



# 2016 NYC RING Convocation of Practices

Tuesday October 18, 2016



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## Table of Contents

<b>Agenda</b> .....	<b>v</b>
<b>Abstracts</b> .....	<b>1</b>
Chronic Disease.....	1
Community Health.....	8
Health Promotion.....	14
Health Systems.....	20
Maternal and Child Health.....	23
Mental Health.....	28
Resident Education.....	32
Screening and Prevention.....	33
<b>Index of Presentations (by order of first author)</b> .....	<b>35</b>



## **About New York City Research and Improvement Networking Group (NYC RING)**

The New York City Research and Improvement Networking Group (NYC RING) was formed in 2003. It is a practice-based research network sponsored by the Department of Family and Social Medicine of Albert Einstein College of Medicine. To date, NYC RING has built a partnership of 36 practices in the Bronx and Manhattan sponsored by six medical centers, and one private practice, providing over 500,000 visits to primarily low-income, minority primary care patients.

Similar to other practice-based research networks nationwide, NYC RING is a voluntary association of practicing clinicians collaborating to improve quality-of-care through research or quality improvement in their offices. We carry a unique goal of focusing solely on the issues of underserved urban communities through research initiatives and quality improvement projects. Some critical elements of NYC RING projects include:

- Clinically relevant to urban primary care
- Potential to change practice
- Results fed back to practices
- Respectful to clinician time and practice realities
- Opportunity for clinician and staff input at all phases

We welcome both *new member practices* and *collaborators* working on research topics appropriate for the practice-based setting to join our network of partner sites.

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Please visit our website at [\*\*www.nyccring.org\*\*](http://www.nyccring.org) to learn about our goals and projects.

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## NYC RING PRACTICES

### **Bronx-Lebanon Hospital Center**

- Fulton Family Practice Center
- Ogden Family Medical & Dental
- Crotona Park Family Practice
- Wellness Center

### **Institute for Family Health**

- Mt. Hope Family Practice
- Parkchester Family Practice
- Urban Horizons Family Health Center / River Counseling Center
- Walton Family Health
- Westchester Avenue
- Amsterdam Center
- East 13th Street Family Practice
- Phillips Family Practice
- Sidney Hillman Family Practice

### **Jamaica Hospital Medical Center**

- Family Medicine Residency Program

### **North Bronx Healthcare Network**

- Health Care Center at Gun Hill
- Health Care Center at Tremont
- Health Center at Glebe

### **Private Practice**

- Riverdale Family Practice

### **Saint Joseph's Medical Center**

- Family Health Center

### **Urban Health Plan, Inc.**

- El Nuevo San Juan Health Center
- Bella Vista Health Center
- Plaza Del Castillo Health Center

### **Montefiore Medical Group**

- Astor Ave Pediatrics
- Bronx East
- Castle Hill
- Comprehensive Family Care Center (CFCC)
- Comprehensive Health Care Center (CHCC)
- Co-op City (Bay Plaza)
- Co-Op Dreiser Loop
- Family Care Center (FCC)
- Family Health Center (FHC)
- Fordham Family Practice
- Grand Concourse
- Marble Hill Family Practice
- Riverdale
- South Bronx Children and Family Health Center
- University Avenue Family Practice
- West Farms Family Practice
- White Plains Road
- Williamsbridge Family Practice
- South Bronx Health Center for Children and Families
- Montefiore New Rochelle

# 2016 NYC RING Convocation of Practices

**Tuesday October 18, 2016**

## Agenda

4:30 - 5:00 pm **Registration**

5:00 – 6:15 pm **Welcome**

**Bruce Soloway, MD**

*Vice-Chair, Department of Family and Social Medicine*

### **Keynote Address**

**J. Lloyd Michener, MD**

*Professor and Chair, Department of Community and Family  
Medicine at Duke University*

“Improving Health: New Support, New Tools, and  
New Research Questions for a Historic Goal”

### **Closing Remarks**

**M. Diane McKee, MD MS**

*Professor and Director Division of Research  
Department of Family and Social Medicine*

6:15 – 7:45 pm **Poster Presentations**

First Round: 6:30 – 7:00pm

Authors of **even**-numbered presentations stay by their  
presentations

Second Round: 7:00 – 7:30 pm

Authors of **odd**-numbered presentations stay by their  
presentations

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## Abstracts

### Chronic Disease

#### Presentation #1

#### **Responsive Manualization of Acupuncture Therapy for Chronic Pain in Urban Primary Care Settings**

Belinda Anderson, PhD; Arya Nielsen, PhD; Ben Kligler, MD, MPH; Claudia Citkovitz, PhD; M. Diane McKee, MD, MS

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*Purpose: Develop a study protocol that is structured, evidence-informed and replicable while also responsive to the evolving needs of individual patients in a large randomized trial comparing effectiveness of acupuncture therapy provided in individual sessions to that provided in group sessions for urban primary care patients with chronic pain. Background: Pain is common and often undertreated especially in minority patients. Acupuncture therapy has been shown to be effective in treating chronic pain when given in individual practitioner-patient sessions, however the urban poor are less able to access acupuncture services. While group acupuncture may offer an option, research has not directly compared group care vs individual session care for chronic pain. A responsive manualization is necessary to satisfy the structural needs of research consistency and replicability but also the clinical needs of practitioners to respond to real world evolving clinical presentations in different settings. Methods: Our previous research established feasibility to engage urban primary care centers in the study of acupuncture therapies for chronic pain delivered in individual sessions. Our pilot (120 subjects) demonstrates feasibility of treating chronic pain in a group setting. The Intervention manualization progressed informed by expert stakeholders, experienced clinicians and patients. Results: A manual flow chart was structured to evaluate and treat specific chronic pain conditions treated in our previous trials; it can respond to evolving patient presentations in either setting. Departures from structured interventions and their rationales are recorded; scheduled evaluations by stakeholders contribute to updating the structured but 'responsive manualization' of care. Conclusion: A 'responsive manualization' can be structured to account for essential research requirements of consistency and replicability and also evolve within the study period to respond to real world clinical needs of practitioners and patients.*

#### Presentation #2

#### **Adherence in Guyanese patients with Type 2 diabetes: Comparisons with other ethnic minority groups.**

Janine Beckles, MD; Urvashi Kohli, MD; Elizabeth Brondolo, PhD; Gina Basello, DO; Alan Roth, DO

Contact: [janine\\_beckles\\_gt@yahoo.com](mailto:janine_beckles_gt@yahoo.com)

*Objective: The aim of this study is to determine whether there are differences in lifestyle modification adherence and medication adherence among Guyanese of Indian descent, and Latino(a) and Black American patients with type 2 diabetes. Design: This was a cross-sectional study of community*

*dwelling adults. Setting: People were recruited from community medical centers and religious events in Queens, New York. Patients: Type 2 diabetics  $\geq 18$  yrs from the Guyanese American, Black/African American and Latino/Hispanic American minority groups. Guyanese were significantly older and 100% of the sample was born outside the US, compared to 50% of the Black and 25% of the Latino(a) samples. About 50% of the Latino sample had less than a high school education compared to 31% and 8% of the Guyanese and Black samples, respectively. There were no group differences in the rates of insured individuals as 90% of the sample indicated having health insurance. Selection Procedure: This was a convenience sample of volunteering participants. Interventions: None. Measurements/Main results: The primary independent variable was ethnic/racial group (i.e., contrasting Guyanese vs. Black vs. Latino(a) individuals). Tools were used to measure lifestyle modification and medication adherence. Across participants, rates of adherence to lifestyle modification were very low. Fewer than 5% of the sample were adherent to lifestyle modification 6 or more days per week. In contrast, only 3.7% reported always or usually having difficulty remembering to take their medications, and 65% reported taking their medicine on the previous day. Conclusion: Among this insured, but low income and low education sample of minority group members, participants had low rates of lifestyle modification adherence. Participants were more likely to be adherent to medication regimens. There were no differences among ethnic/racial groups. Additional efforts are likely to be needed to improve adherence to lifestyle modification regimens among these high risk patients.*

### **Presentation #3**

#### **Patient Perceptions of Group and Individual Acupuncture in an Urban, Primary Care Setting: Preliminary Analysis**

Elizabeth Chuang, MD, MPH; Noa Brixhart; Michele Buonora; Jonathan Gabison; Diane McKee, MD, MS; Benjamin Kligler, MD, MPH

Contact: [echuang@montefiore.org](mailto:echuang@montefiore.org)

*Context: Acupuncture has been shown to improve pain and functioning, but is not widely available. Group acupuncture can increase capacity both by decreasing clinic space needs and increasing patient volume per acupuncturist. However the patient experience is likely to be different in the group setting due to both the presence of other patients and the accommodations of the physical space. Objective: To use qualitative methods to understand and incorporate the patient experience of acupuncture therapy in both individual and group settings. Design: Qualitative interviews of participants in the AADDOPT trial who were randomized to acupuncture treatment in individual or group setting once weekly for 12 weeks. Interviews were conducted by phone. A semi-structured interview guide was developed to encourage open-ended exploration of the patient experience while also directing respondents to reflect on group or individual settings. Setting: Six health centers of the New York City Research and Improvement Networking Group (NYC RING). Participants: Fourteen patients, (seven in each arm) were interviewed at least 24 weeks after initiating treatment. Participants were purposely selected to represent both genders, all participating sites, and varying levels of functional disability. Results: The coded material clustered under five themes: 1) living with chronic pain, 2) the value of acupuncture, 3) acupuncture treatments, 4) group acupuncture and 5) the patient voice. Patients in both arms of the study perceived value in acupuncture in treating their pain and enhancing quality of life. Many patients found the group setting acceptable, and some*

*appreciated the presence of other patients. A subset of patients were concerned about privacy and vulnerability in the group setting. Conclusions: Preliminary results suggest acceptability of the group setting for most patients. Concerns about privacy and vulnerability may suggest modifications for optimal comfort.*

#### **Presentation #4**

##### **Analysis of a Care Coordination Program For Hepatitis C Treatment by Liver Disease Severity**

Michael Czapka, BS; Shuchin Shukla, MD, MPH; Paul Meissner, MSPH; Jonathan Scwhartz, MD; Alain Litwin, MD, MPH

Contact: michael.czapka@med.einstein.yu.edu

*INSPIRE is a CMS-funded, NYCDOH project of intensive outpatient care-coordination for treatment of chronic hepatitis C with sites in Manhattan and the Bronx. Based on Bronx-Montefiore data, we examine patient progress through different portions of the treatment timeline (also known as a care cascade) and the relation to severity of liver disease. The data demonstrates an inverse trend between the percentage of patients with the most severe liver disease initiating care over the course of the intervention and time. This finding perhaps speaks to providers preferentially referring the sickest patients for treatment at the initiation of the program. Other data from this study suggest particular phases of treatment for which individual groups of patients are not as rapidly progressing through the care cascade, or points of increased patient attrition. These results may lead to future quality improvement initiatives within our program and beyond.*

#### **Presentation #5**

##### **Recruitment in Multi-Center Type II Diabetes RCT: Updated Challenges & Solutions**

Zeva Herzog, BA; Susana Gonzalez, MD, Research Fellow; Jennifer Lukin, BS; Janet Brown-Friday, RN, MSN, MPH; Jill Crandall, MD; M. Diane McKee, MD

Contact: zeva.herzog@einstein.yu.edu

*Context and Objectives: The Glycemic Reduction Approaches in Diabetes: A Comparative Effectiveness study (GRADE) is a NIH funded 5000-participant multi-center randomized clinical trial. The purpose of the study is to compare the effectiveness of four commonly prescribed diabetes medications in combination with Metformin [Glimepiride, Liraglutide, Sitagliptin, and Glargine]. Recruitment has always been a concern for researchers in randomized clinical trials and as we approach our goal it is important to assess our recruitment strategy. In fact, because of the success of our method, our site has been asked to recruit beyond the original goal of 150 participants (180 participants in April 2017). With new technological advances and strengthening partnership between MMC and Einstein, novel recruitment methods have been possible. However, challenges still remain. Methods and Results: The Montefiore Medical Center-University Hospital of Einstein EMR (EPIC) is used to identify and then recruit eligible participants into the study. To be eligible, patients must have a diagnosis of type II diabetes within the last 10 years, beginning at or after age 30, treated solely with Metformin, and have an HbA1c between 6.8% and 8.5%. Before becoming enrolled and randomized, participants are screened and then undergo a run-in period of 4-12 weeks. As of September 2016, our site has*



*prescreened 3348, screened 486 participants, 168 of whom have been enrolled and randomized. The median HbA1c at screening and final run-in were 8.0 and 7.4, respectively. This decrease could be due to a variety of factors including but not limited to increasing the Metformin dose. Conclusions: Our development of a close working relationship between PCP's and the study team as well as the research team's diligent efforts to contact and follow up with participants has led to a successful recruitment process. We have also identified ways to continue improving. By strengthening our relationship with the PCP's we can advance both recruitment and retention. Continuing to ensure that PCPs are informed about their patients' status increases our credibility and trust with both PCPs and participants.*

## **Presentation #6**

### **What Does it Take to Build the Sickle Cell Center for Adults (SCCA) at Montefiore Medical Center?**

Charleen Jacobs, MSN, ANP-BC; Cassandra Dobson, PhD, RN; Leena Vattappally, FNP-BC; Lauren Mariotti, LMSW; Vivek Thomas, FNP-BC; Caterina Minniti, MD

Contact: [chajacob@montefiore.org](mailto:chajacob@montefiore.org)

*Context: To change the trajectory of treatment for Sickle Cell Disease (SCD) through clinical practice, education, and translational research; in addition, improve patient outcomes by providing access for SCD. Design: Quality improvement project. Setting: Montefiore Medical Center. Participants: Patients with a diagnosis of sickle cell disease. Intervention: The SCCA program was created to provide medical and psychosocial care, with a multidisciplinary approach. We strive to improve QOC by decreasing ED use and increasing outpatient visits. The SCCA has created specialty clinics, staffed by MD's and NP's with expertise in pain management, wound care, and stem cell transplant. The sickle cell ED email alerts were created to alert the team of the arrival of patients in the ED. With EPIC, a new sickle cell consult assists the inpatient medical staff in the care of SCD patients with sickle cell crisis and other medical problems associated with SCD. The sickle cell NP collaborates with the health care members with the goal to provide safe, evidence-based care, and decrease prolonged hospitalizations. SCCA also created perioperative guidelines to prevent post-operative complications such as acute chest syndrome and ICU admissions. The team also provides lectures to hospital medical staff, coordinate community outreach programs, and holds support groups. Results and Conclusions: Between 2014-2015 we have seen a decrease length of stay (LOS), average daily census, and ED utilization while increasing outpatient visits. The necessity to use the ED has decreased by 25%. The implementation of ED alerts, patients are 40% less likely to be hospitalized and are re-directed to clinic. The LOS has decreased to below the national standards of 7 days, to 4.8 days. The average daily census has been halved. Our focus for the upcoming year is direct admissions for sickle cell crisis, inpatient cohorting, and pain management pathway protocols.*

## **Presentation #7**

### **Clinic-Based vs. Home-Based Support to Improve Care and Outcomes for High Risk Adult Asthmatics: A Study Design**

Joseph Lurio, MD; Alex Federman, MD, MPH; Juan Wisnivesky, MD, MPH; Neil Calman, MD; Melissa Martynenko, MPH; Diane Hauser, MPA

Contact: [jlurio@institute.org](mailto:jlurio@institute.org)

*We are presenting the design of a randomized trial that will be conducted by project partners at the Icahn School of Medicine at Mount Sinai and the Institute for Family Health to achieve the following aims: Aim 1: To compare the effectiveness of clinic- and home-based asthma care coordination and self-management support to improve care and asthma-related outcomes. Hypotheses: Compared to usual care, patients receiving either clinic- or home-based support will: (1) Have better asthma outcomes (control, quality of life, less need for urgent care); and (2) Have better asthma self-management (medication adherence, trigger avoidance, appointment-keeping, use of action plans). Aim 2: To identify subsets of individuals who will have greater benefit from home-based care coordination and self-management support compared to clinic-based support. Hypothesis: Patients with more severe asthma and those at greater risk of missed clinic appointments because of physical or cognitive impairment and psychosocial issues will be more likely to benefit from the home-based intervention.*

## **Presentation #8**

### **A Unique Model of Care for Dementia Assessment**

Rubina Malik, MD, MS; Jessica Zwerling, MD; Joe Verghese, MBBS, MS

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*Background: Older adults seen in outpatient clinical settings for evaluation of cognitive symptoms span from those presenting with mild cognitive impairment to those with frank dementia. Patients with cognitive disorders are a complex management challenge to healthcare providers with symptoms that extend beyond the cognitive. We describe an outpatient based dementia care model where a multidisciplinary team provides a one-stop shop to assess patients with cognitive complaints. Methods: At the Montefiore-Einstein Center for the Aging Brain (CAB) an interdisciplinary team of geriatricians, neurologists, and neuropsychologists, supported by geriatric psychiatrists, physiatrists, and social services provide a 3 step comprehensive consultative evaluation. Prior to their initial clinic visit, all patients are provided a pre-health-visit questionnaire, which identifies needs of the patient and caregivers. CAB evaluations begin with an examination of the patient by a geriatrician to diagnose common geriatric conditions such as frailty, fall risk, polypharmacy, etc. A licensed neuropsychologist then conducts a comprehensive one-hour cognitive test battery to probe general mental status as well as specific cognitive domains. On a second visit at the CAB a neurologist makes the final clinical assessment and recommendations. A referral for geriatric psychiatry, social work or physiatry is based on identified needs. The goals of the CAB are to maximize dementia outcomes, including education and support to patients and caregivers; initiation of pharmacological and non-pharmacological treatments; and the facilitation of access to clinical trials. Results: One-year assessment indicates that this interdisciplinary clinical dementia care model is feasible in the outpatient setting as well as highly accepted by patients, caregivers and referring physicians.*

**Presentation #9****Acupuncture Approaches to Decrease Disparities in Outcomes of Pain Treatment (AADDOPT-2)**

M. Diane Mckee, MD, MS; Benjamin Kligler, MD, MPH; Arya Nielsen, PhD, LAc; Belinda Anderson, PhD, LAc; Huma Naqvi, MD; Mariel, Connolly, BS; Florangel De Leon, BA; Eric Gil, BA

Contact: [Diane.Mckee@einstein.yu.edu](mailto:Diane.Mckee@einstein.yu.edu)

*Chronic pain is a major public health concern that places numerous burdens on individuals, including both physical and psychological impairment, decreased productivity, and side effects due to medication use. Recent policy changes emphasize the many pitfalls of prolonged medication use. Extensive evidence supports the use of acupuncture therapy to treat chronic pain conditions, including when provided in primary care settings to ethnically diverse, and/or medically underserved populations. There is significant evidence illustrating how minority populations differ both in prevalence and outcomes of chronic pain; a key component is disparities in access to care. Acupuncture is slowly being integrated into pain management in many conventional healthcare settings, but cost and reimbursement remain as a main obstacle for offering acupuncture, especially in primary care and safety net settings. Group acupuncture is offered in many settings, because it can be provided at lower cost. Demonstrating equal effectiveness between individual and group acupuncture could reduce barriers to steadily incorporate this effective pain management approach. The Acupuncture for Chronic Pain team is conducting a stakeholder-engaged randomized comparative effectiveness study to assess outcomes of individual and group acupuncture for treatment of chronic pain. Our project is taking place at six health centers. Clinicians have referred 891 patients; 360 of our goal of 700 participants have initiated acupuncture. Patients are randomly assigned to receive acupuncture in either individual or group for 12 weeks. We will compare outcomes, meaningful to patients, including pain and quality of life. To better incorporate patient perspectives, a subgroup of 20 participants from each arm (individual/group) have been interviewed (see separate poster). In addition, we have assembled a robust stakeholder group with representatives from our patient population, acupuncture and primary care clinician communities, payor organizations, and pain management advocacy groups. The group meets quarterly to discuss and provide input on implementation, interpretation of results, and dissemination.*

**Presentation #10****Prevalence of Sickle Cell Retinopathy in Patients with Sickle Cell Disease in an Academic Tertiary Medical Center: Is there a Hydroxyurea Effect?**

Leena Vattappally, FNP-BC, MS; Caterina Minniti, MD; Umar Mian, MD

Contact: [lvattapp@montefiore.org](mailto:lvattapp@montefiore.org)

*Background: Among the vascular complications of sickle cell disease (SCD), retinopathy can be insidious and represents a leading cause of blindness with HBSC. Its prevalence is higher in HBSC and HBS $\beta$  thalassemia than HBSS: ~30-50% and 20% respectively. Ocular pathologies in SCD patients were categorized and assessed to note impact of hydroxyurea (HU) on Sickle Cell Retinopathy (SCR). Methods: Retrospective Design. Participants: SCD patients with complete ocular examination. Sample Size: N=108 patients, 61 females and 47 males; 74 = "Black," 10 = "Hispanic," 1 = multiracial, and 23*

*no respond; mean age=38.5 (range 19-68 years). Setting: Henkind Eye Institute at Montefiore Medical Center in the Bronx, from October 2012 to September 30, 2015. Results: Retinopathy in 39 patients (25/39 SS and 14 /39 SC+ Sβthal), 59% had proliferative retinopathy. 73.1% prescribed hydroxyurea (79/108), had no difference in HU prescription between patients with and without retinopathy (76% vs 73%). Compliance measure with HU, was Hemoglobin F (HbF) > 7.5% as compliant was 41% (16/39) of Sickle Cell Retinopathy (SCR), compared to 42% (29/69) in patients without retinopathy. Prevalence of severe form of retinopathy, proliferative sickle cell retinopathy, was lower in patients with higher compliance with HU: 16% (6/23) of patients with F > 7.5 % had proliferative retinopathy, compared to 44% (17/23) of patients with HbF ≤ 7.5%. %; sex had no influence. Discussion: A high incidence of retinopathy in patients with HBSS and HBSC/Sβthal. HU was prescribed at a higher rate than the reported 30% nationwide. However, compliance or dose escalation might not have been sufficient to achieve protective levels of HbF in the majority of patients, as demonstrated by the low levels of HbF in > 70% of patients. The subset of patients with HbF, the prevalence of proliferative retinopathy was lower. Prospective studies needed to evaluate the role of hydroxyurea in preventing or ameliorating retinopathy.*

## **Presentation #11**

### **Physicians' Concerns About Aspects of Advanced Care Planning in Chronic Complex Illness**

Nandini Vijayakumar, DO; Patricio Guaiquil, DO; Gina Basello, DO; Alan Roth, DO; Elizabeth Brondolo, PhD

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*Advanced Care Planning (ACP), the process of helping patients review their health conditions and make end of life decisions, is underutilized in chronic complex illness. The purpose of this study was to examine the effects of illness severity and emotion regulation on physicians' willingness to have discussions about ACP. A cross sectional study was performed at hospital medical centers serving low-income communities. The participants included 148 physicians (67 women), with 22 attending physicians and 126 residents of both family medicine and internal medicine departments. Physicians were presented clinical vignettes describing patients with low, moderate and high levels of COPD illness severity. They rated three cases of patients at different levels of illness severity. They received scales regarding ACP-Communication, ACP-Delay (how long they waited before initiating ACP), and Emotion Regulation. The results showed that physicians are more likely to engage in all types of ACP as the severity of their patients' illness increased (Wilks' Lambda=0.61, (F(5,419)=53.83, p<0.001)). However, there was no difference by illness severity in physicians' reports of delaying the initiation of ACP. Physicians were also more likely to communicate about prognosis and discuss details with family than to engage in communication about advance directives, end of life options, palliative care, or spiritual concerns (p<.01). Finally, concerns about emotion regulation were found to be negatively related to communication about prognosis (F(1,141) = 9.21, p < .01) and options at end of life (F(1,143) = 7.71, p < .01) and positively related to delays in engaging in ACP (F(1,142) = 8.24, p < .01). In conclusion, physicians are less willing to discuss palliative care and the spiritual needs of their patients, even when they are severely ill. The emotional demands of ACP serve as a barrier to discussions about palliative care, prognosis, and end of life options.*

## Community Health

### Presentation #12

#### **Lessons Learned: Community Health Worker Model**

Tashi Chodon, BSN, MPH; Renee Whiskey, MPH, CHES; Damiris Perez Agu, MPA

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*Community Health Workers (CHWs) help improve health care access and outcomes; strengthen health care teams; and enhance quality of life. Dozens of studies demonstrate that CHWs have improved health outcomes for low-income populations, particularly for disease prevention and chronic disease management, such as control of asthma, diabetes, hypertension, cardiovascular disease, depression, and mental illness. Studies also demonstrate that CHWs reduce health care costs by decreasing ambulatory care sensitive emergency room (ER) visits, hospitalizations including admissions and readmissions, and by improving individual and community capacity to understand their condition and utilize health care services appropriately. CHWs are frontline public health workers who are trusted members of and/or have an unusually close understanding of the community they serve. This trusting relationship enables CHWs to serve as a liaison/link/intermediary between health/social services delivery and increase health knowledge through a range of activities such as outreach, community education, and social support and advocacy. Our panel will share successes and identify lessons learned through CHWs scope of practice, diverse training methods, outreach initiatives and program operations. Additionally, we will demonstrate a perspective of CHWs on their positive and challenging experiences, offer useful and innovative insight into ways of maximizing their impact on the health care team, patients, and their role as key emissaries between clinical services and community resources.*

### Presentation #13

#### **Engaging Scientists, Clinicians, Community Health Workers and Patients to Conduct a Comparative Effectiveness Study of Home-Based Interventions to Reduce CA-MRSA Recurrence and Household Transmission**

Brianna D'Orazio; Rhonda G. Kost, MD; Chamanara Khalida, MD, MPH; Maria Pardos de la Gandara, MD, PhD; Teresa H. Evering, MD, MS; Tracie Urban, RN, BSN; Jonathan N.

Tobin, PhD

Contact: [bdorazio@cdnetwork.org](mailto:bdorazio@cdnetwork.org)

*Objectives: Community-Associated Methicillin-Resistant Staphylococcus aureus (CA-MRSA) skin and soft tissue infections (SSTIs) recurrence ranges from 16% to 43% and presents significant challenges to clinicians, patients, and families. This comparative effectiveness research study aims to develop and evaluate a home-based intervention implemented by Community Health Workers (CHWs) or 'promotoras' to prevent recurrence and transmission of CA-MRSA in patients presenting to primary care with SSTIs. Participants: In partnership with three Community Health Centers and four community hospitals in NYC, this study will recruit patients (n=278) with confirmed MRSA SSTIs and their household members. Participants are randomized to receive either a CHW/Promotora-delivered decolonization-decontamination intervention or Usual Care. The highly engaged stakeholder team*

*finalized the intervention protocol, developed and implemented CHW and clinician training, and developed an online health portal application for data management and exchange ('MyOwnMed'). Results: Eight CHWs completed training in Epidemiology and MRSA 101, Research Ethics and Human Subjects Protection, Survey Techniques, Data Collection, Quality Control and Treatment Adherence Promotion. Clinicians were trained to screen and enroll patients, conduct specimen collection and transport, and use the health portal. Home visits have demonstrated that 60% of households of patients with confirmed *S. aureus* infections have contaminated surfaces; of those households with contamination, 8% of surfaces tested positive for *S. aureus*, suggesting the importance of the household as a reservoir for continued exposure and the potential benefit of decontamination. Discussion: This study aims to understand the patient- and environmental-level factors associated with SSTI recurrence and household transmission, and to examine the interactions between bacterial genotypic and clinical/phenotypic factors on decontamination, decolonization, SSTI recurrence and household transmission. This study will evaluate the barriers and facilitators of implementation of home visits by CHWs in underserved populations, and aims to strengthen the weak evidence base for implementation of strategies to reduce SSTI recurrence and household transmission.*

#### **Presentation #14**

##### **UHF Outpatient Antibiotic Stewardship Initiative at MMG**

M-L. Fabienne Daguilh, MD; Gianni Carrozzi, MD; Belinda Ostrowski, MD

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*In March 2015, the Obama administration released a National Action Plan, providing a roadmap to guide the country in rising to the challenge of combatting antibiotic resistance and saving lives, with one of its goals to reduce inappropriate antibiotic utilization in outpatient settings by 50% by 2020. Due to the incidence of MDROs, there is a critical need to better understand how much variability in prescribing exists in ambulatory settings and whether practice-level data can offer useful information to guide stewardship efforts. Studies of outpatient antibiotic use have been conducted across the nation, and findings suggest a high degree of inappropriately prescribed antibiotics for acute respiratory infections. Locally, UHF and the Greater New York Hospital Association partnered with Montefiore Medical group on antibiotic stewardship programs with the primary goal of providing comprehensive 'stewardship training' to clinicians and implement the CDC's recommended core elements of antibiotic stewardship programs. Williamsbridge Family Practice and Family Care Center (FCC) are the MMG ambulatory practices participating in the pilot.*

#### **Presentation #15**

##### **Montefiore Healthy Store Initiative: Building Healthy Food Environments Through Community Engagement**

Nicole Joseph, MPH; Colin Rehm, PhD; Elizabeth Spurrell-Huss, LCSW, MPH; Aneka Wynter, BA; Amanda Parsons, MD, MBA; Nicole Hollingsworth, EdD, MCHES. Special acknowledgement leadership: Amanda Parsons, MD, MBA, Nicole Hollingsworth, EdD, MCHES

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*Given high rates of obesity and diabetes, there is need to create a healthier food environment by increasing the availability of healthy foods/beverages. Bodegas are an important component of the food environment in the Bronx. To this end, the Office of Community and Population Health (OCPH) at Montefiore Health System has implemented the Montefiore Healthy Store Initiative (MHSI). MHSI is a two-pronged strategy to improve the food environment, addressing supply and demand-related factors. Using a place-based approach to target bodegas in census block groups with a high number of obese Montefiore patients, four target areas were identified (Highbridge, Morrisania, Eastchester and Fordham-Kingsbridge). The MHSI team visits each store  $\geq 2$ /month. The supply-side aspect of the program focuses on increasing the availability of healthy beverages, snacks and grocery items, and when the capacity exists, increasing the availability fresh produce. Visits consist of identifying and overcoming challenges related to offering healthy foods/beverages, completing assessments to measure progress, and helping stores improve signage/display of foods (e.g., providing baskets for produce). As of September 2016, MHSI approached 23 stores and is actively working with 9. MHSI also works with Jetro, a food wholesaler to promote healthy items and ensure that new healthy items are available. To increase consumer demand for healthier options in stores, MHSI engages in partnerships with local community-based organizations through education and advocacy activities. Examples of such activities include conducting taste testing of healthy snacks/beverages, and working with organizations to create "Rethink Your Drink" sugar-sweetened beverage displays. Twenty-three such activities, across 11 organizations were conducted in Summer 2016. The results of the ongoing pre/post assessment of food/beverage availability at our target bodegas will be presented. In addition, the resources needed to sustainably and meaningfully engage with bodegas and communities to improve the food environment will be discussed.*

## **Presentation #16**

### **The Relationship Between Craniofacial Anomalies (Birth Defects Such As Cleft Lip and/or Palate), Neighborhoods and Socioeconomics**

Julie Kazimiroff, DDS, MS; Glenda Rodriguez-Aguiar, DMD; Sydney Spal, BS; Sahir Chaudhry, BS; Katherine Freeman, DrPH; Kenneth Kurtz, DDS

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*Oral clefting (OC), including cleft lip (CL), cleft palate (CP), cleft lip with cleft palate (CL+CP), is one of the most common craniofacial anomalies (CFAs) with occurrence rate of 1 in every 700 live births.*

*Objective: To determine the level of prevalence of OC in a densely populated, diverse, inner city, poor community. Methods: Using a proprietary electronic health record data mining program (Clinical Looking Glass®), a registry of children (< or = 18 yrs.), who were identified with primary or secondary diagnosis of OC by International Classification of Diseases - 9 (ICD-9) diagnosis codes (749.0, 749.1, 749.2) at Montefiore Medical Center, was prepared. Each patient was assigned to either high or low social economic status (SES) using resident zip code and by United Hospital Fund (UHF) for neighborhood correspondence to SES. Collected data was compared to the prevalence of OC by New York State Congenital Malformation Registry. After determining prevalence of OC in low SES neighborhoods of the Bronx, Chi square test and phi coefficient were determined. Results: Registry - 1074 children were identified with an average 23 OC cases (STDEV = 14) per 7 neighborhoods (25 zip codes), at 15-45% below the Federal Poverty Level (FPL) (over 15 years, 1997-2012).1 Southeast Bronx has the highest prevalence of OC (8.08) with zip code 10473 period prevalence per 10,000*

*births of OC (22.7) being the highest among all others (over 2 years, 2010-2012). Null hypothesis was rejected and significant difference was established between prevalence of OC the Bronx and NYS. (chi square .407, phi coefficient .004). Conclusions: According to the WHO report on CFA (2001), there is not enough evidence that links SES to prevalence of CFA and more rigorous research is encouraged. This study potentially represents the missing link between SES and OC.*

### **Presentation #17**

#### **Hold Up, Wait A Minute! No Research About Us Without Us**

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*Addressing the health care needs of Bronx residents is critically important. However, an egregious disconnect exists between community experiences of ill-health and initiatives, largely developed by researchers, to address the health of Bronxites. Many residents, mindful of historical examples of egregious violations of their dignity in research and personal examples of racism, sexism, fatphobia, ableism, homophobia, and transphobia in healthcare settings- mistrust researchers. Many Bronxites lack health research literacy. Multiple and intersecting stressors compete with and impede with their participation in research. Our work presumes that members of minoritized racial/ethnic groups, poor and working class persons, disabled peoples, and folks at the intersections of these communities, are rarely actively engaged with health research and interventions targeting them - beyond their passive participation as research subjects. This project endeavors to redress the lack of community-driven, sustainable opportunities and infrastructures available to Bronxites by providing spaces for radical engagement with research. We aim to ameliorate much of the experience of scientific/institutional racism and research predation by centering and enhancing the experiential knowledge and skills that communities bring to health research, dissemination, and action(s). The members of the Bronx Community Research Review Board (BxCRRB) have established a Community Engaged Research Academy (CERA) that will utilize participatory approaches and serve as a model for effective education, training, and consultation opportunities to increase health research literacy in the community. In this poster we will detail the aims and vision for CERA. This project is funded by a Patient Centered Outcomes Research Institute (PCORI) Eugene Washington PCORI Engagement Award Contract 3422.*

### **Presentation #18**

#### **MakerSpace: Science Activities in the Waiting Room to Get Kids Interested in Science and STEM Careers**

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*Background: Interest in science among children has been declining in recent years and more notably among socio-economically disadvantaged and minority kids (NASA STEM Initiative 2012). This is an especially concerning phenomenon in an increasingly innovation and science based economy and society. Maker Space activities aim to engage kids actively by encouraging them to experience fun, hands-on science to solve problems by working together and thinking creatively. Methods: We conducted MakerSpace science activities in the waiting areas and group spaces of 3 FQHC clinics at*



*Montefiore, Family Health Center, Williamsbridge and CHCC. The Maker Space activities were free and open to all kids attending the sites with verbal consent from their accompanying adult. To evaluate the impact of the MakerSpace activities we created a survey to assess kid's interest in science and a job in science using a 10 point likert scale. We administered the survey to kids with parental consent before and after participation in the MakerSpace activities. Results: 237 kids ages 4 to 18 participated in MakerSpace activities during 16 sessions in the summer of 2016 and completed pre and post surveys. The pre surveys confirmed earlier studies showing low interest among kids in science and careers in science. Post surveys showed that after participation in MakerSpace activities the average likert scale score for interest in science doubled and the average score for interest in a science career increased by 2 points. Kids' qualitative comments on the MakerSpace activities and science will also be shared. Conclusions: MakerSpace and similar programs that make science accessible, engaging and fun for kids have the potential to positively impact kids interest in science. Kids, parents and staff at 3 Montefiore FQHC clinics welcomed MakerSpace activities in clinic waiting areas and participation was strong. The MakerSpace sessions and research is still in progress.*

### **Presentation #19**

#### **Food Sources Around Urban High Schools: Unexpected Items In Unexpected Places, Neighborhood Differences, & Implications For Adolescent Patients**

Sean Lucan, MD, MPH, MS; Andrew Maroko, PhD. Additional contributions by: Tara Adames, Clarissa Blanco, Geohaira Sosa, Kevin Sarmiento, Brooke Lawrence, Evans Nduro, Salamatu Nurudeen

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*Background: Family physicians promote good nutrition, but adolescent patients face challenges to healthful eating. Food-and-beverage sources around high schools may present one challenge to eating healthfully and might differ by neighborhood. Objectives: To characterize all food-and/or-beverage sources around select high schools in a diverse urban county, to assess differences in food-and/or-beverage offerings by 'neighborhood,' and to consider implications for adolescents. Methods: Researchers selected 10 high schools having school-based health clinics in demographically distinct areas across the Bronx, NY. Teams assessed for any sources of foods or beverages anywhere within a ½-mile walk of each school. 'Food businesses' were those primarily focused on provision of foods and/or beverages (e.g., grocery stores, delis, restaurants). 'Other businesses' were those that might offer foods and/or beverages, but such provision was not their primary focus. 'Healthful' foods were fruits, vegetables, whole grains, and nuts. 'Less-healthful' foods included refined sweets and salty snacks. Beverage categories included 'healthful' (water, milk) and 'less-healthful' (sodas, alcohol). Analyses considered differences by school 'neighborhood' (the ½-mile street-network walking buffers around each school). Results: Data collection around 3 of the 10 schools is complete. There were substantial differences in the number of businesses within a ½ mile of each school (and the percent that were open, that were 'other businesses,' that offered any food or drink, and that offered 'healthful' vs. 'less-healthful' items). 'Other businesses' predominated around each school, with 9-15% offering food or drink and more than twice as many of those offering 'less-healthful items' than 'healthful items.' 'Less-healthful' items from 'other businesses' included candies, chips, cookies, frozen confections, sugary drinks, and beer. 'Healthful' items from 'other businesses' included fresh produce, canned beans, salsa, granola bars, nuts, milk, water, and seltzer. Conclusions: Food sources around*

*schools include businesses well beyond expected 'food stores' and restaurants. The extent and healthfulness of food-and-beverage offerings around schools differ substantially by 'neighborhood.' Next steps are to link findings to demographic characteristics and health data of adolescent students from each school.*

## **Presentation #20**

### **Montefiore Community Flu Immunization Strategy: A Multi-Stakeholder Approach**

Geraldine O'Connell, RN; Elizabeth Spurrell-Huss, MPH, MSW; Amanda Parsons, MD, MBA

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*In 2014, influenza and its complications was the third leading cause of death in New York City. For the past 2 years, Montefiore Health System's (MHS) Office of Community & Population Health (OCPH) has partnered with Walgreens to organize community flu drives often coupled with educational seminars, that help dispel myths about the flu vaccine. Last year we (OCPH) partnered with Walgreens to provide 10 flu drives resulting in over 263 vaccinations. This year, we aim to double that amount, specifically targeted to neighborhoods and communities that have higher absolute numbers of flu-related emergency room visits at Montefiore hospitals. By partnering with Walgreens/Duane Reade, (WAG/DR) part of MHS's strategy is to target areas of need, and reach those most at highest risk, including the uninsured, underinsured, young children, people ≥65y, and those who are immunocompromised and/or living with chronic illness. OCPH has connected (WAG/DR) to various Community Based Organizations, including churches, senior/ community centers with which the department already has well-established relationships. As a result, over 20 Influenza clinic events have been setup at these community settings. WAG/DR staffs the clinics, offering vaccines to community members over 18 years old, regardless of insurance status. Workshops conducted in both English and Spanish have also been implemented prior to the immunization events to educate the community about the importance of flu vaccination. The potential health complications associated with not being protected, along with a discussion of the many myths surrounding the vaccine, are also discussed. By conducting these informational workshops, we aim to alleviate any hesitancy in receiving the vaccine. We also worked closely with both the MSH Public Relations and Community Relations teams to develop print and web-based materials for promotion, and to engage elected officials and community boards in promoting flu events in their districts. The collaboration between WAG/DR is already proving to be more successful than last year, due to the combination of informational workshops, earlier planning strategies, and broader advertising.*

## **Presentation #21**

### **From Clinic to Classroom: Increasing Awareness of Universal Pre-K Programs Through the Medical Home**

Mia Stange, BA; Arielle Hoffman, MPH Candidate; Hildred Machuca, DO, FAAP; Barbara Hackley, MSN, CNM, PhD; Alan Shapiro, MD, FAAP

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*Context: Access to high-quality early education, particularly for children in low-income communities, has been shown to improve cognitive and social-emotional outcomes. In 2014, New York City mayor*

*Bill de Blasio launched a campaign to provide free universal Pre-K (UPK) to all eligible children, regardless of income. Despite the open eligibility criteria, barriers to applying remain. Our clinic implemented an outreach program to ensure awareness of the UPK application process among parents of eligible patients. Setting: The Center for Child Health and Resiliency (CCHR), a federally-qualified health center in the South Bronx that serves a community with among the highest poverty rates in the nation. Participants: All current CCHR patients turning 4 years of age in 2016 were eligible to receive outreach (N=206). 190 patients were included in the analysis. Those excluded live outside NYC or were enrolled in an Early Intervention program. Intervention: Staff sent bilingual letters to parents of all eligible children outlining the UPK application process, timeline, and a selection of programs by zip code. Staff phoned families once before the application became available, and twice during the open application window. Staff offered interested parents resources and information, including on-site assistance with applying and application-related questions. Families were contacted 2 months after the application deadline to assess final acceptance status. Results and Conclusions: Of the 143 patients reached by telephone, 90.2% (n=129) applied to a Pre-K program. Notably, 19.3% of parents reported that they were unaware of Pre-K and/or the application process before receiving our outreach. Even families who knew about Pre-K expressed gratitude to the clinic for providing guidance and support. Results suggest that the medical home can be a trusted avenue through which to provide information to families in underserved areas who are eligible for Pre-K but may not be aware of the application process.*

## Health Promotion

### Presentation #22

#### **Promoting Sleep Health in ECE: A Mixed Methods 'Knowledge Translation' Assessment**

Karen Bonuck, PhD; Akilah Collins-Anderson, MPH; Amanda Schwartz, PhD; Barbara Schwartz, PhD; Hannah Ashinaze, BA

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*Background: Inadequate and/or poor quality sleep in early childhood impairs social-emotional and cognitive function, and markedly increases obesity risk. Short sleep duration, behavioral sleep problems and sleep-disordered breathing all peak during the preschool years, with prevalence estimates at 20%-50%. Healthy sleep habits can entrain circadian rhythms and increase sleep duration; awareness of sleep-disordered breathing can lead to its timely treatment. This Knowledge Translation (KT) initiative aims to promote healthy sleep into early care and education (ECE) programs and policy, and part of our multi-component 'Increasing Sleep Health Literacy in Head Start: A Social-Ecological Approach (R01HD082129) study.' Method: This poster presents: a) baseline surveys with Head Start agencies b) web-based climate scan of ECE groups' print/web media, guidelines and policies and c) thematic analysis of phone-based climate scans from partnership groups about their awareness of child sleep-development links, priority/relevance of issue, etc. Results: There was universal agreement (100%) that sleep problems often interfere with children's ability to learn, and that educating parents about healthy sleep patterns should be part of staff training. Fewer (59%) agreed that it is within their scope of work to counsel parents about child sleep. While staff members felt comfortable addressing sleep hygiene practices (84%-100%) these*

*issues are not routinely addressed in practice. Conclusion: Findings suggest that Head Start staff recognize the impact of sleep upon children's functioning in ECE programs, but that the practice of discussing the issue with parents or other staff is not occurring. We anticipate that the KT strategies will guide the development of healthy sleep practices guidelines/ standards to enhance regulations. Bolstered by evidence from the RCT, we anticipate a decrease in referral of children for behavioral challenges to special education systems, since sufficiently rested children will take on the increasing expectations for attention and focus in early learning activities.*

### **Presentation #23**

#### **Capacity-Building Assistance Learning Collaborative for High-impact HIV Prevention (CBALC HIP)**

Amanda Cheng, MPH; Lily Wendle, MPH; James Mackey; Tony Jimenez, MD; Pa Malick Mbye; Jonathan N. Tobin, PhD

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*Introduction: The Capacity-Building Assistance Learning Collaborative for High-Impact HIV Prevention (CBALC HIP) was funded by the Centers for Disease Control and Prevention (CDC) and made possible in collaboration with Cicitelli Associates Inc (CAI). It was designed to engage and accelerate Health Care Organization (HCO) participation in HIV preventive care and chronic care management, through participation in a distance learning training curriculum. The curriculum provided information and support to HCO teams in assessing their demographics and HIV screening, prevention, testing and management practices, and creating an appropriate action agenda for program implementation. Methods: We invited HCOs and subject matter experts from across the country to be participants and faculty for the CBALC HIP. Each site completed a needs assessment that informed a curriculum tailored to their interests. Webcasts were used as the means to disseminate educational materials and functioned as a classroom learning model that required attendees to participate in the presentation and to focus on each session's learning objectives. The webcasts provided on-line skills-building and strategies for planning, implementing, and sustaining high-impact approaches to HIV prevention. An online evaluation form was provided to the participants after each webcast. All live webcasts were available on-demand from a webcast library. Results: The series of 1.5 hour webcasts was held from January 2016 - March 2016. Participants represented 43 states, reaching a total of 527 live and library participants. On average, each participant attended 3 of 5 webcasts. The breakdown of participants was as follows: public health professionals (30%), nurses/nurse practitioners (21%), social workers (13%), other (5%), physicians (4%). Overall, participants provided positive feedback and planned to implement the strategies learned into practice. Conclusion: The CBALC is a distance learning model that reaches a wide audience for HIV/AIDS education and fosters peer learning. This initiative demonstrated a strong continued need for HIV education in the areas of engagement, implementation and core competencies.*

**Presentation #24****The Association Between HIV Health Outcomes and Health Literacy Across Four Health Literacy Assessments**

Tameir Holder, MPH; Mechelle Sanders, BA; Michele Boyd, BSW; Jonathan Tobin, PhD; Andrea Cassells, MPH; Subrina Farah, MS; Kevin Fiscella, MD, MPH

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*Context: Health Literacy (HL) is defined as a subset of literacy skills highly correlated with the ability to understand and make appropriate health decisions. Persons living with HIV with low HL are reportedly less likely to adhere to antiretroviral therapy and more likely to have low CD4 cell counts. Several validated measures to assess HL exist. The study objectives were to: (1) examine the association between HIV-related health outcomes and HL using four measures and (2) effectively select an HL measure according to its intended use. Objective Design: Three hundred and fifty eight patients from the Get Ready and Empowered About Treatment (GREAT) study completed self-reported measures of HL at baseline: (1) Rapid Estimate of Adult Literacy (REALM), (2) Newest Vital Sign (NVS), (3) The Brief Estimate of Health Knowledge and Action HIV version (BEHKA), and (4) The Brief Health Literacy Screen (BHLS). Analyses on demographics, HIV health-related outcomes, and responses to the four literacy measures were performed. Results: REALM showed weak correlation with the NVS and BHLS (correlation coefficients .26 and .17, respectively). In both adjusted and unadjusted analyses, low educational attainment was associated with a statistically significant increased odds of inadequate HL. The NVS demonstrated the lowest percentage of respondents with adequate HL, 29%; whereas REALM demonstrated 68%. Only the BEHKA was a statistically significant predictor (OR 1.32,  $p < 0.00$ ). In the unadjusted analysis, those with inadequate HL skills across all measures were less likely to have a CD4 count above 500 and less likely to have an undetected viral load. Only the BHLS and BEHKA reached statistical significance (OR .60,  $p < 0.05$ ; OR .63,  $p < 0.05$ ), respectively. Conclusions: Inadequate HL was a predictor of poor HIV-related health, while the BEHKA was most predictive of HIV health outcomes. When selecting an HL measure, it is important to consider the context within which it will be utilized.*

**Presentation #25****CHALO! A Common Risk Factor Approach to Early Childhood Caries and Obesity Risk**

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*South Asians are the fastest growing immigrant community in the US, and experience high rates of health disparities. SA children are at high risk for the two most common diseases of early childhood: caries and obesity. This Common Risk/Health Factor Approach (CR/HFA) application targets risk factors for childhood caries and obesity. Our study, CHALO! ('Child Health Action to Lower Oral Health and Obesity Risk') is a multi-level intervention that includes: 1) collection of data on feeding & childcare behaviors and health risks; 2) a RCT of a home visit intervention, and 3) a Knowledge Translation (KT) campaign. CHALO will be conducted in the metro NY/NJ area, home to a large low-income high risk SA community. An RCT (Aim 1) will enroll 360 mothers of children 4-6 months old from New York City (n=3) and New Jersey (n=6) pediatric practices in our primary care research*

*network SAPPHIRE ('SA Practice Partnership for Health Improvement and Research'). The intervention includes: a) home visits with mothers/families (n=6 visits over 1 year) and follow up phone support; b) patient navigation to make/keep timely dental visits (2x by 18 months). The RCT's primary outcome is behavior change--bottle/'sippy' cup use/quantity and dietary intake-- factors common to both caries and obesity. Feeding styles, along with unique cariogenic and obesogenic behaviors are also targeted. Secondary outcomes include caries incidence and growth. Assessments when children are 6, 12, and 18 months of age will include novel techniques for assessing feeding practices (i.e., iPad assisted 24 hour dietary recall) and caries incidence (i.e., intra-oral cameras) developed by our team. A descriptive study (Aim 2) will collect qualitative and quantitative data on the prevalence and social context of feeding practices, beliefs, attitudes, and oral health utilization. A KT campaign (Aim 3) will raise awareness of child health risks in SA communities. The campaign will include both traditional and social media components and will be evaluated using multiple metrics.*

### **Presentation #26**

#### **Number of Studies on Heart Rate Variability Biofeedback and 6-minute Breathing (1976-2016)**

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*Heart Rate Variability Biofeedback (HRVB), Respiratory Sinus Arrhythmia (RSA) near resonance frequency (.1Hz), and Paced Breathing (at 6bpm) have been used as treatment interventions in many studies, for a broad range of disorders. These health interventions involve manipulating subjects' heart rates through slow breathing techniques. We gathered papers, articles, and grey literature (from 1976-2016) that used these interventions within their research, from two online databases. Three independent reviewers then assessed a total of 885 articles to include only treatment studies. After reconciliation, a total of 115 relevant papers were included. A large percentage of papers were excluded from the study for not meeting criteria such as the specific rates of breathing (6bpm or .1Hz) and the use of heart rate variability biofeedback. This study verified the increasing use of HRVB, RSA, and PB as treatment measures for a range of health ailments. Researchers are becoming more interested in the applications of these interventions over time (as seen in Graph 1). This study is a preliminary step towards a future meta-analysis being conducted on this data. We will be using the Comprehensive MetaAnalysis Program in order to complete this process, and potentially eliminating more studies if their data is not usable. This meta-analysis will allow us to assess the overall effects of HRVB as a treatment for different ailments, and the implications of these effects.*

### **Presentation #27**

#### **Applied Systems Thinking to Build Collaborative Capacity for Wellness Programming in Urban High Schools**

David Lounsbury, PhD; Lynn Fredericks; Camille Gonzalez, MPH; Jean Lim; Kelly Nimmer; Sarah Martin, MPH; Judy Wylie-Rosett, EdD, RD

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*Context: Obesity has quadrupled in US adolescents in the past 30 years. To help address this public health problem, we conducted a school-based intervention to promote wellness programming in N=8*

*New York City high schools. We hypothesized that each school's potential to foster healthier choices among the student body could be better understood and managed where systems thinking were utilized by members of local school wellness councils (SWCs). Qualitative causal loop diagrams (CLDs) are used to graphically notate the hypothesized dynamics, or causal structure, of a dynamic problem of interest in terms of feedback loops. Methods: Working in partnership with HealthCorps - an in-school program that places full-time trained coordinators in classrooms to mentor and teach high school students - the research team supported facilitation of SWCs in planning, implementing and evaluating wellness activities intended to engage students in skill-building wellness activities. CLDs depicting strategies to build school-level capacity and student-level behavioral change were introduced to SWCs. Over the course of a single academic year, we observed how SWC members applied these tools to choose wellness priorities and subsequently design and execute 'action plans' to mount local initiatives. Results: Two CLDs (Student-level and School-level) were disseminated to SWC members by designated school-based coordinators, who filed monthly qualitative progress reports that we used to document SWC processes and outcomes associated with applied systems thinking. Coordinators reported that the CLDs were helpful for communicating the 'big picture' about how students could impact the school's wellness environment. Coordinators' monthly activity reports showed that SWCs were comprised of approximately 8 persons, more students than staff, who met twice per month on average. 'Share Activities,' which were student-led events intended to engage their peers in skill-building activities for healthy eating (Make-One-Share-Ones) or exercise (Yoga Share), grew over the school year in terms of student participation and number of events, but not in proportional student reach (approximately 20% of school population).*

## **Presentation #28**

### **The B'N Fit POWER Initiative: A School-Based Wellness Initiative for Bronx Youth**

Jessica Rieder, MD, MS; Erica Carson, BS

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*Background: Major barriers to implementing effective and sustainable school-based weight management programs include stigma related to obesity management and limited staff resources available for program implementation. Design: To assess the feasibility of conducting a pragmatic trial of B'N FIT Power, a ten-month school-based wellness program (with school based health center (SBHC) and afterschool program components) targeting overweight and obese middle school students, all students enrolled in a public middle afterschool program completed a screening that included: 1) height/weight; 2) NYC FITNESSGRAM; and 3) a healthy lifestyle survey. Participants: 91 adolescents; mean age 12.5±1 yrs; mean BMI %ile 73.2 ± 25.5 (46% had BMI ≥ 85th %ile; of these, 55% had BMI ≥ 95th %ile, 19% had BMI ≥ 99th %ile); female 51%; African American 19%, Hispanic 71%. Results: FITNESSGRAM aerobic capacity: 30% in "healthy fitness zone;" 70% in "needs improvement" or "needs improvement with a health risk" zone. Survey results: <50% scores on nutrition knowledge and behavior, with higher drink (61%) and physical activity (67%) knowledge but lower behavior scores (54% and 49%), respectively. Target healthy behaviors: 64% ≤ 2 servings of vegetables; 46% 2-3 servings of fruit; and 6% ≥ 8 sugar-free beverages. Physical activity: 22% active for 6-7 days/week, 29% active for ≤ 2 days/week. Sleep: (48%) sleep 8-9 hours/night. Of 91 screened, so far 24 students have registered for the program and 15 have completed the initial health assessment at the SBHC. Conclusions: B'N Fit Power implementation would likely benefit the school's*

*students given high rates of overweight and obesity, low cardiovascular fitness, and unhealthy target behaviors. Working with key staff and family stakeholders to align program protocols with existing SBHC and afterschool program protocols will facilitate the program's integration and sustainability.*

### **Presentation #29**

#### **Improving Patient Safety by Engaging Patients and Families in Primary Care**

Sindhu Shamasunder, MPH; Jonathan N. Tobin, PhD; Kelly M. Smith, MSc, PhD; Deliya Wesley, MPH, PhD; Janey Hsiao, PhD; Margie Shofer, BSN, MBA; Michael Stoto, PhD  
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*Background: Patient and family engagement (PFE) is an evolving concept in healthcare transformation. We conducted a scoping review to identify effective and generalizable approaches for PFE to improve patient safety in primary care settings. Method: The York scoping review framework was employed to systematically map the peer reviewed and grey literature on PFE, patient safety, and primary care. Key concepts, theories, and sources of evidence, as well as gaps in the landscape, were identified by thematic review. Results: We reviewed 3,919 peer reviewed abstracts and 736 resources from the grey literature. Full review was conducted on 336 peer reviewed and 328 grey literature sources. Twenty-three key informants, representing patients and families, caregivers, nurses, primary care clinicians and practice staff, researchers, policymakers, and patient safety experts were consulted on the topic and results were combined with evidence from the literature. Themes included that PFE in primary care is a partnership, and that patient safety in primary care is different than in acute care and dependent on patient and provider behavior. Four threats to patient safety emerged, including breakdowns in communication between patients, providers, and practice staff, medication management errors (issues with prescribing, filling, and adherence), factors leading to errors in diagnosis, and threats to safety resulting from health system fragmentation. There were few well-evaluated studies, limited evidence of infrastructure to support patient safety in primary care (e.g. error reporting systems), limited empirical evidence for measurement of either PFE or patient safety in primary care, and significant gaps in intervention usability and health literacy were identified. Summary: Threats to patient safety in primary care are different than those in acute care settings, are multifactorial, and are influenced by patient, provider, and by health system or practice-related factors. This is an area of healthcare safety in need of further study.*

### **Presentation #30**

#### **Pilot Evaluation of a Group-Based 6-week Weight Loss Program Among Montefiore Associates**

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*Research shows that outcomes in group weight loss programs tend to be better in programs led by a Registered Dietitian (RD). Within the Montefiore associate population, we implemented a dietitian led small group six-week long program, the Weight Loss Alliance (WLA). The WLA aims for participants to get a jump start on their weight loss goals. Participants set realistic weight loss goals, increased their physical activity (PA), and identified barriers and developed strategies to overcome them within an established support system. Each class started with a weigh-in (blindly, if desired) followed by a*



*facilitated discussion about successes and struggles, and concluded with formal education. The program was evaluated by tracking attendance, objectively measuring weight, and through pre/post surveys assessing mindful eating and PA. A mindful eating and PA scale was modified from peer-reviewed sources. Twenty-one participants attended at least one session and 14 completed the program (defined as attending  $\geq 4$  classes). For overall mindful eating scores, a non-significant increase was observed when comparing baseline and follow-up (2.99 to 3.13;  $p$ -value=0.23; higher scores indicating more mindful eating). Average weight loss was 3.3 pounds or 1.6% (4.0 pounds or 2.0% after excluding an individual who gained weight). Seventy-one percent of participants who completed the program lost  $\geq 3$  pounds and one gained weight. The proportion of individuals meeting moderate/vigorous PA recommendations increased non-significantly from 23% to 45% ( $p$ -value=0.18). At completion of the program, participants were encouraged to stay engaged by 1) setting-up an individual appointment with the RD, and 2) attending an in-person follow-up group maintenance meeting. While the sample size of this pilot was too small to demonstrate statistically significant improvements results suggest that the 6-week program resulted in modest weight loss and behavioral improvements. Future work should evaluate the sustainability and identify program enhancements that may improve the weight loss outcomes and engagement of participants.*

## Health Systems

### Presentation #31

#### **Differences in Rates of Reporting Urinary Incontinence to Physicians in an Urban, Academic Setting**

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*Objective: To determine the incidence of patient reporting UI to physicians in our patient population.*

*To identify sociodemographic and clinical characteristics associated with reporting UI. Methods:*

*Retrospective cohort study on a convenience sample of women who self-identify as having UI symptoms. Subjects were derived from membership of the Montefiore Medical Center's Care Management Organization that provides care coordination and risk management for a diverse population of patients with chronic illnesses. Subjects were identified through a universal baseline survey between February 2012 through June 2015. Clinical and sociodemographic data were abstracted from chart review of electronic medical records including all primary care (PCP), gynecologic, and urology-provider outpatient clinic visits during one year prior and one year following the reported UI symptoms. The reporting of UI was considered to have occurred if at least one the following documentation was present: comment regarding UI in a clinic note, diagnosis of UI on a problem list, performance of a related diagnostic study, provision of UI-related medical or surgical treatment. We performed univariate and multivariable analyses to evaluate associations.*

*Discussion: A majority of respondents (67.9%) did not mention or obtain care for their UI from a physician. Of those who received care (33.1%), they were equally managed by their PCP or by a Gynecologist. Factors significantly associated with reporting UI symptoms include: recent gynecology*

*appointment during the year prior or after the study, having a PCP, and fewer than three comorbidities. Having a Gynecologist is not sufficient to ensure reporting. Despite more than 1 in 3 having had a recent gynecology appointment, only slightly more than half of these women ever reported their UI symptoms. Conclusion: A better understanding of clinical and demographic factors associated with women's reporting of UI will aid in identifying opportunities to develop more effective screening mechanisms and address potential barriers.*

### **Presentation #32**

#### **Closing the Delivery Gap: Operationalizing the Care Delivery Value Chain for Pediatric HIV/AIDS in Togo, West Africa**

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*Background: Pediatric HIV/AIDS remains a global problem with the need for development of new healthcare delivery strategies to optimize care. The care delivery value chain (CDVC) is a framework that maps discrete activities required to care for a patient with a particular disease across the continuum of care. We present the application of the CDVC as a strategy to optimize care delivery and inform quality improvement (QI) efforts with the overall aim of improving care for Pediatric HIV patients in Togo, West Africa. Objectives: 1) Map current Pediatric HIV/AIDS services across the continuum of care. 2) Identify and evaluate gaps in the continuum of existing healthcare services. 3) Implement annual QI activities to address prioritized gaps. Methods: A series of interviews were conducted with key stakeholders (Ministry of Health, non-governmental organizations, community-based organizations) working with the largest provider of comprehensive Pediatric HIV/AIDS services in Northern Togo. These sessions informed the development of a CDVC for Pediatric HIV/AIDS, which identified 24 gaps in care delivery. 16 gaps were prioritized to develop a QI plan. Over the next 12 months, the team directed local, dynamic strategies to identify root causes, develop, test and iterate solutions to prioritized gaps. Results: Over the course of 12 months, 16 distinct QI activities in Pediatric HIV/AIDS care delivery were monitored, and 9 of those activities met or exceeded established targets. Conclusions: The CDVC provided an innovative tool for examining both existing care and gaps in delivery over the full cycle of HIV/AIDS care. First, it facilitated the first comprehensive mapping of Pediatric HIV/AIDS services. Second, it enabled the definition of gaps in available services. Third, it catalyzed the creation of a responsive QI plan. The CDVC provided a framework for meaningful, strategic action to improve Pediatric HIV care in Togo.*

### **Presentation #33**

#### **Avoiding Unnecessary Emergency Room Visits; Educating and Increasing Primary Care Utilization**

Patrick Maseo, MA; Tahsin Haque, MHA; Michael Sledzinski; Doug Reich, MD; Jose Tiburcio, MD

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*This two-step project first aimed to better understand what factors cause patients in the South Bronx to utilize the Emergency Department. This information was then utilized to develop an intervention strategy that would educate patients on the importance and value of primary care opposed to*

*improper use of the ED. Initial interviews were conducted, in the outpatient setting, with twelve recent ED discharges. This information was used to develop a survey that was distributed evenly to patients at two outpatient clinics in the South Bronx. Surveys, designed to assess patient's conceptualization of ED and primary care, included multiple choice, free text, and association questions. Results were analyzed, with statistical methods such as chi-square, for common themes in an attempt to articulate patient's understanding of the ED and Primary Care. N=59, which a statistical analysis revealed that there is a weak positive relationship between race and the decision to visit the ED when feeling sick ( $p=0.02$ ). When asked about the purpose of the ED, forty-six percent of respondents wrote 'emergencies.' Furthermore, thirty and twenty percent of respondents identified difficulty making appointments and long wait times at the clinics respectively, as major obstacles that cause them to visit the ED when feeling sick. Valued highly among all patients was the history and continuity of care a patient has with their Primary Care Provider. Patients visit the ED because of difficulty accessing care elsewhere. Additionally, many individuals do not fully understand when to seek emergency care. This information has been utilized to design an educational campaign to increase health literacy. Survey results inform the design of the campaign emphasizing points relatable to the patient. Educating a patient is more than providing information. Tools must provide knowledge that the patient thinks is pertinent and accessible, not the data a medical professional finds most important.*

#### **Presentation #34**

##### **Frequent Healthcare Users and Supportive Housing Analysis**

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*The Bronx Frequent Users Initiative (FUSE) aims to identify effective methods for improving quality and informing policy specifically around the impact of supportive housing on reducing preventable ED and IP events for high utilizing Medicaid patients with unstable housing. Our community agency, government, health plan and health care provider partners are joining this project to foster combining clinical claims and housing status data on high utilizing homeless individuals to all expert analysis of this data. Outcomes expected are policy implementation recommendations such as service packages and housing unit locations as well as individual patient benefits by informing health plans of patients who could benefit from supportive housing. The challenges of legally sharing this data across organizations have been substantial, and the creative approach taken for this Quality Improvement project has addressed those issues.*

#### **Presentation #35**

##### **Montefiore Memory Disorders Center at Blondell Avenue: A New Care Coordination Model**

Jessica Zwerling, MD, MS; Teresa Santos, LCSW; Erica Weiss, PhD

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*The Montefiore Memory Disorders Center at Blondell Avenue program provides assessment of patients with memory and gait disorders and offers education for their caregivers. As part of our program we facilitate and use networks in the Bronx to help patients and families adapt to cognitive*

*changes while expanding outreach to reduce service fragmentation. In our 2.5 year grant term, our bilingual and bicultural social worker has completed 1344 counseling sessions and 557 caregiver interviews for 1071 patients. In addition to patient and caregiver counseling, the social worker has helped identify and address literacy and language barriers to navigating the healthcare system in our largely multicultural population. This has included identifying moderate depressive symptomatology in 47% percent of our population for many of whom this had previously not been identified/addressed. Our expansion grant funded bilingual neuropsychology services which in one year evaluated 250 individuals. Sixty three percent of the individuals seen were female and almost half (46.6%) were primarily Spanish speaking. As a whole, our population's performance on the Blessed Information Memory Concentration Task (a measure of mental status) was within the range associated with mild cognitive impairment with 62% performing above the more liberal cut-off score of 8 or more errors, the range associated with some cognitive impairment. Twenty-two individuals were so impaired that they were evaluated with a severe impairment battery (9 in Spanish and 13 in English). Forty-five individuals were seen, as part of this grant, for longer more robust evaluations. By embracing the concept of a 'center without walls', we serve as a resource to primary care physicians and neurologists in the community, and maximize the care we can provide. We identify patients who demonstrate and are at risk for cognitive impairment and help them and their family navigate the healthcare system.*

## Maternal and Child Health

### Presentation #36

#### **Factors Impacting Mothers' Ability to Breastfeed Long-Term**

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*Context: Longer duration of breastfeeding is associated with positive health outcomes later in life, such as a decrease in risk of overweight and an increase in child cognitive development. The Well Baby Group (WBG), an 11-session group model offered as an alternative to traditional one-on-one well child care, provides education and support to women as they breastfeed. However, despite the extra emphasis in group, many women stop breastfeeding early; only 30% of those in group and 19.4% of those in one-on-one care breastfeed for 6 or more months. Setting: The Center for Child Health and Resiliency is a Federally Qualified Health Center that serves residents of one of the poorest congressional districts in the country. Study Aims: To evaluate self-reported physical and social factors that affect women's ability to breastfeed for at least 2 months. Methods: Breastfeeding surveys completed by WBG mothers between 12/2013 - 6/2016 were analyzed to assess breastfeeding initiation, breastfeeding duration, available breastfeeding support for mothers, reasons why mothers stopped breastfeeding, and the feeding preferences of mother's immediate network (father of the baby, mother, mother-in-law, and other). Results: Of the WBG participants who completed the survey (n=61), 50% had stopped breastfeeding by the time of the survey. Common reasons why mothers stopped breastfeeding include not producing enough milk (31.0%), latching issues (24.1%), mother's physical discomfort (17.2%), and mother's general dissatisfaction with breastfeeding (13.8%).*

*Mothers reported the hospital staff to be the most common source of breastfeeding support (64.9%). Notably, 12.3% said they had no breastfeeding help at all. Mothers also reported that 40% of their own mothers, a common influence on feeding practices, prefer formula feeding over exclusive breastfeeding. Conclusions: By further emphasizing the benefits of breastfeeding and providing encouragement to these women, WBG may help address these barriers and improve mother's ability and willingness to continue breastfeeding. Numerous women reported having no breastfeeding support or having a support network that preferred formula to breast milk. These findings suggest that education should specifically address common barriers that women face during breastfeeding and include the mother's immediate social network.*

### **Presentation #37**

#### **Patient and Provider Experiences with Early IUD Removal**

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*Context: The experience of women and providers with elective IUD removals, defined as any removals that were not medically indicated or recommended by a clinician, has not been studied. Objective: To describe the thoughts and experiences of both women and providers when a patient requests an IUD removal within 9 months of insertion. Design: Qualitative study using semi-structured interviews. Setting: Family Medicine primary care clinics in a diverse, low-income setting. Participants: 16 women ages 15-44 who had a visit to discuss IUD removal within 9 months of insertion. 12 primary care physicians who had patients who discussed IUD removal within 9 months of insertion. Results: Women report symptoms as the most common reason for IUD removal. Commonly, the women discussed their desire for the IUD to 'work' for them, often in the context of having difficulty with other contraceptives and their reproductive intentions. Some women report that their providers encouraged them to continue the IUD despite their symptoms and concerns, and some women reported providers' resistance or refusal to remove the IUDs. All of the providers reported having positive opinions about the IUD, commonly referring to them as the 'best' or 'favorite' method. The majority of providers discussed trying to 'sell' the IUD during contraceptive counseling, and most reported mixed or negative feelings about early IUD removal. Most of the providers reported encouraging their patients to continue the IUD. Many of the providers reported wanting to respect patients' decision making, but also reported feeling guilt or that they 'failed' when a patient wanted the IUD removed. Conclusions: While women presenting for IUD removal should be counseled about appropriate management of symptoms and about misinformation from outside sources, their choice to have the IUD removed should be respected. Provider training in contraceptive care should acknowledge that providers may have feelings about what they feel is the best method for their patients, but emphasize that the provider's role is to provide non-biased counseling of contraceptive options, including access to prompt IUD removal if requested.*

**Presentation #38****Evaluating the Association of Biological, Social and Nutritional Status on Adolescent Pregnancy Rates, Physiology and Birth Outcomes Using Electronic Health Records Data**

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*Background: Investigating adolescent nutrition, pregnancy and birth outcomes require rigorous 'Big Data Analysis.' This study examined the health burdens experienced by low income/minority pregnant adolescents and their offspring. Methods: We created a community-academic partnership that included New York City Community Health Centers (n=4) and Hospitals (n=4), The Rockefeller University, The Sackler Institute for Nutrition Science and Clinical Directors Network (CDN), which used the Community-Engaged Research Navigation model to establish a multisite de-identified database extracted from electronic health records (EHRs) of female adolescents aged 12-21 years (January 2011 - December 2012) and their offspring through 24 months of age. These patients received their primary care between 2011-2015. Clinical data were used to explore possible associations among specific measures. Results: The preliminary analysis included three cohorts: all female adolescents (n=32,030), pregnant adolescents (n=2,291), and pregnant adolescents' offspring (n=1,735). 41% of all adolescent females were overweight (21%) or obese (20%) and showed higher blood pressure, blood glucose, hemoglobin A1c, total cholesterol, and triglycerides levels compared to normal-weight adolescent females ( $p<0.05$ ). The pregnancy rate was 7.2%, and 66% of the mothers entered prenatal care in their 1st trimester, regardless of BMI status. The proportion of pregnant adolescents gaining more weight than the Institute of Medicine guidelines increased monotonically with increasing BMI status ( $p<0.0001$ ). The association between mothers' BMI and infants' birth weight was significant. The odds of having a LBW baby was 0.50 (95% CI: 0.29, 0.87) lower in obese compared to normal-weight mothers. Conclusion: This EHR database uses available measures from routine clinical care as a 'rapid assay' to explore potential associations. This partnership has engaged community clinicians, and investigators, as demonstrated by the collaborative development and testing of hypotheses relevant to service delivery. Next steps include identifying interventions targeting adolescent nutritional status and pregnancy outcomes.*

**Presentation #39****Comparing Two Models of Behavioral Health Programs in Pediatric Primary Care**

Jessica Hayes, MA; Miguelina German, PhD; Michael Rinke, MD; Silvie Colman, PhD; Andrew Racine, MD, PhD; Diane Bloomfield, MD; Rahil Briggs, PsyD

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*As the patient centered medical home model of care expands, it is important to examine different models of integrated behavioral health programs in pediatric primary care to understand their impact on referral rates and primary care provider (PCP) competency and satisfaction with mental health services. The current study examined two models of behavioral health at Montefiore Medical Group in the Bronx, NY between 09/2014 - 02/2015 using 13 primary care practices in a matched design. All practices used the Pediatric Symptom Checklist-17 to universally screen children and were*

staffed with a generalist social worker (GSW) who could provide concrete services and Problem Solving Therapy across the lifespan. Eight of the practices also received an integrated pediatric psychologist (IPP) with expertise in treating ADHD, anxiety, depression, and trauma. Referral rates were calculated using the electronic medical record while pediatric competency and satisfaction were assessed with an online survey. The PCP referral rate of children was 26.3% at the practices with an IPP compared to 9.8% at the practices with a generalist social worker ( $z = -14.21, p < .05$ ). PCPs in the IPP practices reported feeling more competent addressing the next steps to take after a child or adolescent patient tested positive on a behavioral health screen [ $F(1, 52) = 3.94, p < .05$  and  $F(1, 50) = 4.53, p < .05$  respectively] and managing ADHD among adolescents [ $F(1, 50) = 4.57, p < .05$ ] compared to PCPs in the GSW practices. No differences were found in PCPs' self-reported competency to address anxiety, depression, or trauma. PCPs in the IPP practices reported higher levels of satisfaction in the time, availability, and ease in finding behavioral health services for their patients, in receiving feedback from the behavioral health providers about their patients, in the quality of care received by their patients, and job satisfaction as it related to the mental health needs of their patients ( $p < .05$  for all). Results suggest that IPP models compared to GSW results in increased mental health referral rates and PCP competency and satisfaction with mental health services for children and adolescents.

#### **Presentation #40**

##### **Prematurity and Asthma Related Outcomes in Inner City Children**

Tanya Oken, MA; Jonathan Feldman, PhD

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#### **Presentation #41**

##### **Developing a Robust Electronic Data Extraction Algorithm to Measure Contraception Counseling and Provision in Primary Care**

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*Introduction: We sought to develop a robust EPIC algorithm to measure rates of contraception counseling and/or provision by clinicians at outpatient MMC primary care sites. We describe our process developing this data extraction algorithm and some preliminary results. Methods: 1) Constructed a hierarchical data collection schema using prescription data, ICD and CPT codes, and text search. 2) Iterative process to refine the schema using cycles of manual chart review with refinement of the data extraction tool after each cycle. 3) Analyzed descriptive data. Results: Multiple cycles of algorithm refinement and validation in particular with the text search and defining clear and comprehensive inclusion criteria, as well as clear communication between the clinical research and data teams, was critical for accurate data collection. We found that some things were overlooked or misclassified either because the research team was thinking too clinically, they did not understand the full data set, and/or the EPIC specialist did not have clear knowledge of the clinical research objectives. Rates of contraceptive counseling and provision by clinical site ranged from 19.3% to 86.7%. Family planning clinic had highest rates; not much variability on rate when comparing Family Medicine and general Ob/Gyn clinical sites. On preliminary analysis, of visits in which contraception counseling/provision was performed: 26.2% were captured by prescriptions, 11.0% by*

*ICD or CPT codes, and 62.8% by text search. Conclusions: Face-to-face meeting between the research team and EPIC data specialist is a critical step to develop the algorithm and identify root cause for discrepancies between the manual and electronic data pulls. Only with in-depth conversation of how exactly terms were to be defined, understanding of limitations of the data pull and an iterative process of comparing the results and refining the e-search did we develop a robust algorithm. We were most struck with the potential for misclassification with the text search. In our data, the inclusion of the text search identified many visits where contraception terms were documented in the note but not in the ICD, CPT or prescription variables.*

#### **Presentation #42**

### **Using the Social Cognitive Theory to Design a Family Planning Services Intervention in Primary Care**

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*Context: Our federally qualified health center (FQHC) network in New York City is in the planning stage of a project to improve provision of family planning services for our female patients ages 13-44 years. Our intervention seeks to standardize routine pregnancy intention screening and provide relevant counseling/services training for staff and systems change support. Objective: Create an intervention to enhance provision of family planning services in an FQHC network using the Social Cognitive Theory (SCT) framework. Design: The Social Cognitive Theory emphasizes influences at the personal-cognitive, environmental, and behavioral levels. At a personal level, we seek to improve the self-efficacy, knowledge, and collective efficacy of each site's staff to conduct pregnancy intention screening and provide related service through the following: gain site buy-in through formative assessments and later provide tailored EMR-based tools and relevant training in counseling/LARC provision. At the environmental level, observational learning will occur through training as well as having site champions who will serve as models. Our team will provide social support by enhancing site educational materials and supplies and regular technical assistance. At a behavioral level, these intervention components will enhance staff skills, and our team will conduct regular quality improvement and check-ins with staff to ensure intentions and reinforcement of the intervention. We will collect the following measures: rates of pregnancy intention screening, contraceptive and preconception counseling, contraception by type, and folic acid prescriptions. Next Steps: This intervention will be implemented at our 7 New York City FQHC sites over the next year. We will be developing the EMR-based tools, trainings, and monitoring/evaluation plans. We plan to conduct formal research for further dissemination of our methods and results.*

#### **Presentation #43**

### **Patient Preferences for Contraceptive Counseling After Abortion**

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*Introduction: While prior studies have investigated subsequent unintended pregnancies or contraceptive method choice after abortion, very few have focused on women's preferences around when, if, and how contraceptive counseling takes place. Those that did found mixed results, and*



*qualitative research on this topic is minimal. We aimed to learn more about what was important to patients in contraceptive counseling after an abortion. Methods: We conducted semi-structured interviews with 15 women who had received early abortion care at an urban federally-qualified health center within the past month, asking about experiences of and reflections on contraceptive counseling in the context of abortion. Transcripts were analyzed using NVivo and a modified grounded theory method. Results: Women expressed openness to discussing contraception with their providers, but stressed that it was also crucial that providers follow individual patients' lead. While some women said they were highly motivated to avoid future pregnancies and had initiated conversations about contraception before the abortion itself, other women preferred to postpone conversations about future contraceptive care until a follow-up visit. Respondents tended to have clear preferences around method type and varied in how much information they wanted from the provider. On the whole, women did not have objections to providers initiating conversations about contraception, as long as they felt able to decline to have that conversation. Those who preferred to postpone or decline conversations about contraception expressed that they appreciated providers not pressuring them into choosing a contraceptive before they were ready. Conclusions: Women have a range of preferences for contraceptive counseling after abortion; clinicians should tailor their approach to meet each woman's needs. This non-judgmental patient-centered approach is important both for abortion providers and those seeing patients after an abortion in a different setting.*

## Mental Health

### Presentation #44

#### **A Cross Sectional Prospective Comparison of Collaborative Care and Co-Location Treatment for Depressed, Low Income, Diverse Patients in Primary Care**

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*Rationale: Substantial research demonstrates effectiveness of integrating care using co-location and collaborative care models. Although health care reform moves to improve model sustainability, evidence is limited on which model results in superior outcomes. Montefiore Medical Center, serving a low-income, ethnically diverse population, offers 'usual' co-located behavioral health care across 19 primary care sites. Seven of these sites were chosen to integrate collaborative care (CCM) through the Behavioral Health Integration Program (BHIP). BHIP aimed to enhance case supervision and 'between visit' care, facilitated by a care manager and measurement-informed patient registry.*

*Methods: Outcomes on depression symptoms, measured by the Patient Health Questionnaire (PHQ-9), were compared for Montefiore co-located and collaborative primary care sites. Eligible patients across sites had access to short-term, evidence-based behavioral health services and/or medication management. Ten to 16 weeks (mean = 12) following enrollment, the PHQ-9 was re-administered telephonically by trained and blinded assessors. Results: 240 participants were enrolled (N = 122 co-location sites; N = 118 CCM sites). Significant within group reductions in depressive symptoms were observed in co-location sites (difference, 2.23,  $p < 0.0003$ ) and CCM practices (difference, 5.04,  $p <$*

.0001). Between group differences indicated patients in CCM demonstrated significantly greater reduction in depressive symptoms compared to co-location sites (difference, -2.81;  $p = .0005$ ).  
*Conclusion: The CCM appears to result in a greater reduction in depressive symptoms compared to co-location. CCM may offer a faster reduction in depressive symptoms even when compared to co-location. Replication will be necessary in larger samples to support these findings.*

#### **Presentation #45**

### **Collaborative Care to Reduce Depression and Increase Cancer Screening Among Low-Income Urban Women Project - Prevention Care Manager 3 (PCM 3) Project: Challenges and Innovations at NYC Health and Hospitals**

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*Introduction and Background: Cancer is the leading cause of premature death in the Bronx, with lung, breast, and colorectal cancers accounting for the highest mortality among women. The goal of this Randomized Controlled Trial (RCT) is to determine whether a collaborative care intervention that addresses depression and cancer screening needs simultaneously among women ages 50-64 is more effective at improving cancer screening and patient-reported outcomes for women with depression than an existing evidence-based cancer screening intervention alone. Participating sites will recruit 800 women ages 50-64 who screen positive for depression and who have not completed recommended cervical, breast, and/or colorectal cancer screenings. Methods: Recruitment Coordinators use a combination of strategies to identify and recruit prospective participants, including previous day medical record review, outreach across different departments, and efficient use of the EMR system. A multi-disciplinary project team was formed and the team meets weekly to review process data, trouble shoot and determine best practices. Results: Recruitment for the project at these sites began on February 24, 2015. Over a 13-month period, Recruitment Coordinators screened a total of 1,079 patients. Across all sites, we have reached a total enrollment of 752 participants. The Recruitment Coordinators have gradually improved performance by becoming more effective and efficient. They have fortified relationships with the medical staff and have become more familiar with the flow of patient operations. The multi-disciplinary team meetings have also enabled the team to review progress each week and address implementation barriers. Conclusion: This study increases our understanding of strategies to utilize when recruiting patients from resource constrained urban primary care practices.*

#### **Presentation #46**

### **The Developmental Disabilities Health Home**

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*The Developmental Disabilities Health Home is a model for delivering primary care and specialty medical care (mental health and neurological management) for persons with intellectual and developmental disabilities. Over the past three years, The Rose F. Kennedy Children's Evaluation and Rehabilitation Center (RFK CERC), in collaboration with Developmental Disabilities Health Alliance,*

*has operated a demonstration project serving children and adults in the Bronx. Staffing includes a primary care physician, nurse practitioner, behavioral specialist offering in-home behavioral support, and case manager. Program funding was secured through a combination of grants, fee for service income and waiver funds. The program reduced emergency room and hospital use for this high-risk population by approximately 85%. The clinical and business model for this program will be described with a focus on self-sufficiency and alignment with the Medicaid transformation goal of value-based contracting.*

#### **Presentation #47**

##### **Adverse Childhood Experiences, Poverty and Parenting Stress**

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*This study is the first to consider the impact of Adverse Childhood Experiences (ACEs), combined with socioeconomic status, on parenting stress. The Adverse Childhood Experiences Clinical Parent and Child Questionnaires were developed to evaluate the presence or absence of 10 categories of abuse, neglect, and household dysfunction. High levels of ACEs are associated with pronounced difficulties in making sense of early childhood experiences that have implications for parenting. Parenting stress is linked to higher likelihood of child maltreatment, as well as more punitive, less responsive and less stimulating parent-child interactions, and predicts internalizing and externalizing behaviors throughout childhood. We collected data from 118 mothers of children ages birth to three. We administered the Clinical Parent-ACE Questionnaire, Parenting Stress Index-Short Form and collected demographic information. Findings show that high levels of exposure to ACEs are significantly associated with clinical levels of parental stress in both low and middle/high SES samples. While low SES status greatly contributes to parenting stress, prior exposure to ACEs may additively contribute. High ACE exposure impacted parenting stress even for the middle/high SES non-clinical group. Poverty and adversity during childhood were highly comorbid, but cannot assume an isomorphic link as the current research does not include a low SES non-clinical comparison group. Understanding how early adversity is related to parenting stress may help with the early identification of families at risk for parent-child difficulties.*

#### **Presentation #48**

##### **Promoting Positive Parenting via Video-Feedback in Primary Care: A Preventative Approach for Buffering the Impact of Toxic Stress**

Chanchal Sharma, PsyD, MA; Emily Chinitz, PsyD; Barbara Hackley, PhD; Mia Stange, BA; Talya Laub, BS; Rachel K. MacKenzie, MSc, MPH; Alan Shapiro, MD, FAAP

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*Background: The South Bronx Health Center and Center for Child Health and Resiliency (SBHC/CCHR) serve a community with among the highest poverty rates in the nation. Chronic poverty exposes families to daily stressors that jeopardize stable, responsive caregiving, thus impeding the child's emotional and physical development. Recent studies highlight that responsive, nurturing care can mitigate this damage. As a result, many treatments have been developed to improve the attachment*

*security of mother-child dyads. An increasing number of attachment-based therapeutic modalities use video-feedback of parent-child interactions to enhance the treatment of infants and young children. Our program differs in that it is a clinical intervention conducted at the child's trusted pediatric center versus in their home or a mental health clinic. Thus, our study will address a major gap in the literature by testing the effectiveness of a short-term video-feedback program based in a child's medical home for improving maternal and infant outcomes. Objective: The purpose of this ongoing evaluation is to determine effectiveness of a six session relationship-based, dyadic video-feedback intervention integrated within a primary care center in enhancing maternal wellness and parent-child interactions. Design: Comparison of pre- and post-intervention scores on measures of mother-infant interactions adapted from the Global Rating Scale (GRS), and self-reported measures of maternal depression (Patient Health Questionnaire), anxiety, (Generalized Anxiety Scale) and parenting stress (Parenting Stress Index-Short Form). Participants: Mothers (n=31) of infants, ages 0-36 months at enrollment, and 33 mother-infant dyadic pairs. Results: Mothers' scores on the observed measure, after completion of the dyadic video-feedback intervention were significantly improved by an average of 10.5 points (95% CI 6.42, 14.58) compared to baseline scores, as measured by the total GRS score. Conclusions: Our results suggest that the intervention shows promise in improving parental responsiveness in parent-child interactions and a feasible treatment option for low-income families.*

#### **Presentation #49**

#### **A Prospective Investigation of the Risks of Opioid Misuse, Abuse, and Addiction Among Patients Treated with Extended-release/Long Acting (ER/LA) Opioids for the Treatment of Chronic Pain**

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*In response to the marked increase in prescription opioid addiction and overdose over the past decade, the FDA mandated the companies that are New Drug Application holders of extended-release/long-acting (ER/LA) opioids to assess the risks associated with long-term use of opioid analgesics. The primary objective of this study is to quantify the serious risks of misuse, abuse, and addiction associated with long-term use of ER/LA opioids for management of chronic pain. The study includes two components: (1) A prospective longitudinal study of patients who have recently initiated ER/LA opioid therapy and (2) A cross-sectional study of patients who have been treated with opioids (including ER/LA) for >1 year. The hybrid design will enable quantitative assessment of misuse/abuse/addiction incidence associated with long-term ER/LA opioid use in the longitudinal study, and the prevalence of these outcomes associated with prescription opioids use for >1 year in the cross-sectional study. Both longitudinal and cross-sectional studies will include a baseline assessment, including an in-person interview and self-administered, web-based questionnaires, and genetic testing. The longitudinal study will also include follow-up assessments at 3, 6, 9, and 12 months. Patients will be identified and selected outcomes will be assessed using the Electronic Health Records (EHRs). Patients will be recruited from six Health Care System Research Network sites, one U.S. Department of Veterans Affairs site, and two Clinical Directors Network Primary Care Practice-Based Research Network sites, including Montefiore Medical Center and University of Florida-Gainesville. A*

*total of 2,300 participants will be enrolled in the longitudinal study, and 1150 participants in the cross-sectional study. The conclusion of this unique industry-academic collaborative study and the final report to FDA are expected at the end of 2019, and may provide EHR-based assessment strategies to identify patients at increased risk of misuse, abuse, and addiction associated with long-term use of ER/LA opioids.*

## Resident Education

### Presentation #50

#### **Addressing Reproductive Coercion in Family Medicine Residency Programs**

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*Context: Reproductive coercion (RC) can be defined as explicit attempts to impregnate a partner against her will, control outcomes of a pregnancy, coerce a partner to have unprotected sex, and interfere with contraceptive methods. Previous studies have shown the prevalence of RC to be 9% nationally, 15-19% at family planning clinics and 24% at an urban family medicine clinic. Despite evidence defining RC as a public health concern, there is limited data about how primary care providers are addressing this issue. Objectives: This study assessed the extent of teaching about RC in US family medicine residency programs and evaluated knowledge, attitudes, and practices about reproductive coercion among family medicine residents. Design: Cross sectional survey. Setting: Family medicine residents affiliated with RHEDI (Reproductive Health Education In Family Medicine) and getLARC programs, which receive additional support and funding for training about family planning. Patients or Other Participants: Survey was sent to 832 residents at 27 residency programs. Results: 498 residents completed the 26-item online survey (59.9%). Less than half of respondents (48%) had ever heard of reproductive coercion. Almost all residents (97%) agreed that it is their job to ask about RC, but most (85%) had not received any training about RC. Barriers to addressing reproductive coercion included a lack of knowledge (65%), lack of resources/referrals for patients dealing with RC (50%), and a lack of time (40%). Residents had limited experiences addressing RC with patients-about 1/3 (38%) of respondents had brought up the topic with a patient. Almost all respondents (98%) agreed that residents at their program would benefit from further training about RC. Conclusions: These results indicate that family medicine residents do not have didactic or clinic experience with reproductive coercion. However, they are interested in further training. Training to increase knowledge and comfort with talking to patients about reproductive coercion could enhance discussions about contraception and pregnancy options.*

### Presentation #51

#### **Pediatric Resident Attitudes and Practice Regarding Advocacy**

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*Background: The American Accreditation Council for Graduate Medical Education recently mandated that all pediatric residency programs include elements of child advocacy. However, training*

*pediatricians to recognize and address social factors that impact the health of their patients while advocating for them is currently lacking in medical education. Objective: To examine pediatric residents' comfort, attitudes, and practice regarding advocacy. Design/Methods: All pediatric residents (N=79) at the Children's Hospital at Montefiore (CHAM) were invited to complete a 15 item survey. The survey assessed: 1) experience and comfort with advocacy, 2) barriers to advocacy and 3) attitude towards advocacy. Krusal Wallis equality of proportions was used to examine the bivariate associations of the resident characteristics (training level) with attitudes and practice. Results: 69 (87%) residents participated in the survey; 28 interns and 41 senior residents (PGY2 and PGY3). 84% of residents self-reported as beginner/advanced beginner advocacy skills. 50% reported minimal comfort level with advocacy on an individual level, 45% on a community level, and 83% on a state/federal level. 86% reported positive feeling about pediatric advocacy. Using the Krusal Wallis equality of proportions comparing training level and feelings about pediatric advocacy, senior residents had a higher rank sum score (1220 vs 1195,  $p=0.005$ ) for feelings towards advocacy. Conclusions: The survey shows a lack of experience and comfort level with advocacy. Residents had very positive feelings towards advocacy, and expressed a need to learn local resources and how to advocate for their patients. This study demonstrates the need for an advocacy curriculum at CHAM, and we implemented a novel advocacy curriculum consisting of a series of workshops for pediatric residents.*

## Screening and Prevention

### Presentation #52

#### **Stomping Out HIV and Hep-C through Utilization of EMR Opt-Out Screening**

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*A major barrier to diagnosis and treatment for patients living with HIV and/or Hep-C unaware of their diagnosis is low screening, diagnosing and linkage to care rates once diagnosed. This project was designed to examine how implementing EMR modifications can increase HIV and Hep-C screening and linkage to care. Project team worked with the IT department to develop an EMR algorithm that screens patients eligible for routine testing for HIV and Hepatitis C based on their age and testing history (according to CDC guidelines) in ED and outpatient clinics. For eligible patients, the EMR auto-populates HIV and HCV tests. The physician is informed through a system alert and then notifies the patient of the HIV and/or HCV screening, providing them the opportunity to opt-out. If the patient declines, the physician deselects the test from an action list in the EMR, de-populating the labs from the order. For those who do not decline and test positive, the lab sends a notification to both the physician and a case manager. Outreach is then completed by calling or attempting to visit the patient to schedule an appointment, provide the result and connect them to a specialist. While this is an ongoing study, we will look at the number of screenings performed compared to our baseline numbers, number of newly diagnosed patients versus previously diagnosed, and patients successfully linked to care (including measuring length of time between diagnosis and first appointment and number of attempts/most effective methods to outreach to patients). There is a huge disparity*

*between the number of patients eligible for HIV and hepatitis C screening and the number of tests conducted. We believe an algorithm for screening and an outreach team will increase HIV and hepatitis C screening and diagnosis as well as linking patients to care.*

### **Presentation #53**

#### **Documentation of Social Determinants of Health via a Social History Tool in the Electronic Health Record**

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*Background: Children are especially vulnerable to the deleterious effects of unmet social needs. Effective screening of social determinants of health (SDH) by primary care providers is essential in detecting and meeting these needs. There are limited studies evaluating the utility of social history templates in the electronic health record to screen for and address SDH. Objective: To evaluate the rates of SDH assessment using an EHR 'smartphrase' social history template. Methods: Providers were trained on the use of 'IHELLP,' a 'smartphrase' tool that expands into a social history template when typed into the EHR. IHELLP stands for Income, Housing, Education, Legal, Language, and Personal Safety and has been shown to be an effective social history-taking tool. A retrospective chart review was done for well child visit electronic health records visits over a 2 month period after introduction of the 'smartphrase' tool. Each chart was reviewed using a yes/no checklist to assess (1) SDH documentation in the social history section and (2) referral to SDH-relevant resources. Charts employing free text to document a social history were compared to charts utilizing the EHR 'smartphrase' social history template tool. Data was analyzed using chi-square test. Results: A total of 288 charts were reviewed; 85 charts used free text and 203 charts used the 'smartphrase' tool. There were no significant differences in age (47.7 vs. 52.3 months) and gender (51% vs. 44% female) between the two groups. There was a significantly higher rate of documentation in all SDH categories among the 'smartphrase' group as compared to the free text group. Conclusions: The use of an EHR 'smartphrase' as a social history tool resulted in significantly higher rates of provider documentation in all SDH categories. Increased resource referral by providers using the 'smartphrase' trended towards significance. Future work should focus on further training providers around the use of a 'smartphrase' template and on adjustment of the tool to facilitate detection of social needs resulting in distribution of EHR-friendly and readily accessible resources.*

## Index of Presentations (by order of first author)

Last Name, First Name / Organization .....	Presentation Number
Anderson, Belinda/ Pacific College of Oriental Medicine; Albert Einstein College of Medicine .....	1
Arevalo, Sandra/ Montefiore Medical Center .....	36
Beckles, Janine/ Jamaica Hospital Medical Center .....	2
Bennett, Ariana/ Albert Einstein College of Medicine.....	37
Bennett, Ariana/ Albert Einstein College of Medicine.....	50
Bonuck, Karen/ Einstein .....	22
Carleton, Kelly/ Montefiore Medical Center.....	44
Cheng, Amanda/ Clinical Directors Network (CDN) .....	23
Cheng, Amanda/ Clinical Directors Network (CDN) .....	38
Chodon, Tashi/ Bronx Community Health Network, Inc. (BCHN) .....	12
Chuang, Elizabeth/ Albert Einstein College of Medicine .....	3
Czapka, Michael/ Albert Einstein College of Medicine.....	4
D'Orazio, Brianna/ Clinical Directors Network.....	13
Daguilh, M-L. Fabienne/ Montefiore .....	14
Douglas, Reich/ Bronx-Lebanon Hospital Center .....	52
Escobar, Pamela/ Albert Einstein College of Medicine/Montefiore Medical Center .....	31
Espejo, Maria/ Lincoln Hospital Ambulatory Care Practice .....	45
Fiori, Kevin/ Montefiore Medical Center .....	32
Hayes, Jessica/ Montefiore Medical Center.....	39
Herzog, Zeva/ Albert Einstein College of Medicine .....	5
Holder, Tameir/ Clinical Directors Network, Inc. (CDN).....	24
Jacobs, Charleen/ Montefiore Medical Center .....	6
Joseph, Nicole/ Montefiore Health System.....	15
Karasz, Alison/ .....	25
Kastner, Theodore/ Albert Einstein College of Medicine.....	46
Kaur, Karenjot/ Yeshiva University-Ferkauf Graduate School.....	26



<b>Kazimiroff, Julie/ Montefiore Medical Center</b> .....	16
<b>Korin, Daniel/ The Bronx Community Research Review Board</b> .....	17
<b>Lax, Yonit/ The Children's Hospital at Montefiore</b> .....	51
<b>Levin, Andrew/ Montefiore Medical Center</b> .....	18
<b>Lounsbury, David/ Albert Einstein College of Medicine</b> .....	27
<b>Lucan, Sean/ Albert Einstein College of Medicine Montefiore Medical Center, Bronx, NY</b> .....	19
<b>Lurio, Joseph/ The Institute for Family Health</b> .....	7
<b>Malik, Rubina/ Montefiore Medical Center</b> .....	8
<b>Masseo, Patrick/ Bronx-Lebanon Hospital Center</b> .....	33
<b>Mckee, Melissa Diane/ Albert Einstein College of Medicine</b> .....	9
<b>Miller, Kathy/ Bronx RHIO</b> .....	34
<b>Murphy, Anne/ Rose F. Kennedy Children's Evaluation and Rehabilitation Center, Montefiore</b> .....	47
<b>O'Connell, Geraldine/ Montefiore Health System</b> .....	20
<b>Oken, Tanya/ Ferkauf Graduate School of Psychology</b> .....	40
<b>Patel, Milani/ Montefiore Medical Center</b> .....	53
<b>Rieder, Jessica/ Children's Hospital at Montefiore</b> .....	28
<b>Rubin, Susan/</b> .....	41
<b>Shah, Seema/ The Institute for Family Health</b> .....	42
<b>Shamasunder, Sindhu/ Clinical Directors Network, Inc.</b> .....	29
<b>Shapiro, Jessica/ Montefiore Health System</b> .....	30
<b>Sharma, Chanchal/ Montefiore Medical Center - South Bronx Health Center (SBHC) &amp; Center for Child Health and Resiliency (CCHR)</b> .....	48
<b>Stange, Mia/ Montefiore Medical Center</b> .....	21
<b>Summit, Aleza/ Montefiore Medical Center</b> .....	43
<b>Vattappally, Leena/ Montefiore Medical Center</b> .....	10
<b>Vijayakumar, Nandini/ Jamaica Hospital Medical Center</b> .....	11
<b>Zeremski, Marija/ Clinical Directors Network</b> .....	49
<b>Zwerling, Jessica/ Montefiore Medical Center</b> .....	35