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Poster Presentations

Sunday, August 26, 2018, 4:30pm – 6:30pm • Monday, August 27, 2018, 12:30pm – 1:30pm

Regency Rotunda

The Community Health Institute (CHI) & EXPO is the ideal place to learn about current health center research activities and innovations. The 2018 Poster Presentations provide a unique opportunity to exchange ideas, problem-solve, and network with colleagues. Discover the results of innovative research initiatives and enjoy the opportunity to ask in-depth questions.

To provide ample time for poster review, the 2018 Poster Presentations are scheduled for both Sunday and Monday during the CHI. Presenter attendance is required for Sunday, and strongly encouraged for Monday’s presentations.

2018 NACHC Poster Presentation Awards

There are 74 posters, including 15 A.T. Still University-School of Osteopathic Medicine posters, to be presented during the 2018 poster session. This year, *Best in Show* posters will be chosen by YOU! Vote for your favorite *Research* and *Innovation* posters on the mobile app, by clicking on *Vote for the Best Posters*. When judging poster presentations, please consider the following criteria: *innovation of information, presentation of poster, relevance of topic, impact of findings, replicability of innovation, and value of information to other health centers.*

All poster voting MUST be completed by 3:00pm on Monday, August 27.

When voting, refer to the conference program for instructions on downloading the app.

All 2018 Poster Presentation winners will be announced during Tuesday’s General Session.

Prizes will be awarded to the TOP three winners in each category of *Research* and *Innovation*:

- **First Place:** $250 AND a Complimentary Registration to the 2019 CHI & EXPO in Chicago!
- **Second Place:** $150
- **Third Place:** $100

A.T. Still University-School of Osteopathic Medicine

This is the eighth graduating class of A.T. Still University-School of Osteopathic Medicine in Arizona (ATSU-SOMA), with a very high percentage of these graduates continuing their professional journey into primary care. NACHC and ATSU continue their partnership in the development of America’s primary care physicians through the university’s innovative model of medical education, linking osteopathic training to the nation’s community health centers. See these student and faculty posters, and become inspired by their commitment to community health and their vision of primary care delivery for the future.

*The National Center for Community Health Research (NCCHR), framed within the Quadruple Aim, was developed out of the NACHC and A.T. Still University partnership and is a center within the A.T. Still Research Institute.*
Poster Categories

The poster presentations are categorized according to the following community health topics:

**Public Health Crises**
- **CP1** Help End Addiction for Life
- **CP2** Development of an Integrated MAT Training Site Embedded Within a Teaching Health Center
- **CP3** Bridging the Gap: Community Health Center Response to Climbing Opioid Overdose Fatalities
- **CP4** Trends in Chronic Opioid and Medication-Assisted Treatment Prescribing in U.S. Community Health Centers, 2006-2014
- **CP5** Establishing an Operational Surveillance to Support Community Health Centers After Hurricane Maria Hit Puerto Rico
- **CP6** Building a Comprehensive Care Model to Protect Pregnant Women and Children from the Zika Epidemic in Puerto Rico Community Health Centers
- **CP7** Involving Community Health Centers to Expand an Outreach Model to Promote the Prevention of Zika Virus in Communities
- **CP8** Development of a Multilevel Strategic Response Across Community Health Centers Network to Address an Emerging Viral Disease

**Social Determinants of Health**
- **CP9** Paying for Enabling Services: A Qualitative Study on AAPCHO Health Center Enabling Services
- **CP10** Impact of Enabling Services Utilization on Health Outcomes Based on the 2016 Uniform Data System
- **CP11** Effect of Care Management Intervention on Hemoglobin A1Cs of High-Risk and Normal-Risk Diabetics in a CHC Setting
- **CP12** Food as Medicine: Addressing Chronic Disease, Obesity, and Food Insecurity with a Comprehensive Nutrition Program
- **CP13** Effect of Addressing Social Needs on Health Outcomes
- **CP14** Collecting Social Determinants of Health Data in the Clinical Setting: Findings from the PRAPARE Pilot
- **CP15** Measuring Social Risk on Patients with Diabetes: Findings from the PRAPARE Pilot
- **CP16** Addressing Social Determinants of Health Through Interjecting Community Health Workers into Health Center PCMH Care Teams
- **CP17** A Strategy to Reduce Health Inequities: The Salud Medical Legal Partnership Experience
- **CP18** How FQHCs Can Leverage the Healthy Places for Healthy People Technical Assistance Program

**A.T. Still University-School of Osteopathic Medicine in Arizona (ATSU-SOMA)**
- **CP19** Efficacy of a Health Care Career Workshop with Underrepresented Minority College Students
- **CP20** Examination of the Teach-Back Method in Nutrition Education with Eighth Grade Middle School Students
- **CP21** Nutritional Barriers Experienced by People with Type II DM of the Seattle/King County Area
- **CP22** Park Rx: Increasing Provider Prescription of Outdoor Physical Activity to Promote Long-Term Health and Well-Being
- **CP23** Meeting Older Adults Where They Live: An Innovative Approach to Improve Oral Health
- **CP24** Improving Knowledge of Hepatitis C Virus in Community Members Who Have Regular Contact with Populations at High Risk for Infection
- **CP25** Opioid Excess: Educating Portland Citizens on the Importance of Proper Disposal of Excess Opioid Prescriptions
- **CP26** Expanding Dental Workforce Training Within Collaborative, Team-Based Care Targeting FQHC/Underserved Populations
- **CP27** Using Digital Imaging in the Care of Pediatric Dental Patients
- **CP28** Applying Osteopathic Manipulation Techniques to Decrease Stress and Anxiety in Patients with Hypertension
- **CP29** ATSU-SOMA Mentors in Medicine Program: Improving Health Education in Woodlake Unified School District and Surrounding Community
- **CP30** A Decisional Treatment Tool: Key to Positive Experience for Oral Care of Autistic Patients
- **CP31** Bridging the Patient-Provider Gap: Using Multimedia to Enhance the Quality of Advanced Care Planning Discussions
- **CP32** Kulia i ka Nu’u (Strive for the Highest) Health Education Project
- **CP33** Determining the Effect of Musical Therapy and Basic Hygiene Education on Improving Mental Health and Well-Being of Bhutanese Refugees

**Improving Care for Special Populations**
- **CP34** Reducing Liver Cancer Burden in the Refugee and Immigrant Population
- **CP35** Understanding the Capacity to Define and Document Homeless Status in the Electronic Health Record
- **CP36** Factors Contributing to Low Birthweight in Black and Latinx Communities
- **CP37** Barriers and Keys to Health Care Navigation for Latinos in a Nontraditional Migration Area
Workforce
CP38 Implementation of Culture of Care Activities in a Student Practice-Based Experience
CP39 Training the Next Generation: Workforce Development in FQHCs

Patient and Community Engagement
CP40 Georgia Family Planning System and MEE Productions Statewide Marketing Focus Group Research
CP41 Defining a Stakeholder-Driven Research Agenda in a Practice-Based Research Network of Federally Qualified Health Centers
CP42 Colorado Ends Cancer: A Pilot Project Testing the Viability of mHealth Education in Rural Communities in Need of Cancer Screening - WITHDRAWN
CP43 iPrevent: An Interactive Program Rooted in Empowering, Educating, and Equipping New Orleans Youth

Quality of Care and Quality Improvement
CP44 Defining What Works: Development of a Best Practices Guide for Cardiovascular Disease Prevention Programs
CP45 Heart Smart for Life! Improving the Mind, Heart, Body, and Soul of Our Community!
CP46 How Incentives Can Improve Clinical UDS Performance
CP47 The Addition of Health Education to Care Management for Patients with Diabetes and Morbid Obesity
CP48 Jessie Trice Cancer Prevention Program: Evaluating a Community-Based Initiative to Educate and Screen Underserved Women for Breast and Cervical Cancer
CP49 Barriers to Colon Cancer Screening and Follow-Up in Rural Community Health Settings
CP50 How FoundCare Changed Its Clinical Culture
CP51 Understanding Diabetes Management Among Hispanics and Their Providers at Kaiser Permanente Northwest: Qualitative Findings
CP52 Applying the Patient Demographic Data Quality Framework to Reduce Duplicate Patient Records: Findings from a Pilot Study
CP53 Improving the Quality of Contraceptive Care in Primary Care Settings
CP54 Evaluating the Efficacy of the “Improving Mood-Promoting Access to Collaborative Treatment” Program Among Underserved Community Health Center Patients with Depression
CP55 An Innovative Program to Increase Colorectal Cancer Screening Rates in Ohio
CP56 Increasing the Engagement of Non-Physician Team Members in Chronic Disease Management

Technological Solutions and Tools to Improve Care and Population Health Management
CP57 Improvements to Electronic Medical Record Result in Increased Hepatitis C Screening and Treatment at Two Safety-Net Outpatient Primary Care Clinics
CP58 INTENTIONALLY OMMITTED
CP59 Linking Hospital and Community Health Systems to Increase Colorectal Cancer Screening
CP60 Benchmarking and Preventing Medication Errors in FQHC Pharmacies: From Paper to “There’s an App for That”
CP61 Translating Research to Operations: Rapid Development of an EHR-Based Tool for Health Insurance Outreach and Enrollment After a Research Project
CP62 Telemedicine-Cloud: Continuing Medical Education of the Primary Care Physicians in the Community Health Care Centers in America
CP63 Endo ECHO Improves Access to Care for Patients with Complex Diabetes in Medically Underserved Communities
CP64 Project ECHO: Using Virtual Telementoring Programs to Demonopolize Knowledge and Expand Access to Care in Federally Qualified Health Centers
CP65 An Innovations Pilot: Leveraging a Centralized Clinical Decision Support Repository to Implement Evidence in Practice

Expanding Access to Care and Other Services; Improving Care for Special Populations
CP66 Providing PrEP to a High-Risk Population: A Partnership Between a Community Health Center and a County Health Department
CP67 Predicting the Impact of Transforming the Medicaid Program on Health Centers’ Revenues and Capacity to Serve Medically Underserved Communities
CP68 Impact of Pharmacist-Driven Spirometry Screening to Target High-Risk Patients in a Primary Care Setting
CP69 A School-Based Clinic Taking Sports Physicals on the Road
CP70 INTENTIONALLY OMITTED
CP71 Increasing Patient Access Through the Virtual Dental Home Model in a Federally Qualified Community Health Center
CP72 Pediatric Dental and Primary Care Integration: A Novel Solution to Address Care Gaps
CP73 Expanding Access to Vasectomy in a Community Health Center Setting
CP74 Bringing Physical Therapy to the Public Health Arena
CP75 Clinical Pharmacy Services in Federally Qualified Health Centers
CP76 Integrating Community Health Workers into Interdisciplinary Health Care Teams in a Federally Qualified Health Center: Outcomes and Patient and Provider Perspectives
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For more information and to see highlights of #NHCW2018, visit www.healthcenterweek.org.
Public Health Crises

**CP1**

**Help End Addiction for Life**

**Poster Type:** Innovation  
**Category:** Behavioral Health Services; Expanding Access to Care and Other Services; Improving Care for Special Populations; Patient and Community Engagement; Public Health Crises; Social Determinants of Health; Workforce

**Issue or Challenge:** Our rural area has been very limited with resources to provide assistance to individuals with substance use disorder. The treatment options that were available had a long waiting time in order to begin treatment. In order to fill the needs of these individuals, different organizations are combining and coordinating resources so we can provide more efficient treatment. Prevention, education, treatment, and recovery are being addressed. By working together, we are able to include our individual specialties in a more symbiotic form. This group was formed to assist patients to have sustained recovery.

**Description of Innovation:** HEAL (Help End Addiction for Life) is a consortium of multiple partners driven by a single goal – to eliminate the substance use disorder epidemic in our communities. We are infusing resources for addition into the community and striving to make lasting and effective change in prevention, education, treatment, and recovery by working together to make this change and save lives. HEAL wants to reduce the scope of substance abuse and related consequences through education, awareness, prevention, and access to services. By working as a team with other entities, the patient is able to receive a broader scope of services. If a patient presents to the ER with a drug overdose, they are able to receive treatment for their overdose and detox as an inpatient. Our behavioral health staff is able to see the patient in the hospital and arrange for appropriate follow-up and counseling whether it is provided as outpatient or residential treatment. We are able to assist patients with obtaining insurance and provide treatment for medical, vision, and dental needs including preventive health care, as well as their substance or alcohol abuse. Due to relationships developed, we are able to get the patients into treatment sooner, with less delay.

**Impact or Result:** The consortium is able to deliver a less fragmented health care and recovery timeline. Individuals in a crisis are able to be connected with a health care provider and behavioral health services within hours instead of days or weeks. By pooling our resources and working together, we are able to assist the patients to get health insurance, thus relieving the financial burden for the patient. We can provide care for their acute and chronic needs as well as preventive health care, assist with getting treatment for their addictions, and provide counseling and support to sustain their recovery. The different entities working together have a plan to be able to provide treatment options with less delay than in the past.

**Replicating this Innovation:** This project has been about identifying and filling a need in our population. We contacted the different groups that offer support and invited everyone to come together and work as a team in order to decrease silos. The group has worked to erase barriers and competition and do what we do best: help people. Instead of the clinic trying to do what the hospital and the residential treatment centers are doing and vice versa, we work together and all of us help the patient in the areas where we excel. The patient will reap the benefit from this arrangement.

**Author(s):**  
Mahala Mullins, Director, Health Information and Quality Services¹; Tammy Collett, RN, QI Coordinator, Director, Quality Services¹  
¹Mountain Comprehensive Health Corporation

**Presenter(s):** Mahala Mullins, Tammy Collett

**CP2**

**Development of an Integrated MAT Training Site Embedded Within a Teaching Health Center**

**Poster Type:** Innovation  
**Category:** Expanding Access to Care and Other Services; Public Health Crises; Workforce

**Issue or Challenge:** An average of 115 Americans die every day from an opioid overdose. (1) While medication-assisted treatment (MAT) with buprenorphine is a key strategy for reducing opioid overdose deaths, access to care remains limited with 43% of US counties having no buprenorphine prescribers. (2) Until recently, addiction treatment was primarily available within a specialty care setting, but a decentralized primary care model may be preferred. (3) A new model of providing MAT within community health centers has emerged, holding promise for expanding access to care and destigmatizing treatment; however training for providers in this model is needed.

**Description of Innovation:** Lowry Family Health Center (an FQHC) is an urban teaching health center associated with a large tertiary care center in Denver (Denver Health) that is a training site for 12 family medicine residents per year and provides integrated primary care to a diverse population. Denver Health received HRSA grant funding (H80CS00218) to embed addiction counselors within several community health centers, including Lowry Family Health Center, in order to expand MAT for opioid use disorder (OUD). Clinic leadership permitted regular MAT clinic templates on established days of the week. Patients were scheduled with both the addiction counselor as well as a primary care provider with a DATA waiver to facilitate collaborative addiction care and continuity. Lowry’s MAT program has been modified to serve as a teaching site for Denver Health’s medical, dental, and pharmacy residents.
Future providers are granted opportunities to observe and measure withdrawal; witness the induction process; interact with patients at varying stages in the recovery process; and gain knowledge about identifying, diagnosing, and treating opioid use disorder. In addition to this hands-on experience, residents receive addiction medicine-focused didactic teaching and waiver training as a part of their residency curriculum.

**Impact or Result:** Since December 2016 over 70 unique patients have participated in our MAT program, of whom 57 (81%) had a family medicine resident involved in their care. A total of 8 family medicine residents have completed a month-long rotation in the clinic including all of the 2018 graduating Denver Health residents (4/4). In addition, 3 medical, 2 dental, and 1 pharmacy student have shadowed in the MAT program at Lowry. A brief survey of family medicine residents who participated in clinical MAT training at Lowry reported high confidence with treating OUD and all (100%) are pursuing their DEA waivers. The UCFMR provided approximately 30 students with the DEA waiver training, of those who completed the survey, 73% are interested in providing MAT treatment after graduation. This is compared to only 36% of family medicine residencies reporting 1 or more graduating residents with an intent to obtain a DATA waiver.

**Replicating this Innovation:** We hope to replicate this intervention in two ways. First, an explicit goal of this intervention is that our graduating residents will continue to provide MAT at their future practice sites. Family medicine residency training sites are uniquely positioned to be engines of innovation as we are training providers who will be able to implement innovations in their future practices. Second, we are offering assistance to other primary care residency training sites who are beginning to develop their own MAT clinics. Implementing a MAT training program within a family medicine residency requires both competent teachers and an effective primary care-based treatment model.

**Author(s):** Jessica Bull, MD, Assistant Professor; Daniel White, MD, Assistant Professor¹; Jessica Cram, LAC, LPCC, Licensed Addiction Counselor¹

**Presenter(s):** Jessica Cram

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In 2014, 53 lives were lost in Clark County due to unintentional opioid overdose. In 2016, there were 90 lives lost.

**Description of Innovation:** Our health center focused on reducing unintentional opioid-related fatalities in several ways. First, we trained local law enforcement in the county on the utilization of intranasal naloxone, the opioid reversal agent, and then we supplied it to everyone who was trained. In order to obtain another dose, we collected data from the officer, which included information on the individual. We then followed up with the individual and provided information on accessing behavioral health and substance abuse treatment. We identified a gap in care after overdose in the emergency department. Our local emergency department physicians group would do a wonderful job “treating and streeting” the patients, but there was no follow-up care provided other than a phone number to our behavioral health treatment program. We began using our primary care services to bridge the gap to treatment. Patients would overdose, and prior to being released would be provided information about when to come to our office to see the doctor. During this appointment, we test for pregnancy, infectious disease, treat any acute issues, and train on naloxone and provide an opioid overdose reversal kit. We continue to see the patient in primary care until the initiation of primary care services. Finally, we began community-based trainings of naloxone that were open to the public. We hold them twice per month and they last approximately twenty minutes. At the conclusion, an individual leaves with an opioid reversal kit free of charge.

**Impact or Result:** In 2017, unintentional overdose fatalities fell 30% in Clark County. While this is surely due to a multitude of factors, we do believe it is due in part to our ensuring naloxone is available to first responders. Additionally, we’ve been able to ensure family and friends, of individuals experiencing addiction, access to naloxone in the instance of a life-threatening overdose. We’ve also been able to connect individuals to health care resources faster. Finally, we have taken the initiative to contact individuals rather than waiting for them to contact us, a significant deviation from the past.

**Replicating this Innovation:** First, identify the gaps in care in opioid response and figure out how your health center can meet them. Next, identify which community partners can help you meet them.

**Author(s):** Beth Keeney, MBA, Senior VP, Community Health Initiatives¹; Eric Yazel, MD, Primary Care Medical Director¹; Gregory Duncan, LCSW, Senior VP, Healthcare Strategies/CQO¹; Misty Gilbert, LCSW, Vice President, Recovery Services¹

**Presenter(s):** Beth Keeney, Eric Yazel, Gregory Duncan, Misty Gilbert
CP4

Trends in Chronic Opioid and Medication-Assisted Treatment Prescribing in U.S. Community Health Centers, 2006-2014

Poster Type: Research

Primary Funding Source: Health Resources and Services Administration (HRSA)/U.S. Department of Health and Human Services

Category: Improving Care for Special Populations

Research Objectives: Understanding prescribing patterns among primary care providers (PCPs) and at-risk patient groups will inform interventions aimed at reducing opioid use and increasing the use of medication-assisted treatment (MAT) for opioid substance use disorder (OSUD).

Study Design/Methods: The Community Health Applied Research Network (CHARN) analyzed opioid and MAT prescribing patterns for patients 18 years or older between 2006 and 2013 in 15 community health centers across the U.S. We classified patients as long-term opioid users (LTOU) if they had received 4 or more opioid prescriptions in 90-365 days. Patients receiving buprenorphine (alone or with naloxone) or naltrexone were considered MAT users. Prevalences of opioid and MAT users were plotted by year for age, gender, and racial/ethnic groups.

Principal Findings and Quantitative/Qualitative Results: Overall, of 593,630 patients analyzed, 16.9% met criteria for LTOU. Prescribing patterns were similar between males and females. Among patients with a diagnosis of OSUD, 23% had a prescription for MAT.

Conclusions on Impact on Health Centers: Observed substantial increases in the number of patients receiving opioid prescriptions between 2006-2010; long-term prescribing (4+ opioids) rates increase with age category and are highest in patients 55 years and older; prevalence of MAT prescribing in patients with SUD was low, however temporality of opioid and MAT orders in relation to SUD diagnoses was not investigated.

Further research needed to determine: how (and how often) MAT is accessed by safety-net patients; and whether ongoing targeting of long-term opioid prescribing practices in health centers can result in the prevention of opioid-related abuse, addiction, overdose, and death.

Author(s): Dea Papajorgji-Taylor, MPH, Project Manager, Kaiser Permanente NW Center for Health Research

Presenter(s): Dea Papajorgji-Taylor

CP5

Establishing an Operational Surveillance to Support Community Health Centers After Hurricane Maria Hit Puerto Rico

Poster Type: Research

Category: Public Health Crises

Research Objectives: The objective of this study is to demonstrate the process for the development of a centralized operational surveillance system and demonstrate its value for identifying immediate needs, coordinating on-time support, keeping local and federal organizations informed following a major disaster, and reestablishing operational capacity.

Study Design/Methods: To continue supporting CHCs after a major disaster, a standardized data collection process was developed by the Puerto Rico Primary Care Association (PRPCA). A computer-based questionnaire was created and variables defined based on requests from the PR Government, HRSA, FEMA, and other local and federal organizations and humanitarian assistance groups. PRPCA staff was deployed island-wide to assess main clinics, identify needs, and perform data collection. Additional data collection processes included phone and email. PRPCA conducted weekly meetings for clinic-status updates. Data aggregation, analysis, and final reports were produced and teams was dispersed to address key areas of the emergency response.

Principal Findings and Quantitative/Qualitative Results: Of the 91 clinics, approximately between 76-100% report weekly information to the surveillance system. Six months after the hurricane, electricity generation is still not fully restored: remaining unstable in four clinics and five clinics still working on generators. Between 20,000-25,000 patients were seen via clinics and house or shelter visits. Employees have also been affected: 247 lost their homes (partially or completely) and most of them from clinical services area. During the first six weeks after the hurricane, the most frequent conditions cited were conjunctivitis, gastroenteritis, dermatitis and after two months, respiratory and viral syndromes were more prevalent.

Conclusions on Impact on Health Centers: PCAs should have a standardized data collection process to gather aggregated information from CHCs after major disasters. Having a tool to centralize information is crucial for support when supply and relief efforts are scarce or in remote locations. Exponential detailed information is requested from multiple agencies during emergency responses. During these responses, organizations compete for the same resources and priorities. Humanitarian efforts are promptly prioritized and organizations are tasked with providing evidence of need and resource priorities based on data. Clinics need to be prepared for disaster periods that can take more than two months to restore utilities/services such as electricity, water, and communications.
Author(s): Darielys Cordero, MPH, DrPh(c), Puerto Rico Primary Care Association
Presenter(s): Darielys Cordero

CP6

Building a Comprehensive Care Model to Protect Pregnant Women and Children from the Zika Epidemic in Puerto Rico Community Health Centers

Poster Type: Innovation
Category: Expanding Access to Care and Other Services; Quality of Care and Quality Improvement

Issue or Challenge: To date, 4,134 pregnant women in Puerto Rico are confirmed positive for Zika virus: 52% are asymptomatic and were infected through mosquito bite and/or sexual contact. Currently there is evidence that Zika virus infection during pregnancy can lead to many possible fetal malformations. For that reason, it is important to address prevention strategies for pregnant women to avoid infant exposure in utero to this viral agent. The Puerto Rico Primary Care Association (PRPCA)/Zika Program has designed a robust and integrated model for PR community health centers (PR-CHCs) to protect pregnant women and to coordinate comprehensive clinical services for them and their infants.

Description of Innovation: The PRPCA/Zika Program developed a comprehensive model to protect pregnant women and infants during Zika virus outbreaks. To properly address the coordination of services to pregnant women, five areas were delineated: (1) the integration of a multidisciplinary team with a Zika coordinator leader; (2) pregnant registry for epidemiological surveillance; (3) quality of ob/gyn care: trimestral Zika tests, house and community visits, referral for evaluation of fetal anatomy with a perinatology; (4) patient education and commitment; and (5) mental health support. The PR Health Department established a three-year evaluation protocol for every child born to a woman with confirmed Zika results. To guarantee the accomplishment of this protocol, the model also integrates the coordination of services for pediatric patients impacted by Zika virus. This includes: the integration of a multidisciplinary team to collaborate in screening tests and coordinate primary services; establishment of alliances with pediatric sub-specialists to enhance access to needed care and services; family education on developmental milestones, emotional support; and the expansion of ancillary services, like transportation and feeding therapies. The “model” seeks to encourage and integrate the pregnant woman to have an active role in prevention and to share prenatal care responsibly with her medical team.

Impact or Result: Through the implementation of the comprehensive model to protect pregnant women and infants during Zika virus outbreaks in PR-CHCs, two standard operating manual procedures were developed. The manuals became a valuable resource for the CHCs to standardize their procedures, workflows, team roles, screening, and referral process. The manuals also provided helpful tools to document approach/actions during the care process. The PRPCA/Zika Program team gained knowledge and skills to better understand and address gaps to guide CHCs to a strong and comprehensive services coordination. The “model” directed CHCs to fulfill and exceed the expectations of CDC guidelines and government regulations for Zika virus management and prevention of the outbreak. It also strengthened alliances to enhance access to other specialized care services beyond the primary care offered by the health centers, created opportunities for collaboration between CHCs and other clinical partnerships, and enhanced patient safety and communication through integrated specialty care.

Replicating this Innovation: The comprehensive care model to protect pregnant women and children from the epidemic of Zika provides a framework for other health care organizations. An important starting point is to perform an in-depth assessment on the operations, needs, and services offered to pregnant women and infants; assure a good understanding of CDC guidelines and government regulations to cope with the outbreak; make recommendations and implement internal processes to align a strategic and integrated care response; empower key staff personnel and select a coordinator to lead the services coordination; and create helpful tools/resources and establish alliances/partnerships to assist in the process.

Author(s): Ivette A. Segui, MPH¹; Darielys Cordero, MPH, DrPh(c)¹; Ruben O. Bras, MPH, Public Health Specialist, Zika Project¹
¹Puerto Rico Primary Care Association
Presenter(s): Ivette A. Segui

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CP7

Involving Community Health Centers to Expand an Outreach Model to Promote the Prevention of Zika Virus in Communities

Poster Type: Innovation
Category: Patient and Community Engagement; Public Health Crises

Issue or Challenge: During the Zika virus (ZV) outbreak in Puerto Rico (PR), more than 40,000 cases have been confirmed since 2015. According to the CDC, consistent and frequent communication will ensure that people receive and understand information, fostering behaviors to prevent the spread of ZV. In April 2016, health centers in PR received federal aid to support the expansion of existing activities including outreach to strengthen the response to the ZV in their communities. As a result, the PR Primary Care Association (PRPCA) provided support to the health centers implementing their control vector and community education efforts, according to the specific needs of their communities.

Description of Innovation: Within the program, the PRPCA supports the health centers developing innovative activities in...
the areas of community engagement, outbreak and disaster preparedness, vector control/environmental control, outreach and enrollment, and health promotion/education. As an innovative way to maintain communication with staff, the PRPCA created and developed a monthly newsletter. Here we include the updates and activities of the program, the latest statistics, and news about the Zika virus and best practices. This maintained a consistent and frequent communication between the PRPCA and the health centers. The components of the newsletter are of great value and support for the health centers in achieving new ideas for activities in their communities. Another pioneer training was through a webinar on how to create homemade mosquito traps to engage community groups in replicating this initiative in schools, elderly homes, and health centers. A hands-on training was coordinated by the PRPCA for health center staff to learn how to make mosquito nets. This drill was conducted so health centers could replicate them in communities as a means of empowerment. Over 36 different types of innovative activities were incorporated.

**Impact or Result:** Eighteen newsletter editions where shared with the staff, maintaining frequent communication; staff members considered this initiative a great tool. A total of 16 health centers and 31 members of the community outreach staff of the Zika program participated in the live webinar of homemade mosquito traps. In the training to make mosquito nets, 19 health centers and 31 staff from the Zika program participated. This initiative has been replicated by other health centers to empower 4 communities to date. Sixteen health centers informed in the metric report during January-June 2017; 3,105 community-based educational activities were carried out; and 181,218 people were impacted at the communities. Health center staff incorporated different activities in the areas of dynamic arts, specific creative activities, vector surveillance and control, media, visual information, functions of the program staff, and community empowerment. Many of these activities were products of the strategies developed by the PRPCA Zika team.

**Replicating this Innovation:** We aimed to develop hands-on strategies with the health center Zika team to ensure that they could develop different, innovative activities in their diverse communities: a defined and continuous communication strategy, such as a newsletter, with the team’s support to facilitate better results to engage with patients and educate their communities about the Zika virus transmission and personal protection; partnerships and collaborations across health care sectors to address a full range of health care needs regarding emergency preparedness and response: and awareness of the team’s barriers to develop new activities to support them.

**Author(s):** Ruben O. Bras, MPH, Public Health Specialist, Zika Project¹; Darielys Cordero, MPH, DrPh(c)¹; Ivette A. Segui, MPH¹

¹Puerto Rico Primary Care Association

**Presenter(s):** Ruben O. Bras

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**CP8**

**Development of a Multilevel Strategic Response Across Community Health Centers Network to Address an Emerging Viral Disease**

**Poster Type:** Innovation

**Category:** Public Health Crises

**Issue or Challenge:** Puerto Rico has the highest number of locally-acquired Zika virus (ZV) cases in the United States and its territories, with 40,630 confirmed cases. Federally Qualify Health Centers (FQHCs) provide primary care services to vulnerable groups, located in 68% of PR counties, which places centers as key players of ZV emergency response. The arrival of the new virus, high incidence rates, and island-wide transmission place as a priority to ensure access to health care needs and high-quality care services. A comprehensive, coordinated, and multilevel public health approach needs to be designed to address urgent/emergent needs related to the emergence of ZV.

**Description of Innovation:** Responding to emergent ZV, PRPCA led a new public health effort, through the FQHC network, to support a strategic, coordinated, and sustainable response aligned with federal and state priorities. This strategic response focuses on the integration of public health into primary care, promotes the multidisciplinary integration of resources/processes, and addresses six areas: (1) ZV surveillance; (2) community outreach/education; (3) voluntary family planning; (4) coordination of services for pregnant women; (5) coordination and follow-up of infants at risk; and (6) integration of behavioral health/psychosocial services to primary care. Efforts in each area will have a multilevel impact on capacity building, service expansion, and health center preparedness for urgent and emergent primary health care needs. To be frontline responders on this public health crisis, FQHCs need to foster collaboration within the network and strengthen relationships and integration with partners at health care sectors. To monitor the effectiveness of this public health strategy, 21 performance measures were designed, aiming to identify health care needs and/or quality of service improvements needed. Individual data dashboards were created to promote clinic assessments on addressing a full range of health care needs to at-risk populations. To make improvements on the strategy, PRPCA created guidelines, supporting tools, educational activities, and onsite-technical assistance.

**Impact or Result:** PRPCA has defined a coordinated ZV strategy aligned with public health priorities and led FQHCs in a group effort. A multidisciplinary response ZV team approach has been adapted among FQHCs and is supported by a Zika coordinator, community outreach team, case manager, clinical personnel, e.g., pediatricians, obstetricians, nurses, and behavioral health providers, e.g., social workers and psychologists. Implementation of the strategy includes more than 22 PRPCA collaborations with state, federal, and private sector groups to support FQHC public and primary care responses. This effort results in integration of the FQHC
network with health care systems and community ZV efforts, fosters new center leaders and teamwork, promotes sharing best practices across FQHCs, and develops new workflows and clinical process target capacity building of centers and expansion of services. For overall system, this represents maximized efforts, decreased resource duplication, increased partner collaboration, and recognizes FQHCs as primary care firstline responders for additional emergencies.

**Replicating this Innovation:** Strategic planning and participation of FQHC key staff is a first step for implementing a long-term response to a public health thread with multilevel impact on organizations. A strategic response should consider assessment of resources and capacity of the network responding to a public health emergency. The PCA

**Conclusions on Impact on Health Centers:** Findings suggest that ES impact all aspects of health center operations. For example, providing language assistance requires AAPCHO health centers to heavily invest in a multilingual workforce and allot extra time for patient visits. The current insurance reimbursement scheme employed by public and private payers does not adequately account for the complexity of care provided in health centers overall, and particularly in AANHPI serving health centers. As the payment system shifts towards value-based care, it is important for policies to recognize and financially support high quality enabling services, including language assistance that adds significant value to all aspects of care.

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**Presenter(s):** Darielys Cordero

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**Social Determinants of Health**

**CP9**

**Paying for Enabling Services: A Qualitative Study on AAPCHO Health Center Enabling Services**

**Poster Type:** Research

**Category:** Expanding Access to Care and Other Services; Quality of Care and Quality Improvement; Social Determinants of Health

**Research Objectives:** Realizing that Asian Americans, Native Hawaiians, and Pacific Islanders’ (AANHPIs’) lives may be impacted by the services that health centers provide beyond clinical care in more ways than most other Americans, we aimed to study how these enabling services (ES) are carried out and financed at AAPCHO member health centers.

**Study Design/Methods:** We interviewed 12 staff members from 9 AAPCHO member health centers serving AANHPIs across the country. Interviews were conducted by telephone to understand how ES are financed and their ideal reimbursement methods. For context, we also asked about their ES clinic process, staff providing the services and their qualifications, and how ES are identified as needs and communicated across the health center. Interviews were conducted in a semi-structured format and lasted up to 60 minutes for each session. Collected data was transcribed and coded using thematic analysis.

**Principal Findings and Quantitative/Qualitative Results:** Findings suggest that the current payment methods for ES have failed to account for the actual costs and impact on patient outcomes. All the health centers interviewed indicated having to pay for ES out of their general budgets and the need for obtaining grants or other revenue sources to sustain operations. As the federal and state governments move forward with payment reform, reimbursement rules need to be adjusted for such complexity to sustain ES that are critical to the delivery of care at community health centers that serve diverse and vulnerable populations.

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**CP10**

**Impact of Enabling Services Utilization on Health Outcomes Based on the 2016 Uniform Data System**

**Poster Type:** Research

**Category:** Expanding Access to Care and Other Services; Quality of Care and Quality Improvement

**Research Objectives:** Enabling services are “non-clinical services that aim to increase access to health care and improve health outcomes,” and include services such as case management, interpretation, and transportation. The aim of our study is to better understand the impact of enabling services utilization on different health outcomes.
**Study Design/Methods:** Our analysis was based on the 2016 Uniform Data System (UDS) data. The measures that we included were enabling services utilization data (enabling services FTEs, enabling services patients, and visits), and health outcome data (hypertension, diabetes, and healthy birth weight). We compared the impact of enabling services utilization on health outcomes in two groups: AAPCHO member health centers, which had higher average rate of enabling services utilization, and all other national health centers that reported to the UDS in 2016. We also conducted trend analysis on the correlation between enabling services utilization and health outcomes over the past five years.

**Principal Findings and Quantitative/Qualitative Results:** AAPCHO member health centers on average provided 458 enabling services visits and served 236 enabling services patients per FTE, whereas the national average health centers provided significantly less enabling services visits (298) and served significantly less enabling services patients (121) per FTE. When compared to national health centers, AAPCHO member health centers on average had higher rate of controlled hypertension (66% vs. 62%), and higher rate of diabetic patients with HbA1c < 8% (59% vs. 54%). The difference between AAPCHO member and the national health centers in terms of healthy birth rate is small (93% vs. 92%).

**Conclusions on Impact on Health Centers:** Higher enabling services utilization correlated with better health outcomes, especially in terms of chronic diseases such as hypertension and diabetes. Because of the limitation of the data, we were not able to conclude that higher enabling services utilization caused better health outcomes. If in the future the UDS could also collect data on health outcomes by enabling services users versus non-users, it will be possible to conduct more rigorous cause-effect analysis on the impact of enabling services utilization on health outcomes at the national level.

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**CP12**

**Food as Medicine: Addressing Chronic Disease, Obesity, and Food Insecurity with a Comprehensive Nutrition Program**

**Poster Type:** Innovation

**Category:** Quality of Care and Quality Improvement; Social Determinants of Health

**Issue or Challenge:** The low-income patients served by PrimaryOne Health face numerous barriers to controlling chronic diseases such as diabetes, hypertension, and diabetes. Nutrition and lifestyle modification play an important role in the control of these chronic diseases. When performed by a registered dietitian, medical nutrition therapy and lifestyle modification classes significantly improve outcomes. Access to healthy foods is a major barrier to making dietary changes and over 40% of PrimaryOne Health’s patients screen positive for...
food insecurity. Studies show that food insecurity is linked to poorer diabetes outcomes, and inexpensive processed foods are often high in sodium and calories.

**Description of Innovation:** PrimaryOne Health's Integrated Nutrition Program addresses multiple barriers to adequate nutritional care by providing convenient access to medical nutrition therapy (MNT), by a registered dietitian or supervised dietetic intern, and connecting food insecure patients with healthy produce. Patients with diabetes, hypertension, and obesity are able to see a dietitian/intern at their primary care provider visits. By making the service available at the patient's primary care visit, patients are more likely to agree to the service. After the initial MNT visit, patients are able to receive follow-up care through additional one-on-one MNT visits (either on a separate day or at future primary care visits), phone visits, weight management classes, diabetes classes, and/or cooking classes.

To address access to healthy food, medical assistants screen patients once annually for food insecurity at primary care visits by using the two item evidence-based questionnaire from Hager et al. Patients who identify as positive for food insecurity are given a produce prescription to get free fruits/vegetables once per week, without an appointment, from twelve participating food pantries. PrimaryOne Health’s created a report through Allscripts that automatically uploads the necessary patient information into the Mid-Ohio Foodbank’s PantryTrak database that is used by all participating food pantries. PrimaryOne Health's created a report through Allscripts that automatically uploads the necessary patient information into the Mid-Ohio Foodbank’s PantryTrak database that is used by all participating food pantries. Patients are given a plastic wallet card that contains a produce Rx and 340B information for patients to take to a pantry fill location or pharmacy. Reports from PantryTrak are made available to PrimaryOne Health, so patients with unfilled prescriptions can be contacted.

**Impact or Result:** During 2017, nearly 3,200 patients received dietitian/intern interventions with greater than 7,000 patient encounters:

- Changes in HgbA1c
  - 0.33% better than standard care at 1 year.
- Changes in weight
  - 15.7% of patients seen by a dietitian or intern reached a significant weight loss (5% body weight or greater) compared to only 8.8% of the standard care group at 6 months.

By the end of 2017, greater than 5,500 patients were enrolled in the Produce Rx Program:

- Changes in HgbA1c
  - Only 13% of food insecure patients with at least 3 food pantry visits had a HgbA1c >=9%, while 32% with no food pantry visits had a HgbA1c >=9%.
- Changes in weight
  - At 3 months, food insecure patients with at least 3 food pantry visits saw an average of 4.7 lbs. of weight loss, while those with no food pantry visits lost an average of 1.1 lbs.

**Replicating this Innovation:** To replicate in other organizations, start by researching reimbursement for dietitians in relation to the payer mix expected and/or identify alternative sources of funding. Then reach out to potential community partners – local food banks with initiatives to improve health and universities with a dietetic internship program. If you are able to identify partners and funding, identify a champion within executive management to legitimize the value of your proposal. Hire a registered dietitian with outpatient counseling skills, program management experience, and an assertive, proactive attitude. Present to staff, especially referring primary care providers, about the value of a registered dietitian and evidence for improved patient outcomes. In the clinics, have the dietitian within very close proximity to clinic rooms for ease of access. Consider creating a standing order for medical nutrition therapy that will allow the dietitian freedom to see patients who are waiting for their primary care provider.

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**Presenter(s):**
- David Brewer

**CP13**

**Effect of Addressing Social Needs on Health Outcomes**

**Poster Type:** Research

**Primary Funding Source:** Family Health Center of Marshfield, Inc. (FQHC)

**Category:** Social Determinants of Health

**Research Objectives:** The Community Connections Team (CCT) is a volunteer-driven program designed to improve clinical care by connecting patients with community resources to address social needs. The objective of the research presented here was to evaluate the impact of CCT on patient health outcomes and health care use patterns.

**Study Design/Methods:** Marshfield Clinic Health System, Family Health Center of Marshfield, Inc., and the University of Wisconsin-Eau Claire developed and launched CCT in 2015. Patients at medical and dental clinics are screened for social needs and volunteers connect those with unmet needs to relevant community resources. Data are collected in a REDCap database and are linked to comprehensive health data captured in the electronic health record during routine care. Demographic, clinical, and health care use data were compared over time in CCT users (pre- vs. post-intervention) and between CCT users and non-users. Significance was established as p<0.05.

**Principal Findings and Quantitative/Qualitative Results:** CCT patients had significantly improved blood pressure, blood lipids, and annual health care utilization metrics (ER visits, urgent care visits, admissions, no shows, reschedules) after enrollment (n=2164). Compared to non-users (n=1080),
CCT users (n=1330) had significantly lower annual rates of ER and urgent care visits and hospital admissions. CCT users with diabetes were significantly more likely to undergo recommended annual screenings (LDL, urine microalbumin). Among individuals diagnosed with depression, PHQ9 score decreased significantly after enrollment among those with prior symptoms (n=111, 8.96 vs. 6.83, p=0.0008) and mean score was significantly lower in CCT users (n=431, 4.29) than non-users (n=414, 5.66, p=0.0092).

Conclusions on Impact on Health Centers: Results suggest that participation in CCT is associated with improvements in clinical outcomes and health care use patterns. These findings demonstrate that health centers can leverage clinical, campus, and community partnerships to address the social determinants of health with value for both the patient (clinical outcomes and screening uptake) as well as the business (health care utilization patterns), while also exposing student volunteers to the necessity of embracing health equity as part of clinical care. Addressing social determinants of health as a part of the standard of care appears to produce considerable return on investment for improving community health.

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CP14
Collecting Social Determinants of Health Data in the Clinical Setting: Findings from the PRAPARE Pilot

Poster Type: Research

Category: Social Determinants of Health

Research Objectives: The research objectives include discussing findings from the PRAPARE pilot with 18 community health centers across 4 different electronic health records nationally, and how PRAPARE data have been used to affect change at the patient, organizational, and population levels through interventions, partnerships, and advocacy.

Study Design/Methods: PRAPARE partners worked with teams of health centers and their networks to create the social determinants of health data collection tool; mapped PRAPARE response choices with relevant codes (e.g., ICD-10 z codes, LOINC codes, SNOMED codes); developed templates in four different electronic health record systems including eClinicalWorks, Epic, GE Centricity, and NextGen that can add relevant codes to PRAPARE responses; and tested the tool in different health center workflows. T-tests were used to identify social determinant differences between the two categorized populations of focus, which were “high-risk” and “general” populations.

Principal Findings and Quantitative/Qualitative Results: Preliminary data revealed that patient social determinant risks ranged from 4.8 to 8.6 with an overall mean of six risks per patient. However, chronically ill patients tended to face up to eleven social determinant risks. A significant correlation was found between the number of social determinant risks a patient faces and having hypertension. High stress, less than a high school education, unemployment, and lack of insurance were among the top five risks for many health centers. The top three material security needs were medicine, food, and utilities while social integration and housing were among the top assets.

Conclusions on Impact on Health Centers: PRAPARE has already had a significant impact accelerating care and community change. In one example, PRAPARE revealed that transportation was a significant issue in the community. As a result, health center staff used PRAPARE data to build relationships with local transportation agencies to negotiate bulk discount rates for bus tokens and taxi vouchers, while also advocating for new bus routes to isolated areas by geocoding where the greatest transportation need was located. In another state, PRAPARE also revealed the need for more services to help patients transition to civilian life, such as job training resources and legal services.

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CP15
Measuring Social Risk on Patients with Diabetes: Findings from the PRAPARE Pilot

Poster Type: Research

Category: Social Determinants of Health

Research Objectives: We studied 1,207 patients with diabetes from one PRAPARE community health center in Iowa and assessed the relationship between diabetes and the PRAPARE social determinants of health characteristics.

Study Design/Methods: Out of the 1,207 diabetic patients, 986 were controlled diabetics and 221 were uncontrolled diabetics. To determine whether the two groups were significantly different, t-tests were used to compare the social determinant risks of controlled diabetics (HbA1c=9). Logistic regression analyses were also completed to see the relationship between the number of social determinant risks and the likelihood of being uncontrolled diabetic.

Principal Findings and Quantitative/Qualitative Results: The final model results indicated that uncontrolled diabetics had significantly more social determinant risks than controlled diabetics. Also, compared to patients who did not have trouble affording medicine/care, patients who had trouble were 78%
more likely to be uncontrolled diabetic (p-value < 0.05) and for every one increase in the PRAPARE risk tally score, the probability of being an uncontrolled diabetic patient increased by 13% (p-value = 0.07).

**Conclusions on Impact on Health Centers:** Though the data on the relationship between the outcome of diabetes and the number of social determinant of health barriers that a patient is facing is preliminary, it showed the positive correlation between social determinant of health factors and diabetes. There are other examples of using PRAPARE data for patient-level improvements, which include matching Rx and Tx plans to patient circumstances and in-house and community assistance programs. With more analysis and research on the impact of the social determinants and outcomes, there will be more examples of the impact of non-clinical services and social determinant interventions.

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**CP16**

**Addressing Social Determinants of Health Through Integrating Community Health Workers into Health Center PCMH Care Teams**

**Poster Type:** Innovation

**Category:** Expanding Access to Care and Other Services; Improving Care for Special Populations; Patient and Community Engagement; Social Determinants of Health; Technological Solutions and Tools to Improve Care and Population Health Management

**Issue or Challenge:** The Bronx is reported as the poorest county with the highest rates of unemployment in NY State and is home to 18 Medically Underserved Area neighborhoods. Although Bronx Community Health Network (BCHN) health centers are accredited patient-centered medical homes (PCMHs) and serve patients in patient care teams, community health workers (CHWs) were not yet integrated into care teams with no standardized methods of identifying Social Determinant of Health (SDH) needs and linking community members to appropriate resources. Through partnerships with workgroups and alignment with the NYS Delivery System Reform Incentive Program, BCHN has launched a standardized SDH screening and referral system that is integrated into the EHR.

**Description of Innovation:** CHW protocol and scope of practice was developed. Health center needs assessments were conducted to assess the gaps in care that could be addressed by CHWs. At each integration health center, BCHN educated key multidisciplinary staff (i.e., administrators, providers, social workers, health educators) about CHWs’ roles and the values they bring as an integral part of the health care team. In partnership with key multidisciplinary health center stakeholders, a steering committee reviewed existing evidence-based tools used to screen patients for SDH needs. The Health Lead USA Social Need Screening tool was selected and modified by the multidisciplinary team. Screening was piloted at two health centers where CHWs were integrated and workflows developed to map out the screening and internal referral process. Concurrently, the multidisciplinary team sought to identify a standardized way to respond to patients’ identified SDH needs. BCHN identified and proposed the use of an online referral tool, called NowPow. NowPow uses rigorous matching methodology to curate an inventory of community resources that can meet SDH needs, taking into account patient influencers like language needs, distance to resource, and eligibility criteria. NowPow is being integrated into the electronic health record and provides closed loop data. To enhance communication with PCMH team members, BCHN developed a CHW interface for the electronic health record which allows: (a) providers and other patient care team members to send electronic patient referrals to CHWs; and (b) CHWs to document the services they provided and their progress with patients - viewable by the entire care team.

**Impact or Result:** BCHN hired 19 CHWs and integrated 14 into health center PCMH teams. Working with our contracted health center operator, Montefiore Medical Center, we modified the evidence-based Health Leads USA Social Screener to identify needs in seven SDH domains. Seven health centers are using the standardized SDH screener. Within nine months, 8,200 patients have been screened for food insecurity, housing instability, transportation needs, safety/intrapersonal violence, and other SDH domains. Thirty percent (30%) of patients screened positive were referred to a CHW; 75% were successfully linked to SDH resources by CHWs. To ensure seamless referral workflow, BCHN has developed a CHW interface within the Epic EHR system which allows: (a) providers to send electronic patient referrals to CHWs; (b) CHWs to document their progress with patients; and (c) facilitation of patient referrals and tracking by the care team members - using a robust electronic referral database called NowPow.

**Replicating this Innovation:** Identify key internal and external stakeholders to determine the gaps and the barriers to care for patient's/community members. Identify social determinant of health needs and the resources available to addressed SDH needs. Develop a scope of practice for CHWs; recruit diverse CHWs who represent your community; match health center with CHW based on various factors: language and culture of the patient population and skill set needed to address specific needs; partner with external experts to train CHWs; and educate health center teams about how to work with CHWs. Standardize methods for sending referrals to community resources and receiving closed loop information. Leverage the expertise of IT and data managers to assist in building a
standardized method for capturing CHW work, either in the electronic health record or an external data tool.

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**CP17**

A Strategy to Reduce Health Inequities: The Salud Medical Legal Partnership Experience

**Poster Type:** Innovation

**Category:** Social Determinants of Health

**Issue or Challenge:** Social determinants of health (SDH) contribute more to overall health outcomes than do medical interventions. Health care providers are not trained nor equipped to address many SDH, including immigration status, housing, domestic violence, educational needs, insurance coverage, and access to financial resources. Medical-legal partnerships (MLPs) add legal professionals, trained specifically to tackle these issues, to the health care team. The National Center for MLPs has documented the contributions of MLPs to Quadruple Aim goals – lower costs, improved health outcomes, higher patient satisfaction, and increased health care provider job satisfaction. Yet MLPs remain underutilized and poorly evaluated. We describe the evaluation of the MLP-Colorado (MLP-CO).

**Description of Innovation:** Approximately a third of Salud patients have legal needs that affect their health. MLP-CO integrates lawyers into the health care team to address these needs. “I’d rather talk to the devil than to a lawyer,” was how a health care provider in 2013 initially received the idea of MLP-CO. Nonetheless, part-time legal services were implemented at Salud in 2014 with a small grant. A year later, the Colorado Dept. of Health Care Policy and Financing provided funding that allowed the hiring of two full-time attorneys. MLP-CO now functions as an integral part of the health care team; medical providers can’t remember how they functioned without ready access to lawyers to help with their patients’ needs.

Patients are referred to the on-site legal team by any health care team member, or they can self-refer via a short questionnaire in the waiting room. The health care team has been trained to look for the following legal needs (I-HELP): Income/Benefits, Housing/Utilities, Education, Legal Status/Immigration, Personal/Family Stability/Safety. MLP-CO also engages in a rigorous evaluation of its effect focusing on the following areas: (1) Legal Outcomes (number/type of cases, resolution of I-HELP needs); (2) Health Outcomes: Health-Related Quality of Life (HRQOL)-derived questions; (3) Cost Analysis/ROI; and (4) Patient Satisfaction.

**Impact or Result:** During the first year (2014), with limited resources, 20 patients were helped. Since 2015, the MLP-CO has screened over 1,100 Salud patients for legal needs, completed 155 legal matters (34% income benefits, 5% housing, 1% education, 42% legal status, and 16% personal stability) and currently has 148 active cases. Analysis of initial cohorts indicate that Spanish was the primary language of 52.2%; 38% had < high school education, 54% had annual income <$20,000, and only 15% had private/employer-based insurance. There was a significant improvement on self-reported overall health (Cochran-Armitage trend test p=0.02). Patients reported significant reductions in number of days with poor physical health (p=0.007), with poor mental health (p=0.01), and with impediments to usual activities (p=0.001). We also detected a significant reduction in number of ER visits (p=0.049). There were also decreases in hospitalizations, missed appointments and missed workdays, although not statistically significant. Cost analysis is currently underway.

**Replicating this Innovation:** The National Center for MLPs provides excellent guidance on establishing and maintaining MLPs. MLP-CO also provides assistance to other entities in Colorado that are interested in developing MLPs in their respective institutions.

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**CP18**

How FQHCs Can Leverage the Healthy Places for Healthy People Technical Assistance Program

**Poster Type:** Innovation

**Primary Funding Source:** EPA

**Category:** Social Determinants of Health

**Issue or Challenge:** Limited economic opportunities, lack of access to quality health care, and limited access to fresh, healthy food and physical activity significantly influence health outcomes in many rural communities across America. Furthermore, many rural downtowns have suffered from decades of economic decline and are in need of economic anchors that can catalyze reinvestment. The Healthy Places for Healthy People program, funded by the Environmental Protection Agency (EPA) and other federal partners, is helping community health centers be part of the solution. Mariposa Community Health Center in Nogales, Arizona is a prime example.

**Description of Innovation:** The EPA and the Appalachian Regional Commission (ARC) have teamed up to support Healthy Places for Healthy People, a planning assistance program to help community leaders engage with their health care facility partners, including community health centers, to create walkable, healthy, economically vibrant places. EPA and ARC engaged a team of national experts in land use, economic development, health care, and public health with...
10 communities across the country who want to leverage the power of health care facilities to drive downtown revitalization, diversify the economy, and improve the social determinants of health for their community members. Planning assistance through Healthy Places for Healthy People is providing health care facility partners the time and convening power to have a conversation about the future of their communities and to explore the role that health and health care can play in improving the community. This innovation focuses on how Healthy Places for Healthy People has helped Mariposa Community Health Center, a Federally Qualified Health Center, contribute to downtown revitalization in Nogales, Arizona on the U.S.-Mexico border.

Impact or Result: Mariposa’s Board of Directors expressed interest in establishing a new clinical site in downtown Nogales, where Mariposa first began to offer primary care in 1980. The downtown census tract is the most needy and underserved in the county and many downtown businesses are now shuttered as a result of the economic downturn. Given this strategic goal, Mariposa applied for the first cohort of Healthy Places for Healthy People. Through participation in this program in 2017, Mariposa Community Health Center has stepped up to become a partner in revitalization of the downtown Nogales area. Mariposa’s administration is moving to a downtown location in May 2018 and other sites downtown are being explored to establish a new clinic site. Mariposa is committed to doing what it can to serve as an anchor entity to help draw other businesses back downtown and to increase the pedestrian traffic needed to support new small businesses.

Replicating this Innovation: Mariposa participated in the pilot cohort of Healthy Places for Healthy People. A second cohort was selected for 2018. EPA plans to announce a third opportunity to apply for Healthy Places for Healthy People and other assistance programs in the fall of 2018. Community health centers may wish to take advantage of this opportunity in order to align their strategic direction with community development and revitalization needs and plans.

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**A.T. Still University-School of Osteopathic Medicine in Arizona (ATSU-SOMA)**

The National Center for Community Health Research (NCCHR), framed within the Quadruple Aim, was developed out of the NACHC and A.T. Still University partnership and is a center within the A.T. Still Research Institute.

**CP19**

**Efficacy of a Health Care Career Workshop with Underrepresented Minority College Students**

**Poster Type:** Research

**Primary Funding Source:** Internal funding from A.T. Still University

**Category:** Improving Care for Special Populations; Social Determinants of Health

**Research Objectives:** Underrepresented minorities (URMs) in the health care profession experience distinct challenges when receiving health care. To address this discrepancy, we aimed to educate predominantly URM, pre-health college students about health care careers. We also aimed to increase awareness and motivation for college students to address health care disparities experienced by URMs.

**Study Design/Methods:** Members of the pre-health forum at Mesa Community College attended one of two workshops about health disparities experienced by URM in the health care field. Each hour-long workshop dispelled myths about health care school, introduced health care careers, discussed health care disparities, demonstrated Osteopathic Manipulative Treatment, highlighted social determinants of health via an emergency room stroke case, emphasized the roles of different health care professionals in patient care, and concluded with a medical student panel. Researchers collected data via pre- and post-surveys with Likert-type scales. These were analyzed using two-tailed t-tests (p-value < 0.5). A raffle prize was utilized as compensation.

**Principal Findings and Quantitative/Qualitative Results:** Forty college students who met the inclusion criteria were invited to participate; twenty-one attended the workshop. Eleven participants (53.4% response rate) completed the workshop and responded to the 12-question pre- and post-surveys. The demographics of the participants were: 3 African Americans, 4 Hispanic/Latinos, 0 American Indian/Alaskan Natives. All participants were between 18- and 36-years-old, and the genders were 7 males and 3 females. Participants learned that URMs experience health care disparities (pre=2.5, post=3.1, p=0.016) and were made aware that they have personally experienced them (pre=3.7, post=4.2, p=0.025). All participants agreed or strongly agreed that the workshop was effective.

**Conclusions on Impact on Health Centers:** Workshop participants were students interested in pursuing health care careers. Results showed an increase in participant recognition and understanding of health care disparities. Furthermore,
the curriculum provided information on health care careers to increase awareness of career choices. This project will be presented to the Adelante CHC to encourage the hiring of physicians from populations that are underrepresented in health care. Racial disparities in both health care delivery and employee composition can be addressed with the workshop. Future studies should target URM populations that lack exposure to health care careers in order to illuminate career opportunities that would not have been previously pursued.

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CP20

Examination of the Teach-Back Method in Nutrition Education with Eighth Grade Middle School Students

Poster Type: Research

Category: Patient and Community Engagement

Research Objectives: This study sought to provide eighth grade students with nutrition education in a school setting, while also extending education to families at home. Investigators used a teach-back method and sent home relevant nutrition information to parents in order to engage the whole family in learning about nutrition.

Study Design/Methods: The study examined how eighth grade students at Hardeeville-Ridgeland Middle School responded to a series of four, thirty-minute nutrition education sessions facilitated by second year medical students. Each session included a small group (student-to-teacher ratio of 24:1) lesson, followed by one or two activities. Students were asked to teach a family member what they learned using provided education materials and were provided with a packet to give to parents with additional information about each session’s topic. The study surveyed eighth grade students’ (n = 144, n=127 pre- and post-, respectively) health and nutrition habits, and use of the teach-back method.

Principal Findings and Quantitative/Qualitative Results:
Post-survey results indicated 66% of students used the teach-back method and taught a family member about what they learned during sessions. Additionally, 65% of students reported they felt this method was a good way to learn. Comparisons of pre- and post-intervention surveys indicated students also learned from the intervention, with more students reporting the correct number of servings of dairy per day, an increase in the average reported recommended servings of protein per day, and fewer students reporting “I don’t know” regarding the recommended servings per day of milk and grains.

Conclusions on Impact on Health Centers: The results of this study suggest the teach-back method was useful to students in helping them learn about nutrition. Also, it was successful in involving family members in a conversation about nutrition in 66% of homes. Pre- and post-survey comparison suggests students learned about nutrition from our education materials and activities. Thus, this method of medical student-facilitated active learning sessions with a teach-back component to engage entire families should be explored on a larger scale. Future studies should use better-tailored assessments and measure how the teach-back method compares to other methods of teaching and engaging families in nutrition education.

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CP21

Nutritional Barriers Experienced by People with Type II DM of the Seattle/King County Area

Poster Type: Research

Category: Social Determinants of Health

Research Objectives: As the prevalence of Diabetes Mellitus Type 2 (DMII) disproportionately affects patients of lower socioeconomic status, understanding barriers to healthy eating in this population is essential. The purpose of this study is to elucidate unique barriers to healthy eating reported by patients within HealthPoint Community Health Center in Northwest Washington.

Study Design/Methods: To gain insight into specific barriers to healthy eating, two focus groups, 10 and 12 participants each, were held at 2 south Seattle HealthPoint clinics during a diabetes education class. Guiding questions were posed to prompt discussion regarding participant’s perceived eating habits and barriers to healthy eating. Specific barriers were identified based on thematic analysis of discussion transcripts. Data obtained from the focus groups were used to construct a qualitative survey, which will be offered to patients with DMII in HealthPoint clinics. The survey aims to measure the general perceptions of patients with DMII regarding the most commonly identified barriers.

Principal Findings and Quantitative/Qualitative Results:
The leading barriers to dietary adherence which were determined from the focus groups included: lack of familiarity with healthy recipes, influence of family members, time to prepare healthy foods, desire for native cultural food, and organization of daily menus. These findings were incorporated into a 14-question survey which aims to determine the extent to which these barriers affect healthy eating in HealthPoint patients with DMII.

Conclusions on Impact on Health Centers: Despite limitations often faced in conducting focus groups, utilization of focus groups allowed for the creation of a survey which more closely represents the community in question. A few of the leading barriers ascertained during the focus groups were different than what was predicted. Although a survey was created,
successful application is yet to be determined through future projects by second-year ATSU students who can use the survey to create educational programs or materials to support the long-term treatment of patients with DMII.

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**CP22**

**Park Rx: Increasing Provider Prescription of Outdoor Physical Activity to Promote Long-Term Health and Well-Being**

Poster Type: Research

Category: Expanding Access to Care and Other Services; Improving Care for Special Populations; Patient and Community Engagement; Social Determinants of Health

Research Objectives: Goal 1: To increase Unity Health Care provider participation of Park Rx.

Objective 1.1 Determine what motivates a physician to use the Park Rx platform.

Objective 1.2 Determine the barriers to prescribing Park Rx.

Study Design/Methods: The Park Rx program aims to increase the amount of physical activity in outdoor spaces by equipping providers to prescribe parks. Online surveys were distributed to health care providers at Unity Health Care via email. Surveys assessed for perception of the Park Rx program, motivations for use, barriers to use, and usage frequency. Survey responses were divided into two groups - providers who used Park Rx and those who did not. Student t-test and z-value and p-value were calculated to determine the significance of the findings.

Principal Findings and Quantitative/Qualitative Results:
We received 43 survey responses and utilized those for our analysis. The most prevalent barriers to prescribing Park Rx included the time constraint of the visit, focusing on the chief complaints, and the difficulty navigating the electronic medical record (EMR). The use of visual cues in the provider room and in the EMR would be a motivating factor in the use of the Park Rx program. Additionally, provider belief in the importance of spending time outside was the highest motivator for use of the Park Rx program.

Conclusions on Impact on Health Centers: These results will help guide efforts to increase usage of the Park Rx program in the future. We hope increased provider awareness of Park Rx, combined with future interventions, will increase referrals to Park Rx and the amount of time patients spend exercising in green spaces. Park Rx is a national program and our work in determining barriers and motivations to utilizing this program could be used by other health care centers to implement a more effective Park Rx program that reaches more community

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**CP23**

**Meeting Older Adults Where They Live: An Innovative Approach to Improve Oral Health**

Poster Type: Innovation

Primary Funding Source: Retirement Research Foundation, A.T. Still University

Category: Expanding Access to Care and Other Services

Issue or Challenge: Many older adults are not going to a dentist for regular care. Oral diseases are among the most common chronic diseases in this population, and poor oral health contributes to poor overall health. This program was created to enhance access to dental care for independently living older adults. Research indicates that on average, older adults have lower oral health literacy, no dental insurance, limited income, and difficulty accessing transportation. By increasing communication and contact, and assisting with transportation and scheduling, we are able to increase the number of older adults who have a dental home.

Description of Innovation:
- Our innovation is to meet older adults where they live. We travel to independent living centers to interact with small groups of residents and discuss the importance of good oral health and how to achieve it.
- We contact center social workers or managers and schedule a time to present the Tooth Wisdom curriculum developed by Oral Health America. We offer screening exams and provide time for questions and conversations with the residents.
- An outreach dental hygienist and two dental students from A.T. Still University-Missouri School of Dentistry & Oral Health (ATSU-MOSDOH) provide a 45-minute dental education program to residents of the independent living centers. The program is followed by an interactive question and answer session, dental screenings, oral cancer screenings, and fluoride varnish applications for any interested participants.
- The senior living center manager works closely with our outreach dental hygienist and patient care coordinator to schedule appointments at the St. Louis Dental Center. Groups of residents are scheduled together and transported by van for initial and subsequent appointments.
- Dental services are provided by dental students through a unique partnership between Affinia Healthcare, a federally qualified health center, and ATSU-MOSDOH.
• Assistance with scheduling appointments, transportation, and reduced fees are ways we enhance access to care for older adults.

Impact or Result:
• Including our pilot program in the fall of 2016, we have provided our education and oral screenings programs to over eighty individuals at seven sites.
• Over 50% of the program participants sought care at the St. Louis Dental Center. To date, forty-four older adults have been seen, and approximately 30% of those have had multiple appointments and services.
• Increased oral health knowledge of participants based on pre- and post-test results during the Tooth Wisdom presentation.
• Increased awareness in the community that our clinic is accepting new patients for comprehensive dental services.
• Increased communication and positive contact between older adults in the community and dental students. Program participants and students learn from each other and enjoy the interaction.
• Increased opportunity for dental students to plan and provide comprehensive dental treatment to older adults at the St. Louis Dental Center.

Replicating this Innovation:
• Sponsor one or two dental hygienists already working in the CHC to take the online training (6 CE hours) from Oral Health America. It costs $30/person and includes access to the Tooth Wisdom materials. Dental hygienists can present the program and provide screenings (if your state law permits).
• One staff member from the outreach programs can schedule the programs and provide administrative support.
• Assign a patient care coordinator (PCC) to the project. The PCC can check for any benefits and assist with registration and follow-up appointments.
• This program has flexibility and can be presented annually, biannually, quarterly, or monthly depending on the community needs and health center capacity for new patients.

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CP24
Improving Knowledge of Hepatitis C Virus in Community Members Who Have Regular Contact with Populations at High Risk for Infection

Poster Type: Research
Category: Patient and Community Engagement

Research Objectives: To assess tattoo artists’ and methadone clinic employees’ knowledge of hepatitis C virus (HCV), comfort discussing HCV, and perceived likelihood in discussing HCV with their clientele before and after education. These individuals regularly interact with high-risk community members who may have been exposed to non-sterile tattoos or intravenous drug use.

Study Design/Methods: We contacted ten tattoo studios and one methadone clinic to recruit artists and employees. Recruited participants were given a pre-session questionnaire to complete at (t0) followed by an HCV education session. An identical questionnaire was administered immediately after the education session (t1). We visited each site two weeks later (t2) to administer the same questionnaire. In addition to assessing HCV knowledge, participants’ comfort and likelihood in discussing HCV with clientele were also measured. Data were analyzed using the Sign test, with a p-value of less than or equal to 0.05 as significant.

Principal Findings and Quantitative/Qualitative Results:
Three tattoo studios (four artists) and one methadone clinic (14 staff members) participated in the study (n=18). All 18 participants completed questionnaires at all time points. Between t0 and t2, there were significant increases in objective understanding of HCV (p<0.01) and perceived knowledge of HCV (p<0.0001). Mean scores of comfort and likelihood in discussing HCV with future clients also increased between t0 and t2; however, these were not statistically significant (p=0.50 and p=0.34, respectively). Participants reported discussing HCV more often with clients between t0 and t2 (p=0.02). At all time points, there was a perceived benefit to receiving HCV education.

Conclusions on Impact on Health Centers: Our study suggests that the education session effectively increased perceived and objective HCV knowledge and fostered discussions between participants and their clients about HCV. We hope this increase in knowledge will guide those at risk to get screened at North Country HealthCare. Our project could serve as a model for future outreach and public awareness programs. Further research may target additional high-risk populations (e.g., elderly, homeless, veterans, previously incarcerated) to improve health outcomes. We plan to present our findings to North Country HealthCare in the hopes of encouraging continued outreach within the community.
Conclusions on Impact on Health Centers: The main impacts of this project were improving our community’s understanding about medication disposal, and testing a concept that could be easily modified to highlight specific local needs, and then conducting a similar survey.

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CP26
Expanding Dental Workforce Training Within Collaborative, Team-Based Care Targeting FQHC/Underserved Populations

Poster Type: Research

Category: Expanding Access to Care and Other Services; Improving Care for Special Populations; Quality of Care and Quality Improvement; Workforce

Research Objectives: A.T. Still University, Arizona School of Dentistry & Oral Health (ASDOH) and School of Osteopathic Medicine Arizona (SOMA) have implemented a clinic-based interprofessional education (IPE) experience to evaluate and expand dental workforce training within collaborative, team-based care in a federally qualified health center (FQHC) in the Seattle, Washington area.

Study Design/Methods: Dental students worked with medical students to see patients that presented for medical appointments. Together, students assessed patients’ physical and oral health. Medical students taught dental students how to assess a patient’s overall health and dental students taught medical students how to assess oral health. Students documented a history and physical and medical assistants surveyed patients for their overall experience at the end of each visit.

Principal Findings and Quantitative/Qualitative Results: The dental students saw 203 patients (76.6% adults and 23.4% children) and 74% of them had at least one medical condition: 48 patients were referred to the FQHC dental clinic; 15 patients made an appointment; 12 patients were seen, 2 patients did not show, and 1 patient has a future appointment; 111 patients completed the satisfaction survey; 107 patients (96%) were satisfied. From August 2016 to December 2017, 44 dental students and 20 medical students rotated through the IPE experience once and 2-3 times respectively. Some medical assessments dental students learned included listening to heart and lungs and dermatologic examinations.

Conclusions on Impact on Health Centers: Students saw a variety of medical conditions and learned how to treat patients as a team. Medical students trained dental students on medical assessments that may not be part of their dental school routine and in return, dental students trained medical students on oral cancer screenings and other oral health screenings. The students referred many patients to the dental clinic and most
patients enjoyed the IPE experience at the clinic, they found it informative and useful.

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CP27
Using Digital Imaging in the Care of Pediatric Dental Patients
Poster Type: Innovation
Category: Quality of Care and Quality Improvement

Issue or Challenge: Tooth loss due to infection or caries (cavities) is a common occurrence in the community health center pediatric population. It is essential to hold the space created by tooth loss in order for proper eruption of the permanent teeth and to minimize future aggressive orthodontic interventions. The conventional method to hold the oral space open is by creating a space maintainer. This time consuming, costly process involves numerous steps in the dental office, lab processing, and fabrication of the appliance. To address these issues, we have adopted the innovation of digital scanning of the pediatric dental arch.

Description of Innovation: Upon the loss of a tooth, a space maintainer should be placed as soon as possible to maintain the space for the permanent tooth to erupt. Following a dental examination, the dentist is able to take a small fiber optic scanning wand, about the size of an adult toothbrush, and move it over the top and sides of the teeth, capturing the existing teeth, dental arch and any spaces. The digital image is then processed within the scanning software where the dentist reviews and finalizes the image. Any corrections or changes can be easily made. This takes just a few minutes at chairside which is essential for small children. The highly accurate image can then be sent via an encrypted file to the dental laboratory for fabrication of the space maintainer. Using a Digital Intra-Oral Scanning (IOS) system rather than conventional impression technique, we can generate a highly accurate impression of the mouth, not only faster, but also with minimal discomfort to the child, thereby improving their dental experience and compliance. All of these factors contribute to improved access to care and better patient compliance and a lower cost. And children love to see their mouth appear on the screen!

Impact or Result: The use of intra-oral digital scanning: (1) improves the patient experience by eliminating the need for uncomfortable impression material which is poorly tolerated by children; (2) reduces chairside time to just a few minutes allowing for more patents to be seen; (3) reduces cost due to elimination of steps and materials; (4) reduces wait time for delivery of space maintainers; and (5) produces a better result due to the highly accurate digital scan. The overall impact of using digital scanning in place of traditional impressions for space maintenance in the dentition contributes to a novel innovation and improved practices that community health centers continuously strive for.

Replicating this Innovation: This innovation can be easily incorporated into care of community health center dental patients once the intra-oral digital scanning device has been purchased and staff trained. Other than periodic updates in technology and accompanying staff training, the device and process become a part of normal patient care.

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CP28
Applying Osteopathic Manipulation Techniques to Decrease Stress and Anxiety in Patients with Hypertension
Poster Type: Research
Primary Funding Source: A.T. Still University-SOMA
Category: Behavioral Health Services; Expanding Access to Care and Other Services; Improving Care for Special Populations; Patient and Community Engagement

Research Objectives: The purpose of this study is to elucidate the effects that Osteopathic Manipulative Medicine (OMM) and educational intervention can have on hypertensive patients, specifically measuring psychological and physiological stress responses. The project also served to introduce OMM to the Near North Health Serve Corporation (NNHSC) patients in Chicago, IL.

Study Design/Methods: The study was conducted as a randomized, single-blind, placebo-controlled study. NNHSC patients, on the day of experimentation, were recruited based on their diagnosis of hypertension from a chart review. Subjects were randomly assigned into either OMM or sham groups for the initial intervention. One week later subjects were to return for a follow-up OMM treatment and further data collection. Data collected included the Perceived Stress Questionnaire (PSQ), a mood survey, vital signs, and pulse plethysmograph data including blood pressures and ankle-brachial index. Two-way ANOVA models and logistic regression analyses were used to assess the interaction between intervention and time.

Principal Findings and Quantitative/Qualitative Results:
Of 21 participants who responded, regardless of intervention, the majority agreed or strongly agreed they were usually stressed (n=12, 57%), they thought their treatment was helpful (n=18, 86%) and enjoyable (n=20, 95%), and they would return for more treatments (n=20, 95%). At follow-up OMM-only intervention, the PSQ decreased 0.03 (95% CI, -0.18-0.24) in the group who originally received OMM (n=9) and decreased 0.02...
(95% CI, -0.22-0.25) in the group who originally received sham (n=7) (p=0.93).

Conclusions on Impact on Health Centers: Due to the lack of statistically significant p-values, we are unable to draw concrete conclusions; however, we have found encouraging preliminary results. The PSQ score decreased after OMM intervention compared to sham treatment, although the current study results cannot support this effect is statistically different from a placebo intervention. NNHSC patients and staff appeared receptive and enthusiastic about OMM treatments as adjunctive therapy for hypertension and anxiety. We recommend future studies intervene with a larger sample size containing a more diverse population, and a more longitudinal study for follow-up OMM treatments.

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CP29
ATSU-SOMA Mentors in Medicine Program: Improving Health Education in Woodlake Unified School District and Surrounding Community

Poster Type: Research
Category: Improving Care for Special Populations

Research Objectives: Obesity is a significant health concern in California’s Central Valley, increasing the risk of developing chronic diseases. The purpose of our program is to educate students on nutrition, mental, and physical health, to introduce goal-setting, and train students on how to teach back knowledge they learned to impact the community.

Study Design/Methods: The study involved completing six health-module sessions addressing topics mentioned above with one classroom of fifth-grade students at Castle Rock Elementary School. Initially, a pre-test was given to assess their baseline knowledge. The final session concluded with a post-test to assess students’ knowledge about the material presented. Data analysis involved comparing the results of the pre- and post-tests to assess retention of information pertaining to living a healthier lifestyle. After each module, students took home material to aid teaching back the information to their parents. Each module had an associated survey for parents, which assessed the success of teach-back.

Principal Findings and Quantitative/Qualitative Results: Pre-tests and post-tests were handed out to 24/400 students in the fifth-grade classroom: 20/24 pre-tests were returned (n=20) and 15/24 post-tests were returned (n=15). Objective responses improved significantly with two tailed P value=0.0100, indicating that students’ knowledge of health topics improved. Goal setting responses remained statistically insignificant with two tailed P value=0.1439, P=0.4530, respectively. The subjective surveys were returned by 4/24 parents. The results indicated that the teach-back method worked, however small sample size limited data analysis.

Conclusions on Impact on Health Centers: The health-module sessions yielded a statistically significant difference when assessing the objective questions showing student knowledge improved; however, we found no statistically significant difference when assessing the subjective and goal-setting responses. Future research may be indicated to investigate these effects in children of higher grade levels with incorporation of age appropriate topics for that respective population. Regardless of the age groups, we hope the lessons shared during these educational sessions may be seen in practice throughout the community as the students make changes in their own lives and continue to share their knowledge.

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CP30
A Decisional Treatment Tool: Key to Positive Experience for Oral Care of Autistic Patients

Poster Type: Innovation
Category: Improving Care for Special Populations

Issue or Challenge: Providing oral care for patients with autism spectrum disorder poses numerous challenges during all phases of prevention and treatment. Oral health care providers often lack the training or awareness in the management of autism spectrum disorder patients resulting in fearful, uncooperative patients. Unsuccessful dental appointments are very stressful for the patient as well as leading to additional dental visits, expense, and possibly avoidance of dental care all together. With proper training and tools, clinicians are able to overcome treatment barriers offering efficient, compassionate treatment resulting in better access to care through fewer, shorter, and more productive visits.

Description of Innovation: Our innovation presents a comprehensive Oral Health and Treatment Decision Tool for CHC oral health providers. Developed by trained dentists working with autism spectrum disorder patients, in a CHC environment, the tool provides a step-by-step model in how to assess ALL aspects of the autistic patient’s care.

Comprehensive Dental Health and Treatment Decision Tool:

1. Observation of patient’s behavior on initial examination: ability to be cooperative in dental chair; ability to be transferred from wheelchair to dental chair; ability to open mouth when requested to do so; ability to communicate; ability to swallow; and ability to tolerate mouth props.
(2) Review past appointment history: diagnosis and treatment considerations; past dental experiences; what interventions worked and what did not work.

(3) Test patient’s reactions to various stimuli: reclining of the dental chair; effect of nitrous oxide on demeanor; the sound of the vacuums and hand pieces.

(4) Based on the Decision Tool findings, decide whether or not treatment can be accomplished within the community clinical setting. Refer if needed.

Key Concept: Decisions concerning treatment will be affected by the patient’s ability to tolerate treatment and the clinician’s ability to render treatment.

Impact or Result: Providing oral health care providers and support staff with a developed Decisional Treatment Tool to take back to their community health center will support better access to care for special needs patients, a more predictable appointment time, and successful treatment outcome. This patient-tailored oral health care approach is intended to avoid unnecessary referrals due to limited treatment protocol as well as lower costs, support ease of care, and decrease the number of unsuccessful visits. Ultimately, shorter, successful dental visits will result in a healthier patient.

Replicating this Innovation: The Decisional Treatment Tool can be taken to any community health center dental clinic and reviewed by the appropriate administrators, clinicians, and staff; and discussed, adapted, and utilized in a short period of time. By allowing stakeholders to participate in the implementation of this Tool, there will be a greater chance of acceptance and integration into special needs care.

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CP31

Bridging the Patient-Provider Gap: Using Multimedia to Enhance the Quality of Advanced Care Planning Discussions

Poster Type: Research
Primary Funding Source:
Category: Quality of Care and Quality Improvement

Research Objectives: Advance directive (AD) describes patient end-of-life care wishes and embodies their medical autonomy. Barriers often prevent providers from initiating Advanced Care Planning (ACP) discussions. ACP Decisions videos help address these barriers. The goal of our study is to assess the use of these videos in a primary care setting.

Study Design/Methods: English and Spanish speaking patients, aged 65 or older, at El Rio Community Health Center without an AD, were selected to participate in our study during regular provider visits between 2/26/18-3/9/18. Participants were given surveys that used a Likert scale from 1, being least likely, to 5, being most likely, before and after viewing an ACP video. The surveys assessed participants’ prior knowledge of ACP, as well as readiness to make an advanced care plan, discuss it with others, and designate a medical proxy. Participants were given a Five Wishes AD form they could read at home and complete later.

Principal Findings and Quantitative/Qualitative Results: Out of 47 selected patients, 35 agreed to participate and complete the study. Four participants were excluded from analysis due to preexisting ADs resulting in 31 participants. In the pre-survey, 20 participants knew they could discuss ACP with their provider and 18 were familiar with what ACP entails. Paired t-tests of the pre- and post-survey’s nine-questions responses showed no overall significant effect (t=1.06, p=0.296). These findings suggest that participants did not show an improvement in their confidence or readiness to discuss end-of-life care or medical proxies, make an advanced directive, or choose a medical power of attorney.

Conclusions on Impact on Health Centers: Our study was part of a larger El Rio Community Health Center initiative to engage more providers and patients in ACP discussions. While the results show no significant effect of the ACP video, many patients enjoyed the video and had conversations about end-of-life options with their provider afterwards. A rapidly administered pre-post survey may not demonstrate a change in participant readiness to complete an ACP, but the videos may serve as a positive opportunity for future discussions to occur. Prospective research could determine the best time to offer the ACP video and assess its long-term effects.

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CP32

Kulia i ka Nu’u (Strive for the Highest) Health Education Project

Poster Type: Research
Category: Patient and Community Engagement

Research Objectives: The purpose of our project is to improve health knowledge through health education classes for high school students in the underserved community of Waianae, Hawaii.

Study Design/Methods: Our study participants included 13 high school students who are interested in pursuing careers in the medical field, ranging from age 14-19 years old. The curriculum consisted of six, two-hour classes on a variety of health topics including cardiovascular diseases, diabetes, addiction, mental health, and sports injuries with a cumulative review at the end. Health comprehension, retention, and
confidence levels on topics taught and confidence teaching these topics to others were tested in pre- and post-surveys. The data were analyzed using a paired t-test.

Principal Findings and Quantitative/Qualitative Results:
The response rate was 100% from all participants, except for two classes with only nine out of thirteen participants attending the session. The remaining four sessions had all thirteen participants attending and completing surveys. We conducted a two-tailed paired t-test to assess their health knowledge. The average pre-test survey score was 58.25%; the average post-test score was 90.87%, a 32% increase (P-value<0.0001). From our results, we determined there was a significant improvement in health knowledge with regards to our topics.

Conclusions on Impact on Health Centers: Our project’s design and curriculum demonstrated improved health education retention in all study participants for the 13 high school students from Waianae. Participants recorded positive improvements in confidence of taking each post-test and educating others regarding project material. The students were engaged and interested in each topic and recommended that our project continue each year. The students are currently in a health tract program at Waianae High School and showed great interest in the medical field. They are real leaders in their community and strive to educate others in their community in Waianae.

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CP33
Determining the Effect of Musical Therapy and Basic Hygiene Education on Improving Mental Health and Well-Being of Bhutanese Refugees

Poster Type: Research

Category: Improving Care for Special Populations

Research Objectives: Refugee populations are often predisposed to mental health disorders due to their difficult transitions and subsequent struggles with cultural identity and changes in family dynamics. Focusing on the Bhutanese refugee population of Cincinnati, we utilized musical therapy and preventive care education to address the connection between physical and mental well-being.

Study Design/Methods: Elderly Bhutanese refugees were recruited from a Global Music and Wellness program, HealthRHYTHMS. Participants had limited education, didn’t speak English, and had been refugees for most of their lives. Four sessions consisted each of a musical mindfulness activity and an interactive lesson on hygiene and healthy living in English with translators present. Participants were to share what they’d learned with their families, who’d then complete the homework. Participation and understanding were measured through homework and in-class discussion, with inductive content coding used to analyze qualitative data from the homework – 1 point for each correct answer, 0 points for unclear/incorrect ones.

Principal Findings and Quantitative/Qualitative Results:
Seven of 15 participants turned in Homework 1 (basic hygiene) and averaged an 85% score. This session had the best understanding, with great participation in and out of class. Only 3 of 12 completed Homework 2 (oral hygiene), but they averaged 100%. They seemed to grasp details about proper brushing/flossing, but knowledge was more regurgitated rather than independent thought. Five of 15 returned Homework 3 (mental health) and scored a 68% average. This lower average matched our observations during class of obvious reluctance in discussing this topic. Sessions included the same participants, with fluctuation based on transportation and personal schedule.

Conclusions on Impact on Health Centers: The Bhutanese refugees showed general understanding of basic hygiene but had difficulty with the topic of mental health. Overall, they enjoyed the musical portion as an icebreaker and outlet for self-expression. The educational portion was effective in teaching the importance of physical and mental health in overall wellness and bringing that knowledge to their community. This project serves as a model for other health centers to use and adjust where needed in order to increase awareness and maintenance of mental wellness in their own refugee populations. We aim to present our work to organizations that work closely with refugees.

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CP34
Reducing Liver Cancer Burden in the Refugee and Immigrant Population

Poster Type: Innovation

Primary Funding Source: Cancer Prevention Research Institute of Texas (CPRIT)

Category: Expanding Access to Care and Other Services; Improving Care for Special Populations; Patient and Community Engagement; Quality of Care and Quality Improvement

Issue or Challenge: In the United States, up to 1.4 million people are chronically infected with the hepatitis B virus (HBV). The Center for Disease Control and Prevention (CDC) states that 1 in 12 Asian Americans has hepatitis B, and 2 out of 3 don’t know they have it. African immigrants are also disproportionately affected, with an infection rate of approximately 1 in every 10 individuals. Left untreated, hepatitis B can cause terminal liver cancer. The high percentage of immigrant and refugee populations served at HOPE Clinic, from countries without mandatory vaccination policies for this infection, led the rationale of this study.

Description of Innovation: Houston hosts one of the largest immigration populations in the nation, being home to many Asian and African immigrants from countries with a high prevalence of hepatitis B. The project aims to reduce the liver cancer burden in the immigrant and refugee community in greater Houston by innovatively targeting hepatitis B through outreach, education, screening, vaccination, and linkage to care. Culturally and linguistically appropriate staff members were utilized to outreach in communities with a disproportionate number of immigrants and refugees to provide educational workshops and materials about hepatitis B. Vouchers for free screenings were given to participants at health fairs, community meetings, and other locales that targeted high-risk populations. Patients who came to HOPE Clinic with the completed voucher filled out a short questionnaire to determine their status. Depending on their answers, patients were vaccinated and screened for the surface antigen, surface antibody, and core antibody, and linked to care. HOPE Clinic integrated secondary care at a primary care level to provide increased access to health care for the medically underserved populations and managed the hepatitis patients in-house. Patients with chronic hepatitis B did not need to seek out a specialist, but were monitored at the primary care level.

Impact or Result: This targeted approach of education and screening with linguistically and culturally suitable individuals allowed HOPE Clinic to identify previously undiagnosed individuals at a rate twice what would be expected per the CDC. Between 2008 and 2016, a total of 8,235 persons were screened as described above, with 21.2% being diagnosed as hepatitis B positive. A total of 16,259 doses of HBV vaccines were administered during this project.

Replicating this Innovation: Integration of primary and secondary care in a linguistically and culturally appropriate manner can be replicated in federally qualified health centers and other organizations by hiring diverse staff from the community. Special populations, such as refugee and immigrant populations, rural communities, or other medically underserved communities have little access to specialty care. Staff from the community can build relationships, reach out to the special populations, and provide increased access to care and better management. Access to health care significantly increases if patients are able to receive all services in one location which also decreases health care costs.

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Presenter(s): Andrea Caracostis

CP35
Understanding the Capacity to Define and Document Homeless Status in the Electronic Health Record

Poster Type: Research

Category: Improving Care for Special Populations

Research Objectives: Improving methodologies to identify homeless patients in the electronic health record (EHR) is critical in maximizing quality health care outcomes among persons who are homeless. This survey study aimed to capture information from a cohort of health care systems to understand the variability in defining and documenting homelessness.

Study Design/Methods: In April/May 2017, a survey was conducted with health care facilities participating in the Chicago region’s PCORI-funded clinical data research network to understand how homelessness is defined and documented in EHR systems. We distributed the survey to 11 institutions; all responded. The sample included academic medical centers, public and private health systems, and community health centers. Survey questions included topic areas such as homelessness documentation systems and workflow integration, training on how to ask and document homelessness, and evaluation of those clinical departments in which these data are most often collected. Responses to the survey questions were both standardized and open-ended.

Principal Findings and Quantitative/Qualitative Results: Survey findings demonstrated that over 40% of sites have no standardized way in which homeless status is currently being collected. When collected, nearly 60% of sites do not have a systematic protocol in place to collect homeless status at each
visit. Also, only 10% of sites stated that all departments/care settings collect homeless status. Among sites that capture homeless status, there is variability in the definition. For example, 33% of sites deem a person living in transitional or supportive housing as homeless; similarly, only 44% deemed emergency shelter disposition or residence as homeless.

**Conclusions on Impact on Health Centers:** Homelessness is a critical determinant of health that requires more complete and uniform data capture. Implementing collection of homeless status across health care organizations is necessary to obtain a complete picture of the impact of homelessness on health. Such data will inform delivery of health care services to homeless patients to improve or maintain health; offer resources, treatments, and services which are accessible; and save costs through reduction of unnecessary acute care. Further work needs to be done to examine the interplay between homelessness and health with the purpose of developing interventions focused on adults, families, and youth.

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**Presenter(s):** Sarah S. Rittner

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**CP36**

**Factors Contributing to Low Birthweight in Black and Latinx Communities**

**Poster Type:** Research

**Primary Funding Source:** Maternal and Infant Community Health Collaboratives (MICHC)

**Category:** Social Determinants of Health

**Research Objectives:** Low birthweight and prematurity disproportionately impact African American infants. Despite extensive research, the literature does not comprehensively explain why. Sarah Lawrence College faculty and students, in partnership with Lower Hudson Valley Perinatal Network, have worked to gain a holistic understanding of this phenomena through focus groups and individual interviews.

**Study Design/Methods:** Focus groups were conducted in Westchester and Rockland counties with the aim to more fully understand the potential factors contributing towards inequities in low birthweight outcomes in African American and Latinx communities. Informed by these focus groups, we developed a mixed-methods individual interview with both qualitative and quantitative components for individuals who are currently pregnant or who have had a child within the past two years. The interview takes a biocultural approach, considering factors within the home, work, and wider social environments as well as characteristics of the physical environment that might impact both general health outcomes and low birthweight.

**Principal Findings and Quantitative/Qualitative Results:** Though this study is ongoing, results from the focus segment of the research indicated participants experienced financial stress, dissatisfaction with interactions with health care providers, and discrimination on the basis of race (within medical and community settings). Participants also noted poor housing conditions, limited transportation, a lack of resources for mothers, a lack of activities and safe spaces for children and a lack of healthy food options within their communities. To date, we have conducted 25 individual interviews, which have largely echoed our focus group findings.

**Conclusions on Impact on Health Centers:** The knowledge gained through this study will help the larger health care community to better understand and serve African American individuals’ perinatal needs. We also hope that participating in both the focus groups and individual interviews provides a forum in which community members are able to share their experiences and voice concerns in a way that feels empowering and supportive.

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**Presenter(s):** Emily Feltham, Amber Carroll

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**CP37**

**Barriers and Keys to Health Care Navigation for Latinos in a Nontraditional Migration Area**

**Poster Type:** Innovation

**Primary Funding Source:** Center for Clinical Translational Science and Training

**Category:** Expanding Access to Care and Other Services; Improving Care for Special Populations; Patient and Community Engagement; Quality of Care and Quality Improvement

**Issue or Challenge:** Although Cincinnati has reduced the number of residents with no insurance to 10%, the local Latino immigrant population is rapidly increasing. Because Cincinnati is a non-traditional immigrant destination, this population will face a critical lack of health care resources equipped to serve the needs of this population. In response, a group of University of Cincinnati medical students partnered with an organization currently providing a range of services to Spanish-speaking populations to establish a student-run free clinic. In order to anticipate the barriers to health care navigation for this population, the present study focuses on the service delivery experiences of existing providers.

**Description of Innovation:** Over a year before the clinic opened its doors, researchers began designing a multidimensional needs assessment. This project was innovative because it is part of a larger community-based
participatory research approach to understand the needs of the target population from many perspectives, including key stakeholders, potential patients, community members, and academic researchers. Existing service providers are a rich source of information when planning a new community resource and can help clinic leaders anticipate challenges and design policies with contextually appropriate solutions in mind. Additionally, the qualitative methods of data collection and analysis were innovative in conducting a needs assessment that elevates the experiences of participants such that they become co-researchers. Researchers collected semi-structured interviews with existing service providers representing the sectors of primary health, mental health, substance use, business, spirituality, and non-profit programs. Data was coded and analyzed with thematic analysis by a group of researchers. Findings were presented to clinic leaders to help design policies and practices to address emerging themes.

**Impact or Result:** The impact of this innovative project is the adoption of community-driven policies and practices by clinic leadership. Before the clinic opened its doors, researchers began developing a required training for all clinic staff and volunteers attuned to the findings of this project. Some of the themes incorporated in this training include:

1. Exposure to barriers to care for underserved populations (100% strongly agree or agree).
2. Knowledge of other health care fields (100% strongly agree or agree).
3. Attitudes toward working with the medically underserved (100% strongly agree or agree).

**Principal Findings and Quantitative/Qualitative Results:**

During the study time frame, 46 students were placed into program activities and 27 completed the survey (59%). Survey respondents indicated: the program participation had an overwhelmingly positive impact on confidence in providing care to diverse populations (96% strongly agree or agree); knowledge of other health care fields (100% strongly agree or agree); and attitudes toward working with the medically underserved (100% strongly agree or agree). Participants noted program strengths to include: exposure to barriers to health care, unique patient populations, and interdisciplinary practice. Areas for improvement in orientation to the program, scheduling, and experience time allotments were identified.

**Conclusions on Impact on Health Centers:** The positive responses from the survey results have provided solid evidence for continuation and expansion of the program. Process improvement has already begun. The potential impact to community health centers is multifold. Participation in this project may enhance the preparation of students for CHC employment, as well as increase interest in CHC employment. Emphasis on a team dynamic through the project addresses future health care shortages and touches on the Triple Aim, improving patient experience with better prepared employees, increasing health of the community, and decreasing costs through team-based approaches to care.

**Replicating this Innovation:** Other organizations can get started replicating this innovation by locating areas with gaps in services. By working with community members to identify needs and establish desired outcomes, researchers can begin to empower community members to participate in research efforts. We recommend utilizing community-based research approaches to identify areas of inquiry attuned to the unique needs of an organization’s service population.

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**Presenter(s):** Cassandra Hobbs

**CP39**

**Training the Next Generation: Workforce Development in FQHCs**

**Poster Type:** Innovation

**Category:** Workforce

**Issue or Challenge:** CHC, Inc. shares a common belief that the near- and long-term shortage of health care providers, coupled with the predicted aging of the current clinical workforce and the increasing demands for primary care by newly insured patients, calls for new and innovative approaches to address clinical workforce. In response to this challenge, CHC developed postgraduate residency training programs designed for new family nurse practitioners, psychiatric mental health nurse practitioners, and clinical postdoctoral psychologists. CHC also provides training opportunities to other members of the care team including nursing and medical assistants and hosts over 200 health professions students and trainees annually.

**Description of Innovation:** CHC has implemented seven formal training opportunities over the past decade to foster the transition from student to professional within community health centers in the following areas: family nurse practitioner residency training program (Est. 2007), psychiatric mental health nurse practitioner residency training program (Est. 2015), postdoctoral clinical psychology residency (Est. 2011), Center for Key Populations Fellowship (Est. 2017), Administrative Leadership Fellowship (Est. 2017), National Institute for Medical Assistant Advancement (NIMAA) (Est. 2016), and continuing education opportunities to baccalaureate RNs in the form of dedicated education units (DEUs) (Est. 2015). In addition, CHC hosts over 200 health professions students and trainees annually at the organization. CHC’s training and educational programs are *Training to Complexity*, *Training to a Model*, and *Training for the Future*.

**Impact or Result:** Our success is reflected in the numbers of new NP Residency Training programs that have been established and the increasing number of postgraduate NP residency programs in development. As of January 2018, there are 51 primary care nurse practitioner residency training programs across the country. To date, nationally there have been over 450 graduates of primary care NP Residency Programs. Internal results of our training programs include the following:

- **Family Nurse Practitioners** - 76 graduates
- **Psychiatric Mental Health Nurse Practitioners** - 3 graduates
- **Center for Key Populations Fellowship** - 1 graduate
- **Administrative Fellowship** - 1 graduate
- **Postdoctoral Psychology Residents** - 39 graduates
- **National Institute for Medical Assistant Advancement (NIMAA)** - 10 graduates with current enrollment of 46
- **Dedicated Education Unit (DEU)** - 32 graduates with current enrollment of 32

As a result of this innovation, CHC and its Weitzman Institute was awarded a National Cooperative Agreement (NCA) on Clinical Workforce Development.

**Replicating this Innovation:** We are now in our twelfth year and remain very committed to helping other organizations around the country develop similar programs. To that end, we have developed significant infrastructure including curriculum, evaluation tools, preceptor trainings, didactic content, recruitment strategies, and marketing materials. With CHC’s National Cooperative Agreement (NCA), we are supporting health centers by providing education, technical assistance, and training around “training the next generation.” Health centers can view recorded webinars and access tools and resources to help learn how to implement a postgraduate residency training program. Information is free and made available on our NCA website located at www.chc1.com/nca. Our Postgraduate Residency Team is also always available to help organizations who are interested in replicating this innovation.

**Author(s):** Kerry Bamrick, MBA, Program Director, Community Health Center, Inc.

**Presenter(s):** Kerry Bamrick
CP40

Georgia Family Planning System and MEE Productions Statewide Marketing Focus Group Research

Poster Type: Research

Category: Expanding Access to Care and Other Services; Patient and Community Engagement

Research Objectives: In August 2016, The Family Health Centers of Georgia, Inc. partnered with MEE Productions to conduct a statewide research project to increase awareness about GFPS medical centers. The goal was to create a culturally relevant outreach and education campaign to increase usage of the centers.

Study Design/Methods: Methods included five videotaped focus groups; a multi-level data coding and analysis process; and a video documentary based on focus group footage that summarized participant comments and graphically illustrated responses related to their awareness, attitudes, and perceptions of health care (reproductive and primary care) services.

Principal Findings and Quantitative/Qualitative Results: Outreach messaging should focus on promoting features of the center that resonate most with the target audience: respectful treatment, high-quality services, and low-cost services (access regardless of ability to pay).

Conclusions on Impact on Health Centers: Delivery on the features participants found most important could increase positive word of mouth, retention, and revenue.

Author(s): Sara Sullivan, Assistant Project Director, The Family Health Centers of Georgia, Inc.

Presenter(s): Sara Sullivan

CP41

Defining a Stakeholder-Driven Research Agenda in a Practice-Based Research Network of Federally Qualified Health Centers

Poster Type: Research

Primary Funding Source: PCORI Engagement Award

Category: Patient and Community Engagement; Quality of Care and Quality Improvement

Research Objectives: The Southeast Regional Clinicians Network (SERCN) is a practice-based research network (PBRN) of FQHCs in eight southeastern states. We conducted a broad assessment of research needs to inform a research agenda for our network. SERCN hosted a conference for regional stakeholders to translate themes from the needs assessment to define a research agenda.

Study Design/Methods: Focus groups were conducted in each state with relevant stakeholders and assessed QI/research needs and goals, barriers to implementing research, and educational and reciprocal needs. Transcripts were coded and analyzed with respect to themes. We then held a one-day working conference to culminate the two-year long engagement process. During the conference workshop on defining a network research agenda, the network director presented the results from the qualitative analysis. The director then introduced the functions and qualities of a research agenda and then facilitated a discussion in which stakeholders reached consensus and defined the SERCN research agenda.

Principal Findings and Quantitative/Qualitative Results: Participation: 74 stakeholders in 8 focus groups. Needs assessment themes included: high burden of social and medical complexity in FQHCs, importance of social determinants, workforce retention and quality, competing quality reporting priorities, and technology; 18 stakeholders defined the final research agenda, which stated that research in SERCN should: (1) support FQHC infrastructure and mission; (2) measure FQHCs’ impact on broad outcomes; (3) prioritize work that is meaningful to patients and communities; (4) support streamlining/interoperability of data infrastructure; (5) support primary care and behavioral health integration; and (6) study care delivery models for medically and socially complex populations.

Conclusions on Impact on Health Centers: This structured process to engage FQHC stakeholders in practice-based research was essential for us to understand the common needs of a PBRN that spans a geographically large and diverse area. This process resulted in a stakeholder-defined research agenda for our PBRN, which will potentially improve participation, engagement, translation, collaboration, and dissemination of future work. Understanding how this process could be adapted to other FQHC research and quality settings could enable engagement of stakeholders to develop guiding principles and priorities for research.

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Presenter(s): Anne Gaglioti
CP42
Colorado Ends Cancer: A Pilot Project Testing the Viability of mHealth Education in Rural Communities in Need of Cancer Screening - WITHDRAWN

CP43
iPrevent: An Interactive Program Rooted in Empowering, Educating, and Equipping New Orleans Youth

Poster Type: Innovation
Primary Funding Source: Substance Abuse and Mental Health Services Administration (SAMHSA)
Category: Patient and Community Engagement

Issue or Challenge: iPrevent OHL aims to address and alleviate substance abuse and HIV/Hep C in New Orleans youth. In 2014, 26% of all new HIV diagnoses in Louisiana occurred among persons 13-24 years old. According to 2014 U.S. Census Data, 39% of New Orleans children live in poverty. In February 2016, health officials in New Orleans declared opioid and heroin use a public health advisory after 12 young people died from Fentanyl-related overdoses. In neighboring Jefferson Parish, the Coroner’s Office reported that fatal heroin overdoses almost tripled in 2013 with 66 deaths reported that year, up from 23 in 2012.

Description of Innovation: iPrevent OHL is an innovative and interactive program rooted in addressing and providing resources for substance abuse and HIV/Hep C prevention programming to New Orleans youth. Through interactive platforms like our radio station, app, podcast, social media, and community events, we aim to educate, equip, and empower our youth! iPrevent OHL’s planning phase included collaboration amongst various internal and external stakeholders dedicated to developing a program that disseminates information and tools for prevention in an interactive and engaging manner. Through various meetings and focus groups, iPrevent was created and key dissemination platforms were identified. iPrevent now includes distribution of information through: Snapchat, Instagram, Facebook, Twitter, Youtube, website, and radio station. The iPrevent team develops and disseminates graphics, informational videos, podcasts, PSAs, and anonymous chats. All materials disseminated via iPrevent aim to educate our youth on topics like substance abuse, HIV, and Hep C along with the undeniable issues that impact said topics like access to education, mental health, job placement, and so on. Additionally, we use our platforms to connect individuals to care and we promote community events where free health services are provided and to our health clinic.

Minimally, we host focus groups once a year with a target population. We then incorporate what was shared via focus groups immediately in the next round of materials. Currently most of the resources are developed in-house, however our goal is to make it a true community space.

Impact or Result: It is worth noting that, iPrevent is on year two of a five-year program plan. Much of the time to date has been dedicated to the development of platforms and processes. To date, we have over 1,000 individuals following our different platforms. We have reached over 9,000 on Facebook alone with social graphics! We are excited to continue using our platforms to educate the community, connect folks to care, and provide a space for voices to be heard.

Replicating this Innovation: Other organizations can develop social media platforms like Facebook, Twitter, Instagram, and Snapchat. These platforms are regularly used by all, especially youth. It is a relatively inexpensive tool to disseminate educational information and connect individuals to care.

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Presenter(s): Helena Likaj

Quality of Care and Quality Improvement

CP44
Defining What Works: Development of a Best Practices Guide for Cardiovascular Disease Prevention Programs

Poster Type: Research
Category: Achieving Savings; Expanding Access to Care and Other Services; Patient and Community Engagement; Quality of Care and Quality Improvement; Social Determinants of Health; Technological Solutions and Tools to Improve Care and Population Health Management

Research Objectives: The Best Practices Guide for Cardiovascular Disease Prevention Programs was developed as an accessible, easy-to-navigate resource for health care systems and state and local health departments looking to implement cardiovascular disease prevention strategies.

Study Design/Methods: To guide our selection of strategies, we reviewed the evidence for practices that were supported by high-quality research and that demonstrated positive impact in effectiveness, reach, feasibility, sustainability, and transferability. An interactive online tool was used by two reviewers per strategy to assess evidence quality. Additionally, each strategy was reviewed for evidence of public
health impact in three categories: cardiovascular health, health disparities, and economics. The Rapid Synthesis and Translation Process guided our engagement of over twenty different subject matter experts and practice partners, both within and external to CDC, at multiple points from project initiation to completion.

**Principal Findings and Quantitative/Qualitative Results:**
Eight best practice strategies were identified and are highlighted within the areas of health services, pharmacy care, patient self-management, and reducing barriers to treatment for cardiovascular disease prevention. All strategies were supported by high-quality research and had been independently replicated. Implementation guidance was available for five strategies. All of the strategies showed positive health impact, four strategies had evidence showing promising health disparities impact, and five strategies showed positive economic impact.

**Conclusions on Impact on Health Centers:** Public health strategies to detect, prevent, and control cardiovascular disease can be implemented at many levels, from individual behavioral interventions to broader environmental or cultural strategies. Since resources are limited and the need to prevent cardiovascular disease is widespread, decision makers and public health professionals must choose strategies that are effective and sustainable. The Best Practices Guide is an informational resource with strategy implementation highlights, policy/law-related considerations, and links to available resources and tools. It will be useful to health care and community systems working toward implementing effective, evidence-based practices to eliminate barriers to quality care and improve population health.

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**CP45**

Heart Smart for Life! Improving the Mind, Heart, Body, and Soul of Our Community!

**Poster Type:** Innovation

**Primary Funding Source:** AstraZeneca HealthCare Foundation

**Category:** Patient and Community Engagement

**Issue or Challenge:** Our program targets Mercy Comprehensive Care Center (MCCC) patients and engages the community, especially those with chronic diseases. According to the 2017-2019 Erie County NY Community Health Assessment, “Cardiovascular Disease is the leading cause of death in Erie County. County residents experience 33% more heart disease death than the average U.S. citizen.” Risk factors contributing to heart disease (smoking, high blood pressure, high cholesterol, and obesity) are significantly higher here than in the rest of the state. In our racially diverse community, over 48% of residents live below the poverty line. Rates of poverty and obesity are twice the national average.

**Description of Innovation:** The Heart Smart for Life Program breaks through the walls of the clinic and engages people where they live, work, and play. Recruitment begins via a mobile health screening van, presentations at community partner sites, clinic referrals, and through “bring a friend” efforts. Through weekly screenings, classes, and healthy lifestyle support, participants learn how to improve lifestyle choices. The focus of the program is heart disease, stroke prevention, and diabetes education. The program is free and open to the public. Education sessions are held weekly in the community room at the Mercy Comprehensive Care Center in Buffalo. Participants receive a three-month program of up to 12 classes on various topics such as cardiovascular health, nutrition, exercise, behavioral health issues, and medication usage. Classes include demonstrations of heart-healthy meals and a gift card to the local grocery store. The area is a food desert, so in the summer coupons are provided to an on-site farmer’s market. Classes function as a support group, fostering peer-to-peer relationships. The program also promotes 1:1 relationships with health care professionals. Participants receive a personalized plan that includes CV health goals and supportive lifestyle suggestions. The program tracks significant improvements in participant clinical and behavioral measures.

**Impact or Result:** In the first year of the program, the MCCC has helped over 700 people overcome barriers to health. Members of the program at the highest risk with a BMI over 25 have lost 380 pounds by making healthier choices a habit. They have increased their daily fruit and vegetable intake, reduced portion sizes, increased water consumption, and began exercise programs. Additionally, 94% of participants with an active diagnosis of hypertension lowered their blood pressure. One-on-one relationships with the staff and freedom to share their struggles has helped participants find a supportive environment. Every single participant felt they had achieved a heightened sense of self-esteem. Although it is a 3-month program, many participants have joined multiple sessions because they are eager to learn more. These lifestyle changes are reducing blood pressure and cholesterol levels, and creating a community that is truly “Heart Smart for Life.”

**Replicating this Innovation:** There are many steps that any health care organization can take to replicate the Heart Smart for Life Program. We are in the process of creating a toolkit and developing proof of concept for replication at other primary care sites. Our toolkit will be a step-by-step process on how to develop the program and engage the community. Starting small and getting to know your audience are key to a successful program. Our program began by tabling events in the lobby of our clinic. Providing samples of nutritious food introduced patients to educational programming. The core of our program is a fun, stress-free, environment where people feel like they belong.

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**Presenter(s):** Jeanne O’Hara
How Incentives Can Improve Clinical UDS Performance

**Poster Type:** Innovation

**Primary Funding Source:** Quality initiative money from the BPHC and our Managed Medicaid plans in SC

**Category:** Quality of Care and Quality Improvement

**Issue or Challenge:** CareSouth Carolina was looking for ways to improve its UDS scores. We wanted to design and test an employee incentive that would excite our center staff and improve our UDS scores simultaneously. Our incentive caused marked increases in numerous UDS scores from 2016 to 2017.

**Description of Innovation:** We chose six UDS measures from pediatrics and women’s health, and seven UDS measures for adults to target improvements by offering staff a $50 incentive per progressive improvement towards a year-end goal. This goal was determined by calculating the medical staff’s goal at the end of 2016. We then subtracted that baseline measure from the goal we set for 2017 and split the progress over the four quarters of the year. Each quarter’s goal was progressive and had to be met each quarter to receive the incentive. For example, “Provider A’s” current measure results are 20% compliance. The goal is 40%, each quarter they must go up at least 5% without losing any ground. If a provider’s team is at goal currently, then they automatically get the award for that measure. The centers decided which staff from each provider team would work on the individual goals and those members received the $50 incentive per quarter with a max of $300-$350 per staff member respectively. The UDS data was tracked and measured each quarter and then staff payments were made.

**Impact or Result:** CareSouth Carolina saw improvements in all of the core UDS incentive measures for pediatrics, adult, and women’s health services. We saw improvements in seven UDS measures: Child and Adolescent Weight Assessment and Counseling, Tobacco Use Screening and received cessation education or on cessation meds, Colorectal Cancer Screen (Colon, Ann. 3 card FOBT, Colon, Ann. 3 card FOBT, Flex sig), Coronary Artery Disease (CAD): Lipid Therapy, Ischemic Vascular Disease (IVD): Asp or Antithr Thera, Controlled HTN-65 yrs, and Prenatal Patients beginning prenatal care in first trimester.

**Replicating this Innovation:** Simply choose a UDS measure or an improvement that you can monitor, offer an incentive, and watch for the improvements. As a management team, we had hoped to peak staff interest and see some improvements. We have never seen improvements in UDS measures like we saw with this incentive program. It worked for us and it can work for you!

**Author(s):**
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**Presenter(s):** Randall Carlyle

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The Addition of Health Education to Care Management for Patients with Diabetes and Morbid Obesity

**Poster Type:** Innovation

**Category:** Improving Care for Special Populations; Quality of Care and Quality Improvement

**Issue or Challenge:** Often times the community health provider is stricken with the task of managing uncontrolled diabetes and morbidly obese patients with several comorbidities. One of the challenges we wanted to address was the ability to properly educate these patients on nutrition, exercise, and weight management. Patients come across many challenges in these areas of health care: whether it be limited time with providers, limited access to information on healthy food or how to properly exercise, or limited information on the major impacts these aspects of health care have on both diabetes, morbid obesity, and their common comorbidities.

**Description of Innovation:** For this innovation, we wanted to provide straightforward and cost-effective health education to our patients. After provider referral, patients met with a health educator in a private setting. The health educator assisted the patients in creating food journals, choosing healthy foods that were affordable, and eliminating barriers to changing dietary habits. The health educator also instructed the patients on exercise recommendations and provided patients with creative and effective ways to exercise with little to no cost to the patients. The health educator also instructed the patients on the importance of maintaining balanced nutrition and staying active, and how these lifestyle changes would positively affect their disease outcomes. This innovation allows the provider to be able to address the nutrition and exercise component of treating diabetes and morbid obesity while still being able to stay on schedule and efficiently see patients throughout the day.

**Impact or Result:** Patients that participated in the innovation saw significant decreases in random blood sugars and will hopefully see a decrease in HbA1c after three months of being educated on nutrition, exercise, and weight management. We also hope to see greater decreases in BMI of both our diabetic patients and morbidly obese patients. The most important impact was the addition of a health educator position to our clinic, which will have a substantial effect on the health of our patient population as nutrition and exercise are increasingly correlated with many disease processes.

**Replicating this Innovation:** This innovation is easily replicated once a person is knowledgeable about nutrition and exercise, along with some knowledge of the disease processes of diabetes and obesity—taking on the role of health educator. Being able to effectively identify and correct poor dietary and exercise habits is crucial to the position, but once that person is identified, the innovation can be seamlessly streamlined into the practice.
Jessie Trice Cancer Prevention Program: Evaluating a Community-Based Initiative to Educate and Screen Underserved Women for Breast and Cervical Cancer

Poster Type: Research

Primary Funding Source: Health Choice Network of Florida, Inc.

Category: Expanding Access to Care and Other Services

Research Objectives: The Jessie Trice Cancer Prevention Program (JTCP) is an innovative community-based initiative to educate and screen women for breast and cervical cancer, particularly among underserved minorities. We conducted a qualitative and quantitative evaluation to assess JTCP’s impact on communities served and to identify opportunities for program expansion and future research.

Study Design/Methods: Quantitative methods involved extracting participant data from the JTCP database, built in Microsoft Access and used by participating community health centers (CHCs), to analyze variables related to numbers of patients screened, screening outcomes, visit referrals to CHCs and follow-ups, as well as patient demographic data. Data were analyzed in SPSS V24. Qualitative methods involved group interviews with CHC CEOs and CMOs, outreach directors and workers, program managers, and case managers – plus community partners working with the CHCs. Interviews were recorded and analyzed in NVivo 11.4.3.

Principal Findings and Quantitative/Qualitative Results: Over seven years of JTCP data was assessed and the program identified 7,985 patients who needed a follow-up visits for cervical or breast cancer screening. Of those referred, 35.3% completed their follow-up appointments at a CHC. From the interviews, we identified challenges of patients completing follow-up appointments and tests (affordability, insurance status, age, and other program eligibility issues, and immigration status concerns); the value of working with community partners to engage the target population (authenticity, community trust, and avenues for program sustainability); and opportunities to assist CHCs to enhance and expand programming (funding to reach more women and database and HIT/EHR support).

Conclusions on Impact on Health Centers: Vulnerable populations suffer health inequities for breast and cervical cancer. JTCP has addressed the gap for thousands of patients in South Florida. Challenges persist and more policy, systems, and environmental changes must be made to fill care gaps for patients who cannot access care. Possible expansion of JTCP in terms of funding and technical support for CHCs, with programmatic flexibility allowing CHCs to best implement JTCP within the contexts of their communities, could provide opportunities to increase community and clinical breast and cervical cancer services and to better study the effectiveness of JTCP’s outreach, education, and referral processes.

Barriers to Colon Cancer Screening and Follow-Up in Rural Community Health Settings

Poster Type: Research

Category: Quality of Care and Quality Improvement

Research Objectives: Rural Southern Illinois has disparately high colorectal cancer (CRC) mortality, and improving CRC screening could have a big impact. Through collaboration between researchers and community providers, we investigated processes, barriers, facilitators, and suggested interventions for CRC screening and follow-up, as formative research for a multi-level intervention in applicable provider settings.

Study Design/Methods: Semi-structured interviews were conducted with 38 primary care providers (PCPs) and staff, 3 colonoscopists, and 6 patients from 12 clinics that were part of a large physician-hospital organization in the region. Interviews were one-on-one or in groups, depending on clinic preference and availability. All patients were individually interviewed. After each clinic visit, trained interviewers summarized screening and follow-up steps, mapped the screening process(es) for the site, and tracked reported barriers. Using principles from text analysis, we made comparisons between, within, and across sites to determine current EBP usage and barriers reported at each intervention level.

Principal Findings and Quantitative/Qualitative Results: Clinics varied in their approach to screening, but common barriers were identified including: transportation, patient objections to colonoscopy/preparation, EHR challenges, and screening cost. PCPs and staff identified similar barriers as patients and colonoscopy providers, though transportation was mentioned as a barrier more often by providers. The evidence-based practices in which clinics expressed interest included patient navigation, improved tracking systems, and cost assistance. Preferences and barriers seemed to vary based on perceived patient population characteristics. PCPs and colonoscopists identified different barriers to screening, indicating a need for a more unified approach to defining barriers for their shared patient population.
Conclusions on Impact on Health Centers: Rural primary care providers have developed innovative processes for CRC screening and follow-up, adapting evidence-based processes to fit their working style, perceived preferences and needs of their patients, and the clinic-level and community resources available. Such variation will affect the implementation and success of interventions. Overtaxed and under-resourced primary care sites serving rural communities with high CRC mortality burden may require providers and researchers to adapt EBPs and develop flexible interventions and implementation strategies to be successful. Researchers need to plan for and assess unique contexts across providers and sites, and allow for and monitor adaptation of interventions and strategies.

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Presenter(s): Aimee James

CP50
How FoundCare Changed Its Clinical Culture

Poster Type: Research

Primary Funding Source: FOCUS of Gilead Sciences

Category: Expanding Access to Care and Other Services; Public Health Crises; Quality of Care and Quality Improvement

Research Objectives: Palm Beach County has one of the most severe opioid epidemics in the United States, resulting in increased intravenous drug use. This has led to Palm Beach County having the highest rates of hepatitis C virus cases in the State of Florida.

Study Design/Methods: In order to address these countywide health disparities, FoundCare implemented an agency-wide routine HIV and hepatitis C virus testing initiative [1] to identify undiagnosed individuals and link those individuals to care. This allowed FoundCare to create one of Palm Beach County’s most comprehensive hepatitis C linkage-to-care programs. In addition to our inclusive HIV and hepatitis C linkage services, FoundCare integrated behavioral health into the linkage process with the agency’s medical providers to assist in alleviating potential barriers to care by addressing any pre-existing or potential behavioral health concerns.

Principal Findings and Quantitative/Qualitative Results: FoundCare began routine HIV and hepatitis C virus testing as a standard of care for all eligible patients on March 1, 2017. As a result of this implementation, FoundCare conducted 7,018 hepatitis C tests and 5,958 HIV tests within the first 12 months. This led to the identification of 69 HIV-positive individuals (95% of whom were linked to care) and 73 HCV-positive individuals (92% of whom were linked to care). The assistance offered as a result of this linkage is geared specifically to each individual’s needs, and may include interventions from primary care, infectious disease, behavioral health, or other providers.

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Presenter(s): Taylor Velasquez

CP51
Understanding Diabetes Management Among Hispanics and Their Providers at Kaiser Permanente Northwest: Qualitative Findings

Poster Type: Research

Primary Funding Source: Kaiser Permanente Community Benefits Grant

Category: Improving Care for Special Populations

Research Objectives: To carry out a pilot study to better understand how diabetes care and management is delivered to Hispanic members at Kaiser Permanente Northwest (KPNW). Lessons learned will help identify actionable elements for improving HbA1c levels and diabetes control among this patient population.

Study Design/Methods: The study team partnered with the KPNW primary care provider (PCP) panel serving Hispanic patients diagnosed with prediabetes or Type 2 diabetes. Qualitative researchers developed semi-structured, open-ended interview guides for both patients and providers to better understand the interactions taking place regarding diabetes control and management. All individual, in-depth telephone interviews were conducted with patients and their PCPs. All patient interviews were conducted in Spanish. A thematic content analysis was conducted to interpret participant responses and categorize them to identified themes.

Principal Findings and Quantitative/Qualitative Results: Eight patients and seven providers completed the qualitative interviews. There was variability on how patients interpreted the maintenance required for diabetes control, and demonstrated uncertainty for managing their dietary habits. Most patients were referred to a nutritionist or diabetes management classes, but had difficulty determining how to be satiated with smaller amounts of food or how to make the right food choices at mealtime. Providers reported using positive reinforcement to understand patient goals, but agreed that existing system-level challenges such as language and cultural
barriers contributed to Hispanic patients’ suboptimal HbA1c levels.

**Conclusions on Impact on Health Centers:** At KPNW, gaps exist in providing equitable care in diabetes management for Hispanic patients. Opportunities remain for providers to deliver culturally competent care that incorporates an assessment of patient comprehension regarding diabetes care and nurtures trust in patient-provider interactions. Greater emphasis must be placed on designing diabetes education materials that enhance patient comprehension of the disease, improve treatment adherence, and deliver a consistent message regarding dietary options.

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**Presenter(s):** Dea Papajorgji-Taylor

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**CP52**

**Applying the Patient Demographic Data Quality Framework to Reduce Duplicate Patient Records: Findings from a Pilot Study**

**Poster Type:** Research

**Primary Funding Source:** Office of the National Coordinator for Health Information Technology

**Category:** Quality of Care and Quality Improvement

**Research Objectives:** To carry out a pilot study to implement and evaluate a data management model framework aimed at improving the quality of patient demographic information in electronic health records (EHRs). Outcomes included changes in both duplicate record creation rates and Patient Demographic Data Quality (PDDQ) implementation scores.

**Study Design/Methods:** Clinics from three community health centers were recruited. Baseline assessments were carried out to document clinics’ current data quality practices, patient registration workflows, staffing structures, and processes for identifying duplicate patient records. A demographic data quality improvement intervention based on the Patient Demographic Data Quality Framework was developed and implemented. Data Quality Teams (DQTs) were identified at each clinic to implement the intervention. Training materials were developed and delivered to DQT staff via teleconferences to guide them in implementing PDDQ practices. Duplicate record creation rates, PDDQ scores, and qualitative measures were collected pre- and post-intervention.

**Principal Findings and Quantitative/Qualitative Results:** Training and procedures for collecting demographic information varied by clinic (e.g., whether patients verbally confirmed their information; how changes to patient information were handled; how race, ethnicity, and gender were collected). Key variables influencing the creation of duplicate records included: unknown or imprecise date of birth; variation in the recording of last names; and missing social security numbers. Clinics participating in the intervention experienced moderate increases in their PDDQ scoring from baseline to follow-up (3.5 - 7 points), and modest to moderate relative decreases in duplicate creation rates (7.7% - 31.3%).

**Conclusions on Impact on Health Centers:** Accurate patient matching is important for patient safety and care coordination, as well as for high-quality analytics, reporting, and research. Results from this pilot study suggest that, for a modest investment, impactful improvements can be made in demographic data quality and duplicate creation rates using a standardized data quality framework.

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**CP53**

**Improving the Quality of Contraceptive Care in Primary Care Settings**

**Poster Type:** Innovation

**Primary Funding Source:** Public and private funding

**Category:** Quality of Care and Quality Improvement

**Issue or Challenge:** In the United States, more than half the women seeking contraceptive services at Federally Qualified Health Centers (FQHCs) do so at non-Title X funded sites, yet research has shown that non-Title X funded sites deliver less comprehensive contraceptive care than sites that do receive Title X funding. In 2014, the CDC and OPA issued national recommendations for providing quality family planning services in primary care. This project, guided by these national recommendations, seeks to fill this gap by helping non-Title X funded FQHCs to improve the provision of contraceptive services in primary care.

**Description of Innovation:** From 2014-2016, Public Health Solutions (PHS) led a pilot Quality Improvement Learning Collaborative (QILC) with non-Title X funded FQHCs in New York City, aimed at improving access to contraceptive services in the primary care setting. This QILC resulted in the publication of a toolkit called *Improving the Quality of Contraceptive Care in Primary Care Settings, A Toolkit for Practitioners*. The QILC model includes trainings, collective learning sessions, and technical assistance in order to meet the following objectives:

1. configure Electronic Health Records (EHRs) to document and support the provision of contraceptive services; 2. identify the target population through pregnancy intention screening; 3. provide patient-centered contraceptive counseling based on individual patient need; 4. create access to the full range of FDA-approved contraceptive methods; and 5. participating sites form quality improvement (QI) teams, participate in collaborative learning, and report on key quality improvement measures, with technical assistance from PHS staff. The
contraceptive care toolkit provides supporting quality improvement tools, such as a Change Package, Improvement Plan template, training guides, observational tools, and more. The QILC model and contraceptive care toolkit are designed for replicability in other primary care settings.

**Impact or Result:** During the QILC pilot, across sites, pregnancy intention screening increased from 3% to 80%, and effective contraceptive method use increased from 2% to 55%, between May 2014 and September 2015. In a QILC with NYC Health + Hospitals’ adolescent primary care clinics, pregnancy intention screening increased from 79% to 99%, and effective contraceptive method use increased from 68% to 82%, between February and December 2017. PHS’ Title X subrecipients (which include FQHC and other provider types) have also adopted improvement strategies of the QILC and saw pregnancy intention screening rates increase from 74% to 92% between May 2016 and December 2017. Title X subrecipients have also seen improvements in cervical cancer and STI screening rates. PHS’ QILC in South Carolina, currently in the training phase, has completed comprehensive family planning trainings for 520 FQHC staff across the state, which includes the first of two cohorts in the QILC.

**Replicating this Innovation:** PHS’ QILC model and toolkit were designed specifically to be adapted in various primary care settings, and to be used by different types of health care practitioners. The QILC was first developed with non-Title X funded FQHCs in NYC, and has since been adapted. The QILC model and toolkit were adapted to fit an adolescent population and outpatient hospital setting for the QILC with NYC Health + Hospitals, and to the needs of FQHCs in South Carolina. The QILC model has also been applied to PHS’ Title X subrecipients, to ensure sites are meeting best practices. The toolkit is available free of charge on PHS’s website, and can be used by any health center interested in improving the provision of contraceptive services. Clinic champions can use the toolkit as a guide, which includes instructions for how to get started, QI tools, lesson plans, observational tools, tips for success, and more.

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**Presenter(s):** Kathryn Iglehart

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**CP54**

**Evaluating the Efficacy of the Improving Mood-Promoting Access to Collaborative Treatment Program Among Underserved Community Health Center Patients with Depression**

**Patients with Depression**

**Poster Type:** Research

**Primary Funding Source:** County of San Diego Health and Human Services Agency, Behavioral Health Services

**Category:** Behavioral Health Services

**Research Objectives:** This research evaluates the efficacy of a specialty model for treating depression among demographically diverse patients at seven community health centers (CHCs) in San Diego County. Findings are intended to improve service delivery among patient populations who may benefit from more targeted support and inform decisions about long-term program sustainability.

**Study Design/Methods:** As part of its Behavioral Health and Primary Care Integration Project, Health Quality Partners collected four years of outcome data for 1,522 CHC patients participating in the Improving Mood-Promoting Access to Collaborative Treatment (IMPACT) program for adult depression. Using a multivariate, cross-tabbed cohort design, patient data were sorted into groups corresponding with their initial assessment scores when first starting IMPACT (i.e., indicating moderate, moderate-severe, or severe depression), and then analyzed in SPSS per each cohort to confirm demographic comparability and determine if follow-up assessments tracking patient progress varied by gender, age, ethnicity, or depression severity within and across cohorts.

**Principal Findings and Quantitative/Qualitative Results:** These findings support the efficacy and value of the IMPACT program for CHC patients experiencing moderate to severe depression, regardless of gender, age, or ethnicity. Averaged assessment scores show that patients markedly improved between their first and second visits. Patient progress also continued across most of the 12 authorized IMPACT visits. Many patients (21%) did not return for a third visit. Assessment scores collected at the second visit, however, indicate that 63% of non-returning patients were categorically less depressed than when they started, regardless of their severity of depression at intake.

**Conclusions on Impact on Health Centers:** This research contributes to a larger body of research demonstrating that the IMPACT model is much more effective than usual care for treating depression among adults, including ethnic minorities. Approximately 50% of patients enrolled in IMPACT were Hispanic. IMPACT also achieved the goal of reaching patients with mental health needs in primary care settings who have been previously underserved and were likely new to mental health care. Health Quality Partners has managed the IMPACT program since implemented in 2006 and, to date, the IMPACT model has treated more than 3,000 CHC patients with depression in a primary care setting.
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Presenter(s): Laura Stanley

CP55
An Innovative Program to Increase Colorectal Cancer Screening Rates in Ohio

Poster Type: Innovation

Primary Funding Source: Ohio Department of Health

Category: Quality of Care and Quality Improvement

Issue or Challenge: Cancers of the colon and rectum are the second-leading cause of cancer death in Ohio, comprising 9.3% of total cancer deaths. The average annual age-adjusted mortality rate in Ohio is 10% higher than the U.S. mortality rate. Annual colorectal cancer screening tests are underused, and annual flu shot activities are an opportunity to reach many people who need colorectal cancer screening. Fecal Immunochemical Testing (FIT) kits can be distributed to patients by flu shot clinic staff. FluFIT programs increase colorectal cancer screening dates, acting as a first step towards other innovative preventative health and screening interventions.

Description of Innovation: FluFIT and FluFOBT programs help clinical teams increase access to colorectal cancer screening by offering home tests to patients at the time of their annual flu shots. Successful FluFIT and FluFOBT programs have been implemented in public and private clinic settings. These programs were awarded the Annual Prevention Laurel for Innovative Programs by the Prevent Cancer Foundation, the National Colorectal Cancer Roundtable, and the American College of Obstetricians and Gynecologists in 2013. They have recently been recognized as a “Research-Tested Intervention Program” (RTIP) by the National Cancer Institute. The FluFIT program has been featured on the Agency for Healthcare Research and Quality’s Innovations Exchange as an evidence-based intervention, and has been shown to increase screening rates in a variety of settings, including low-income community health clinics. A pilot following the FluFIT methodology took place for the first time in Ohio FQHCs from Fall 2016 until Spring 2017.

Impact or Result: Six of the eight participating FQHCs saw increases in their compliance rates for colorectal cancer screening. On average, health centers saw about a 40% or higher return rate on FIT or FOBT kits. Overall, 226 abnormal results were detected from the FluFIT program. For all sites, 1,871 medical patients (aged 50-75 or older) received a flu shot, while a total of 3,396 FIT/FOBT kits were distributed.

Replicating this Innovation: The FluFIT program is relatively easy for implementation at any organization offering flu clinics. Startup costs would require ordering FIT or FOBT tests and marketing materials for patients eligible for colorectal cancer screening within the health center population. All FQHCs relied on their lab services to read the FIT kit, and had support from payers. The American Cancer Society has made this program available and accessible to all health centers. The collaboration between OACHC and ACS provided significant support to health centers when implementing this project. Future implementations of FluFIT in an FQHC setting may benefit from partnering with community partners, as seen in this iteration in Ohio.

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¹Ohio Association of Community Health Centers

Presenter(s): Avani Desai, Ashley Ballard, Tiffany White

CP56
Increasing the Engagement of Non-Physician Team Members in Chronic Disease Management

Poster Type: Research

Primary Funding Source: Florida Department of Health

Category: Expanding Access to Care and Other Services

Research Objectives: The objective of our project is to expand the use of Medication Therapy Management (MTM) services by developing a training program for non-physician health professionals to increase support for medication adherence among low-income patients at Federally Qualified Health Centers (FQHCs) specifically targeting individuals with hypertension and diabetes.

Study Design/Methods: The training was developed by assessing FQHCs in four areas of the state. Project members created a pre-assessment tool to assess the FQHCs’ policies and practices related to evaluating and assisting clients on medication adherence. The pre-assessment included questions on team-based care, client education policies, and daily work plans. The non-physician health professionals who were identified for training included case managers, health educators, and social workers.

Principal Findings and Quantitative/Qualitative Results: Based on the information gathered from the FQHC pre-assessment, the project members developed MTM support training that included six modules. These modules were Principles of Chronic Disease Self-Management, Team-Based Care, Client Self-Advocacy, Health Equity, Cultural Competency, Social Determinants of Health, and the Benefits of MTM services. In addition to these modules, three assessments of the training program were developed. These assessments included a pre-test and post-test for each module and a training participant survey.

Conclusions on Impact on Health Centers: The training program was implemented at FQHCs in Jacksonville, Pensacola, Tallahassee, and Orlando. Based on the participant survey results, four focus groups were added to gather
qualitative information on how training participants were using the training information. Four additional trainings were added specifically for pharmacists.

Expanding MTM support training to other health professionals is expected to provide greater access to chronic disease management support, improve patient outcomes and reduce the cost of care for patients. It is also expected over time to reduce the demand for additional chronic disease related services.

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Technological Solutions and Tools to Improve Care and Population Health Management

CP57

Improvements to Electronic Medical Record Result in Increased Hepatitis C Screening and Treatment at Two Safety-Net Outpatient Primary Care Clinics

Poster Type: Innovation
Category: Technological Solutions and Tools to Improve Care and Population Health Management

Issue or Challenge: BMC is the largest health safety-net hospital in New England and is located at the crossroads of several socioeconomically marginalized neighborhoods that are disproportionately affected by poverty, homelessness, substance use, crime, and infectious diseases (HIV, hepatitis C, tuberculosis, sexually transmitted infections). Although the prevalence of hepatitis C virus (HCV) at BMC is 16%, 8 times higher than the national average of 2%, patients seen in our two major adult primary care outpatient settings were not consistently screened per guidelines for HCV prior to our intervention. Patients who tested positive for HCV had difficulty accessing and remaining engaged in care.

Description of Innovation: To increase HCV screening, we modified our Electronic Medical Record (EMR) existing Hepatitis C Best Practice Alert (BPA). Prior to the intervention, the BPA would pop up as a flag on patients in the birth cohort, to alert providers that the patient met HCV screening criteria. The BPA was modified by adding an automatic hepatitis C lab order set that appears at Order Entry any time bloodwork is requested by an RN or PCP on eligible patients. It functions as a hard stop and providers are forced to accept or decline the order. This alert and order set combination went live on July 17, 2017 at the BMC Family Medicine and Adult Primary Care clinics. The alert and order set populates for patients born between 1945 and 1965 (i.e., Baby Boomers). Public health navigators were hired to contact all patients diagnosed with HCV and help them obtain appointments with providers who are able to provide HCV treatment, as well as direct patients in obtaining resources to help with other psychosocial needs. The navigation staff works with providers to develop a triage algorithm to direct patients to the appropriate setting and help them progress through treatment completion.

Impact or Result: During the three months prior to the Hep C BPA with Lab Order going live in the General Internal Medicine and Family Medicine departments, providers chose the Static BPA (passive clinical decision alert) 142 out of 41,087 times, only 0.4% of the time the Static BPA fired. After turning on the Hep C Screen Base-Enter Order BPA, providers in the General Internal Medicine and Family Medicine departments chose the Hep C BPA with Lab Order 1,374 times, 36% of the time the order fired. Using the Screen Base-Enter Order BPA, we saw an increase of 868% in orders being placed.

Replicating this Innovation: Clinical HCV champions agreed on a common clinical pathway to triage all HCV patients to the adequate level of care; IT involvement early in the process is key; and “connecting to the why” – all stakeholders must have a clear understanding of the patient-specific and public health benefits behind the intervention.

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CP58

INTENTIONALLY OMMITTED
Linking Hospital and Community Health Systems to Increase Colorectal Cancer Screening

Poster Type: Innovation
Primary Funding Source: Centers for Disease Control and Prevention
Category: Expanding Access to Care and Other Services

Issue or Challenge: Colorectal cancer (CRC) screening detects disease early and prevents cancer by finding and removing precancerous polyps. Screening rates are steadily improving at community health centers (CHCs) where underserved patients seek health care. However, patients with positive stool tests need timely diagnostic follow-up. Unfortunately, there is a consistent shortage of specialty care for the uninsured and underinsured. Furthermore, poor communication between clinics and hospitals often makes it difficult to schedule a diagnostic colonoscopy appointment. Illinois Colon CARES provides access to follow-up care for colonoscopy screening to the uninsured and enhances the patient referral process from community clinic into specialty hospital GI/endoscopy care.

Description of Innovation: ILColonCares.org is an innovative and sustainable technologic infrastructure that has been developed by the Cook County Colon Cancer Alliance to Reignite and Enhance Screening (Cook County CARES) to increase linkage to diagnostic colonoscopy after a positive FIT. Cook County CARES partners utilize this web space to facilitate CRC diagnostic colonoscopy screenings after a positive FIT/FOBT test is received. The web portal also seeks to enhance communication across health systems and provide timely results to patients and their doctors. The website is built using a software-as-a-service (SaaS) with a HIPAA compliance database structure, data handling, and password/access management. Identification of patient referral/coordination processes and development of the innovative web interface comes from staff interviews and observations occurring over 12 months among health systems. Cook County CARES piloted the portal with two major urban health systems and two FQHC systems in September 2017. For the pilot, hospital systems donate appointment slots to ILColonCARES.org and community clinic sites provide patient information pertinent to GI screening at the time of appointment setting. The Cook County CARES team provided all sites with hands-on technical assistance to facilitate ease of use.

Impact or Result: Twenty unique patients were scheduled on the portal from September 2017 to March 2018: 94% of patients with appointment dates prior to March 31 completed their appointments; 100% of patients were properly prepped for their colonoscopy procedure on their appointment dates. Polyps were found and removed in 33% of patients with completed procedures. One patient was diagnosed with cancer. This patient was provided with appropriate and timely follow-up care. This portal overcomes system fragmentation to successfully complete colonoscopy services across systems by: (1) providing access to care for patients, (2) establishing point of care scheduling, and (3) facilitating bidirectional communication. The portal allows community health centers and hospital systems to share patient responsibility in scheduling follow-up CRC screening; and insuring proper patient prep, arrival time, screening, discharge and scheduled follow-up. The public health impact of this portal is tremendous where it contributes to early detection and prevention of CRC.

Replicating this Innovation: The portal has the potential to be a model for specialty care for all populations in the state of Illinois and around the country. It can transform the way we communicate with hospitals to receive much needed follow-up reports from specialty appointments even though we do not share the same medical record system. To date, Illinois is on the map and Colorado, Michigan, North Dakota, and Minnesota have begun discussions to bring this much needed technology to their states.

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Benchmarking and Preventing Medication Errors in FQHC Pharmacies: From Paper to “There’s an App for That”

Poster Type: Innovation
Primary Funding Source: BCBSNC Foundation
Category: Quality of Care and Quality Improvement; Technological Solutions and Tools to Improve Care and Population Health Management

Issue or Challenge: Medication errors are a significant source of patient harm. Errors occur at many levels, from prescribing through dispensing. Identifying and tracking errors was important, yet ponderous resulting in poor uptake of reporting across the state. In the six health centers reporting annual prescription volumes, 753,689 prescriptions were filled in 2017, serving 60,302 unique health center patients. The 42 North Carolina health centers serve approximately 500,000 patients annually, so the magnitude of pharmacy services is only much greater. We are seeking to reduce medication errors, thereby improving patient safety and population health.

Description of Innovation: NC Community Health Center pharmacies have been tracking medication errors for more than 11 years. Until recently, this has been a paper-based system. The RxTracker App allows health center pharmacy staff to enter medication error data in real time, improving the
reporting rate. RxTracker provides administrator level access by pharmacy directors to access their own reports on types of errors, frequency of errors, corrective actions to prevent recurrence of the error, and help identifying training needs. Previously, quarterly reports at the Pharmacy Directors Work Group meetings required submission of faxed paper reports from pharmacies, data entry into excel spreadsheets, and subsequent manipulation of the data into reports. The App was conceived at a pharmacy directors meeting. Subsequently, a programmer/developer was identified who was willing to risk development while funding sources were identified. The app and the reporting database have been developed and revised based on feedback from the testing pharmacy. We are now in beta testing and have 18 pharmacies signed up to participate.

**Impact or Result:** Paper-based reporting was performed regularly by only 5 pharmacies. With RxTracker, that number has increased to 18 reporting pharmacies. Reporting of medication errors increases staff awareness of errors and the sources of errors and engages them in contributing to interventions that can reduce errors. The partnership with The North Carolina Translational and Clinical Sciences (NC TraCS) Institute at The University of North Carolina at Chapel Hill is building out research and evaluation questions with the goal of applying for an R21 research grant.

**Replicating this Innovation:** Health centers wishing to engage pharmacies need to gauge interest in reporting. Education regarding the significant impact of medication errors will help involve all levels of pharmacy staff. Pharmacy quality improvement efforts can be integrated into a health center’s overall quality improvement program and can be included in quality efforts for patient-centered medical home activities.

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**Presenter(s):** Marti Wolf

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**CP61**

**Translating Research to Operations: Rapid Development of an EHR-Based Tool for Health Insurance Outreach and Enrollment After a Research Project**

**Poster Type:** Research

**Primary Funding Source:** The National Cancer Institute (NCI) of the National Institutes of Health, R01 181452 01

**Category:** Technological Solutions and Tools to Improve Care and Population Health Management

**Research Objectives:** Improve continuity of health insurance coverage and receipt of needed preventive care among community health center (CHC) patients by developing new health insurance support tools within the electronic health record (EHR).

**Study Design/Methods:** We utilized a user-centered design process to understand clinics’ needs and develop insurance support tools. We used a hybrid implementation-effectiveness trial design to evaluate the tools. Eligible CHC clinics were randomized to educational materials only (Arm I), or educational materials and implementation support from a practice coach (Arm II). A matched control group of clinics was selected as a comparison group. A mixed methods analysis will assess tool effectiveness and the impact of implementation methods. Tool sustainability after the implementation-effectiveness trial was informed by qualitative input from clinics and a tool development technical team.

**Principal Findings and Quantitative/Qualitative Results:** Clinics in five of seven health centers recorded regular tool use. Clinics that received implementation support show higher rates of tool use. In addition to our findings about the impact of this tool and its implementation, this research project allowed us to meaningfully partner with clinics and technical staff to rapidly develop a sustainable tool to meet the needs of clinics beyond the initial trial. The new tool was also crafted to reflect new policy mandating that CHCs report outreach and enrollment efforts to the Uniform Data System (UDS).

**Conclusions on Impact on Health Centers:** The EHR presents new opportunities for identifying, tracking, and reporting insurance status within CHCs. EHR-based tools can capture data and support health insurance outreach and enrollment from within the CHC, both during and between patient visits. Research projects such as this one can lead to discovery through in-depth investigation of novel tools while also demonstrating rapid responsiveness to the evolving needs of clinics. This example illustrates how close partnerships between the research team and CHCs led to rapid tool development to meet immediate clinic needs and develop sustainable solutions after completion of a research trial.

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**CP62**

**Telemedicine-Cloud: Continuing Medical Education of the Primary Care Physicians in the Community Health Care Centers in America**

**Poster Type:** Innovation

**Category:** Technological Solutions and Tools to Improve Care and Population Health Management

**Issue or Challenge:** The most significant challenge is that there is no standardized continuing medical education (CME) at community health centers (CHCs) across the United States. Barriers to making CME available to physicians include the cost restraints of inviting speakers to give lectures on their known specialties at these sites. Telemedicine-cloud provides a platform that is accessible to virtually every online streaming service and device (e.g., laptop, phone, tablet, PC).
Description of Innovation: Key steps of the planning and development of this innovation tool include: (1) collecting preliminary survey data from family physicians and community health practitioners to select the topics for each CME volume; (2) having an editorial committee comprised of 160+ faculty members and clinicians, representing 60 medicals who are trained to teach in a medical school environment; and (3) collaborating with community health centers for evaluation and input.  

Impact or Result: The physicians who were never exposed to the latest advancement in medicine were provided the continuing medical education program at no cost. Physicians and medical residents verbalized enhanced knowledge from training modules.

Replicating this Innovation: We are currently working on developing more volumes such as Volume II for Obstetrics and Gynecology, Pediatrics, Neonatology, and more.

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Presenter(s): Jade Burns

CP63

Endo ECHO Improves Access to Care for Patients with Complex Diabetes in Medically Underserved Communities

Poster Type: Research  
Primary Funding Source: Helmsley Charitable Trust  
Category: Expanding Access to Care and Other Services

Research Objectives: We hypothesized that three years of PCP participation in Endo ECHO would result in higher rates of initiation of evidence-based therapies and lower rates of referrals to an endocrinologist in medically underserved communities in New Mexico.

Study Design/Methods: We recruited a multidisciplinary panel from the University of New Mexico (UNM) Health Sciences Center to provide ongoing mentorship to rural health care professionals during weekly two-hour ECHO sessions. PCPs at 10 federally qualified health centers in New Mexico agreed to participate in weekly ECHO sessions involving case-based learning, with presentation of de-identified patients over the network and didactic presentations based on clinical practice guidelines. After three years, PCPs completed a UNM Institutional Review Board-approved survey assessing changes in practice, as determined by paired t-testing. Effect size was determined by Cohen’s d statistic.

Principal Findings and Quantitative/Qualitative Results: Compared to baseline, rural PCPs (n=10) reported significant increases in initiating insulin in patients with uncontrolled hyperglycemia, use of newer cardioprotective diabetes therapies, management of insulin pumps, and screening for and initiating appropriate therapy in patients with comorbid depression. PCPs reported a significantly reduced need for referring patients with hyperthyroidism, type 1 diabetes, and gender dysphoria to a specialist. PCPs also reported recognition within their communities as local referral resources. For patients requiring urgent evaluation by a specialist, PCPs reported improved access to the specialist through involvement in a multidisciplinary network via Endo ECHO.

Conclusions on Impact on Health Centers: PCP participation in Endo ECHO resulted in increased initiation of evidence-based therapies and fewer referrals to the specialist for patients with endocrine disorders in medically underserved communities. Ongoing studies of patients enrolled in the Endo ECHO program will determine to what extent clinical outcomes are affected by improving access to care in these communities.

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Presenter(s): Matthew Bouchonville

CP64

Project ECHO: Using Virtual Telementoring Programs to Demonopolize Knowledge and Expand Access to Care in Federally Qualified Health Centers

Poster Type: Research  
Category: Expanding Access to Care and Other Services; Technological Solutions and Tools to Improve Care and Population Health Management; Workforce

Research Objectives: To explore the growth and impact of Project ECHO in federally qualified health centers (FQHCs). The ECHO model has two objectives: to expand access to health care in rural and underserved communities by expanding provider knowledge; and to build supportive communities of practice for the oft-isolated providers in these communities.

Study Design/Methods: The model is currently replicated by over 100 partners (“hubs”) across the United States, and many of these programs have participants from FQHCs (“spokes”). We will analyze Project ECHO’s programmatic data, and maps and descriptive statistics will be used to demonstrate the location of ECHO programs, the topics they address, and their reach into FQHCs and underserved areas across the United States – currently and over time. Also, evidence from peer-reviewed literature will be summarized, demonstrating ECHO’s effect on FQHC providers’ professional satisfaction, efficacy, and behavior, along with other relevant impacts of the model on access to care.
Principal Findings and Quantitative/Qualitative Results: We anticipate that the number of FQHCs participating in Project ECHO has grown over the 2017-2018 period, and that FQHCs participate in ECHO programs in a number of new topical areas. Findings from the peer-reviewed literature suggest that participation in ECHO programs is valued by reporting providers, who also indicate increased efficacy and intended or enacted changes in treatment plans as a result of learning that took place in ECHO sessions. We anticipate these findings translate to participants from FQHCs.

Conclusions on Impact on Health Centers: The ECHO model is expanding into more topical areas and participants increasingly come from FQHCs. Many ECHO programs focus on priority areas for FQHCs including diabetes, cancer screening, HIV, and substance use disorder. The model is designed to counter the pressures felt by providers at these sites, including the need for continuing education and peer support. The ECHO Act (2016) passed by Congress looks for barriers to further adoption of ECHO and similar models, and many states intend to leverage Cures Act funding for ECHO programs to counter the opioid crisis. The peer-reviewed literature is growing and results are promising.

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CP65
An Innovations Pilot: Leveraging a Centralized Clinical Decision Support Repository to Implement Evidence in Practice

Poster Type: Innovation
Primary Funding Source: Agency for Healthcare Research and Quality
Category: Technological Solutions and Tools to Improve Care and Population Health Management

Issue or Challenge: The most timely evidence to promote best practice arrives in a timely fashion to benefit patients, however numerous barriers prevent timely guideline adoption. A barrier to timely incorporation of evidence into clinical practice is that locally developed clinical decision support (CDS) for an Electronic Health Record System (EHR) is not readily shareable in computable or standard form. An additional barrier is that when guideline revisions occur, based on new evidence, there is a lag in incorporation of the most up-to-date guidelines for each local CDS.

Description of Innovation: AllianceChicago provides the Health Information Technology (HIT) infrastructure for a national network of safety-net health centers including the development of CDS to meet the needs of diverse end users. For the CDS Connect Project, AllianceChicago partnered with The MITRE Corporation to pilot an initiative sponsored by The Agency for Healthcare Research and Quality (AHRQ) to accelerate the dissemination and implementation of evidence through a web-based CDS repository. AllianceChicago modified a Disease Management Advisor CDS tool in the EHR environment of a Federally Qualified Health Center (FQHC) to facilitate connection to the CDS repository, which offered clinical recommendations for cholesterol management using the international standard Clinical Quality Language (CQL). The CDS included United States Preventive Task Force (USPTF) guidelines on cholesterol management at the point of care. After focus groups and training, the pilot CDS was launched for use among adult medicine providers at the FQHC implementation site. Validation of the CDS and utilization monitoring occurred throughout a six-week period.

Impact or Result: As a result of the innovation, providers at a health center were able to connect to a central repository, supported by the federal government, to access recommendations on management of patients with cardiovascular risk and to have access to USPTF guidelines without navigating away from the EMR.

Replicating this Innovation: The Clinical Decision Support artifacts are available through the AHRQ CDS Connect website.

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Presenter(s): Nivedita Mohanty
Expanding Access to Care and Other Services; Improving Care for Special Populations

CP66
Providing PrEP to a High-Risk Population: A Partnership Between a Community Health Center and a County Health Department

Poster Type: Innovation

Category: Expanding Access to Care and Other Services; Improving Care for Special Populations; Quality of Care and Quality Improvement

Issue or Challenge: HIV Pre-exposure Prophylaxis (PrEP) is over 90% effective at reducing HIV transmission. While uptake is strong in major metropolitan areas, PrEP use is low in the Southern US and among African-Americans and Latinos. Community health centers serving these populations are uniquely positioned to improve PrEP access; however, barriers to implementation include identifying those at highest risk, training providers, and managing costs. In order to bridge these gaps, Lincoln Community Health Center (LCHC) partnered with a local health department in Durham County, North Carolina, a county with one of the highest rates of HIV incidence in the state.

Description of Innovation: Stakeholders in HIV prevention were convened in 2014 by the Durham County Department of Public Health (DCoDPH) in order to plan for the development of PrEP services in the community despite the absence of dedicated funds for program development. Key stakeholders included health care providers from LCHC, local academic universities, and the NC HIV/STD Prevention and Care Branch. LCHC, Durham County’s main safety-net provider, and DCoDPH have long-standing collaborations facilitated by co-localization of services, including the DCoDPH Sexually Transmitted Infections (STI) Clinic and the LCHC Family Practice Primary Care Clinic (PCC). A collaborative model was developed whereby high-risk patients seeking STI care at DCoDPH could be referred for PrEP services at LCHC PCC or infectious disease clinics located in nearby academic centers. Initial and ongoing PrEP training for LCHC and DCoDPH was requested from the NC AIDS Education and Training Center (NC ATEC). Standardized clinic templates were created to ensure adherence to national PrEP guidelines and confidential data sharing. To ensure quality, a collaborative physician with HIV/PrEP experience reviewed charts periodically, and provider meetings were held quarterly to review data and improve services. Provider training, logistics of care, and financial barriers were addressed through this collaborative model.

Impact or Result: From program initiation until September 2017, 165 patients were referred from DCoDPH for PrEP care at LCHC PCC. Appointments were kept for 91 unique patients, among whom 51 (56%) were African-American, 16 (18%) Latinx, 18 (20%) were Caucasian, and 6 (7%) were other. Additionally, 67 (74%) were MSM and 10 (11%) were transgender. Almost half (n=41, 45%) had no insurance; 38 (42%) had private insurance, 11 (12%) had Medicaid and 1 had Medicare. At baseline, 33 (36%) were diagnosed with an STI. Among the 91 patients seen for PrEP, 65 (71%) filled their PrEP prescription, 55 (60%) persisted in care for at least three months, at 50 (55%) reported >90% adherence at follow-up. Four patients evaluated for PrEP were subsequently diagnosed with HIV infection. These patients were linked to HIV care in a timely manner.

Replicating this Innovation: Community health centers in high HIV prevalence areas, interested in initiating PrEP programs, should reach out to state and and county health departments already involved in STI/HIV testing and prevention. Innovative models for PrEP delivery can be developed even in clinics with limited funds, by leveraging existing partnerships and sharing resources with public health entities serving high-risk populations. A PrEP collaborative model can be facilitated through meetings with stakeholders in the community, engagement of administrators and clinic staff, and MOUs to increase access to public health laboratory services.

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Presenter(s): Barbara Johnston

CP67
Predicting the Impact of Transforming the Medicaid Program on Health Centers’ Revenues and Capacity to Serve Medically Underserved Communities

Poster Type: Research

Primary Funding Source: Robert Wood Johnson Foundation

Category: Achieving Savings

Research Objectives: To test a model simulating the effect of proposed federal changes to transform Medicaid (e.g., block grants) on health centers’ (HCS’s) revenues and capacity to provide services. To augment model assumptions with information collected through document review and interviews with health center leaders in states with approved/pending Medicaid Section 1115 waivers.
Study Design/Methods: The study uses a mixed methods approach. The quantitative analysis relies on Uniform Data Systems (UDS) data, treats 2015-2016 federal funding levels as the baseline, and incorporates state- and county-level population projections from a variety of sources. Our analysis includes the universe of federally funded health centers in the continental US and Hawaii (N=1,337 in 2016). The qualitative component combines structured analyses of state and federal waiver documents as well as interviews with health center leaders sampled from seven diverse states with approved or proposed waivers that change eligibility and/or enrollment requirements.

Principal Findings and Quantitative/Qualitative Results: Preliminary quantitative findings indicate that, by 2025, block-granting Medicaid would decrease federal funding by 87% for expansion enrollees and 31% for traditional enrollees in expansion states, and 6% for traditional enrollees in non-expansion states. Under a per-capita cap, contributions would decrease by 87%, 11%, and 7%, respectively. Preliminary qualitative findings suggest that waivers introducing stringent eligibility requirements will reduce the proportion of insured HC patients and thus reduce revenues, with scope of impact depending on HC characteristics. Some HCs anticipate cutting back on services and/or staff. All HCs express significant uncertainty and concern about the implementation of waiver requirements.

Conclusions on Impact on Health Centers: Initial results indicate that reducing federal Medicaid funding and imposing state-level eligibility-tightening modifications will negatively impact health center revenues and service capacity. Changes disproportionately affect HCs with greater Medicaid populations and thinner margins, as well as centers located in expansion states, many of which used expansion funds to improve the scope and quality of services. Thus, expansion states should consider alternative funding sources to support HCs in maintaining their service capacity if block granting or per-capita caps are implemented. States should prioritize disseminating waiver implementation information to HCs and patients to prevent Medicaid coverage gaps and minimize further disruptions to services.

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Impact of Pharmacist-Driven Spirometry Screening to Target High-Risk Patients in a Primary Care Setting

Poster Type: Research
Category: Expanding Access to Care and Other Services; Quality of Care and Quality Improvement

Research Objectives: The primary objective of this study is to determine the effect of proactive pharmacist identification of high-risk patients eligible for diagnostic spirometry testing on the percentage of appropriate spirometry referrals ordered and the percentage of spirometry tests completed in those that qualify.

Study Design/Methods: This prospective study compares spirometry referrals ordered and tests completed between an intervention site and control site within a Federally Qualified Health Center (FQHC). At both sites, all patients who have a primary care provider (PCP) appointment and qualify for spirometry screening on the designated intervention dates during a 12-week period were included in this study. At the intervention site, the pharmacist recommended a spirometry screening to the PCP prior to identified patients’ appointments. At both sites, a chart review will be completed after the intervention dates to determine if referrals were ordered and tests were completed for patients who qualify.

Principal Findings and Quantitative/Qualitative Results: The number of patients eligible for diagnostic spirometry testing at the intervention and control sites was 190 (n=125 vs. 65, respectively). Baseline characteristics were comparable between sites except for differences in language and race. Among eligible patients, the percentage of referrals ordered was significantly higher at the intervention site (47.2% vs. 7.7%, p<0.0001). Among patients that qualified, completion of spirometry testing was significantly higher in the intervention site compared to control (21.6% vs. 4.6%, p=0.0016).

Conclusions on Impact on Health Centers: Preliminary results of this study suggest that pharmacists proactively identifying high-risk patients for spirometry screenings within a FQHC increases appropriate referrals ordered by PCPs and tests completed by high-risk patients. This population health approach to spirometry testing represents an emerging role for pharmacists and could be adopted in other primary care settings.

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CP69

A School-Based Clinic Taking Sports Physicals on the Road

Poster Type: Innovation

Category: Expanding Access to Care and Other Services

Issue or Challenge: Physical activity decreases between childhood and adolescence. However, physical activity is associated with greater academic performance, decreased obesity rates, and improved overall health. School systems serving students of lower socioeconomic status use after-school sport programs to engage these students and promote physical activity. However, a major barrier to student participation in these programs is a successful completion of a sports physical. A unique collaboration between an academic run school-based clinic and a large, suburban school system aimed to increase access to sports physicals by offering free services to students at their schools.

Description of Innovation: A school of nursing, within an academic university, operates a nurse-run, school-based clinic. This school-based clinic is unique in its approach to care by providing care to the patient, family, and community. A community intervention that was identified as a need by the school system and the nurse-run clinic was increasing access to sports physicals. This innovation sought to increase access to school sports. In addition to increasing access to school sports programs, there is an unexpected benefit of preventing reduction in school sports programs due to not having enough eligible students. The sports physical screenings were offered at the school-based clinic on a routine basis throughout the school year. However, it became apparent, with the lower income students, that their parents had no mode of transportation to the clinic. The clinic staff, in collaboration with the athletic directors at the middle schools and high schools, decided to start offering the screenings at the schools themselves several times throughout the school year.

Impact or Result: The impact of this program was initially measured in the number of sports physicals completed at 2 mass screenings, which amounted to greater than 40 physicals completed. The school system was able to maintain their current offerings of after-school sports and did not need to further reduce this programming. The aim is to continue with these mass screenings and increase the after-school sports offerings eventually.

Replicating this Innovation: This program could be easily replicated in communities where families have limited transportation and limited access to care based on transportation needs.

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CP70

INTENTIONALLY OMMITTED

CP71

Increasing Patient Access Through the Virtual Dental Home Model in a Federally Qualified Community Health Center

Poster Type: Innovation

Category: Expanding Access to Care and Other Services

Issue or Challenge: As many as half of all Coloradans do not receive routine, preventative oral health care. Socioeconomic, geographic location, and limited access to care are some of many barriers preventing patients from seeing a dental provider in the traditional dental office model. Our vision is to help relieve some of these burdens through our virtual model to improve the overall health outcomes for all Coloradans.

Description of Innovation: The Virtual Dental Home model promotes collaboration between Salud Family Health dentists and our community-based dental team comprising registered dental hygienists (RDHs), dental assistants, and a patient navigator. Most important, it brings much-needed services to individuals who might otherwise receive no care. This model relies on the advanced training and community-based practice of a group of oral health professionals. In the Virtual Dental Home model, the RDH collaborates with a dentist to provide care. Technology helps bridge geographic distance between the community-based RDH and the dentist. Equipped with portable imaging equipment and an internet-based dental record system, the RDH collects and uploads patient information to Salud Family Health Center’s electronic health record where it’s reviewed by a dentist who then creates a customized dental treatment plan. From there, the RDH carries out the aspects of the treatment plan that can be conducted in the community setting, including: health promotion and prevention education; dental disease risk assessment; preventive procedures, such as application of fluoride varnish, dental sealants, dental prophylaxis; and placing carious teeth in a holding pattern using Interim Therapeutic Restorations (ITRs) to stabilize patients until they can be seen by a dentist for definitive care.

The community-centered approach to having the Virtual Dental Home model in schools has allowed Salud Family Health Centers to engage our community and school administrators with the focus of preventing and treating oral disease in children.

Impact or Result: Our implementation of the Virtual Dental Home model has been very successful. We have seen over 260 patients through this model in our first 5 months of implementation. The RDHs have begun placing ITRs in the school setting. Multiple children with urgent dental needs have been referred to the dental home Salud Family Health Center clinic and have had their treatment plans completed.
Pediatric Dental and Primary Care Integration: A Novel Solution to Address Care Gaps

Poster Type: Innovation

Category: Expanding Access to Care and Other Services

Description of Innovation: Our project aims to impact the overall medical and dental health of the underserved pediatric population. Our FQHC serves by integrating both of these services within a one-stop shop practice model, and by addressing the issues of lack of resources, inconvenience, poor referral follow through by parents, and fragmented care of children birth to 18 years of age. Within our organization, we identified that approximately half of our medical and dental pediatric patients do not receive both services in our clinic. This project focuses on the integration of these services all in the same clinical space within the same appointment. Our project consists of taking our current staff of pediatricians, dentists, dental hygienists, medical assistants, and patient service representatives and creating an integrated care team. This process includes the following: (1) relocation of workstations for all team members involved into one open, shared office space; (2) initiation of integrated monthly staff meetings to address successes, concerns, suggestions, etc.; (3) monitoring of quality measures and integrated-team specific “report cards”; and (4) collaboration with our departments within the organization to support and promote the integrated team’s approach/efforts. Other departments, such as administrative, marketing, billing, IT, and informatics, pinpoint any deficiencies or areas of concerns.

Impact or Result: Historically non-insured and underinsured children have limited available resources and significant socioeconomic barriers that can adversely affect various aspects of their overall health, such as preventive medical and dental care. Our project focuses on this vulnerable population to address barriers to care with the long-term goal of improving not only the overall health of the child but also their families. In our care model, it becomes more streamlined, time efficient, and impactful for a child to receive medical and dental services with decreased use of time and financial resources for the parent/guardian. The potential impact this could have on this vulnerable population in our community would be the improvement of preventative care and overall health improvement/maintenance by not only identifying care gaps in regards to Well Child visits and immunizations, but also dental services leading to earlier detection of oral and physical health concerns/needs.

Replicating this Innovation: Replicating this innovation requires leadership support and engagement. Space needs to be allocated for teams to be co-located and then team members need to be involved in the space planning of the space to be utilized. Unless a de novo buildout is possible, it is likely the team will be co-located in a pre-existing space, where fitting in of all the team members could be a challenge. Additionally, planning sessions with the team on efficient workflows is also critical. This leads to an increase in team engagement and satisfaction which contributes to an overall successful project. Additionally, team members need to be comfortable with the possibility of add-ons to their schedule, so their participation in optimal schedule design is critical.

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Presenter(s): Ethan Kerns

Expanding Access to Vasectomy in a Community Health Center Setting

Poster Type: Innovation

Primary Funding Source: Title X

Category: Expanding Access to Care and Other Services

Issue or Challenge: Expanding access to comprehensive family planning service in an underserved population. Although vasectomy is one of the most effective and cost-effective methods, it is often not widely available. In addition to costs,
Description of Innovation: Because of poor access to vasectomies in urology, Denver Health’s Community Health Services had provided vasectomies on a limited scale, in a single health center since 2000. In 2009, we received expanded funding from Title X and an anonymous donor to increase access to family planning services. We undertook an initiative to add vasectomy services to six of our eight community health centers. Funding was used to develop an on-site training program in ‘no-scalpel’ vasectomies; train eight additional providers; purchase necessary equipment; and to develop a process for our family planning educators to provide vasectomy counseling, referral coordination, and follow-up. We developed print, social media, and internet ads to educate about vasectomy including availability of low and no-cost services, and provided vasectomy information at community outreach events. Counseling about availability of on-site services was provided for our obstetric patients during prenatal care, as well as at delivery. Through our contraception hotline, staff also assisted callers with questions and appointments and information about financial assistance. Between 2011 and 2016, 823 male patients received a vasectomy in the community health center setting.

Impact or Result: Over a five-year period (2011-2016), 823 unique patients chose vasectomy as a permanent contraceptive method. We identified cases retrospectively from our billing and internal records, and confirmed completion of the procedure and follow-up through chart review. Of males choosing vasectomy, 46% identified as non-Hispanic White, 45% percent Hispanic, 5% African-American, and 4% other/unknown race/ethnicity. The median age was 36 years old. Fifty-six percent were uninsured, 28% had Medicaid, and 15% had commercial insurance. Sixty-two percent returned to complete the post-vasectomy semen analysis. The number of patients receiving vasectomy increased from 85 patients in 2011 to 178 patients in 2015 and leveled off in 2016.

Replicating this Innovation: While not an absolute requirement, we recommend starting the service in sites where there is already a model of integrated family planning services, and revenue cycle support for billing. Start-up costs include purchase of vasectomy instruments/equipment, and staff training. Although vasectomy is well within the scope of primary care, relatively few physicians receive adequate training in residency, and may require additional training or proctoring before the services can be widely available. Support staff who can assist in counseling, referral tracking, appointment coordination, and follow-up are essential. Resources for community outreach, education, and marketing may also be helpful. Health educators have worked well in this role. Title X family planning funding may be a resource for CHCs that are already family planning providers. Local private foundations that support health education and health equity efforts may be another option for the financial resources to help with any reimbursable costs.

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Presenter(s): Lucy W. Loomis

CP74

Bringing Physical Therapy to the Public Health Arena

Poster Type: Innovation

Category: Expanding Access to Care and Other Services

Issue or Challenge: According to the American Physical Therapy Association, “the goal of a physical therapist is to promote the patient’s ability to move, reduce pain, restore function, and prevent disability.” Any service delivered with these goals in mind would be of benefit to any member of society. The challenge is that physical therapy (PT) is a profit-driven business. These services are not easily accessible by individuals who experience challenges or barriers in areas such as transportation, language, and finances.

Description of Innovation: PrimaryOne Health offers a fully functional physical therapy clinic as part of its specialty services with a full-time physical therapist, a part-time contracted physical therapist, and a full-time physical therapy assistant (PTA). Our services are billable through most insurances, and are offered on a sliding scale for individuals who experience financial hardship and would otherwise be unable to participate. To help meet the PT needs of our financially challenged population, pro bono PT services are provided by The Ohio State University Doctorate of Physical Therapy students who are supervised by a licensed physical therapist/faculty member. This collaborative model allows patients access to specialty PT services that they would not otherwise receive. Development of this model began with a multidisciplinary team, including executive directors who worked through the challenge of securing reimbursement through federal and commercial payers. Once the operational foundation was established, program development and expansion began with the hiring of a full-time PTA and an additional PT.

Impact or Result: Patients who would not normally have access to physical therapy are able to benefit from the knowledge and care of our staff. Providers are better educated on what physical therapy can provide for patients. We are able to offer an alternative to passive interventions such as medications and injections to address complaints of pain or dysfunction. Our physical therapist has expanded the offerings to include the development of an integrated pain program.
Ohio Medicaid is now in community health centers. The information provided by in FQHCs and patient access to clinical pharmacy services study demonstrate the current engagement of pharmacists research collaborations. CPS services and 23 respondents indicated interest in future of participants (26/34) reported tracking outcomes for some pharmacy, and 6 reported a position co-funded by both. 76% funded by the site, 10 reported a position funded by a college (56.5%), and comprehensive medication reviews (69.6%). Hypertension (65.2%), anticoagulation (56.5%), hyperlipidemia CPS were chronic disease management for diabetes (71.7%), provided for their patients. The most commonly reported survey: 75% of respondents (46/61) indicated CPS are currently Seventy two participants from 21 states responded to the Principal Findings and Quantitative/Qualitative Results: for pharmacist services, successes and challenges in starting positions, reimbursement models for pharmacist services, use access to the electronic health record, funding for pharmacist services (CPS) offered, medication access models, pharmacist over the four years being studied, types of clinical pharmacy services offered to patients of FQHCs between 2013 and 2016. Study Design/Methods: Federally qualified health centers were invited to participate in a Qualtrics survey, via email, through the Midwest Clinicians Network and the American Society of Health-Systems Pharmacists Connect platform. The survey gathered data on clinical pharmacist coverage specifically assessing clinical pharmacy services offered to underserved patient populations across the country, over the four years being studied, types of clinical pharmacy services (CPS) offered, medication access models, pharmacist access to the electronic health record, funding for pharmacist positions, reimbursement models for pharmacist services, use of collaborative practice agreements, tracking of outcomes for pharmacist services, successes and challenges in starting services, and future plans for pharmacy services. Principal Findings and Quantitative/Qualitative Results: Seventy two participants from 21 states responded to the survey: 75% of respondents (46/61) indicated CPS are currently provided for their patients. The most commonly reported CPS were chronic disease management for diabetes (71.7%), hypertension (65.2%), anticoagulation (56.5%), hyperlipidemia (56.5%), and comprehensive medication reviews (69.6%). Of the 36 respondents, 17 indicated a pharmacist position funded by the site, 10 reported a position funded by a college of pharmacy, and 6 reported a position co-funded by both. 76% of participants (26/34) reported tracking outcomes for some CPS services and 23 respondents indicated interest in future research collaborations. Conclusions on Impact on Health Centers: The results of this study demonstrate the current engagement of pharmacists in FQHCs and patient access to clinical pharmacy services in community health centers. The information provided by this study could serve as a reference for other health centers looking to expand their service offerings to include medication management provided by pharmacists. This study will also provide the basis for the development of practice-based research networks that examine the impact of pharmacist interventions in FQHCs.

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**Presenter(s):** Ashley Ballard, Alexa Sevin Valentino

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**CP76**

**Integrating Community Health Workers into Interdisciplinary Health Care Teams in a Federally Qualified Health Center: Outcomes and Patient and Provider Perspectives**

**Poster Type:** Research

**Primary Funding Source:** National Institute For Health Care Reform

**Category:** Expanding Access to Care and Other Services

**Research Objectives:** Many FQHCs are establishing interdisciplinary patient care teams that include community health workers (CHWs), who contribute to improved individual/population health in ways not achieved through traditional medical services. This study aims to evaluate the processes and outcomes from integrating CHWs into four interdisciplinary teams within an FQHC in Detroit.

**Study Design/Methods:** Using a participatory approach, community/academic partners conducted a non-randomized, repeated measures study to evaluate processes/outcomes from integrating CHWs into CHASS Center’s health care teams. CHWs educated/supported adult patients with type 2 diabetes (HbA1c = 9%), and/or depression (PHQ9 score = 10). Data from EMR [at baseline (n=211), 6-months (n=179), and 1-year (n=160)], semi-structured interviews, and surveys assessed patient service use/health care outcomes. Individual semi-structured interviews were conducted at 6 months (n=179) and 1 year (n=160), and care team members/administration were surveyed with the Assessment of Chronic Illness Care (ACIC) at baseline (n=48) and 1-year (n=55). Interviews were audio-recorded and transcribed and common themes were identified.

**Principal Findings and Quantitative/Qualitative Results:** Preliminary 6-month results: Hemoglobin A1c dropped 1.3%; PHQ-9 score decreased by 1.4; and Patient Activation Measure increased by 4.9. No change in ACIC scores over time. All teams reported reasonably good support for chronic illness care.
Patients/team members overwhelmingly regarded CHWs and their contributions to the team favorably. Key barriers to integrating CHWs into care teams include, for some, low knowledge, lack of role clarity, CHW members not identified as care team members, and limited direct interaction among clinical staff. Facilitators to CHW integration included receptiveness to learn more, interest in working together on a team, and value of potential collaboration.

**Conclusions on Impact on Health Centers:** As health care team members, CHWs may contribute to improved individual and population health by: conducting patient assessments and working with patients to develop/implement individualized care plans that support the patient’s health and lifestyle goals; providing resource referrals, case management, and specific disease and self-management education; linking patients to other health care services; and advocating for patients, providing peer support, and helping other team members better understand patient issues. Creating more opportunities for face-to-face interaction among clinical staff members and CHWs and providing orientation and education about CHWs may aide in integrating CHWs into health care teams for safety-net settings.

**Author(s):**
Gloria Palmisano, MA, Program Manager, Community Health and Social Services Center, Inc.

**Presenter(s):** Gloria Palmisano
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The National Association of Community Health Centers (NACHC) offers a wide variety of online and regional education trainings that encompass all facets of health center operations. Whether you need a refresher or are just starting out in a health center, NACHC offers trainings that will help you become more effective. Below is a partial list of upcoming trainings and conferences provided by NACHC.

### Upcoming NACHC Conferences and Trainings

**MARK YOUR CALENDARS!**  
*(as of July 23, 2018 and subject to change)*

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<td>January 9-10, 2019</td>
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<td>August 28 - September 1, 2020</td>
<td>Community Health Institute (CHI) &amp; EXPO</td>
<td>Manchester Grand Hyatt</td>
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<tr>
<td>October 19-21, 2020</td>
<td>Financial, Operations Management/Information Technology (FOM/IT) Conference</td>
<td>Rio All Suite Hotel and Casino</td>
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<td>March 15-18, 2021</td>
<td>Policy &amp; Issues Forum (P&amp;I) Committee Meetings: March 12-14, 2021</td>
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To register for these and future trainings, visit us at [http://nachc.org/trainings-and-conferences/](http://nachc.org/trainings-and-conferences/).

For additional information on NACHC Training, contact Sherry Giles at sgiles@nachc.com or Helene Slavin at hslavin@nachc.com.
2019 Community Health Institute (CHI) & EXPO

August 18-20, 2019

Committee Meetings: August 16-17, 2019

Hyatt Regency Chicago
Chicago, IL

Abstract Deadline: March 29, 2019