of healthy foods (menu labeling at unhealthy food outlets, doubling SNAP benefits on produce, and zoning/ordinance/bylaw for farmers' markets, healthy food retail, community gardens, urban agriculture); (ii) reducing access to unhealthy foods (regulation of sale/advertising of unhealthy food/beverage, sodium reduction/trans fat ban at food outlets, sugar-sweetened beverage tax and zoning/ordinance regulating fast food outlets); (iii) improving school food environment (district nutrition/procurement/vending policies). We calculated the proportion of LHDs with a CHIP reporting the presence of each evidence-based HE policy and applied sampling weights.

**Results:** 44.1% (95%CI: 34.7-54.0%) of US LHDs with a CHIP reported at least one evidence-based HE policy. The proportion of specific HE policies ranged from 28.9% for school district nutrition/procurement/vending policies to 1.3% for sugar-sweetened beverage tax.

**Conclusions:** Increased implementation of evidence-based HE policy approaches are needed within communities.

26. **Eliciting community perspective to train health care providers to recognize their biases**

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Center for Health Impact (CHI), Worcester MA: Joanne Calista, Nancy Esparza  
Quantitative Health Sciences, UMMS: Jeroan Allison, Bei Chang, Germán Chiriboga, Jennifer Tjia  
Internal Medicine Residency, UMMS: Elizabeth Murphy, Maria Garcia  
Graduate School of Nursing, UMMS: Janet Hale  
Family Medicine Residency, UMMS: Olga Valdman, Stacy Potts  
interprofessional Center for Experiential Learning and Simulation (iCELS), UMMS: Melissa Fischer

CONSULT-BP is a 5-year National Institute on Minority Health and Health Disparities-funded research intervention at UMass Medical School (UMMS) focused on reducing health disparities in hypertension control among under-represented and lower socio-economic status patients. Previous research has shown that healthcare professionals can harbor implicit biases against under-represented populations that ultimately affect communication, clinical decision-making and health outcomes. Focusing on medical residents and nurse practitioner students, this intervention helps healthcare professionals become more conscious of their implicit bias while treating patients.

Trainees use the simulation center at UMMS to portray case studies that mimic clinical interactions with patients. These include portrayals, for example, of a recently immigrated person from Ghana and an elderly African-American patient who have poorly controlled hypertension.

CONSULT-BP has partnered with the Center for Health Impact (CHI) (formerly known as Central Mass AHEC) to hire community members to act as standardized patients during simulation. The Worcester-based community organization also hires community members to help develop training cases to reflect populations and backgrounds as accurately as possible.

During the simulation portrayals, trainees will be scored on their performance using a checklist that measures how well trainees interacted with the patients and performed routine blood pressure checks. Their checklist score, along with online self-assessments of implicit bias and patient interviews, will be compared at both baseline and 5-weeks post-baseline, to understand if training has improved outcomes of communication and, ultimately, patient's blood pressure. Our pilot will take place May 2018. The first year of data collection begins Fall 2018.

27. **Exploring perceptions of sugar-sweetened beverages among adolescents in Worcester, MA: A qualitative study**

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3. Department of Quantitative Health Sciences, University of Massachusetts Medical School, Worcester, MA

**Background:** Among adolescents, sugar-sweetened beverages (SSBs) are the primary source of added dietary sugar and constitute 10-15% of their total caloric intake. A range of factors influence adolescent dietary behaviors and food choices. This study aimed to explore adolescents' attitudes and knowledge about SSBs, how they receive messages about SSBs, and motivations for SSB consumption.

**Methods:** We conducted 5 focus groups with youth aged 12-14 years that attend one of the eight Youth Connect programs in Worcester, MA in 2016-2017. Groups were sex-specific because of changes during adolescence and experiences with body image and health behaviors between the groups. A semi-structured guide was used to facilitate a discussion with adolescents' around SSBs. The audio recorded data were transcribed and all transcripts were double coded. The data were analyzed using thematic analysis.

**Results:** Discussions included 16 boys in three focus groups and 17 girls in two groups. Participants were 12-14 years old, 27% identified as Hispanic, 24% black and 33% white. One third speaks more than one language at home and the majority consume SSBs daily. Qualitative analysis led to the identification and classification of various sub-dimensions under the following analytic categories: Attitudes, Motivations, Knowledge, and SSB Messaging. Common themes that emerge under each category will be reported. Analyses are in progress.

**Conclusions:** This research will present a deeper understanding of factors that influence Worcester adolescents' beverage choices from their own perspective. The information can be used in public health messaging in Worcester around obesogenic behaviors such as excess caloric intake from SSBs.

28. **Healthy Aging - Living Well; Center for Gerontology Research and Partnerships,**

Dr. Ramraj Gautam, Karen Devereaux Melillo, and Members of the Center for Gerontology Research and Partnerships, UMass Lowell

The Center for Gerontology Research and Partnerships was established in 2014, after beginning as an IDEA Community at UMass Lowell. The Center includes 23 faculty from a variety of disciplines and representing three different Colleges on the campus. The purpose of the Center is to promote gerontological research and facilitate collaborative relationships among interdisciplinary researchers that will advance knowledge and influence policy related to a diverse aging society. Our vision is to become a self-sustaining, fully funded research center with

appropriate infrastructure to support research grant submissions and funded research activities and community outreach/recruitment as needed. The focus of our research is in the areas of: nutrition, healthy living, cognitive changes in the workplace, formal and informal caregiving, technology use in older populations, and health care costs and challenges. Annual Healthy Aging - Living Well Forums over four years have engaged the community, researchers, policy makers, and providers. The forum has brought forth speakers, panel discussions, and poster presentations on needed research for optimal health and quality of life for older adults. We seek to expand opportunities for collaborative research from interested gerontology researchers and community partners. We believe the Center can offer opportunities for 'collaboration between biologists, health professionals, policymakers, behavioral. and social scientists, and other age studies scholars and researchers as the best way to achieve the greatest impact and promote healthy aging' (GSA, 2017).

**29. The Power of Community Partnerships for Innovative Regional Solutions for Food Justice - A Food Alert Phone Application for Southcoast Massachusetts**

Dr. Timothy Shea, Decision Science Department, Charlton College of Business, UMass Dartmouth  
Deirdra Healy, Sirisha Jujjavarapu, UMass Dartmouth  
Christine Sullivan, Coastline Elderly Services  
Joyce Bettencourt, Southeastern MA Food Security Network (SMFSN)

There is evidence for a growing need for innovative solutions that a collaborative nonprofit network can facilitate. There is now interest by funders in the potential of collaborative networks. However, such networks can be difficult to create and nourish. The University of Massachusetts Dartmouth founded and facilitated a successful nonprofit network which has led to a significant, regional projects. Founded in 2009, Southcoast Serves - based in the Leduc Center for Civic Engagement -- began as a collaborative of over 40 community organizations. Starting as a leap of faith, then slowly developing connections through monthly meetings over five years, by 2014 Southcoast Serves became a set of trusted, collaborative partners, actively looking for effective regional projects. In 2015 Southcoast Serves settled on a regional, food justice campaign that has resulted in a number of projects - most recently the development of a 'Food Finder' web/phone app for the region. The 'Food Finder' project team has successfully utilized people from Southcoast Serves non-profits, the university's LeDuc Center as well as students and faculty from the Charlton College of Business' Management Information Systems group. This poster will present the successful development of the Southcoast Serves network of nonprofits as well as the details of the Food Alert Phone/Web application. Best practices will be highlighted to encourage others to develop their networks.

**30. Academic Health Collaborative of Worcester**

Kelsey Hopkins, Worcester Division of Public Health  
Kolawole Akindele, UMass Medical School  
James Gomes, Clark University  
Cheryl Hersperger, Worcester State University  
Alexis Travis, Worcester Division of Public Health

The Academic Health Collaborative of Worcester (AHCW) is a formal partnership between local universities and the Worcester Division of Public Health (WDPH) to bridge academics and practice for the purpose of public health improvement. The mission of the AHCW is to foster collaboration between the WDPH, UMass Memorial Medical Center, and academic partners to improve community health and develop public health research and practice leaders. Current academic partners include Clark University, UMass Medical School, and Worcester State University. The collaborative allows the WDPH to work closely with faculty to create a study or project with student deliverables co-designed by faculty and WDPH staff to advance the strategic plan of the WDPH and the Community Health Improvement Plan. Successful AHCW workforce development initiatives have included internships, clerkships, consultancies, and service learning assistantships. Most recently, a consultant developed materials to improve the structure and capacity of the AHCW. Due to this work, we anticipate additional partners to join the AHCW in the

coming months. Student education, workforce development, and practice-focused research make the AHCW uniquely positioned to improve the public's health through an interdisciplinary approach. Through the collaborative, WDPH can leverage local expertise to help achieve its goal of becoming the healthiest city in New England by 2020.

31. **Development of the Distracted Practice Scale**

Lynn D'Esmond, PhD, RN, UMass Dartmouth

Carol Bova, PhD, RN; UMass Medical School

Paula Moreau, PhD, RN; Quinsigamond Community College

**Background:** Distracted practice is a human experience that can lead to error and affect patient safety. Distracted practice is defined as the diversion of a portion of available cognitive resources that may be needed to effectively perform/carry out the current activity and has been found to be the result of individuals interacting with the environment and technology in the performance of their jobs.

**Purpose:** The purpose of this study is to develop a valid and reliable scale to measure a healthcare practitioner's tendency/and or risk toward distracted practice. Items for the Distracted Practice Scale are drawn from the findings of a previous qualitative study on distracted practice and are being developed using Deveillis's seven-step method. The scale is currently being reviewed for face validity. The next phase will be to calculate the content validity index following the review by an expert panel. A community partner healthcare system of 3 hospitals has committed to being the site for testing the scale within the disciplines of nursing, medicine and pharmacy. Psychometric testing/item analysis using SPSS will then be carried out.

**Conclusions & Implications:** The development of a valid and reliable scale to measure distracted practice can be used to enhance awareness in educational sessions. It will also provide a basis for testing the effectiveness of interventions in decreasing and or eliminating distracted practice. Once identified we believe the implementation of effective interventions will help to significantly reduce distracted practice. This will decrease errors and improve patient safety in a wide variety of settings.

32. **The UMMS Community Engagement Committee**

Kola Akindele, Suzanne Cashman, Amy Borg, Linda Cragin, Nathaniel Erskine, Barbara Estabrook, Misha Faustina, Sage Foley, Sandra Gray, Tina Grosowsky, Janet Hale, Heather-Lyn Haley, Robert Layne, James Leary, Rebeka Lovato, Monica Lowell, Glady McRell, Beverly Nazarian, Ekaterina Pivovarova, Kimberly Reckert, Raja Sumrine.

The mission of the UMMS Community Engagement Committee is to promote inter-professional community engagement focused on teaching and service. In teaching, we advance service learning; in service, we advance action that responds to community-identified need. Service-learning is a pedagogical strategy that integrates community-responsive service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities. The Committee has a diverse membership of faculty, staff and students from across the School of Medicine, Graduate Nursing School and Graduate School of Biomedical Sciences. Its work is accomplished by three sub-committees: Internal Relations, External Relations and Database. Recent activities of the Committee will be highlighted including the results of the Community Engagement Survey, promotion of and participation in the 2016 Greater Worcester CHIP (Community Health Improvement Plan) and the development of a new population clerkship placement in collaboration with the Joint Coalition on Health. We encourage participation in the CHIP and we are seeking collaboration and partnership with community organizations, groups and individuals; additional strategies to promote community engagement; and new members from the UMMS community.

33. **Recruitment Strategies among Diverse, Low-Income Patients with Chronic Disease at a Community Health Center**

Molly Totman, MPH; Cristina Huebner Torres, MA, ABD. Caring Health Center, Springfield, MA

Josephine Korchmaros, PhD. Southwest Institute for Research on Women, University of Arizona.

Jeannie K. Lee, PharmD. School of Pharmacy, University of Arizona.

Susan J. Shaw, PhD. School of Public Health and Health Sciences, University of Massachusetts Amherst

**Research Objectives:** Research aimed at including low-income diverse patient populations should consider possible challenges or barriers to recruitment. This poster presents effective participant recruitment strategies used among a linguistically, culturally, and socioeconomically diverse patient populations in the Medication Adherence, Health Literacy and Cultural Health Beliefs study (RxHL).

**Study Design/Methods:** The RxHL study examines medication adherence, health beliefs, and health literacy among five racial/ethnic groups with chronic disease(s) at a federally qualified community health center. 500 patients will complete self-report surveys and manual pill-counts. A subsample of participants completes qualitative data collection activities including in-depth interviews, home observations, and chronic disease diaries.

**Principal Findings and Quantitative/Qualitative Results:** General recruitment methods (N=444) included: 1) provider care team referral based on use of disease specific registries and daily clinical schedule; and 2) self-referral. Additional strategies included incorporating bilingual interviewers into the clinical setting, in-person screening with potential participants, providing all materials in the patients' language of choice, offering in-home interviews and bi-weekly team meetings to brainstorm enrollment and attrition challenges. In addition, some methods varied depending on the patient group.

**Conclusions/Impact on Health Centers:** Recruitment of diverse patient populations into research studies can often be challenging and requires additional consideration. RxHL has effectively recruited a diverse sample by implementing culturally tailored recruitment methods that reduce barriers to participation. Strategies for increased enrollment and retention of diverse patient populations in research is needed to effectively understand and address racial/ethnic disparities in health.

34. **Making chronic disease self-management a little more achievable by vulnerable inner-city communities of Worcester, Massachusetts**

Dr. Thidi Tshiguvho

The prevalence of chronic diseases is increasing at an alarming rate globally. About half of adults in the USA have a chronic condition (CDC 2009). Disparities in chronic diseases prevalence based on race, ethnicity and residence have been well document. Many of these diseases are a result of poor access to health care, behavioral risk factors, family history and other socio-economic determinants. In Worcester, Massachusetts, inner-city residents seem to suffer disproportionately from chronic diseases. Chronic diseases management emphasizes treatment of symptoms, dietary and lifestyle changes, and daily self-management practices. Self-management is challenging for vulnerable populations because of their burdening daily life struggles. To overcome these challenges, we need approaches, which incorporate disease management into patients' everyday routines. This is the mission of the Healing Garden Institute (HGI), a non-profit organization in Worcester, whose goal is to support inner-city residents with chronic disease management, by implementing year-round indoor and outdoor gardens, which are affordable and low-maintenance. Most patients with chronic disease know what diet guidelines they should follow. However, accessing fresh organic vegetables, herbs, and medicinal foods is challenging, as most of them live in rental properties. The HGI helps such patients to establish porch-, window-, and kitchen gardens. HGI also offers community health education workshops, which are based on findings from its collaborative research with local and international colleges. Our approach is empowering because it gives patients a sense responsibility to manage their disease. It also diminishes the impacts of the socio-environmental factors that cause poor health conditions.

35. **Community Pilot Intervention of Parenting Journey: Adapted for Chinese Immigrant Families who have experienced Transnational Separation**

Sylvie Wong, Ed.M. Commonwealth Research Center, Beth Israel Deaconess Medical Center

Leslie Wang, Ph.D. University of Massachusetts Boston

Stephen Chen, Ph.D. Wellesley College

Cindy Liu, Ph.D. Commonwealth Research Center, Beth Israel Deaconess Medical Center and Department of Psychiatry, Harvard Medical School

There is a widespread practice of Chinese immigrant parents in North America sending their infants back to China to live with extended family members temporarily for a few years as they attempt to obtain a higher degree of financial security. Developmental psychologists have pointed to the potential adverse effects of transnational separation (TS) on mental health outcomes for these families (Suárez-Orozco et al, 2002). While few studies have examined parental challenges that arise when TS families reintegrate (Bohr & Tse, 2009; Liu et al., 2009), there has not been research evaluating interventions targeted these families.

A pilot intervention was conducted at Boston Chinatown Neighborhood Center for parents who have experienced TS for >6 months with their children within the past 4 years. Four parents received an adapted evidence-based parenting program, Parenting Journey, for 10 weeks. In-depth qualitative interviews were conducted with each participant and with facilitators before and after the program. These interviews were then transcribed and coded for themes.

Participants' benefits from the program include lower parental stress, better understanding of self-care, gaining parenting skills, and social support from peers. Analyses also revealed challenges in program implementation, including recruitment, retention, and stigma surrounding TS.

Overall, TS families were found to have unique needs that are distinct from the broader Chinese immigrant community. Facilitators and participants pointed to a strong need for future programming targeted at these families. Recommendations were made to include more outreach programs prior to the intervention and more psychoeducation from psychologists about attachment after

36. **Preventing opioid use disorders among fishing industry workers: A qualitative study.**

Angela Wangari Walter, Cesar Morocho. Department of Public Health, University of Massachusetts Lowell  
Lauren King, J.J. Bartlett, Debra Kelsey, Monica DeSousa. Fishing Partnership Support Services

The opioid epidemic represents an ongoing challenge for public health professionals with negative consequences for communities and industries nationwide. Fishing industry workers are at increased risk for musculoskeletal disorders (MSDs) and work-related injuries. Prescription opioids used to treat work injuries puts these workers at increased risk for developing opioid use disorders. Through a community-based participatory research approach, formative research was conducted to inform the eventual development of comprehensive and culturally relevant interventions to prevent and reduce opioid use disorders among fishing industry workers. Qualitative interviews (n=21) were conducted to assess: knowledge, attitudes and perceptions of opioid use disorders; community and organizational capacity for prevention and treatment; and public health interventions that address the needs of this population. Participants reported numerous links between fishing occupation and opioid use disorders. Results posit that the combination of physical and psychosocial hazards in the workplace requires comprehensive prevention interventions to address chronic pain and MSDs, and tailored and culturally responsive treatment options to address opioid use and co-occurring disorders for this population. Public health initiatives must integrate workplace health and safety protection along with evidence-based interventions in order to address opioid use disorders, particularly among workers in strenuous jobs such as fishing industry workers.

37. **Facilitators and Barriers in Accessing Primary Healthcare for Commercial Fishers**

Erin M. Donovan MSc Global Health, Dr. Joanne McVeigh

As a unique and largely understudied sector of rural and isolated communities, the commercial fishing industry highlights a playing ground littered in opportunities for health research. Commercial Fishing exports was accountable for over 5 billion dollars in revenues in 2016 and employed over 4,000 fishers in Massachusetts, USA. The industry demands exceptional physical and mental health, and the health status of fishers is key in a successful and lucrative landing. Long and physically demanding work hours, extended periods of time spent living in isolation and with limited resources, and an institutionalized disregard for health and human rights; Commercial Fishing is an industry that is internationally notorious for high levels of injury, illness, and mental health disorders. Despite the

importance on having 'good health' little research has been conducted that paints a picture on how New England fishers keep in good health, and seek necessary health services. This research is aimed at exploring and describing the experience of commercial fisherman who seek basic health services that are essential to their workplace success. This research will identify statistical data as well as thematic information to pinpoint facilitators and barriers in accessing healthcare for fishes that are associated with one the Massachusetts Fishing Partnerships 18 associations and providers/health care organizations that cater to the fishing communities of Massachusetts.