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The Community Health Institute (CHI) & EXPO is the ideal place to learn about current health center research activities and innovations. The 2019 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 2019 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.

2019 NACHC Poster Presentation Awards

There are 76 posters, including 6 A.T. Still University-School of Osteopathic Medicine posters, to be presented during the 2019 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 19.
When voting, refer to the conference program for instructions on downloading the app.
All 2019 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 2020 CHI & EXPO in San Diego!
Second Place: $150
Third Place: $100

A.T. Still University-School of Osteopathic Medicine

This is the ninth 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:

#### Demonstrating Value

| CP1 | Trends of Enabling Services Utilization Over Time |
| CP2 | Exploring Health Center Penetration in Medicare Spending Priority Areas |

#### Public Health Crises

| CP3 | The Role of Health Centers in Health Care Surge Response |
| CP4 | Emergency Department MAT Induction with Transition to the Outpatient Community Health Center for Care |
| CP5 | Rethinking Pain: A Multidisciplinary Biopsychosocial Approach for Treating Patients with Chronic Pain |
| CP6 | Applying the Brakes: Controlled Substances Stewardship |
| CP7 | Combating Viral Hepatitis and the Opiate Epidemic in Appalachian Ohio |

#### Social Determinants of Health

| CP8 | The Impact of the Community Health Worker Role in Addressing Social Determinants of Health in Underprivileged Communities |
| CP9 | Using Community Health Workers to Assess Social Determinants of Health, Engage Patients with Diabetes, and Improve Health Outcomes |
| CP10 | TouchPointe: Addressing the Social Determinants of Health at AxessPointe Community Health Center |
| CP11 | Creating a Workflow for Universal Screening of Adult Patients for Social Determinants of Health Using PRAPARE |
| CP12 | Identifying and Acting Upon Differences in Social Determinants of Health in Patients with Controlled Versus Uncontrolled Diabetes and Hypertension |
| CP13 | Creating a Workflow for Intentional Follow-Up of Patients with High Social Determinant Risk |
| CP14 | Screening for Social Determinants of Health Using the PRAPARE Tool at the Greater New Bedford Community Health Center |
| CP15 | ACT Out! A Health Center-Based Pediatric Obesity Intervention |
| CP16 | Addressing Food Insecurity: Spectrum Health Center/Hungry Harvest Collaboration |
| CP17 | How Denver Health Incorporates Social Determinants of Health into the Outpatient Care Plan |
| CP18 | Individual-Level and Neighborhood-Level Predictors of Outpatient Mental Health Service Utilization in Persons with Serious Mental Illness |
| CP19 | Implementation of PRAPARE in an FQHC: Opportunities for Novel Forms of Patient Engagement and Follow-Up |
| CP20 | The Impact of Patient Social and Clinical Complexity on Hemoglobin A1c Control in a Diverse Sample of Diabetic Patients |
| CP21 | Development and Sustainability of a Wellness Center Model Within an FQHC |
| CP22 | Collecting Social Determinants of Health Data in the Clinical Setting: Findings from the National PRAPARE Pilot |
| CP23 | Healthy Food Champions Promotores: A Community Health Center Initiative to Address Food Inequity and Develop Community Leadership |

#### Technological Solutions and Tools to Improve Care and Population Health Management

| CP24 | Mobile App-Based Access to Better Care by a Los Angeles FQHC Street Medicine Program |
| CP25 | Information Transfer and Follow-Up by Primary Care Teams During Care Transition for High-Risk Patients |
| CP26 | Improved Quality Outcomes Through Technological Innovation |
| CP27 | Healthy Hearts in the Heartland (H3): Feasibility of and Barriers to Systematizing Referrals to Resources for Diabetes and Hypertension Self-Management |

#### Expanding Access to Care and Other Services

| CP28 | Implementation of Preventative Dental Services in the Pediatric Department |
| CP29 | Innovations in Implementing Routine Hepatitis C Screening at a Community Health Center |
| CP30 | Reducing Barriers to Care for Patients with Uncontrolled Diabetes via an RN-Led Insulin Titration Program |
| CP31 | A Community Health Center Approach to Substance Use Disorder Treatment in Rural Northern Wisconsin |
| CP32 | A Novel Patient Financial Navigator Position Facilitates Receipt of and Retention in Substance Use Disorder Treatment Services |
| CP33 | Universal HIV Screening at a Federally Qualified Health Center in Northern Virginia |
| CP34 | Integrating Diabetic Eye Exams into Primary Care: A Workflow with a Vision |
| CP35 | The Roadmap from Medical to Dental Care Regardless of Financial Status |

#### Improving Care for Special Populations

| CP36 | Recognition of Elevated Blood Pressure in School-Aged Children Using an EMR in Primary Care |
| CP37 | Improving Hepatitis C Screening Practices in Primary Care |
| CP38 | Prevalence of Elevated Body Mass Index in Youth Age 9 to 19 Years Receiving Care at Community Health Centers |
| CP39 | A Longitudinal Follow-Up Study of Weight Status Change in Chinese American Children Over a Ten-Year Period |
Variables Associated with Emergency Department Utilization by Pediatric Patients with Asthma in a Federally Qualified Health Center

Patient and Community Engagement

SoLaHmo’s Community-Based Participatory Action Research Approach to Community Engagement

The Dubuque Pacific Islander Health Project

Health Centers and the All of Us Research Program: Innovating to Advance Precision Medicine

The All of Us Research Program: Engaging and Representing Health Center Patients in a National Research Program

El Rio’s Reproductive Health Access Project: Nurturing Leadership and Agency Among Tucson’s Young People Through Health Advocacy

Engaging Gay Men of Color Through Education, Entertainment, and Social Empowerment

Quality of Care and Quality Improvement

Eliminating Routine Office-Based Blood Sugar Testing: Finding the “Sweet Spot” in Value-Based Care

“Focus on Excellence” – a Diabetes Management Project

Navigating Diabetic Patients in a Federally Qualified Health Center

Improving Patient Outcomes Through Comprehensive Medication Management

Using the 4 Es of Trauma-Informed Care to Empower Individuals Experiencing Homelessness

Implementation of an Innovative Model for Multidisciplinary, Team-Based Pain Management Services in the Primary Care Setting

Twelve-Month Outcomes from the Integration of Community Health Workers into Interdisciplinary Health Care Teams in a Federally Qualified Health Center

Improving Colorectal Cancer Screening: A Multidimensional Program with Multidimensional Results

Assessing Utilization of the One Key Question™ Reproductive Life Plan in the Electronic Health Record Among AllianceChicago Network Health Centers

Improving Colorectal Cancer Screening Rates at Illinois Health Centers Through Partnerships

Using a Data-Driven, Team-Based Care Approach to Viral Load Suppression

Fake News: “Empanelment is Easy” #TeamBasedCareinaTeachingFQHC

Targeted Pharmacist Services to Improve Quality of Care and STAR Ratings

Piloting an Integrated Care Model to Improve Diabetes and Depression Care at a Federally Qualified Health Center in Northern Virginia

The Diabetes Extravaganza Project: Improving Diabetes Control by Increasing Provider Comfort with Injectable Medications

Identifying and Curing Persons with Hepatitis C Through Collaboration Between a County Health Department and Community Health Center

The Centering Pregnancy Program at Heart of Ohio Family Health Centers

Making Process Improvement Common Practice at a Community Health Center

A Staffing Model in a Community Health Center to Minimize Delays in the Dispensing of Medications Requiring Prior Authorization

Community Health Workers Are the Key: Community Health Workers as an Integral Team Member

Improving Quality Through the Implementation of a 3-Step Training Program for Health Care Professionals

Fostering Leadership and Accountability in the Medical Assistant Workforce Through Clinical Scorecards

Family Medicine Residency Training in an Urban CHC, Reflections After Twenty Years

A.T. Still University-School of Osteopathic Medicine in Arizona

Relationship Between Health Literacy and Parent-Completed Autism Screens in a Spanish-Speaking Population

An Evaluation of Communication Methods for Community Outreach in Patients with Diabetes

Assessing Unity Health Care Staff Awareness of the Stork’s Nest Program

Community-Based Intervention to Increase Usage of Medication Disposal Bins

Evaluating Responsiveness of Underserved Chicago Communities to Colorectal Cancer Screening Recommendations

Impact of a Two-Minute Educational Video on Flu Vaccination Knowledge in a Community Health Center Setting
Demonstrating Value

**CP1**

**Trends of Enabling Services Utilization Over Time**

**Poster Type:** Research  
**Category:** Demonstrating Value  
**Research Objectives:** Enabling services (ES) 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 how ES utilization changes over time.  
**Study Design/Methods:** We have detailed ES data from three Association of Asian Pacific Community Health Organizations (AAPCHO) member health centers over the time period of 2006-2015. The measures that we used included minutes per ES encounter and minutes per ES service. We analyzed the trends of average minutes per ES encounter and per ES services change in each of the three health centers and also overall. We also compared ES provision per full-time equivalent (FTE) between the 28 AAPCHO member health centers and all national health centers that reported to the Uniform Data System (UDS) over 2013-2017.  
**Principal Findings and Quantitative/Qualitative Results:** Average minutes per ES encounter and per service varied over time and by health center. Average minutes per ES encounter of one health center was quite consistent (range: 13.82min-14.95min), one decreased (range: 15.44min-20.45min), and one increased (range: 11.53min-26.35min) over the years. In 2013, AAPCHO members provided about the same number of ES visits per ES FTE (354 vs. 348) as the national average and 23% more ES patients per ES FTE (173 vs. 141). In 2017, the gaps have increased to AAPCHO members providing 65% more ES visits and 77% more ES patients per ES FTE than the national average.  
**Conclusions on Impact on Health Centers:** Patient needs for ES may be changing over time, and health centers can monitor changes to better allocate their staff time and resources. The gaps between numbers of ES visits and patients per ES FTE served by AAPCHO members and the national averages increased over the past five years. Past research showed that higher enabling services utilization correlated with better health outcomes. Tracking national standardized patient-level data on ES as well as social determinants of health are essential to enable more rigorous analysis to better understand the value and impact of ES in improving health outcomes, especially for complex patients.  
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**Presenter(s):** Rosy Chang Weir

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**CP2**

**Exploring Health Center Penetration in Medicare Spending Priority Areas**

**Poster Type:** Research  
**Primary Funding Source:** This research is/was funded by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under contract HHSH250201800033G.  
**Category:** Demonstrating Value  
**Research Objectives:** To explore the linkages between health center presence and Medicare spending by aggregating ZIP Code Tabulation Area (ZCTA)-level health center data to hospital service areas (HSAs). We demonstrate this by utilizing geospatial methods to identify Medicare spending priority areas and explore low-income health center penetration in these areas.  
**Study Design/Methods:** Using Medicare spending data from the Dartmouth Atlas, HSAs were mapped by quartile for years 2012-2016. The differential Local Moran’s I was used to identify spending growth “hot spots,” which are defined as HSAs with high-spending growth rates surrounded by HSAs with high-spending growth rates. Priority areas are defined as HSAs in the top quartile of Medicare spending every year (2012-2016) or that are identified as Medicare spending growth “hot spots” (2012-2016). ZCTA-level health center low-income penetration rates (2016) were aggregated to the HSA level and we compared low-income penetration rates in priority areas to non-priority areas.  
**Principal Findings and Quantitative/Qualitative Results:** We identified 508 HSAs (of 3,436 HSAs in the US) with Medicare spending in the top 25th percentile all five years (2012-2016), which are concentrated in a few major areas, including Texas, Louisiana, and central Appalachia. We also identified 176 high-spending growth HSAs [12 of which were also high-spending HSAs (2012-2016)], which were located primarily across the central part of the US and upper Midwest. Low-income penetration rates for health centers were significantly lower in priority areas compared to non-priority areas.
Conclusions on Impact on Health Centers: In general, non-priority HSAs had higher rates of low-income penetration, indicating that the presence of health centers may help to mitigate rising health care costs. This is particularly important as the number of people eligible for Medicare increases and health centers continue to see higher numbers of dually eligible (Medicare and Medicaid) patients. The focus on Medicare spending data is a limitation, though future research could explore links between overall health care spending and the potential impact of health centers on reducing these costs.

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Presenter(s): Michael Topmiller

Public Health Crises

CP3
The Role of Health Centers in Health Care Surge Response

Poster Type: Research

Primary Funding Source: Office of the Assistant Secretary for Preparedness and Response (ASPR)/U.S. Department of Health and Human Services (HHS)

Category: Public Health Crises

Research Objectives: ASPR Technical Resources, Assistance Center, and Information Exchange (TRACIE) sought to learn the perceptions of Federally Qualified Health Centers and other health clinics’ leadership on the role of their clinics in no-notice incidents and infectious disease emergencies, response capabilities and infrastructure, preparedness characteristics, and factors influencing engagement in emergency management activities.

Study Design/Methods: A survey instrument and interview guide were developed and refined under the guidance of numerous subject matter experts. A convenience sample was recruited through existing communications mechanisms of NACHC, S/RPCAs, and HRSA. All responses were de-identified. ASPR TRACIE used a mixed-methods approach that included quantitative analysis of survey data and qualitative analysis of interviews. Descriptive analyses were conducted to summarize survey responses. Key insights and themes were derived from interviews. A report of key findings was widely distributed following review by ASPR TRACIE’s Subject Matter Expert Cadre.

Principal Findings and Quantitative/Qualitative Results: Online surveys were completed by 175 respondents; 25 participated in follow-up 30-minute telephone interviews. All interviewees and nearly all survey respondents represented Federally Qualified Health Centers. Participants represented 38 states in all 10 HHS regions. Most reported participation in preparedness activities with various community partners: 92% perceived a role for their center during an infectious disease outbreak and 76% in no-notice incidents. Nearly two-thirds reported participating in an emergency response in their community. Respondents identified numerous ways their services could be expanded during emergencies and reported testing their ability to implement various emergency protocols through exercises and real-life incidents.

Conclusions on Impact on Health Centers: Variation exists in the capacity and resources of individual health centers and their engagement with partners, but overall they have valuable capabilities that could support community preparedness, response, and recovery efforts. Opportunities exist to improve preparedness by: better defining their role in emergency management efforts; increasing engagement with community partners; providing training, technical assistance, and other resources to support emergency management knowledge and activities; promoting opportunities for knowledge exchange; encouraging use of hazard vulnerability analysis; and promoting continuity of operations planning. ASPR TRACIE developed a tip sheet to advance integration and engagement of health centers in future disaster activities.

Author(s):
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Presenter(s): Jennifer Nieratko

CP4
Emergency Department MAT Induction with Transition to the Outpatient Community Health Center for Care

Poster Type: Innovation

Primary Funding Source: Health Resources Services Administration, Indiana Division of Mental Health and Addiction

Category: Public Health Crises

Issue or Challenge: Individuals with opiate use disorder are seen in the emergency department after overdose or for treatment of a related condition. Often, these individuals are lost to follow-up care because substance abuse treatment is not available on demand.
Description of Innovation: Our project worked with local emergency room physicians to establish a clinical pathway between the emergency department and our community health center, ensuring there is a seamless transition for individuals who are provided medication-assisted treatment in the emergency department to outpatient care. We convened several meetings between representatives of the emergency department and clinical and operational leadership of the health center and discussed the logistics of how patients would be identified, triaged, and then the information communicated between the two different health care settings.

Once the clinical pathways were established and communication channels developed, the emergency department physicians, who were willing to participate, became DATA 2000-waivered and we hired peer support specialists to work with patients. We also required all medical staff to take the DATA 2000 training, regardless of whether they intended to become waivered providers to ensure they knew the research and methodology behind medication-assisted treatment. This resulted in most of our medical staff becoming DATA-waivered.

Impact or Result: An immediate result of this innovation is that we increased the number of DATA-waivered providers in our health system and in the local community. Additionally, we closed a significant gap in the community for individuals with opiate use disorder by ensuring that when someone was ready to engage in treatment, there was treatment available, rather than having to wait for a treatment spot to become available. Additionally, provider satisfaction increased as local emergency department physicians now feel they have the ability to do something more than refer a patient to a treatment facility. They can begin the treatment and make a warm handoff.

Replicating this Innovation: By developing a relationship with local emergency departments, developing internal capacity, and ensuring everyone is on the same page about how to handle the patient throughput, another organization could replicate this innovation. First, you must determine whether there is a demand and whether your current system can support the increased demand. Next, you must determine who needs to be involved and what training needs to take place. Finally, an implementation plan needs to be developed that includes key stakeholders and clear timelines to implementing best practices.

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Presenter(s): Beth Keeney, Eric Yazel, Misty Gilbert, Greg Duncan

CP5
Rethinking Pain: A Multidisciplinary Biopsychosocial Approach for Treating Patients with Chronic Pain

Poster Type: Innovation

Primary Funding Source: Grant funded

Category: Public Health Crises

Issue or Challenge: The Pain Recovery Program is an innovative and responsible approach for the treatment of chronic pain in the midst of the national opioid epidemic. Primary care providers are beginning to recognize the ineffectiveness and high risks associated with opioid prescribing. The Pain Recovery Program was developed to offer emerging, alternative solutions for patients experiencing chronic pain. The Pain Recovery Program challenges common misconceptions by providing patients pain science education. The program teaches patients adaptive cognitive and behavioral strategies for pain reduction and engages patients in practicing these new skills in a supportive group setting.

Description of Innovation: The Pain Recovery Program is an educational and experiential group occurring for 90 minutes 1x per week over the course of 6 weeks. The Pain Recovery Program provides education, teaches cognitive restructuring, encourages movement, and practices mindfulness and relaxation skills in a group format facilitated by an interdisciplinary team. Our program utilizes professionals from disciplines including, but not limited to, physical therapy, behavioral health, dietetics, and pharmacy to address an individual’s chronic pain.

Compared to a traditional biomedical approach to treatment of chronic pain, which focuses only on tissue damage, the Pain Recovery Program utilizes a biopsychosocial approach. The biopsychosocial approach recognizes the whole person including the intricate, variable interaction of biological factors (genetic, biochemical, etc.), psychological factors (mood, personality, behavior, etc.) and social factors (cultural, familial, socioeconomic, medical, etc.) when attributing disease causation and identifying appropriate treatments.

Physical therapy and behavioral health clinicians created the program curriculum modeled after Mind Body Medicine at the Navy Medical Center San Diego (NMCS). Grant funding was applied for and awarded with the established goal of reducing opioid prescribing by the organization. Program facilitators educated staff on pain science and utilized a simple, internal referral process to gain program participants. Facilitators actively address patient barriers to treatment and continue to make program improvements from eliciting patient feedback.

Impact or Result: Pain recovery participants have demonstrated consistent decrease in pain catastrophizing as evidenced by reduction in the Pain Catastrophizing Scale (PCS). The PCS is one of the most widely used instruments for measuring catastrophic thinking related to pain. It is used extensively in clinical practice and in research. More
than 600 papers have been published on the use of the PCS in acute and chronic pain populations and the PCS has been translated into 20 languages. Decrease in pain catastrophizing is directly correlated with reduction in disability and pain complaints. Organizationally, this program has provided pain science education to behavioral health clinicians and medical providers, and promoted the use of the biopsychosocial approach. The program is one factor associated with a 50% decrease in PrimaryOne Health opioid prescribing.

Re replicating this innovation: The Pain Recovery Program can be replicated in community health centers with internal interdisciplinary teams or access to community behavioral health, dietetic, and pharmacy partners. For starting and sustaining a pain recovery program, organizational investment in providing non-opioid treatment of chronic pain and openness to biopsychosocial model of nontraditional treatment of chronic pain is recommended.

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Presenter(s): Brooke Pfefferle, Ellen DeFrance

CP6

Applying the Brakes: Controlled Substances Stewardship

Poster Type: Innovation

Category: Public Health Crises

Issue or Challenge: During the past three decades, aggressive and misleading marketing by pharmaceutical companies promoted chronic opioid analgesic prescribing in the United States. Concurrently, accreditation bodies and patient advocacy groups have campaigned for better pain control and more stringent policies for pain management by clinicians. In combination, these events have contributed to a dramatic rise in prescribing of opioid analgesics and a drift from the empirical evidence for their efficacy, dosing, and duration of use. In consequence, societal exposure to these drugs increased substantially, sowing an epidemic of opioid use disorder (OUD) throughout the United States.

Description of Innovation: Penobscot Community Health Care’s (PCHC’s) Controlled Substances Stewardship program (CSS) is an internal, quality improvement program managed by an interprofessional committee (CSS Committee) that meets weekly to review patient care that entails prescription of opioids, benzodiazepines, hypnotics, and stimulants and/or has hallmarks of an untreated use disorder. Through weekly review of electronic health records, and care coordination with prescribers, the CSS Committee avoids (or detects and corrects), any drift from evidence-based practice. It also assures compliance with organizational policies and procedures specified in the Committee’s controlled substance policy manual. The interprofessional composition of the Committee is integral to its success, consistent with the concepts and practice of whole person care.

Criteria are specified in the CSS Policy Manual for patients identified with: >50 morphine milligram equivalents (MME) dose of an opioid; a chronic prescription (as specified in the policy manual); any chronic combination of an opioid with a benzodiazepine; more than one drug from the same class; an emergency department report that associates the patient’s care with the drugs specified; a hypnotic drug; inappropriate use of a stimulant; any combination of the foregoing.

Following the review, the Committee communicates its findings to the patient’s provider, including any recommendations for change in treatment, alternative approaches to the underlying problems/symptoms, and tapering schedules (if indicated). Although the recommendations of the Committee are advisory and not binding, deviation from the prescribing requirements of the CSS Policy Manual may result in a provider performance review and, if deviation is intentional and persistent, dismissal from the organization.

Impact or Result: Since its establishment in 2013, PCHC’s CSS Committee has reduced opioid and benzodiazepine prescribing by more than 70% (supporting data and tables available). Through weekly case reviews and the provision of care advice to prescribers, the Committee helps primary care providers avoid (or detect and correct) any drift from evidence-based practice, thereby assuring compliance with organizational policies and procedures for the prescription of opioids (including tramadol), benzodiazepines, hypnotics, and stimulants. Providers report that although patients faced with tapering of a drug, that is specified in the CSS Policy Manual, may initially respond with anger and intense anxiety, some were eager to try alternatives. Although not all patients express that they have experienced subjective improvement in their pain management and quality of life because their controlled substance(s) was/were tapered, the benefit of mitigating or eliminating the risk of controlled substance-associated morbidity and mortality may be nonetheless evident in patient outcomes.

Re replicating this innovation: By 2013, the scale and intensity of the opioid epidemic had become a dominant concern at PCHC (an FQHC headquartered in Bangor, Maine, serving 65,000 patients). The average opioid prescription at the time was 290 morphine milligram equivalents, and defenses against inappropriate use/diversion (e.g., patient-provider agreements, random pill counts, urine screens, etc.) were not consistently utilized or enforced across the organization. Clinical and administrative leaders at PCHC are convinced that it’s possible for any community health center of any size to replicate the CSS program if they are committed to improving patient outcomes and decreasing morbidity/mortality attributed to (or associated with) these high-risk medications. PCHC is already providing consultative support to other organizations in the region that wish to implement a CSS program, including
monitoring and advisory services for individual providers or groups who wish to engage in this process, or have a compulsory monitoring and reporting obligation.

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¹Penobscot Community Health Care

**Presenter(s):** Lori Dwyer

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**CP7**

**Combating Viral Hepatitis and the Opiate Epidemic in Appalachian Ohio**

**Poster Type:** Innovation

**Primary Funding Source:** Ohio Department of Health

**Category:** Public Health Crises

**Issue or Challenge:** Hepatitis C is a liver infection caused by the hepatitis C virus (HCV). It is the most common chronic blood-borne infection in the United States. Ohio is particularly burdened by the virus in Appalachian areas of the state, and reports of hepatitis C infections are on the rise according to the Ohio Department of Health. The Centers for Disease Control attributes the increase in hepatitis C to the growing opioid epidemic and intravenous drug use. Treatment has improved and is now more effective and tolerable than in the past. Testing and treating individuals can mitigate the rising infection rate in Ohio.

**Description of Innovation:** The purpose of this health center-focused project was to implement interventions related to a reduction of patients with a hepatitis C infection. Interventions that would: (1) educate providers and communities to reduce health disparities; (2) increase the number of Ohioans living with HCV who are aware of their infection; and (3) facilitate linkages of newly diagnosed individuals to appropriate care and treatment. The Ohio Association of Community Health Centers (OACHC) was responsible for coordinating four separate trainings (a Kick-Off Training, Provider Training, Quality Improvement Training, and an EMR Training), reviewing HCV screenings, testing administration, educating, and developing a protocol with each identified FQHC.

**Impact or Result:** All three FQHCs have seen an increase in the number of patients receiving HCV testing since the beginning of the project (11/01/2018). To date, the health centers collectively have diagnosed 33% (243/743) of individuals screened to be HCV positive. Of the HCV positive patients, 70% were unaware of their infection, and 30% were previously aware of their infection. A total of 89% of patients who screened positive for HCV also had a substance abuse disorder, and 71% had a comorbid condition such as diabetes or obesity. FQHCs saw the need for taking care of these patients with primary care services, and all three are now working to begin treating HCV within their practices. Medicaid has changed the ruling on treatment in Ohio as of January 1, 2019, making our FQHCs able to bill for treatment services in consultation with a specialty care provider (infectious disease, hepatologist, or gastroenterologist).

**Replicating this Innovation:** Although treatment protocols in terms of what the FQHC can do vary by state, the HCV screening protocol developed for this project can be replicated in any FQHC. Universal screening of patients is very cost effective and has proven to find many patients who are positive for HCV and in need of care. All FQHCs already have lab services that can do the testing as well.

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¹Ohio Association of Community Health Centers

**Presenter(s):** Tiffany White

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**Social Determinants of Health**

**CP8**

**The Impact of the Community Health Worker Role in Addressing Social Determinants of Health in Underprivileged Communities**

**Poster Type:** Innovation

**Primary Funding Source:** Missouri Health Net

**Category:** Social Determinants of Health

**Issue or Challenge:** Affinia Healthcare is located in one of the highest zip codes for infant mortality. Our interventions focused on improving infant mortality with special populations, with a goal of improving the life and wellness of mothers and babies in underserved communities.

**Description of Innovation:** Our innovation was to provide high-quality health care and exceptional service and promote healthy lifestyles. We assessed and addressed patients experiencing social determinants of health (SDH) in these high-risk zip codes. Affinia Healthcare community health workers (CHWs) utilized the PRAPARE tool to provide support to the community via outreach and the implementation of community referrals, while having individual CHWs work with patients. The CHWs received specialized trauma-informed training and participated in ECHO presentations, which are interprofessional, collaborative groups to discuss solutions to difficult issues faced when in the community. The patients are contacted for diabetes, hypertension, home visits, Centering Pregnancy and Centering Parenting groups to improve their overall quality of health. The Affinia Healthcare CHW team
also addresses care gaps, obesity, pediatric and adult asthma, housing, hospital follow-up and care coordination, colorectal screening, and chronic disease education programming. Use of PRAPARE assists the team in identifying barriers and SDH for the patient population.

**Impact or Result:** Clinical outcomes were improved through our efforts. Infant mortality decreased from 13% in 2016 to under 10% in 2018. Teen pregnancy was also decreased over the last 3 years. With the implementation of the CHW utilizing the PRAPARE tool when assessing patients, we were able to decrease barriers and SDH in our most vulnerable populations through community organization partnership and a referral process.

**Replicating this innovation:** Having CHWs trained and giving them an arsenal of resources to have proper connections for the community are essential. The community needs resources that are reliable as well. One of the most essential pieces of the foundation is to also know the community that you are serving. If possible, complete a community needs assessment to identify what the community feels they need versus what you prioritize as being community needs. Also, it is good to build effective partnerships to assist in meeting the needs of the community.

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Presenter(s): Candace Henderson, Latonia Lee, Sonia Deal

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**CP9**

**Using Community Health Workers to Assess Social Determinants of Health, Engage Patients with Diabetes, and Improve Health Outcomes**

**Poster Type:** Research

**Primary Funding Source:** PCMH Program, Health Resources and Services Administration (HRSA) (via 330 funding to CHC)

**Category:** Social Determinants of Health

**Research Objectives:** Can a community health worker using a standardized tool to capture social determinants of health (SDH) assist providers in creating a common care plan incorporating patient’s assets, risks and barriers; improve diabetes medication adherence and outcomes; and drive value for patients with rising risk or moderate risk?

**Study Design/Methods:** Using a standardized electronic tool (PRAPARE) to assess patients’ SDH, address barriers through community resource engagement and review feedback through a patient care council. All Medicaid patients at Charter Oak Health Center with a diagnosis of diabetes will be monitored for baseline risk status and then followed to review UDS outcomes, engagement, barrier assessments (housing, food or utilities, depression screening) starting in July of 2018. Interventions used include nurse-driven care plans, written care plan review by community workers, and outcomes assessed by increased screening and monitoring of lab values, decreasing gaps in care for diabetes patients.

**Principal Findings and Quantitative/Qualitative Results:** (1) 1,119 patients were screened for SDH: average risk score was 8.7; 160 patients found to have food insecurity were assisted; 98 patients were assisted with transport needs; and 23 with employment or resume assistance.

(2) Of 1,796 diabetes patients seen in 2018, A1c screening improved from 85% to 92%, statin therapy from 52% to 77%, A1c at goal 9 from 32% to 25%. Oral diabetes medication adherence improved from 50% to 61%. (3) Reduced the risk of patients who started at medium risk from 35% to 27.5% and increased the total percentage of low-risk diabetes patients from 46.3% to 54%.

**Conclusions on Impact on Health Centers:** Addressing social determinants of health at health centers is essential and using community health workers as extended members of the care team to assist clinical providers, by creating comprehensive care plans, is a lower cost alternative to reduce barriers to improved outcomes and reduce disparities of care. Improved diabetes outcomes can be achieved in community health centers with a dedicated community health worker reviewing care plans for chronic conditions such as obesity and diabetes. Community health workers can assist providers in increasing appropriate depression screening, assist patients with community resources, and can reduce costs of care via utilization of a lower cost, non-clinical team member.

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Presenter(s): Sunil D’Cunha

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**CP10**

**TouchPointe: Addressing the Social Determinants of Health at AxessPointe Community Health Center**

**Poster Type:** Research

**Category:** Social Determinants of Health

**Research Objectives:** Social determinants of health (SDH) are defined as “conditions in the environments in which people are born, live, learn, work, play, worship, and age” (Healthy People 2020, n.d.). Public health professionals at all levels recognize SDH as indicators for health and risk factors for disease.

**Study Design/Methods:** TouchPointe was modeled after Health Leads, a nonprofit organization striving to remove social and environmental barriers that prevent people from achieving optimal health (Health Leads, n.d.). Designed in collaboration with Kent State University College of Public Health, TouchPointe aims to address the SDH in the patients at...
AxessPointe, a federally qualified health center in Kent, Ohio. The research objectives of TouchPointe include identifying the SDH that are impacting patients, making referrals to community health workers (CHWs) to put patients in touch with needed resources, documenting SDH in the electronic medical record so it is accessible to the medical provider, and making use of under-utilized time in the waiting room.

**Principal Findings and Quantitative/Qualitative Results:** After completion of the required training, undergraduate public health students have spent over 400 volunteer hours conducting SDH surveys with AxessPointe patients while they waited to be seen by their medical providers. The PRAPARE tool was utilized which aligns with national initiatives to prioritize social determinants. Patients were also asked to complete satisfaction surveys to assess their experience with the TouchPointe program. Since TouchPointe was implemented in September 2018, 228 patients have taken the PRAPARE survey. Of those, 43 (18.9%) have been referred to a CHW to be put in touch with a wide variety of community resources including assistance with transportation, housing, clothing, employment, and legal aid.

**Conclusions on Impact on Health Centers:** An overwhelming majority (85.6%) of surveyed patients found TouchPointe beneficial to the care they received at AxessPointe. Besides enhancing the patient experience at community health centers, TouchPointe aligns with the Healthy People 2020 initiative to “create social and physical environments that promote good health for all” (Healthy People 2020, n.d.). Additionally, medical providers can see which SDH are impacting their patients and render care accordingly. Although more studies will be needed, there is potential that TouchPointe will improve health outcomes for patients and decrease health care spending.

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**Presenter(s):** Molly Beutel, Stephanie Schulda

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**CP11**

**Creating a Workflow for Universal Screening of Adult Patients for Social Determinants of Health Using PRAPARE**

**Poster Type:** Innovation

**Category:** Social Determinants of Health

**Issue or Challenge:** Many patients have significant social determinants of health that adversely impact quality outcomes, increase costs, and lead to frustration for the patient and medical team. Many social determinants of health (SDH) are not easily identified without asking. Once identified, interventions to help overcome the determinant can be difficult to provide without a well-defined workflow in place.

**Description of Innovation:** We have created a workflow to identify and screen all adult patients due for annual PRAPARE screen. The workflow includes the following: (1) the process to address any determinants identified; (2) the process to include appropriate ICD-10 codes, associated with any determinant identified on the problem list, and attaching the code to the level of care for that visit in order to inform the payor of the complexity of the patient; and (3) the process to capture the enabling service provided and the time involved.

**Impact or Result:** Universal screening efforts have helped our organization create a mindset that addressing social determinants are a core part of the services we provide our patients. Our staff know that patients need to be screened and that determinants be addressed if we ever want to accomplish the Quadruple Aim. We have had little resistance from patients. Most staff no longer feel that universal screening is an unrealistic expectation. Because of universal screening, we can document the complexity of our entire patient base, rather than a specific group of patients. We have been able to look at social determinants of health differences between groups, such as controlled versus uncontrolled patients with diabetes and hypertension. This has resulted in clinic-level changes in different programs, such as our diabetes education program.

**Replicating this Innovation:** All organizations have different resources and situations. Prior to initiating universal SDH screening, resources need to be in place to address any positive responses. By identifying current resources and partnering with outside agencies, the daunting task of addressing social determinants of health becomes less intimidating. The workload on the provider team needs to be minimized by using auxiliary staff to help the patient address any determinants identified.

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**Presenter(s):** David Faldmo

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**CP12**

**Identifying and Acting Upon Differences in Social Determinants of Health in Patients with Controlled Versus Uncontrolled Diabetes and Hypertension**

**Poster Type:** Innovation

**Category:** Social Determinants of Health

**Issue or Challenge:** Many patients have significant social determinants of health (SDH) that adversely impact their quality of health and ability to control their chronic disease states. Using the Protocol for Responding to and Assessing Patient Assets, Risks, and Experiences (PRAPARE) national SDH screening tool, our organization chose to examine the differences in SDH between patients with controlled diabetes and hypertension versus patients with uncontrolled diabetes and hypertension. We then put in place services to address
Description of Innovation: We created reports within i2i (population health tool) to allow us to review the raw data of our patients’ answers to social determinants of health. This allowed us to run reports based on diagnosis, race ethnicity, age, etc. After running the reports within i2i, we identified actionable SDH that were more prevalent in our uncontrolled population. In our patients with uncontrolled diabetes, food insecurities were more prevalent than in our controlled diabetes patients. In our patients with uncontrolled hypertension, stress was much more common than in our patients with controlled hypertension. With this information, new programs and workflows were put in place to address these determinants.

Impact or Result: Knowing that there are SDH that might impact a patient’s ability to control hypertension or diabetes has reinforced our desire at our health center to screen for and address SDH—especially in our patients with chronic disease. This information has allowed us to address SDH at the population level. We have created programs and established community partnerships to help us address food insecurities and stress.

Replicating this Innovation: Developing a workflow to screen for SDH is the first step. Creating reporting that allows the breakdown of the population-level SDH data is the next step. Health centers can then begin to analyze and act on differences between different groups of patients. This will allow for better health equity.

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CP13

Creating a Workflow for Intentional Follow-Up of Patients with High Social Determinant Risk

Poster Type: Innovation

Category: Social Determinants of Health

Issue or Challenge: The Social Determinants of Health (SDH) Committee sought a path to move from universal annual PRAPARE screening of adult patients with behavioral health encounters, as appropriate, to include follow-up with those individuals who appeared to be at elevated risk. The challenge was to design a process and workflow that maintained not only the initial contact between patient and behavioral health at time of screening, but also provided a mechanism for future engagement for increased patient health and quality of life outcomes.

Description of Innovation: (1) SDH Committee identified a lack of objective means to define “high risk.” This barrier was overcome by stratifying risk based on each determinant’s potential to disrupt patient health/quality of life relative to available resources in the immediate community. A scoring system was developed to reflect this, which resulted in a maximum score of 72 (0=no risk, 72=maximum risk). (2) Medical director and quality specialist worked collaboratively i2i to allow team members’ entries in the Centricity-based PRAPARE form to be scored according to this system. Doing so allowed use of i2i to identify a population based on any given risk threshold. Behavioral health team identified a reasonable capacity to respond to this population to be at a score of 25 or greater which resulted in an initial population of 263 individuals whose most recent PRAPARE had been completed between 01/01/2018 and 12/31/18. (3) Quality specialist developed an i2i search tool to identify daily opportunities to engage individuals in this cohort who had a scheduled visit with a primary care provider. Behavioral health team proposed a workflow to engage these patients upon their presence in the clinic for appointments using the daily list in conjunction with alerting provider teams to the patients to be seen and monitoring the schedule electronically for patient check-in.

Impact or Result: (1) Developed a system to intentionally follow up with individuals facing significant barriers related to social determinants. We are beginning to identify how successful the previous intervention pattern was/wasn’t (Did the screen result in a behavioral health encounter? Was the information valuable? Was there a warm handoff to any referrals? Did the patient follow up? Were we able to close the loop? Are there unmet needs that still remain?). For example, a previously screened and encountered patient had been provided information on applying for SNAP. At intentional follow-up, patient admitted never having followed through due to social anxiety. Due to follow-up, we were able to assist with application completion to fill this need. (2) Identified that over 60% of patients in this population do not complete their scheduled appointments (combination of no-show, cancellation, reschedule). (3) Noted that this workflow required staffing and coverage model to be reconsidered/redesigned.

Replicating this Innovation: (1) Identify population to be screened for SDH and method to do so. Will you screen all patients or a subset of the universal population? Is the PRAPARE tool to be used or a comparable assessment? (2) Determine how risk will be stratified and what threshold of risk will require intentional follow-up. Is it feasible for the organization to risk-stratify all social determinants (SDs), or will key SDs be the required trigger for follow-up? (3) Develop method for tracking opportunities to encounter population. Do you have an electronic medical record that allows entry of SDH screening and extraction of appropriate data or will the information be tracked in a different way? (4) Design workflow that provides an objective way to make contact with patient. Can you sustain a standard of work and check its efficacy?
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CP14
Screening for Social Determinants of Health Using the PRAPARE Tool at the Greater New Bedford Community Health Center

Poster Type: Innovation
Category: Social Determinants of Health

Issue or Challenge: Social determinants of health (SDH) contribute to an individual’s overall health and well-being. Some studies estimate that at least 40% of a population’s health is determined by their SDH. At the Greater New Bedford Community Health Center (GNBCHC), social determinants of health had never been consistently assessed, documented, and coded during office visits. Missing or inaccurate information meant that GNBCHC was unable to understand specific patient needs and offer appropriate services and referrals. Additionally, with the rollout of Massachusetts’s accountable care organizations, coding for SDH became essential to documenting the complexity of GNBCHC’s patient population.

Description of Innovation: GNBCHC partnered with the University of Massachusetts Medical School and Massachusetts League of Community Health Centers to implement SDH screening using the Protocol for Responding to and Assessing Patients’ Assets Risks and Experiences (PRAPARE) tool. Initially piloted in July 2017 on paper with two providers, the PRAPARE tool was incorporated into the medical record and rolled out to the entire health center in December of 2017. Medical assistants and nursing staff were trained to administer the tool and code for positive results (homelessness, food insecurity, etc.). The expectation was that each patient would be screened using the PRAPARE tool at each visit. The number of mandatory screening questions was gradually increased over several months until ultimately seven items were addressed. Screening and coding rates for individual providers, departments, and the health center overall were assessed on a weekly basis and this information was posted in each department for all staff to see.

Impact or Result: In 2018, 21,415 individual patients were screened using the PRAPARE tool (97% percent of visits at the health center). More than 702 patients screened positive for homelessness. These patients would not have been identified nor coded prior to implementation of the PRAPARE tool. An unexpected result was that the focus on SDH created an awareness of the barriers faced by patients of GNBCHC. Staff was not previously aware of how widespread homelessness and food insecurity was. This awareness prompted some departments and provider teams to offer simple items to patients. For example, the Women’s Health Department now has a box full of toiletry supplies and nonperishable “snack bags” that they distribute to patients who screen positive for homelessness or food insecurity. These items are purchased by staff members out of their own pockets. Asking the SDH questions reminded many staff of why community health centers exist.

Replicating this Innovation: Implementation of the PRAPARE tool should be relatively straightforward for other organizations: all staff needs to understand the reasons for screening and the resources available when a patient screens positive; identify the most appropriate individuals to do the screening and coding and the best place within the EMR to house the screening tool; provide the screening staff with the tools they need to be successful (for example, GNBCHC provided medical assistants with the PRAPARE tool translated into our most common languages other than English on laminated cards); and run reports on screening in a way that identifies individuals or departments that need re-education or reinforcement.

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Presenter(s): Lisa M. Jones

CP15
ACT Out! A Health Center-Based Pediatric Obesity Intervention

Poster Type: Research
Primary Funding Source: Office of Minority Health
Category: Social Determinants of Health

Research Objectives: This poster describes a community health center-based obesity intervention at CCI Health and Wellness in Montgomery and Prince George’s County, Maryland, where 45% of the pediatric patient populations, 6-16 years, is overweight or obese (=85th percentile).

Study Design/Methods: To promote health and reduce obesity rates, a comprehensive nutrition intervention was implemented in the context of pediatric primary care. Intervention components included the integration of culturally congruent family nutrition counseling, a system for prescribing park visits, and a culturally tailored group nutrition education program. Data was collected at baseline and follow-up, using data collection forms embedded in the electronic medical record. Process evaluation methods included key informant and participant interviews as well as document review and observation.

Principal Findings and Quantitative/Qualitative Results: To date there are 100 youth enrolled in ACT Out! Of those enrolled, 82% report Hispanic ethnicity. The gender split among participants is fairly even with 44% reporting male gender and 50% reporting female gender (6% missing data). ACT Out! participants report increases in fruit (12%) and vegetable (10.8%) intake as well as increases in the number of days in which they are physically active (33.3%); and 32.2% of
participants report a decrease in screen time and 33% report a decrease in soda consumption.

Conclusions on Impact on Health Centers: An intentional focus on promoting healthful behaviors through family nutrition counseling in an interdisciplinary community health care setting can both shift patient health behavior and provider capacity for supporting patients.

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Presenter(s): KellyAnn Rooney

CP16

Addressing Food Insecurity: Spectrum Health Center/Hungry Harvest Collaboration

Poster Type: Innovation
Category: Social Determinants of Health

Issue or Challenge: (1) In Philadelphia, one out of every five people are affected by food insecurity. (2) In 2018, 70% of patients at Spectrum Health Center were Medicaid class and 8% were uninsured. (3) 54% of patients live at or below the poverty line. (4) Many of our patients are food insecure despite receiving assistance from government safety-net programs. Healthy food access is important for optimal treatment/management of chronic diseases. Our challenge was to address the food insecurity in the community surrounding our clinic in West Philadelphia.

Description of Innovation: A pop-up produce market was set up in partnership with Hungry Harvest in our clinic’s community room. Bags of produce were given to patients at no cost, with no questions asked, on distribution day. Patients were recruited to the event via text, flier, and word of mouth. This event not only served our community, but also helped us establish a long-term partnership with Hungry Harvest whose mission, centered on preventing food waste and hunger, aligns perfectly with our challenge of fighting food insecurity in our low-income patient population.

Impact or Result: (1) 150 bags of fresh produce each containing ~10lbs of fruits and vegetables were successfully distributed to patients. (2) The event was well received by our patients who reported the bags allowed them to cook fresh/healthy meals and snacks for their families that week.

Replicating this Innovation: This can be implemented at other organizations in areas where Hungry Harvest delivers which include Maryland; Washington, DC; Virginia; Greater Philadelphia; Southern New Jersey; Northern Delaware; South Florida; The Triangle Area in North Carolina; and the Detroit Metro Area. We speculate similar partnerships may also be initiated with other food rescue organizations such as Misfit Markets which delivers in Pennsylvania, New York, New Jersey, Connecticut, and Delaware. Planning and implementing a one-time, pop-up produce market was fairly straightforward and required only about one hour per week on the coordinator’s end in the weeks leading up to the market.

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Presenter(s): Christina LiPuma

CP17

How Denver Health Incorporates Social Determinants of Health into the Outpatient Care Plan

Poster Type: Innovation
Category: Social Determinants of Health

Issue or Challenge: Denver Health is Colorado’s largest safety-net health care system and contributes to personal, community, and public health. The integrated care system applies a population health approach to delivering primary care by including social determinants of health (SDH) in its electronic care plan platform to help highlight the importance of addressing areas that affect the health of individuals, families, and communities. Patients often present with more than a set of medical issues. By assessing an individual’s social and economic conditions, outpatient care teams can help address issues which have significant influence on population health outcomes.

Description of Innovation: Epic is Denver Health’s electronic medical record platform and Epic has included an SDH “color wheel” into each patient’s care plan. Epic built scoring functionality based on guidelines from the National Academy of Medicine into the color wheel. The wheel is a graphic representation of the patient’s answers to questions related to ten different domains: alcohol use, financial resource strain, intimate partner violence, social connections, tobacco use, depression, food insecurity, physical activity, stress, and transportation needs. Epic calculates a risk for each domain based on the answers provided by the patient in historical and clinical assessments. As the risk grows, the colors change from green (low) to yellow (medium) to red (high). Hovering over a section will provide a care team member patient-specific information on the questions for each domain and when they were assessed. The Denver Health social work team created a list of the top 25 community resources provided to patients in Denver County and that list is linked to the wheel so the care team can instantly connect patients with established community resources for each section of the domain they scored positively on. Those resources are also documented in the patient’s care plan for historical reference.

Impact or Result: Social determinants have a major impact on health outcomes, especially for Denver Health’s most vulnerable populations. When resources are available to overcome negative SDH, they can have a significant impact on
the safety net’s population. Psychosocial and/or behavioral assessments are an important part of providing health care services within an integrated safety-net setting. Presenting a visual aid of each patient’s social risk factors in the care plan provides the care team with a focused opportunity to address not only the physical or behavioral health needs of each patient. Referrals made from the linked list are captured in the patient’s medical record for the care team to refer to as needed. By applying what we gather about a patient’s SDH, we can not only improve their individual health but we can apply those lessons to overall population health thinking and planning in efforts to advance health equity.

**Replicating this Innovation:** Denver Health and most health care organizations are taking advantage of the significant opportunities for interoperability that Epic and other electronic health records offer. We currently have tools in place that let us share information with other Epic and non-Epic organizations. For SDH, if the foundation version of the Epic tools are utilized, there is an ability to transmit and accept this information bi-directionally. Epic also offers a tool, Healthy Planet Link, which allows community organizations to enter and view SDH information as well as send it to fully implemented Epic Health Care systems.

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**Presenter(s):** Jessica Johnson-Simmons, Lezlie Kephart

**CP18**

**Individual-Level and Neighborhood-Level Predictors of Outpatient Mental Health Service Utilization in Persons with Serious Mental Illness**

**Poster Type:** Research

**Category:** Social Determinants of Health

**Research Objectives:** People with serious mental illness are at risk of not receiving adequate outpatient mental health services, which increases the likelihood of readmission, self-harm, and medication non-adherence. The purpose of this study was to examine individual-level and neighborhood-level factors associated with outpatient mental health visits within the past 60 days.

**Study Design/Methods:** Data were derived from two randomized trials of patients with serious mental illness across two different study sites collected during a 5-year period from 2011 to 2016 (n=650). A total of 438 participants had valid addresses to be geocoded. Student t-test and/or ANOVA assessed associations between individual-level socioeconomic statuses (SES) and visits to mental health provider within the last 60 days. Then, for each statistically significant individual-level SES, 14 neighborhood-level SES were put into an adjusted multivariable regression model with stepwise backward elimination with the dependent variable being visits to mental health provider within the last 60 days.

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

Individual-level male gender (p= 0.007), disability status (p= 0.005), unemployment status (p= 0.044), and lower level of education (p = 0.030) were associated with less outpatient mental health service utilization.

Neighborhood-level factors of percentages of Hispanic or Latino and U.S. birth together in each subject’s census tract were more significantly associated with lower mental health service utilization compared to individual-level unemployment status (Hispanic or Latino p = 0.023; U.S. birth p = 0.026; unemployment status p = 0.074) and individual-level lower level of education (Hispanic or Latino p = 0.039; U.S. birth p = 0.047; lower level of education p = 0.094).

**Conclusions on Impact on Health Centers:** Both individual-level socioeconomic factors and neighborhood-level characteristics may significantly impact service utilization among patients with serious mental illness. While these variables may help clinicians identify individuals at risk for disengaging from care, broader policy changes and system-level interventions may be more effective in helping people with serious mental illness remain engaged in outpatient treatment and to prevent disengagement.

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**CP19**

**Implementation of PRAPARE in an FQHC: Opportunities for Novel Forms of Patient Engagement and Follow-Up**

**Poster Type:** Innovation

**Primary Funding Source:** The Blue Cross and Blue Shield of North Carolina Foundation

**Category:** Social Determinants of Health

**Issue or Challenge:** Social determinants of health (SDH), broadly categorized as the social and economic conditions of day-to-day life, contribute to 40-80% of health outcomes. However, effective and tailored clinical approaches to assess and address social determinants are lacking. We sought to identify patients’ needs using PRAPARE, refer patients with identified needs to community resources, and determine the rate at which patients accessed community resources. Understanding the rate at which patients are able to access community resources, referred to through PRAPARE, is key to understanding its potential impact on health and well-being.

**Description of Innovation:** We sought to develop a scalable model for creating a patient-centered SDH care plan to bridge health care and community resources based on PRAPARE responses. This low-resource model leveraged the Behavioral
Health Integration team, volunteers, a community-informed directory of resources, and a collaborative workflow to screen, refer, and follow up by phone with patients periodically.

The development of Lincoln Community Health Center’s (LCHC’s) novel approach to engaging patients to address needs through PRAPARE happened in stages. Upon receiving grant funds, we formed a project team of LCHC senior leadership, clinical and informatics staff, and external researchers from the Duke Center for Personalized Health Care. Initial implementation efforts focused on EHR integration and workforce development and training. This allowed staff to become familiar with PRAPARE and learn how to administer and enter it into LCHC’s EHR. Intermediary implementation processes included an environmental scan of appropriate community resources in the local area and surrounding communities. This allowed the core team to develop a directory of community resources that behavioral health integration team members could utilize during the referral process. A final key step in the implementation process was the development and testing of a role for student volunteers—“Community Resource Navigators.” By training undergraduate and graduate students in providing telephonic follow-up to community referrals, we were able to implement a cost-efficient, follow-up strategy that LCHC could utilize.

**Impact or Result:** The result of our approach to assessing and addressing SDH was the clinical delivery of PRAPARE for approximately 1,800 patients. For these patients, we have EHR data abstracted to create a LCHC PRAPARE Population Health Report that includes identified SDH risk factors and the community resources that patients were referred to. Further, we were able to telephonically follow up with a large and growing subset of patients via our student Community Resource Navigator model. As a result, we obtained data on rate of success of referrals, patient experience (including patient reported measures of effectiveness and ease of use of the PRAPARE community resource referral), and a qualitative description of barriers and facilitators to access. We anticipate that this dataset will help inform implementation strategies and identify gaps in critical social services to inform policy level investments that address non-medical drivers of health in the community.

**Replicating this Innovation:** We intend to describe the workflow, implementation processes, barriers, and facilitators of this innovative approach using the Consolidated Framework for Implementation Research (CFIR). We identify valuable takeaways for implementing the PRAPARE in a community health center, or other primary care settings, and suggest aspects of delivery that could improve the value of the resulting referral by increasing the likelihood of patients engaging with social services and the referred community resource. We will provide implementation lessons learned and provide practical guidance on adopting, adapting, and translating this innovation in diverse clinical settings. For example, leadership engagement and buy-in is a key implementation determinant and an initial step. Next, a team-based approach that leverages the patient-centered medical home organizational structure is an important facilitator for this innovation. Finally, an investment in skills development and training is key to replicating this innovation in other clinical settings.

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**Presenter(s):** Connor Drake

**CP20**

**The Impact of Patient Social and Clinical Complexity on Hemoglobin A1c Control in a Diverse Sample of Diabetic Patients**

**Poster Type:** Research

**Primary Funding Source:** Patient-Centered Outcomes Research Institute

**Category:** Social Determinants of Health

**Research Objectives:** This study explores the impact of patient social and clinical complexity on diabetes control in a diverse sample of patients. Social complexity is assessed using the social deprivation index (SDI), a composite measure of area-level socioeconomic characteristics. Patient complexity is assessed using the Charlson Comorbidity Index (CCI).

**Study Design/Methods:** We used data from OCHIN and Kaiser Permanente electronic health records for established primary care patients served in Oregon or Washington in 2015. Patients were considered poorly controlled if their last hemoglobin A1c value was greater than 9%. Each patient was assigned to a census tract based on their address, and their census tract SDI score was used to characterize social complexity. Patient clinical complexity was assessed using the CCI, a validated index that estimates the risk of mortality associated with a variety of comorbid conditions. These data were analyzed using logistic regression models adjusted for age and sex.

**Principal Findings and Quantitative/Qualitative Results:** The total number of diabetic patients identified were 72,938 (OCHIN N=29,006; Kaiser N=43,932). OCHIN patients were more likely to be female, younger, have a lower CCI, and have a higher SDI score than Kaiser patients. Logistic regression models demonstrated increasing odds of poor diabetes control associated with higher levels of clinical complexity [referent CCI = 6: OR 1.45 [1.36, 1.55]]. In addition, each 10-point increase...
in SDI was associated with higher odds of poor diabetes control [OR 1.02 (1.01, 1.03)].

Conclusions on Impact on Health Centers: In addition to their individual chronic disease burden, this study suggests that the places where patients live, work, and play impact how well their diabetes is controlled. Although the impact of SDI on the odds of diabetes control may seem modest, even this slight increase could significantly impact providers and clinics providing care to poor and underserved patient populations. As payors such as Medicaid and Medicare increasingly move towards pay-for-performance models of reimbursement, accounting for both social and clinical complexity will be important to ensure that health care organizations serving vulnerable patients do not face lower reimbursement rates.

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Presenter(s): Erika Cottrell

CP21

Development and Sustainability of a Wellness Center Model Within an FQHC

Poster Type: Innovation

Primary Funding Source: Current funding streams: MA Department of Public Health/Center for Disease Control, Caring Health Center, and Be Healthy Partnership ACO

Category: Social Determinants of Health

Issue or Challenge: Caring Health Center (CHC), a Federally Qualified Health Center (FQHC), serves a diverse, low-income patient population with high rates of chronic disease. Our patients navigate multiple social determinants of health (SDH)-related barriers, including high rates of food insecurity, housing insecurity and homelessness, substantial barriers to transportation, and barriers to safe and affordable physical activity options. CHC will be sharing their approach to addressing SDH, particularly among patients with chronic disease, through their innovative Wellness Center model.

Description of Innovation: CHC’s Wellness Center was created in 2009 in response to National Institute of Health-funded research findings and practice observations of high rates of food insecurity and social/environmental barriers to chronic disease management among patients. Initially begun in a 200 square foot empty office suite, the Wellness Center is now a 1,700 square foot state-of-the-art space, housed within the FQHC. The space includes open group class space, a teaching kitchen, cardiovascular machines (treadmills, etc.), physical activity equipment (mats, weights, jump ropes). The Wellness Center offers group-based physical activity classes, nutrition education, cooking demonstrations, chronic disease prevention and management education, shared medical appointments (SMA), worksite wellness programming, and other classes. Wellness Center programming aims to support patients’ capacity to act on their primary care treatment plans and provider recommendations for increased physical activity, dietary improvements, and self-care practices. To achieve this, all Wellness Center programming is group-based, culturally-tailored, cost-free, and delivered within the primary care facility by trained peers and leaders.

Impact or Result: In 2018, 3,952 Wellness Center engagements support patients in physical activity classes and 362 attendees participated in nutrition educational/cooking class opportunities. During 2017-2018, over 85 participants attended a group education program (Chronic Disease Self-Management, Tomando, Bright Bodies, Diabetes Prevention Program, or a Shared Medical Visit). One Wellness Center participant shared, “I have truly enjoyed this program. Through this program, it has given me confidence to help manage my chronic diseases. And to feel a little better with doing small things to help myself as walking every day and changing your diet just a bit. Like I just started to eat veggies at every meal and there are great teachers in the program that made it easy for me to learn.”

Replicating this Innovation: The patient and community-identified guiding principles of the CHC Wellness Center include: (1) cost-free programming; (2) culturally-tailored and meaningful; (3) programs led by certified/trained leaders with capacity-building opportunities; (4) group-based programming, providing social support; and (5) located within the health center, acting as an extension of primary care. Programs replicating the Wellness Center could also consider the staffing and funding model outlined above. Current efforts for expansion and scalability are underway to engage patients outside of CHC from CHC’s Accountable Care Organization partnership.

Author(s):
Molly Totman, MPH, Director of Quality Assurance¹; Johanna Lopez, ASBA, Care Coordination Operations Manager¹; Cristina Huebner Torres, PhD, MA, Vice President of Research and Population Health¹
¹Caring Health Center

Presenter(s): Molly Totman
Collecting Social Determinants of Health Data in the Clinical Setting: Findings from the National PRAPARE Pilot

**Poster Type:** Research  
**Category:** Social Determinants of Health  

**Research Objectives:** Using the Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (PRAPARE) national SDH screening protocol, we examined the scope and intensity of SDH within and across cohorts to better understand the prevalence of social needs for underserved patients and how they varied by community served.

**Study Design/Methods:** Between 2015-2017, PRAPARE was implemented in 3 separate pilots at a total of 18 health centers, including 7 health centers located across the country (N=2,982), 3 health centers in Texas (TX, N=1,655) and 8 health centers in California (CA, N=2,709). Health centers collected PRAPARE data using a standardized reporting template, which included three primary data domains: (1) Population of Focus, with data on target populations collected, their method for selection, and data collection workflow; (2) Raw Frequency Measures inclusive of data on responses to individual PRAPARE questions; and (3) Population Characterization Measures consisting of data on total patient SDH risks.

**Principal Findings and Quantitative/Qualitative Results:** Findings validated a high prevalence of SDH risks among health center patients. Patients faced an average of 7.2 risks per patient across all cohorts with a mean of 6.3, 5.9, and 9.6 risks for the Pioneer, TX, and CA cohorts, respectively. The most common SDH risks across cohorts were limited English proficiency, lower than high school education, lack of insurance, experiencing medium to high stress, and unemployment. Overall, findings demonstrate that data on patient social risks are critical for informing social interventions and upstream transformation to improve health equity for underserved populations.

**Conclusions on Impact on Health Centers:** In conclusion, our study using national standard PRAPARE data demonstrates that social risks are prevalent across underserved health center patients. In addition, they experience compounding, simultaneous barriers to good health. More studies are needed to better understand the impact of having multiple simultaneous social risks on health care access and outcomes. Only until organizations, specifically health centers, can reliably capture and use standardized SDH data will we be able to better understand, characterize, and address patient needs more comprehensively, steering us toward a national goal of health equity for all and lowering health care expenditures.

### Author(s):
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¹AAPCHO; ²NACHC; ³Oregon Primary Care Association

### Presenter(s):
Shelkecia Lessington

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Healthy Food Champions Promotores: A Community Health Center Initiative to Address Food Inequity and Develop Community Leadership

**Poster Type:** Innovation  
**Category:** Social Determinants of Health

**Issue or Challenge:** Low-income families in the Fruitvale and San Antonio neighborhoods of Oakland, California are currently facing a wide range of barriers to access high-quality fruits and vegetables. Some of those barriers include not having enough money to purchase healthy foods, limited time to cook, and a lack of understanding of how to incorporate fresh fruits and vegetables into their cooking and diet. La Clinica’s Healthy Food Champions program addresses these barriers in a culturally and linguistically appropriate educational program because poor diets can have damaging impacts on the health outcomes of patients.

**Description of Innovation:** The Healthy Foods Champions program provides leadership training to six Healthy Food Champions, housed within La Clinica’s Community Health Education (CHE) department. The champions are trained utilizing the structure of CHE’s existing Escuela de Promotores curriculum. Training focuses on skill-building and leadership development for community advocates and educators, using an education model which builds on the experience and knowledge of the participants. A component of their training includes the Community Action Model, which is a structured process for understanding, analyzing, and responding to community concerns. Through this process, the champions developed and implemented projects focused on healthy eating and food security in their communities.

The three goals of the Health Food Champion program are to increase the availability of healthy foods, increase consumption of healthy food, and increase demand for healthy food in their neighborhood.

The champions achieve this by providing outreach and education to local patients and neighbors through programming such as healthy meal cooking workshops and the creation of a community garden at a local recreation center. A health educator coordinates this program by partnering
with other community groups, including Alameda County, the Oakland Parks and Recreation Department, and local produce distributors.

**Impact or Result:** From October 2018 - March 2019, the Healthy Food Champions have worked nearly 150 hours at over 50 events throughout Alameda County. Through these events, the Healthy Food Champions have been able to reach over 800 individuals through providing nutrition education at community events and food distributions and hosting community cooking classes. The Champions have reported that community members are beginning to become more engaged during their presentations and are returning to events and distributions multiple months in a row. The next phase of the program will focus on collecting data to measure behavior change of food consumption and purchasing.

**Author(s):** Brandon Azevedo, MPH, Planner, La Clinica de La Raza, Inc.

**Presenter(s):** Brandon Azevedo

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

**CP24**

**Mobile App-Based Access to Better Care by a Los Angeles FQHC Street Medicine Program**

**Poster Type:** Innovation

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

**Issue or Challenge:** The goal of the street medicine program at Venice Family Clinic (VFC), is to coordinate and provide health care, temporary housing, and case management to the homeless population. Outreach providers are unable to securely access the electronic health records (EHRs) in the field. These outreach visits are documented on paper, and the timeframe required to process and complete documentation of these encounters is prolonged by the scanning and transcription of the paper note into the EHR. To address these issues, a mobile EHR was implemented last summer to improve the documentation of these visits and access to clinically-relevant information in the field.

**Description of Innovation:** The mobile app is an innovated feature that allows outreach providers access to the EHR during outreach visits. The features in the app include the ability to upload images, dictate a note, and securely message other clinical staff directly from the app. It allows access to information that helps providers assess the health care needed for their patients. This includes demographic information, lab results, and previous medical notes. The goal of implementing this app is to improve the documentation of these outreach visits, and to decrease the cycle time for documenting and finalizing patient encounters. The outreach providers are able to dictate their note and send it directly to the EHR. These patients are often asked to go to the clinic for follow-up care where providers will have access to the dictated notes, which allows for better follow-up care for the patient. Providers are also able to take a clinical image of the patient and directly upload to the EHR from the app. Anything documented from the app follows strict HIPAA guidelines. Overall, we hope to improve the efficacy of the EHR system and enhance provider productivity and satisfaction.

**Impact or Result:** Outreach providers have better and faster access to clinical information during their outreach visits. They are able to dedicate more time to their patients. This mobile EHR is also being used during outreach at a winter shelter by VFC providers. The providers are able to inform patients of their results without having them come to clinic. The photo feature of the app also had a huge impact for providers in the clinic and in the field. They are able to take a clinical picture of patients directly from the app and upload it directly to the EHR which saves the providers a lot of time. Since the go-live, the timeframe required for outreach notes to become accessible in NextGen has significantly decreased. This encourages providers to complete notes sooner, reduces errors, and increases provider satisfaction. It promotes less interruption of care, faster access to notes, and real-time communication with staff in clinic.

**Replicating this Innovation:** Implementing a mobile EHR into an organization takes a lot of work, dedication, and team effort. In order to replicate this innovation in another organization, the needs of that organization need to be assessed. For VFC, the dictation, secure messaging, and photo uploads were crucial for the street medicine program, and were even implemented to our in-clinic environment. After deciding on a specific product that will meet the clinic’s needs, the providers needs to go through proper training on the mobile
EHR. Any issues that are still present after going live need to be addressed and improved.

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¹Venice Family Clinic

Presenter(s): Margarita Loeza

CP25

Information Transfer and Follow-Up by Primary Care Teams During Care Transitions for High-Risk Patients

Poster Type: Research

Primary Funding Source: Agency for Healthcare Research and Quality, Grant #R21 HS025000

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

Research Objectives: Primary care teams seek to coordinate care following emergency department (ED) and inpatient visits, but report frequently not being notified about these events. We used medical records to quantitatively examine: (1) information transfer to care teams about high-risk patients’ ED and inpatient visits, and (2) time to care team follow-up.

Study Design/Methods: This analysis was conducted within a feasibility study testing a new smartphone app to identify hospital visits using location tracking. English and Spanish speaking adults from a Chicago-area federally qualified health center (FQHC) care management program were asked to test the app on their phones for four months after providing informed consent. Following app testing, hospital use was validated against claims data, and chart review determined mode and date of when the FQHC was notified. Modes of notification included: app alerts, a portal listing visits to select local hospitals, patient self-report, and hospital provider alerts.

Principal Findings and Quantitative/Qualitative Results: The final sample of 57 participants had a mean age of 45 years, 74% were female, and 9% were White. During follow-up, 17 (30%) participants had one or more claims-validated ED or inpatient visits. In total, there were 23 visits to 12 different Chicago-area hospitals. Overall, the FQHC was notified about 7 visits by the app, 10 visits by the portal, 6 visits by patient self-report, and 6 visits by hospital providers. Time to first attempted post-discharge follow-up contact ranged from 0-48 days (median, 2; interquartile range, 1-13.5). For 15 (65%) visits, follow-up was attempted within 3 days.

Conclusions on Impact on Health Centers: The FQHC received numerous forms of notification about patients’ visits to hospitals in a large urban area, but all notification feeds were incomplete. Nevertheless, care teams conducted timely follow-up about two thirds of the time. No individual mode of notification provided comprehensive data on patients’ ED and inpatient visits, and there was no regional health information exchange (HIE). These fragmented, heterogeneous information transfer processes make it extremely difficult to coordinate care. For primary care teams to provide optimal care coordination for patients, solutions are first needed to enable access to comprehensive data about ED and inpatient visits to local hospitals.

Author(s): Adriana Guzman, Research Study Coordinator, Northwestern University

Presenter(s): Adriana Guzman

CP26

Improved Quality Outcomes Through Technological Innovation

Poster Type: Innovation

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

Issue or Challenge: Acknowledging the growing importance of technology in health care, Open Door reevaluated its information management strategy in 2015. Interviews were conducted with internal and external stakeholders to find strengths and weaknesses of the information flow within Open Door. The three areas of strength were data collection, validation, and analysis; the two that needed improvement were dissemination and action. Five root causes were identified: lack of coordinated approach, lack of alignment, insufficient sharing and teaching, complex systems that were not user friendly, and technical hiccups interrupting data transfer. An information management plan was developed to improve all areas of the data flow.

Description of Innovation: The information management plan that was adopted in 2015 recommended the creation of actionable, visual dashboards, a data warehouse to standardize data elements and definitions, alignment between internal quality measures and external reporting requirements, development of self-generating reports, and management of ongoing changes to measures and productivity targets. Open Door worked with a company called Relevant Healthcare to make this plan a reality. In January of 2016, Open Door used the Relevant Productivity Dashboards as a way to track clinician targets. All clinicians were trained and medical directors were able to track usage of the application. Clinical quality measures were added for clinicians to track their progress in meeting pay-for-performance targets. In 2017, the application was used to create reports and registries. In 2018, the application was rolled out to all care team members and used for visit planning, infection control, and population health initiatives. The reports, registries, and dashboards allowed care teams to proactively reach out to their patients with gaps in care and better manage population health initiatives. The visit planning reports assisted care teams in addressing gaps in care for patients who might otherwise only have their acute care needs managed.
Impact or Result: Open Door strives to provide the highest quality care to patients. In order to address gaps in care and compliance to quality measures, Open Door used technological solutions to improve the visibility and accessibility of patient data to clinicians. Open Door improved compliance in colorectal cancer screening from 34% in 2012 to 51% in 2018. The improvement in colorectal cancer screening rates were due to optimization of the electronic health record through order sets, templates and messaging campaigns. The Relevant Dashboards also provided provider report cards, registries, and visit planning tools to improve patient management. Open Door was able to utilize the Relevant application as a focus for quality improvement at the care team level, involving frontline clinicians, nursing and medical assistant staff. In addition to improving the compliance in colorectal cancer screening rates, Open Door improved in a total of nine UDS clinical quality measures.

Replicating this Innovation: Understanding the needs of your organization is key as there are many products available for information and population health management. We were looking for a tool that could be used for managing the clinical needs of our patients, while also giving staff more insight into visits, productivity, operations, and finance. We found it beneficial to partner with a company that had a deep understanding of federally qualified health centers as well as our electronic medical record, eCW. Once a tool for data visualization is chosen, it is important to work with both clinical and administrative teams in rolling out the tools.

Author(s):
Denise Garcia Egan, MPH, Director of Clinical Business Intelligence, Open Door Family Medical Centers

Presenter(s): Denise Garcia Egan

Healthy Hearts in the Heartland (H3): Feasibility of and Barriers to Systematizing Referrals to Resources for Diabetes and Hypertension Self-Management

Poster Type: Research

Primary Funding Source: R18HS023921

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

Research Objectives: This study describes the appropriateness, feasibility, and adoption outcomes from implementation of an evidence-based quality improvement strategy to provide community resource referrals to reduce risk of cardiovascular disease (CVD) in patients in small practices.

Study Design/Methods: CommunityRx is an evidence-based community resource referral system that was previously implemented and tested in larger practices or smaller, networked practices. CommunityRx was integrated into the EHR system; personalized lists of community resource referrals (“HealtheRx”) were automatically generated at each visit for each patient. CommunityRx was adapted for H3 (CommunityRx-H3). Practices were asked to complete an inventory of local, CVD-related community resources. Inventories were used to generate a HealtheRx with CVD-related community resources that was given to patients with a diagnosis of hypertension and/or diabetes. Copies were printed and available at the clinics. Practices could request changes to the HealtheRx.

Principal Findings and Quantitative/Qualitative Results: Practice populations were at high risk for CVD. It was feasible to identify CVD-related resources to create practice-specific HealtheRx-H3s. Systematic distribution of the HealtheRx-H3 using EHR-integration was infeasible due to inconsistent use of EHR systems, workflow variation, and lacking data sharing infrastructure. Of 76 practices, 50% completed the inventory and 50% did not. Participation in the inventory was similar by patient and practice characteristics. HealtheRx-H3 updates were requested by 39% of practices; practices that completed the inventory were significantly more likely to request a HealtheRx-H3 update compared to those that did not (61% versus 18%, p-value <0.01).

Conclusions on Impact on Health Centers: CommunityRx has been successfully integrated with three widely used EHR systems (Epic, GE Centricity, and NextGen) and existing workflows in larger primary care practices. EHR integration at small practices was not feasible during the H3 study. However, some practices were willing to engage in steps necessary for implementation of an adapted, manual version of this community resource referral solution. Integration of a digital community resource referral strategy in smaller primary care practice workflows, including community health centers, will depend on EHR adoption or implementation of alternative workflows.

Author(s):
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¹University of Chicago; ²Feinberg School of Medicine, Northwestern University

Presenter(s): Jennifer Makelarski
Unlocking Healthy Teeth with Integrative Medicine:

Expanded Access to Community Dentists

Innovations in Implementing Routine Hepatitis C Screening at a Community Health Center

CP28
Implementation of Preventative Dental Services in the Pediatric Department

Poster Type: Innovation

Primary Funding Source: Health Resources and Services Administration (HRSA)

Category: Expanding Access to Care and Other Services

Issue or Challenge: In our FQHC, pediatric patients (<18yo) represent 50% of yearly patient visits. Pediatric care is all-inclusive from hearing and vision screening as well as behavioral health and immunizations. One significant part of preventative care is oral health and we were only capturing a small percentage of children despite the availability of topical fluoride. We needed action and intervention for all children in a focused, positive, and healthful way. The answer was evident and easily accessible in the form of a dental hygienist.

Description of Innovation: Our PDSA started as an observation of a 4-year-old child with more than 10 carious teeth, 3 episodes of a dental abscess, limited transportation, and a pediatric dentist was not an option. Retrospective discussion illustrated the need for earlier and more focused dental care in hopes of preventing the poor trajectory of dental health. Our community has a high infant mortality rate from preterm and complicated births, as well as the well-publicized opioid epidemic with disparity among racial groups. Since the early days of our PDSA, of borrowing a dental hygienist (DH) from the dental department, we have now evolved into housing a DH in the pediatric department with a portable dental cart. Our DH participates in integrated care to the fullest extent by evaluating every child during the course of their medical visit be they well or ill. Most recently the DH has evolved into evaluating not just children but high-risk adult patients inclusive of diabetics and expectant mothers. Early outcomes have demonstrated a need fulfilled as patients are being evaluated for dental health with a large percentage needing more intensive dental care by extraction or filling. We also have the expectation of early bottle stoppage, decreased premature infant rates, and improved oral health for life. Dental care in the course of a medical visit is not only innovative, but we view as the norm in our PCMH-certified FQHC.

Impact or Result: The positive outcome of our PDSA resulted in implementing an entire new service line providing patient care in our FQHC. We have created an oral health integration specialist position in our largest site and have expanded in 2 other sites within 6 months. This has created 3 new full-time DH positions and will expand to 8. This has resulted in caring for our patient’s entire family well-being and closed the loop on their care. Our patients receive an oral health assessment and referral to the dental department after preventive and preliminary care at the point of service in the medical office.

The PNP is happy to support the DH when and if medication therapy is warranted.

Replicating this Innovation: Investigate the scope of practice of dental hygienists in your state. Determine types of materials available for a hygienist to use under general supervision. Have a referral system in place along with ways to track these types of visits. Don’t be afraid to think (and work) outside the box! Innovation and independence have driven our model of care.

Author(s): Karen Martin, DNP, CNP, Director of Pediatric Services¹; Jamie Carder, DH, Integration of Preventative Dental Care, Pediatric Department¹

¹Health Partners of Western Ohio

Presenter(s): Karen Martin, Jamie Carder

CP29
Innovations in Implementing Routine Hepatitis C Screening at a Community Health Center

Poster Type: Innovation

Primary Funding Source: Gilead FOCUS Grant

Category: Expanding Access to Care and Other Services

Issue or Challenge: West Oakland Health Center (WOHC) serves an underserved and low socioeconomic community in East and West Oakland. The majority of our patients (73%) live at or below the federal poverty level and are comprised of 65% African Americans and 20% Hispanic/Latinos, two groups highly impacted by Hepatitis C (HCV). All eligible patients (100%) should be screened for HCV. However, our screening rate of eligible patients as of March 2018 was 38.9%. We received funding through the Gilead FOCUS program to improve our routine screening rates for our high-risk patient population.

Description of Innovation: Our innovations in improving care for this population are centered on enhancing screening rates, linkage to care, and ultimately treatment across three domains:

(1) Processes: Standardized and implemented workflows for opt-out HCV screening that included medical assistant-initiated standing orders, EMR clinical alerts, and workflows for referral with positive tests; (2) Infrastructure: Established phlebotomy stations and phlebotomists at all clinical sites. Hired a clinical consultant and dedicated patient navigator. Built a data dashboard and patient registries to track progress; and (3) Education: Conducted joint provider and staff trainings on new workflows, standing orders, HIV/HCV primary care integration, and cultural competency in collaboration with community partners.

(1) Health Partners of Western Ohio

¹; Jamie Carder, Director of Pediatric Services

Author(s): Karen Martin, Jamie Carder

Presenter(s): Karen Martin, Jamie Carder

Poster Type: Innovation

Primary Funding Source: Gilead FOCUS Grant

Category: Expanding Access to Care and Other Services

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The PNP is happy to support the DH when and if medication therapy is warranted.

Replicating this Innovation: Investigate the scope of practice of dental hygienists in your state. Determine types of materials available for a hygienist to use under general supervision. Have a referral system in place along with ways to track these types of visits. Don’t be afraid to think (and work) outside the box! Innovation and independence have driven our model of care.

Author(s): Karen Martin, DNP, CNP, Director of Pediatric Services¹; Jamie Carder, DH, Integration of Preventative Dental Care, Pediatric Department¹

¹Health Partners of Western Ohio

Presenter(s): Karen Martin, Jamie Carder

CP29
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Category: Expanding Access to Care and Other Services

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Impact or Result: From April 2018 through February 2019, we were able to increase our screening rate of eligible patients by 63%, from 38.9% to 63.3%. Of the 1719 tests that were completed during that time period, 145 (8%) were antibody positive and 71 (4%) were viral RNA positive. Of those who were found to have chronic HCV infection, 32 (45%) attended their first appointment after testing positive.

Replicating this Innovation: Replication of this innovation requires implementing standard workflows for opt-out HCV screening, utilizing on-site phlebotomy, and finally training staff on the use of standing orders. Additionally, information systems are key to being able to fully monitor clinical progress, track patients, and provide real-time support to clinics or staff who have lower screening rates. Finally, a dedicated patient navigator to coordinate both outreach and inreach is very important to replicating this innovation.

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Presenter(s): Kenji Taylor, Sonni Collins

CP30

Reducing Barriers to Care for Patients with Uncontrolled Diabetes via an RN-Led Insulin Titration Program

Poster Type: Innovation

Category: Expanding Access to Care and Other Services

Issue or Challenge: At Esperanza Health Centers, 29% of our patients are uninsured, 89% are Hispanic, and 16.51% of adults have diabetes (2018). Therefore, removing barriers to access health care for patients with diabetes is critical. To address this concern, Esperanza’s clinical team developed a Registered Nurse (RN) Insulin Titration Program in 2017 that expanded patient access through non-billable encounters with RNs. In this program, RNs titrate patients’ insulin weekly, over the phone or in-person, and provide regular check-ins to review patient questions and A1C results. Our pilot data suggest improved glucose control and similar A1C control rates between insured and uninsured patients.

Description of Innovation: The RN Insulin Titration Program launched in August 2017 with one RN. Today, there are three RNs, including one certified diabetes educator. These RNs help patients with poor diabetes control (Uniform Data System, hemoglobin A1C > 9%) achieve better control of their diabetes (hemoglobin A1C < 9%). Patients referred to this program work with a designated RN on a weekly basis and their basal insulin is titrated as needed. Some patients are new to insulin while others have used this treatment but have been unable to lower their A1C. Patients meet with an RN in clinic or are contacted by phone and basal insulin is titrated based on the following information: fasting glucose, diet, physical activity, medication adherence, and medication tolerance. RNs use a peer-reviewed basal insulin titration chart designed and approved by medical doctors in our practice based on fasting glucose levels. As of March 2019, primary care providers (PCPs) referred 243 patients to the program (82 patients actively enrolled) and 60% are uninsured. Meeting with RNs helps remove any cost barriers for uninsured patients and keeps them engaged in care.

Impact or Result: As of March 2019, 103 adult patients lowered their A1C to /= 1%. Studies show reducing A1C at least 1% is associated with 37% decreased risk for microvascular complications and 21% for any diabetes-related complication (AADE, 2019). To better understand the program’s impact, we compared enrolled patients to a similar unenrolled patient group. The comparison group includes 304 unenrolled patients on basal insulin who at some point, since August 2017, had an A1C >/= 9%. When comparing both groups’ most recent A1C as of March 2019, we found that patients enrolled in the program had a median A1C reduction of 2.2% compared to a median A1C reduction of 1.2% in patients that were not enrolled, suggesting the program has been more effective than usual care.

Replicating this Innovation: One important step is to analyze clinical and patient demographic data around diabetes in order to understand what interventions would benefit patients. To begin, health centers will need to invest in hiring RNs and plan a yearly budget for an emergency fund for medication expenses and supplies. Additionally, clinical leadership and RNs should create a workflow and RN titration protocol that align with clinic operations, are interdisciplinary, and patient-centered. It would also be advantageous for health centers to collaborate with pharmacies that offer a 340B discount program, and ideally have that pharmacy integrated in the clinic or located nearby.

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Presenter(s): Gabriela Alvarez
**CP31**

**A Community Health Center Approach to Substance Use Disorder Treatment in Rural Northern Wisconsin**

**Poster Type:** Innovation  
**Category:** Expanding Access to Care and Other Services  
**Issue or Challenge:** Family Health Center of Marshfield, Inc. (FHC) is a community health center that serves the residents of 19 rural central, northern, and western Wisconsin counties. Statewide and regional increases in opioid abuse and methamphetamine use along with continued alcohol abuse have not been met with an associated increase in treatment services. Rural counties in the FHC service area have struggled to meet the demand for substance abuse treatment services and find other systems, such as child protective services, law enforcement, corrections, and crisis response, taxed far beyond capacity secondary to substance abuse in the community.

**Description of Innovation:** Based on the limited availability of substance use disorder treatment services in the FHC service area and data indicating a continuous increase in problem scope, the FHC Board of Directors prioritized increasing access to substance abuse treatment services in 2015 and reaffirmed this priority in August 2017. FHC was awarded a Wisconsin Department of Health Services (DHS) grant to fund establishment of the HOPE Consortium in collaboration with nine other partner agencies to support treatment and recovery in five northern Wisconsin counties and three tribal communities. To address the need for increased treatment capacity, FHC garnered Health Resources and Services Administration (HRSA) funding to establish its first Alcohol and Drug Recovery Center (A&DRC) in Minocqua in 2016. A second HRSA-funded A&DRC launched services in Marshfield in August 2018 and a third DHS-funded site in Ladysmith is currently being operationalized. Although its three A&DRC locations are geographically distant, with the original Minocqua center located nearly 100 miles north of Marshfield and 80 miles northeast of Ladysmith, centralized oversight and provision of cross-site coverage via telehealth allows the three centers to operate under a group practice model whereby effective strategies piloted at a single location can be rapidly implemented at the others.

**Impact or Result:** Three FHC A&DRC locations have been established in northern Wisconsin using a group practice model and delivery of services in person and via telehealth. Although many funders emphasize opioid use disorder, each location offers comprehensive substance abuse treatment services. This is particularly important given that only 29% of clients with an opioid or methamphetamine use disorder enrolled in the HOPE Consortium report abusing a single substance. Increased medication-assisted treatment (MAT) capacity has contributed to stability for patients despite regional provider turnover and increased counseling capacity allows MAT to be prescribed only in the context of appropriate behavioral therapy. Novel interventions piloted successfully at one center, such as low dose buprenorphine prescribing and establishing a local perinatal workgroup for the care of pregnant and postpartum women, can be rapidly implemented at others. In 2018, FHC A&DRC locations served a total of 479 individuals, of whom 222 (46%) received medication-assisted treatment.

**Replicating this Innovation:** Community health centers are uniquely positioned to apply for both state and federal funding opportunities and can readily collaborate with agencies located across county and tribal borders to address gaps in care. The collaborative nature of the innovation requires that services be tailored to each community served while allowing for a consistent infrastructure across locations. There is significant potential for community health centers located in rural settings to partner with other local organizations addressing substance abuse prevention, treatment, and recovery needs to establish and/or customize substance abuse treatment services, thereby maximizing use of available resources.

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**CP32**

**A Novel Patient Financial Navigator Position Facilitates Receipt of and Retention in Substance Use Disorder Treatment Services**

**Poster Type:** Innovation  
**Category:** Expanding Access to Care and Other Services  
**Issue or Challenge:** Family Health Center of Marshfield, Inc. (FHC) is a community health center that serves the residents of 19 rural central, northern, and western Wisconsin counties. Since 2016, FHC has established Alcohol and Drug Recovery Centers (A&DRCs) in three northern Wisconsin locations (Marshfield, Minocqua, and Ladysmith) that rely on a group practice model and telehealth to deliver comprehensive substance use disorder treatment services. Financial concerns in myriad different forms present as barriers to substance use disorder treatment and associated financial trauma can impede recovery. The solutions for such concerns require individualized navigation of complicated insurance processes and other financial assistance programs.

**Description of Innovation:** The FHC substance abuse service line employs a unique Patient Financial Navigator position to help patients understand and address their financial needs when seeking services at an A&DRC location. The Patient Financial Navigator serves patients by facilitating open communication, eliminating barriers to care, providing education to support ongoing financial literacy and stability, and providing positive feedback as financial goals are met. Patients are provided with direct contact information for the Patient Financial Navigator to facilitate accessibility and follow-up is coordinated with other clinical appointments until
financial concerns are addressed. Feedback is provided to clinic management and patient care teams with suggestions to improve or address the financial needs of patients. The Patient Financial Navigator works with patients to identify resources and develop a personalized strategy for addressing financial barriers to care and provides assistance ranging from advocating on behalf of the patient regarding billing-related concerns to printing and faxing documentation obtained by the patient. To support financial sustainability, the Patient Financial Navigator assists patients with employment searches and resume development while also helping the patient to understand and plan for how changes in employment status, address, or other conditions may impact eligibility for insurance or financial assistance.

Impact or Result: The Patient Financial Navigator has proven essential to patient receipt of and retention in substance use disorder treatment services. In the three month period from December 1, 2018 through February 28, 2019, 74 new intakes were conducted at FHC A&DRC – Minocqua, of whom 38 (51%) required Patient Financial Navigator assistance to address coverage needs. Upon review of patients at the FHC A&DRC Minocqua and Marshfield locations over the last three months, 10/252 (4.0%) active patients lost coverage effective 1/1/19, 12/268 (4.5%) effective 2/1/19, and 26/272 (9.6%) effective 3/1/19. The Patient Financial Navigator worked with patients to restore coverage for the majority of patients (96%) within the month via change of non-contracted HMO to an in-network HMO, reinstatement of lost coverage, approval for new coverage, approval for FHC financial assistance, or enrollment in employer coverage. In two instances, restoration of coverage took two months.

Replicating this Innovation: Replication of the Patient Financial Navigator position would be of value in any program that addresses chronic diseases for which finances present a significant barrier to care (e.g., substance abuse, oncology, heart failure). The Patient Financial Navigator at FHC benefited from a lengthy orientation and training period that included training in a number of different departments across the health system. In addition, the individual who ultimately filled the position benefited considerably from being an internal candidate with a solid foundation in the operations of the health system, insurance programs, and the communities in which she works.

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**CP33**

**Universal HIV Screening at a Federally Qualified Health Center in Northern Virginia**

**Poster Type:** Innovation

**Primary Funding Source:** Alexandria Health Department “Getting to Zero” Grant

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

**Issue or Challenge:** HIV is a serious public health issue and over one million people in the United States do not know they are infected. In Virginia, the city of Alexandria has the fifth highest prevalence of HIV infection and the highest prevalence in Northern Virginia. As of 2014, Alexandria county had the highest rate of new diagnosis with 772 per 100,000 people compared to the statewide rate of 291 per 100,000. Combating stigma and lack of information associated with HIV testing and a positive diagnosis are the biggest challenges in achieving Zero New Infections, Zero HIV Deaths, and Zero Stigma.

**Description of Innovation:** To build trust amongst patients, end stigma around being HIV positive, and motivate behavioral change, Neighborhood Health partnered with the Alexandria Health Department and received a $540,000 federal grant, to develop a city-wide HIV “Getting to Zero” initiative. The initiative aims, over one year, to implement and normalize universal HIV screening for 9,000 people in Alexandria and its surrounding communities. Although the Centers for Disease Control (CDC) advises all people ages 13-64 be tested for HIV, most clinicians do not routinely offer their patients HIV screening and most patients do not ask for HIV testing.

Universal HIV testing facilitates timely diagnosis, entry and engagement with care, and reduces HIV transmission.

Neighborhood Health utilizes a Fourth Generation HIV-1/2 Antigen and Antibody serum test and the Alere Determine HIV 1/2 Antigen and Antibody 20-minute rapid tests. Both tests detect HIV in its early stages and are funded by the Alexandria Health Department. Clinicians typically order the conventional lab for patients who require other blood work and use rapid tests for patients who do not need serum testing, such as adolescents. Patients newly diagnosed with HIV are linked to care at Neighborhood Health and connected to outreach staff at the Alexandria Health Department.

**Impact or Result:** Prior to the initiation of universal screening in 2017, 2,613 patients had at least one HIV test in their lifetime out of 9,596 active patients seen (27%). Following program initiation in 2018, 5,088 patients had at least one HIV test in their lifetime out of 10,888 active patients seen (46%). Through routine screening, four new patients were diagnosed with HIV. Amongst the four new diagnoses, two were stage 1 HIV, one stage 2 HIV, and one stage 3 HIV. The average CD4 count was 453.75 cells/mm3, and the average viral load was 413,450 copies/ml. All patients were engaged in care within 30 days, with an average of 7 days, before being engaged in care. Routine screening was integral to minimizing transmission to others for the early diagnoses, since all cases were connected
to partner services with the local health department shortly after engaging in care.

**Replicating this Innovation:** A key component to providing universal screening is minimizing the financial barriers of HIV screening to uninsured patients; if internal funding cannot be allocated to minimize financial barriers, then external funding such as grants, or partnerships should be sought. Before implementing any waived testing workflows, the feasibility of the workflow should be examined to appropriately delegate resources. Quality assurance and annual staff trainings are essential to meet waived testing requirements. Before implementing a screening program, researching best practices from other health centers and adapting an existing workflow or testing algorithm ensures the program fits with a specific site.

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**CP34**

**Integrating Diabetic Eye Exams into Primary Care: A Workflow with a Vision**

**Poster Type:** Innovation

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

**Issue or Challenge:** Per the CDC, of adults with diabetes aged 40 years or older, 4.2 million (28.5%) people had diabetic retinopathy, damage to the small blood vessels in the retina that may result in loss of vision. Per the National Eye Institute, early detection and treatment can reduce the risk of blindness by 95%. Considering this alarming statistic, Ryan Health sought to improve its rate of diabetic patients who were screened regularly for retinopathy. In 2017, 34% of Ryan’s diabetic patients had an annual retinal/dilated eye exam so efforts were made to integrate retinal screenings into primary care practice.

**Description of Innovation:** The related measure can be satisfied by either receiving a retinal or dilated eye exam, or by a fundus/retinal photo. Until 2018, Ryan Health primarily resorted to its on-site optometry clinic to provide retinal exams to satisfy this measure. In September 2018, Ryan Health piloted a diabetic retinal photo service integration model at its West 97th Street site. Rather than treat diabetic retinal exams as a stand-alone service, the retinal photo service was integrated into a diabetic patient’s routine primary care. A week prior to a diabetic patient’s primary care visit, front line staff check to see whether the patient is due for a retinal exam. Should they be in need, front line staff call the patient and ask that they arrive 30 minutes prior to their primary care appointment so that the on-site eye tech may take a retinal photo as part of their diabetic primary care. Once the patient arrives, the frontline staff places the patient on both the eye tech and primary care provider’s schedule which enables the primary care nurse to monitor the flow and ensure the patient waiting for the retinal photo does not interfere with the flow of the provider’s schedule. Thereafter, an optometrist reviews the fundus photo and a comprehensive retinal exam is scheduled at a later date. Diabetic patients who are not captured through this proactive workflow, but perhaps sought services as a walk-in/same-day appointment, are escorted after their appointment by the nurse to the eye tech to receive the retinal photo.

**Impact or Result:** In September 2018, the launch of the pilot project, the rate of compliance for diabetic retinal exam at West 97th Street was 36%. Ryan Health realized the immediate impact of integrating retinal photos as part of the routine diabetes care when the compliance increased to 58% and 66% in October and November, respectively. Due to staff turnover in December, the compliance rate decreased slightly to 63%, but maintained its momentum since the implementation of the pilot.

**Replicating this Innovation:** For those organizations that provide both primary care and optometry, the seamless integration of the two services for diabetic patients can be highly replicable if the appropriate interdisciplinary workgroup is assembled. Designated staff are needed to review care gaps and conduct outreach calls on a regular basis. Thereafter, a separate schedule must exist for the eye tech so it is clear how many patients are waiting in the queue, and their schedule must be accessible for the primary care nurse so the primary care team is aware of when the patient will be available. Once these resources and infrastructure are in place, it is incumbent upon the pilot team to monitor the new process on a regular basis to identify and address barriers and risks to the system.

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**CP35**

**The Roadmap from Medical to Dental Care Regardless of Financial Status**

**Poster Type:** Innovation

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

**Issue or Challenge:** The US faces a decades long, under-recognized oral health crisis that disproportionately affects those of low socioeconomic status and under- and non-insured populations. Many are unaware of significant dental concerns until raised by a medical provider in another context. Although studies conflict regarding the impact of oral disease treatment on systemic conditions, evidence supports the need for acute oral health treatment in certain circumstances, and some suggest that we simply have not yet uncovered the optimal management strategy to prevent systemic complications. Further, medical and dental professionals agree that maximizing a patient’s health, oral or otherwise, is advantageous.
Description of Innovation: Family Health Center of Marshfield, Inc. (FHC) offers a unique pathway for access to dental care in rural central, northern, and western Wisconsin, particularly for individuals with limited financial means and dental needs first identified in a medical setting. Dental needs are identified by providers in a variety of settings (e.g., cancer centers, addiction services, pediatrics, cardiology, specialty clinics). All such providers can refer patients with dental needs to any one of ten FHC dental centers. Patients speak with an appointment coordinator or managed care coordinator to help them connect with appropriate dental services, including the opportunity to explore financial assistance if needed. Patients seeking assistance with payment for necessary services are connected with patient assistance counselors to pursue eligibility for financial assistance. Regardless of financial need, managed care coordinators assist patients with scheduling appointments and call the referring medical provider to let them know the patient is able to get dental services. Appointment coordinators help patients schedule appointments based on location, availability, and/or need for specialty services. After receiving the necessary treatment services at an FHC dental center, patients return to their medical provider to receive medical services.

Impact or Result: In 2017, 10 FHC dental centers treated 59,778 unique patients from all of Wisconsin’s 72 counties. As part of a community health center, FHC dental centers serve all patients regardless of ability to pay, age, health condition, or immigration status. Many individuals served had special conditions that prevent receipt of services elsewhere (e.g., special needs requiring sedation, HIV). FHC has established an effective pathway for medical providers to refer patients for necessary dental care, including mechanisms for identifying eligibility for financial assistance and connection back to the referring provider. This process allows FHC to effectively support positive oral and systemic health outcomes for all patients, regardless of financial status. The acute dental care received to support planned medical treatment may help establish a relationship with a dental provider with long-term positive effects on oral and systemic health and prevention of the need for emergent dental care.

Replicating this Innovation: Replication relies on having appropriate staff in place to support the needs of dental patients and their medical providers, as well as making medical providers aware of the dental resources available to their patients. Dental center staff that follow up on referrals from medical providers must be able to help patients understand the dental care needed and to inquire about financial need. Specialized staff familiar with financial assistance opportunities must also be available to support patients. Finally, staff capable of communicating with medical staff on behalf of the patient is necessary to help navigate the patient back to the medical system. Given the common inability for medical and dental providers to communicate via the electronic medical record, communication on behalf of the patients is critical.

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Presenter(s): Eva Scheppa

Improving Care for Special Populations

CP36
Recognition of Elevated Blood Pressure in School-Aged Children Using an EMR in Primary Care

Poster Type: Research

Category: Improving Care for Special Populations

Research Objectives: In 2017, the American Academy of Pediatrics published new guidelines outlining elevated and hypertensive (abnormal) blood pressures (BPs) in children and adolescents. This study looked at how these changes affected the recognition of abnormal BPs in school-age children using an electronic medical record (EMR) in a primary care practice.

Study Design/Methods: The study examined 460 seven to eleven year olds seen by 22 primary care providers for well-child checks (WCC) at a Federally Qualified Health Center between January 2018 and March 2019. Although the EMR automatically flagged abnormal BPs based on previous guidelines, the gender, age, height, and BP were entered into MDCalc.com’s pediatric hypertension tool to determine whether the measured BP fell within a normal, elevated, or hypertensive level based on the new guidelines. The note was also reviewed for diagnoses and factors that could influence a child’s BP, e.g., sick at the time of visit.

Principal Findings and Quantitative/Qualitative Results: Among the sample population, 19.8% were overweight (BMI percentile between 85-95) and 22.6% were obese (BMI percentile =95); 70.2% of the sample population identified as Hispanic or Latino. Of the 460 total patients, nearly a third (32.4%) had either an elevated BP or hypertensive BP reading at their last WCC. In the Hispanic/Latino subpopulation, 35.3% had elevated BP or hypertensive BP. The EMR flagged 57.7% of the abnormal BPs, while 10.7% of the readings were documented as being recognized.

Conclusions on Impact on Health Centers: Review of BPs in patient charts revealed that the EMR BP flagging system was not a reliable tool to assist providers in recognizing abnormal BPs, most likely because its algorithm was not updated to
Conform to the new guidelines. With the new guidelines often lowering the threshold for what is considered an abnormal BP, knowledge of such unreliability is important information to disseminate to providers so they can properly recognize an abnormal BP and take the necessary next steps. BP measurement algorithms in the EMR need to be improved to be a more reliable tool for busy primary care providers.

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**Presenter(s):** Rina Ramirez

**CP37**

**Improving Hepatitis C Screening Practices in Primary Care**

**Poster Type:** Research

**Category:** Improving Care for Special Populations

**Research Objectives:** The main objective of this project was to implement an education intervention plan to improve health care providers’ screening rates for HCV among individuals born between 1945 and 1965 as recommended by current clinical guidelines. Does an education intervention to clarify the guidelines recommended for HCV increase screening rates for HCV?

**Study Design/Methods:** The project utilized a pre-education intervention and post-education intervention chart audit. The focus was on implementing an education intervention plan that included an introduction to HCV content, background and significance of the problem, and current HCV screening recommendations for individuals in the birth cohort of 1945 to 1965, commonly called “baby boomers,” since they are at a high risk of HCV infection (Smith et al., 2014). Sample/Setting: The sample size was 100 for the pre-intervention chart review and 100 for the post-intervention chart review, all from seven clinics, operated as nonprofit, federally qualified health centers.

**Principal Findings and Quantitative/Qualitative Results:** The study found that participants were more likely to receive HCV screening following the education intervention. Out of the 100 EHRs evaluated pre- and post-interventions, screenings for Hepatitis C increased from 30% to 61%. No significant differences were found in screening rates based on participant ethnicity, race, history of drug use, or history of blood transfusion before 1992. Additionally, there were no significant differences in screening rates, or history of blood transfusion prior to 1992 based on race or ethnicity. Screening rates after the intervention increased by 23%.

**Conclusions on Impact on Health Centers:** The study demonstrated the need for increasing birth cohort HCV screening rates in the primary care setting. Three constructs of social cognitive theory were linked to the study and its outcomes. If screening rates improve and earlier detection of HCV is obtained, then there will be an overall reduction of harm and improved outcomes as well as an anticipated decrease in cost of care for these individuals (Ward, 2013). The possibility of the practice having positive consequences reinforced HPV awareness among the selected participants, and, in turn, contributed to a significant increase in screening.

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**CP38**

**Prevalence of Elevated Body Mass Index in Youth Age 9 to 19 Years Receiving Care at Community Health Centers**

**Poster Type:** Research

**Primary Funding Source:** Health Resources and Service Administration (HRSA)

**Category:** Improving Care for Special Populations

**Research Objectives:** There are knowledge gaps regarding the prevalence of abnormal body mass index (BMI) in subgroups receiving care in community health centers (CHCs) which serve large proportions of vulnerable youth. We will describe the prevalence of elevated BMIs in racial/ethnic subgroups of youth receiving primary care in CHCs.

**Study Design/Methods:** In this cross-sectional study, we included youth ages 9 to 19 years who received care at CHCs in the national Community Health Applied Research Network (CHARN) in 2014. We described the prevalence of elevated BMI (=85th percentile) and obesity (=95th percentile), based on age- and sex-specific percentiles. Multilevel logistic regression estimated prevalence in subgroups based on age, race/ethnicity, and sex.

**Principal Findings and Quantitative/Qualitative Results:** Among 64,925 youth, 40% had an elevated BMI, and 22% were obese. Elevated BMI and obesity were highest among ages 9 to 10 years (43% and 25% respectively) and the lowest among ages 18 to 19 years (37% and 20%). Although both outcomes were lowest in the combined Asian/Pacific Islander category (27% and 13% respectively), the subgroups of Native Hawaiians (51% and 33%) and Other Pacific Islanders (60% and 42%) had the highest prevalence.

**Conclusions on Impact on Health Centers:** Youth of racial/ethnic minorities that receive care at CHCs in the US experience a high prevalence of elevated BMI and obesity and thus are at risk for chronic diseases in adulthood. Younger youth had a higher prevalence of obesity when compared with older youth. Within racial/ethnic subpopulations there are also significant differences in elevated BMI and obesity by sex. The heterogeneity of the US population warrants data collection methods that identify underrepresented racial/ethnic subgroups. Collecting subgroup data will allow future research that addresses variations among populations for more targeted and effective obesity prevention strategies.
A Longitudinal Follow-Up Study of Weight Status Change in Chinese American Children Over a Ten-Year Period

Research Objectives: The objectives of this study are to: (1) examine the change in weight status of Chinese American children living in the US, after 10 years, from childhood to adolescence/young adulthood; and (2) determine if overweight or obesity in childhood predicts overweight or obesity in young adulthood among Chinese Americans.

Study Design/Methods: A retrospective cohort of 1,500 school-aged Chinese American patients at the Charles B. Wang Community Health Center was followed between 2007 and 2017 to examine the weight class change from childhood to adolescence/young adulthood. Patient demographics including gender, birthplace, and body mass index (BMI) percentile were collected. Patients were categorized into two weight classes according to the CDC definitions (underweight/normal weight: BMI<85 percentile; overweight/obese: BMI=85 percentile). McNemar's test was used to determine significant changes in proportion of overweight/obese status in 2007 and 2017. Logistic regression was conducted to assess the odds of overweight/obesity in adolescence/adulthood based on weight class in childhood.

Principal Findings and Quantitative/Qualitative Results:
Of the children who were overweight/obese in 2007, 45.7% stayed overweight/obese in 2017. Of the children who were underweight/normal weight in 2007, 7.0% became overweight/obese in 2017. When comparing 2007 to 2017, the overweight/obese prevalence dropped among both boys (38.4% to 24.3%) and girls (21.1% to 12.6%). Changes in proportion of overweight/obese status in 2007 and 2017 were significant among boys and girls, respectively (McNemar p-value <0.0001 for both groups). Children who were overweight/obese in 2007 were 11.1 times more likely to be overweight/obese in 2017, compared to children who were underweight/normal weight (95% CI: 8.2–15.0).

Conclusions on Impact on Health Centers: We found that overweight/obesity in childhood is a strong predictor of overweight/obesity later in life for a Chinese American population. While approximately half of overweight/obese children remained overweight/obese, very few underweight/normal weight children became overweight/obese. We were encouraged to see the overall drop in overweight/obesity prevalence in this large cohort of Chinese American pediatric population from 30% to 18.6% over the 10-year span.
(Ine)quality Measures: Can Pay-for-Performance Improve Quality Care and Health Equity? Views of Community Leaders and Primary Care Providers

Poster Type: Research
Primary Funding Source: Minnesota Community Care, Minnesota Department of Health, American Heart Association
Category: Patient and Community Engagement

Research Objectives: To identify diverse community leaders and primary care providers’ (PCPs’) experiences and perspectives of quality health care, quality metrics, and impact of pay-for-performance (P4P) on health equity.

Study Design/Methods: Community-based participatory action research with diverse community members and PCPs in Minneapolis-St Paul metropolitan area. We conducted 4-hour listening sessions with 21 community leaders from 7 ethnically diverse urban communities; as well as key informant interviews with 4 PCPs and focus groups with 10 PCPs who had worked in both safety-net and non-safety-net clinics.

Principal Findings and Quantitative/Qualitative Results: Community leaders’ ideal quality health care: identifies/addresses historical trauma, structural racism, and SDH; provides respectful trusting relationships; has structures/processes for health equity; prioritizes culturally-responsive mental health, health promotion, and patient education; and promotes access to care. PCPs view current quality measures as: being influenced more by patients and clinic systems than by clinicians; are not the same as measuring quality health care; and are embedded in historical social inequities. Both leaders and PCPs think the current inequitable health care system should not be reinforced with P4P, but should be replaced by patient-centered metrics within a broader patient-centric system that reaches for health equity.

Conclusions on Impact on Health Centers: Community leaders and PCPs have similar perspectives about quality health care and the role of quality measures, and they are against a P4P system that could decrease health equity and increase health disparities. Community leaders and PCPs have valuable relevant perspectives for the legislative policy-setting process.

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SoLaHmo’s Community-Based Participatory Action Research Approach to Community Engagement

Poster Type: Research
Primary Funding Source: Multiple
Category: Patient and Community Engagement

Research Objectives: Utilize community-based participatory action research (CBPAR) as an approach for community engagement to address social determinants of health that could lead to health equity.

Study Design/Methods: SoLaHmo Partnership for Health and Wellness (SoLaHmo) is a CBPAR program where community members, clinicians, and researchers partner on research projects based on topics that community members have identified as important: Prevent Chronic Diseases, Promote Healthy Families and Youth, Improve Mental Health, and Increase Culturally Competent Health Care.

Principal Findings and Quantitative/Qualitative Results: Since 2009, SoLaHmo has trained 46 community members from multiple communities in CBPAR and research methods. Together with local academic researchers, we have conducted 19 CBPAR projects and 2 community development projects based on community assets supported by local and national funding. Through our experiences, we have developed a partnership protocol with steps and principles in 3 stages of partnership development, and a mapping evaluation process.

Conclusions on Impact on Health Centers: SoLaHmo uses CBPAR for CE that could redress health inequities. Other CHCs could implement similar methods: hold community dialogues to ascertain community members’ priority topics; identify and train interested community members in CBPAR and research methods; identify and prepare appropriate academic researchers who desire to work in partnership with community members; obtain funding; conduct projects in partnership with community members and academicians; and plan for actions based on results. Our partnership protocol could guide partnership processes.

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The Dubuque Pacific Islander Health Project

Poster Type: Innovation

Category: Patient and Community Engagement

Issue or Challenge: Due to the US testing nuclear weapons in the Pacific Islands, many of these individuals have never had access to proper health care or nutrition. Compared to 8.3% of US adults, the prevalence of diabetes in Pacific Islander adults ranges from an estimated 25-50%, considered to be one of the highest in the world. Pacific Islanders are less aware of chronic diseases, less likely to seek treatment, and typically do not seek care until there is a perceived health crisis usually indicated by pain. Barriers to access include affordable health care and prescriptions, language, communication, and financial.

Description of Innovation: A group of dedicated community advocates worked with Crescent to develop the Dubuque Pacific Islander Health Project (DPIHP) with the mission to engage, educate, and empower the COFA migrants in achieving and maintaining health and well-being by working to remove barriers and to assist in accessing needed resources. The DPIHP aids with medication and copay expenses as well as assisting with renewing passports in the Pacific Islands. In addition to connecting patients to primary medical and dental care, the project provides education about diseases, pharmacy collaboration, navigation of the health care system, advocacy with landlords and assistance through the housing system, transportation coordination, and translation services. The DPIHP has hired a community health worker of the Pacific Islander community, a registered nurse and social worker, to conduct an in-reach program to establish trusting relationships, assist patients in keeping appointments, encourage compliance with medications, and educate on appropriate use of the ER.

Impact or Result: Pacific Islander patients are actively contacting Crescent when they encounter barriers to community resources because they are engaged and have a more trusting relationship with Crescent staff.

- 79% of the Pacific Islander population of focus has diabetes; 38% of those patients’ diabetes is considered to be poorly controlled.
- 93% of the Pacific Islander population of focus has hypertension; 74% of those patients’ hypertension is considered to be controlled.
- There has been a 38% decrease in ER visits among this population since 2016.
- There has been a 60% decrease in missed medical appointments.
- 28% of the qualifying Pacific Islander population have participated in colorectal screening.
- 33% of the qualifying Pacific Islander population have participated in a cervical cancer screening.

Replicating this Innovation: Establishing a successful community health worker program is based on a few key elements, the first being trust. Patients who may not be wealthy in resources find great investments in relationships. Establishing a connection based on trust and acknowledgement of diversity is an essential component to structuring the program. Second, understanding the needs of the specific population and how they differ from that of mainstream society will give the program leverage and insight into how to make an impact with the targeted community. Lastly, collecting, reporting, and analyzing data specific to the population’s health and social determinants of health indicators not only creates actionable steps in meeting objectives but is an impactful way to tell the story, justify positions and program existence, and contribute to knowledge sharing/gain for program expansion. Collecting data is imperative in program evaluation and determining where resource allocation is needed, emphasizing a greater return on investment.

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Health Centers and the All of Us Research Program: Innovating to Advance Precision Medicine

Poster Type: Innovation

Category: Patient and Community Engagement

Issue or Challenge: The All of Us Research Program (AoURP) is an innovative component of the national Precision Medicine Initiative, through which NIH aims to enroll one million or more individuals in a longitudinal cohort. Data from the cohort will be available to researchers to advance discoveries in precision medicine. A challenge with many prior cohorts is the lack of diversity among study participants. The AoURP was intentionally designed to address this, with a core principle that the cohort should reflect the diversity of the US. This enables research not previously feasible with existing cohorts, ultimately broadening the potential reach of precision medicine.

Description of Innovation: As one avenue to engage UBR populations, the NIH initiated a pilot with six FQHCs in 2016. These FQHCs localized the AoURP protocol and invited patients to enroll, exploring engagement models and enrollment approaches. The AoURP was conceptualized to have participants as partners in the design and implementation of the program. To that end, FQHCs have identified participant ambassadors, who join ambassadors from other participating organizations to guide the program. Locally, these ambassadors also serve as sounding boards for the research team as they optimize operations. Additionally, each FQHC
has instantiated an AoURP participant advisory board, which provides a forum for research participants to interact with and guide the research team.

An important consideration is that AoURP is a “digital-first” platform, which presents challenges. The FQHCs are addressing this challenge via innovative approaches to meet participant needs as they navigate the research portal to complete research tasks. Potentially, these activities may lead to increased digital literacy and comfort, ultimately impacting interactions with the health care system. In 2018, HRSA awarded 46 health centers with Advancing Precision Medicine (APM) funding to increase awareness of the AoURP within their health centers and their communities, and to engage and educate on how to self-enroll.

Impact or Result: Since opening enrollment in summer 2017, the original six pilot FQHCs have enrolled nearly 5,000 participants in the All of Us Research Program, of which (95%) are considered underrepresented in biomedical research. In addition to the volume of UBR participants who have contributed data to the AoURP, a key impact of FQHC involvement has been the contributions FQHC teams have made to the program as a whole, including insights relative to engagement, communication, enrollment, and importantly, retention of participants.

This impact will grow as the AoURP spreads beyond the six initial FQHCs to a group of 40 additional health centers funded via the HRSA Advancing Precision Medicine (APM) program. APM health centers are executing outreach and engagement activities with their patients and in their communities, drawing on their own experiences with outreach and the lessons learned during the pilot with respect to challenges to anticipate and approaches to address these.

Replicating this Innovation: Much of the work of the six original health centers will be replicated in the engagement and communication plans of the 40 new APM health centers, to the extent that the six pilot FQHCs have built a body of knowledge about best practices and lessons learned in operating the research program. HRSA APM health centers are adding to this body of knowledge with the lessons learned and roadmaps that are being developed for future work. Several additional models for replicating the FQHCs efforts have been outlined for consideration by NIH and are based on the findings from the FQHC pilot.

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**CP44**

The All of Us Research Program: Engaging and Representing Health Center Patients in a National Research Program

Poster Type: Innovation

Primary Funding Source: National Institutes of Health

Category: Patient and Community Engagement

Issue or Challenge: Biomedical research is a vital component in breakthroughs for disease prevention and management. Historically, biomedical research has engaged affluent, well-educated, white males. This has led to the prevention and treatment of disease to be designed around this limited segment of the population. Community Health Center, Inc. (CHCI) is participating in the All of Us Research Program to change this paradigm. CHCI is engaging patients, who represent people who have historically been underrepresented in biomedical research, to become participants in this landmark study and ensure that they are part of the research and part of the discoveries of future breakthroughs in medicine.

Description of Innovation: There has never been a national study with the far-reaching scope and goals of inclusion as the All of Us Research Program. Embedding this program in a health center and engaging with health center patients in a national landmark study is innovative in itself. Engaging patients into a large research study, separate from their health care, requires innovative practices that build upon defined procedures, trust, and relationships. CHCI has deployed innovative methods in engaging with patients. The first method is dynamic tabling at the enrollment locations. CHCI employed research technicians who are present in the waiting areas, reaching out to patients and providing information about the program. Secondly, patients who have a scheduled appointment for the following week receive either an email or a postcard about the program. This communication helps to prime them for their exposure to the program once on site for their appointment. Thirdly, medical assistants provide a postcard to their patients at the end of the clinical appointment, informing them of the research program. Finally, CHCI hosts monthly informational sessions at each enrollment location, in which the engagement lead and research technicians provide a comprehensive overview of the program, create email accounts for patients, and build interest in the program.

Impact or Result: The impact of CHCI’s participation in the research program is profound. To date, over 660 patients have been enrolled as core participants in the program. The data provided by these patients will be used by researchers for years to come. The work of the research technicians and engagement lead with patients is also significant. Expanding health center patients’ awareness of biomedical research is important to increasing their health literacy and participation in national programs. The research team’s efforts have also been focused on helping patients expand their digital literacy through email creation, educational sessions on using the program’s digital
platforms, and comfort with technology. CHCI’s participation in the program has also helped to foster engagement with state initiatives around genomic medicine and health information exchanges.

**Replicating this Innovation:** CHCI has focused on developing innovative processes that are well defined and easy to standardize. CHCI collaborates with many health centers in identifying and replicating best practices. Identifying a champion of embedding research, outreach to patients, and maintaining communication can be a strong step towards replicating this practice. In addition, HRSA released funds through the Advancing Precision Medicine (APM) grant to 46 FQHCs to increase awareness of the program and build IT infrastructure to meet the demands of sharing electronic health records and increasing patient digital literacy. CHCI is participating in the APM grant along with the other FQHCs. The lessons learned by CHCI and the other five NIH FQHC awardees are leveraged in supporting this APM grant. These best practices identified and lessons learned are key factors in the replication this successful innovation.

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**CP45**

**El Rio’s Reproductive Health Access Project: Nurturing Leadership and Agency Among Tucson’s Young People Through Health Advocacy**

**Poster Type:** Innovation

**Category:** Patient and Community Engagement

**Issue or Challenge:** It is well known that access to reproductive health services affects one’s ability to make informed decisions and feel agency in life. What is less understood is how participation in youth-led reproductive health projects affects personal agency, resiliency, and ability to affect change in both community and personal life. One of Reproductive Health Access Project’s (RHAP’s) innovative opportunities is that it increases access to reproductive health services to Tucson’s young people, while also shedding light on the long-term benefits it imparts on the RHAP youth leaders whose community involvement and empowerment brings access to their peers.

**Description of Innovation:** El Rio’s RHAP is a grant-funded program working to ensure that all young people in Tucson have access to the reproductive health care they need. Their work begins and ends with respect for young people. The El Rio RHAP youth leadership team (YL T) provides sexual health services and outreach to people 14-20 years old, and fosters valuable youth-adult partnerships in the health care field. While the impacts of reproductive service provision are easily monitored and evaluated, the effects of leadership opportunities afforded to YLT members is in the process of being evaluated. The RHAP YLT is comprised of 10 young people from across Tucson who share a passion for social community-based justice, in a community heavily impacted by migration politics and barriers to access. In essence, RHAP serves as a safe space for innovation, diversity, and quality services while supporting a justice-focused approach to health, representing up-and-coming generations and their specific needs. The YLT meets every Monday afternoon for planning and training, and works throughout the month at clinics and outreach events around Tucson. Advocates for Youth provided initial support and technical assistance in getting the group off the ground. YLT members were recruited as clients from trusted providers or by word of mouth from other YLT members. They are paid employees, which ensures respect for them and the project.

**Impact or Result:** RHAP has served 1,660 new youth clients at 8 clinic locations in 2018-2019. The YLT has managed over 40 clinic days at 4 locations and has participated in 12 community engagement opportunities. Through community events, they have made contacts with hundreds of Tucsonans and have cultivated numerous relationships. Current evaluation is focusing on the personal characteristic impacts of RHAP on youth leaders, by collecting data on self-confidence, personal empowerment, and ability to affect change on a community and personal level. Data are collected through pre- and post-surveys of leaders, as well as key informant interviews and observations. Data will be compiled in June 2019 to gauge these effects. “RHAP has developed who I am as a leader...it has helped me find my voice, focus on the things I care about, and discover all that I am capable of.” - RHAP YLT member

**Replicating this Innovation:** Replicating this innovation is more than possible, but has not been attempted. With a supportive health care environment, and the following components, replication would be successful: (1) Choose from many peer-led leadership models to see what design fits best with local youth community (examples: mayoral-level youth leadership councils, peer court programs, Planned Parenthood’s Teen Council Program); (2) Increase access to youth-focused reproductive health services and train youth leaders in sexual health advocacy; (3) Prioritize youth-adult partnerships, particularly health care settings; (4) Work with youth-trusted providers to recruit and train youth leaders; and (5) Leverage youth social media skills and engage in youth health-speak.

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**CP46**

**Engaging Gay Men of Color Through Education, Entertainment, and Social Empowerment**

*Poster Type: Innovation*

*Primary Funding Source: Ryan Health*

*Category: Patient and Community Engagement*

**Issue or Challenge:** Gay men of color have been disproportionately affected by the HIV epidemic in comparison to other ethnic groups. Social determinants of health continue to play a major role in the rising infection rates among this population. The Brown Boys Network is a professional network with a mission to cultivate community through enriching, enlightening, and empowering events for gay men of color. The project focuses on three delivery models: (1) Brown Boys Brunch, (2) Brown Boys Podcast, and (3) Brown Boy mini events. The Brown Boys Brunch is an empowerment series focusing on HIV prevention within the African American and Latino communities. The goal is to provide a safe space to learn about health care services and also engage in conversation with individuals from these communities. Past brunches have focused on sexual health with panel discussions featuring well-respected stakeholders in these communities. The Brown Boys Podcast provides a stigma-free and nonjudgmental space that allows freedom of self-expression, increased love, and holistic healing. Mini events consist of bringing together gay men of color once a month for various activities. These activities include game and trivia nights along with annual events such as the AIDS Walk. Each delivery model aims to reduce stigma and amplify the message around prevention and understanding one’s own risk.

**Impact or Result:** Since its founding in January 2017, the Brown Boys Network has seen an increase in referrals to Ryan Health for HIV treatment, primary care, prevention, and supportive services as needed. The comfortability of participants to share personal events and the ability to educate their peers is a direct reflection of stigma reduction among gay men of color as it relates to HIV and biomedical interventions.

**Replicating this Innovation:** Organizations interested in replicating this initiative must first understand the priority population(s) they are working with. Your staff should be a direct reflection of this group of people. Next, you must understand what the needs are for this population. Community stakeholders can help with this and can also help you gain access to the individuals in need. You can help with current community needs and also push your agenda while building trust.

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**CP47**

**Eliminating Routine Office-Based Blood Sugar Testing: Finding the “Sweet Spot” in Value-Based Care**

*Poster Type: Innovation*

*Category: Quality of Care and Quality Improvement*

**Issue or Challenge:** With the rise of value-based care, medical teams are asked to screen, document, and intervene in increasingly more domains during routine patient visits. Random blood sugar (RBS) testing has long been a standard part of routine clinic visits for diabetic patients and occurs regardless of reason for visit or level of glycemic control. All of that point of care testing is both costly and time consuming without evidence of substantial benefit to the patient. We studied the effects of eliminating routine RBS testing at health center visits on cost, disease outcome, and acceptability to patients and staff.

**Description of Innovation:** A brief literature search on whether this strategy has been implemented elsewhere revealed a small study with fewer patients which reported a favorable cost analysis and no specific safety concerns. After informational sessions with key stakeholders, including clinician and quality staff to gauge acceptability of the concept, the policy of routine blood sugar testing of all diabetics was replaced with targeted testing which could be requested by either the clinician or patient through a standing order. Once the Medical Executive Committee for the center approved the new policy, it was presented at a series of medical staff meetings of providers and nursing staff. Data was collected on the volume of random blood sugars obtained for clinic patients both prior to and in the months after the policy change. A cost-of-care analysis was run which included the cost of the glucometer, calibration agents, strips, and medical assistant time to perform and document glucose testing. A quality of care analysis was obtained by monitoring the UDS metric percent of patients with A1C>9% prior to and after implementation. Lastly, acceptability of the change was measured through a
four-question anonymous electronic survey of providers two months after implementation.

**Impact or Result:** The results showed an almost 80% reduction of RBS testing in the first 5 months after implementation, from close to 70% of patients tested down to just 15% tested. The cost-savings of the strips and lancets alone was approximately $5300/month. The monthly savings in medical assistant time, assuming a conservative estimate of 2 minutes to test and record each RBS, was 83 hours per month. During this period of time, gross estimates of diabetic control (overall percent of patients with A1C>9%) did not change. A short voluntary and anonymous electronic survey 2 months after the change had a 50% response rate in which less than 5% of responding providers expressed dissatisfaction with the change. More than 70% of providers said they rarely requested an RBS after the policy change, and when it was checked, they felt it rarely changed management at the time.

**Replicating this Innovation:** Review policies around intake, screening, and vitals to see where non-value added interventions (such as random blood sugar testing) could be modified or eliminated. Meet with a cross-section of clinicians and quality and finance staff to gauge acceptability of a similar change in policy.

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**CP48**

"Focus on Excellence" – a Diabetes Management Project

**Poster Type:** Innovation

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

**Issue or Challenge:** In 2017, according to UDS data, the community health center diabetes patient with HbA1c >9% or no test during the year among people ages 18-75 were:
- Nationally 32.95%;
- Mississippi 37.28%, and Family Health Care Clinic, Inc. (FHCC) 46.64% (inverse measure).
- FHCC needs intervention to hold providers/staff accountable to prevent/mitigate downstream events to give patients a longer life expectancy. Plus, federal/payers suggest that FHCC show improvement in diabetic patient quality care (reduce the HbA1c percentage (>9) by as much as 10 percentage points).

**Description of Innovation:** Embed Care Gap Module into EMR for tracking and reporting to providers and nurses at point of care. The module will allow staff to access all patient insight on improving care without having to leave the EMR. The module will produce a morning huddle report to highlight opportunities to providers, in their workflow, at the point of care when they see a patient (walk-in or appointment). FHCC deployed a statistical model that analyzed the size of our denominators and numerators for each measure as well as the provider documentation heterogeneity and compared this to external benchmarks (e.g., state or national benchmarks) to arrive at the minimum number of charts that we need to audit for each measure to get to a 90-95% confidence level that the data is accurate.

**Impact or Result:** Over the following referenced periods, FHCC used performance measures and huddle meetings to encourage data-guided improvement activities and to monitor the outcome of this improvement effort:
- FHCC tracked the percentage of patients with HbA1c greater than 9 or no test given with baseline percentage and sidebar for state CHC and national CHC percentages for 2017.

Key points: Staff training, tracking in EMR, monitoring staff adherence, reporting on outliers, and holding accountable (Accountable Care - prevent/mitigate downstream events to give patient a longer life expectancy). The decrease from 46.64 to 39% for patient with HbA1c greater than 9 represents a gain of 7.64% (UDS report 2017 vs. 2018).

**Replicating this Innovation:** FHCC will present the operational process used to implement the Care Gap Module to other CHCs with emphasis on how to use the reports, how to engage and educate staff, and how to implement workflow changes to improve the identification of patients needing follow-up. CHC leadership engagement (CEO and CMO) is critical at the outset to drive the initiative. Plus, a performance improvement team-based approach is needed to overcome objections and create staff acceptance.

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**CP49**

Navigating Diabetic Patients in a Federally Qualified Health Center

**Poster Type:** Innovation

**Primary Funding Source:** Raphael Health Center

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

**Issue or Challenge:** Of the 6,500 patients seen at Raphael Health Center (RHC), roughly 7% have diabetes, and this condition accounts for 1,190 or 5.0% of annual medical visits. RHC’s Diabetes Navigation Program targets individuals with a Hemoglobin A1c (HbA1c) at or greater than 9.0%. RHC’s patient population experiences other challenges including inadequate fresh food, limited transportation, and insurance issues. Challenges delay diagnosis and result in suboptimal management of a condition that is treated with a healthy diet, exercise, and oral medication and/or insulin. Uncontrolled diabetes can result which negatively impacts blood pressure, cholesterol, kidney function, and vision resulting in higher medical costs.
**Description of Innovation:** The Diabetes Navigation Program eliminates barriers to care, provides social diabetic education, and encourages establishing self-management goals. Patients with an HbA1c at or above 9.0% are referred to RHC’s Diabetes Navigator who assesses a patient’s general knowledge about diabetes, and what, if any, barriers to care exist. Barriers are addressed by connecting patients to transportation resources, RHC’s fruit/vegetable voucher program, and/or RHC’s financial counselors. The Diabetes Navigator and medical provider, in conjunction with the patient, establish a self-management goal. This patient-guided process promotes buy-in and ownership. For example, if a patient’s goal is to “walk more,” the patient and provider discuss what that means relative to what he/she is currently doing, barriers to goal achievement, and potential solutions. Finally, social diabetic education is offered in the monthly Merck Conversation Map® Journey for Control class. Using the tabletop map as a framework for discussion, these interactive sessions cover diabetes basics, effective management, support networks, problem areas, and peer support which is known to positively impact people. “People already living with health conditions – could help fill in the gaps. Instead of just helping combat the disease, peer support groups can help improve quality of life.”

**Impact or Result:** An HbA1c of 7% for nonpregnant adults is ideal, but different goals could be appropriate according to the American Diabetes Association (ADA). RHC patients whose HbA1c levels are at or over 9.0% or not measured is 29%, and RHC’s quality goal is <20%. A baseline and current HbA1c is recorded for 268 individuals. One hundred ninety three of them (72%) have a current HbA1c at or below 8.9%, and that group’s HbA1c average is 6.9%. Of the 118 individuals with at least one meeting with the Diabetes Navigator, the average baseline HbA1c was 8.9%, and the average current HbA1c is 8.2%. There are 107 individuals (39.9%) with a current HbA1c of 7.0% or less. For this group, complying with diet and medication, accessing produce vouchers, and attending education classes helps ensure better management. RHC providers have also implemented Shared Medical Appointments (SMA), and RHC providers will focus on expanding these.

**Replicating this Innovation:** Federally Qualified Health Center (FQHC) patients experience diabetes at a higher rate (21%) than the general population (11%). Diabetes can impact overall health and drive up medical costs, so FQHCs should be invested in providing patients holistic care and resources. Replication begins with consensus to dedicate staff and resources to one disease-specific population. Time ensures the dedicated staff has capacity to provide tailored care. Therefore, that particular staff’s patient flow and capacity might look different depending on patients’ needs. Replication also includes providing social opportunities for this patient population so appointments might not adhere to a traditional medical appointment format.

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**CP50**

**Improving Patient Outcomes Through Comprehensive Medication Management**

**Poster Type:** Innovation

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

**Issue or Challenge:** Community Health Alliance (CHA) is a Federally Qualified Health Center (FQHC) located in Reno, Nevada. CHA has six different clinic locations, serving approximately 2500 patients with diabetes. In 2018, the HRSA Uniform Data System (UDS) identified 34% of CHA patients with diabetes had an A1c greater than 9%. By utilizing Comprehensive Medication Management (CMM), the pharmacist aims to improve the UDS measure by reducing the number of patients with an A1c >9% by providing a patient-centered approach to optimizing medication use and improving patient health outcomes by working in collaboration with the patient and the health care provider.

**Description of Innovation:** CMM aims to optimize clinical outcomes by managing drug therapies for patients with chronic diseases such as diabetes. Although many patients are able to benefit from CMM, studies suggest that patients who have more medical conditions and are taking a greater number of medications have the potential to benefit the most. At CHA, the clinical pharmacist works in collaboration with the primary care provider and performs face-to-face CMM in order to improve the patient’s understanding of their disease and medications, reducing adverse drug events, meeting patient-specific clinical goals, and improving medication adherence.

Utilizing the standard process of care, the pharmacist identifies possible medication therapy problems and develops an individualized therapeutic plan to ultimately decrease disease progression and achieve optimal health outcomes. The process of care includes assessment of the patient, evaluation of medication therapy, development and initiation of the plan, and follow-up/medication monitoring. CHA’s clinical pharmacists are qualified and trained in order to resolve the most common drug therapy problems identified, including additional drug therapy for effective prevention and/or synergistic care, titrating drug dosages in order to achieve goals of therapy, and improving medication adherence by education and removal of individual patient barriers.

**Impact or Result:** 250 adult patients were identified and met the inclusion criteria. At the end of the first quarter, 65 patients were seen and 53.8% (n=35) had an A1c less than 9%. At the end of the second quarter, 101 patients were seen and 50.5% (n=50) had an A1c less than 9%. Pending continued results of A1c reduction in approximately 50% of patients with clinical pharmacy intervention, the goal will be to expand clinical pharmacy services to the other five clinic sites within CHA.

**Replicating this Innovation:** With continued success in A1c reduction, CHA aims to incorporate clinical pharmacists in each of the six clinics in order to provide CMM services. In order to do this, CHA will need to evaluate the financial sustainability of adding a clinical pharmacist to each clinic site. CHA aims
to be the leader in Northern Nevada FQHCs by having the first approved collaborative practice agreement for diabetes management. By gaining provider status, clinical pharmacy services will eventually support themselves. In the meantime, the savings from operating a 340B pharmacy are reinvested back into the clinic to help support clinical pharmacy.

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### CP51

**Using the 4 Es of Trauma-Informed Care to Empower Individuals Experiencing Homelessness**

**Poster Type:** Innovation

**Primary Funding Source:** Basic Needs Giving Partnership Grant

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

**Issue or Challenge:** On average, several large US-based studies have indicated that 12-15% of Americans have experienced significant childhood trauma, described as having experienced four or more Adverse Childhood Experiences (ACEs). In contrast, 43% of the patient population at Partnership Community Health Center’s satellite site at COTS (transitional shelter) have experienced four or more ACEs. It is understood that these experiences affect adult health in a variety of ways and increase risk for mental illness, substance use disorders, and homelessness. Our practice innovation includes using a trauma-informed approach to gain trust, build relationships, and increase risk for mental illness, adverse coping mechanisms, and chronic illnesses. Our practice innovation includes using a trauma-informed approach to gain trust, build relationships, and provide quality health care to our patients.

**Description of Innovation:** We provide trauma-informed care in a community health center site embedded in a transitional living facility through the 4 Es model of Education, Empathize, Explain, and Empower:

- **Educate** includes the systematic education of all staff on ACEs: what they are, how they affect brain development, and the role they play in the development of mental illness, adverse coping mechanisms, and chronic illnesses. Educating staff also includes training on recognizing trauma in patients and families and responding appropriately.

- **Empathize** includes developing sensitive responses to disclosures of abuse, considering how trauma has affected our patients, and recognizing potential barriers to the desired plan of care.

- **Explain** includes creating a safe environment for patients, honestly explaining exams and procedures, answering questions, altering routines as needed, and, above all, avoiding re-traumatization.

- **Empower** includes eliminating the power differential, using shared decision-making strategies and a patient-centered approach, facilitating goal-setting with the patient, offering evidence-based treatment for health problems, and connecting patients to care/advocating for them.

**Impact or Result:** The cornerstone of our success is based on relationship and trust-building. Removing barriers to health care and introducing health literacy programming empowers patients to become proactive in making necessary changes to improve their health, ultimately helping them move out of poverty. Between May 2016 and December 2018, we completed 1,740 primary care appointments with 437 patients. In 2018, 68% of our patients completed more than one visit in our clinic, emphasizing the strength of the patient/clinical team relationships. Patient satisfaction survey results indicate that 94% of patients would recommend our health care to friends and family; 96% of patients agree or strongly agree that their health care team involved them in decisions about their care. This illustrates the value that our team places on patient-centered care. We also recognize that due to previous trauma, some patients may not be ready to receive one or more of the services we offer.

**Replicating this Innovation:** Implementing trauma-informed care can be replicated at any organization. To spread this innovation, we recognize that the connection needs to be made between trauma and health outcomes at the strategic and organizational level. This shift in approach will impact how the team interacts with patients in all areas of care. Leadership must be committed to the culture shift, providers and staff must be trained in ACEs and trauma-informed care, and there must be an ongoing mechanism for training and continuing education. This cannot be done in isolation and needs to be a comprehensive approach to be effective.

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### CP52

**Implementation of an Innovative Model for Multidisciplinary, Team-Based Pain Management Services in the Primary Care Setting**

**Poster Type:** Innovation

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

**Issue or Challenge:** Affinia Healthcare is a federally-qualified community health center serving un/underinsured patients in St. Louis, Missouri. A chronic pain team and group care model was developed in order to better serve patients in this Medicaid non-expansion state and combat the opioid epidemic. A biopsychosocial model of understanding chronic pain and its treatment prompts the implementation of services emphasizing non-opiate medications and non-pharmacologic therapies. However, such multimodal approaches to chronic pain management are often inaccessible to patient populations.
with limited health care access. In response, Affinia Healthcare innovated a new model of chronic pain care within the primary care setting serving these patients.

**Description of Innovation:** Patients are identified by Affinia’s primary care clinicians and are provided a referral to the chronic pain teams. Patients meet with the assigned team on a monthly basis in focused appointments dedicated to the assessment, diagnosis, and treatment of chronic pain complaints. Emphasis is placed on functionality and modes of treatment that are non-opioid related, per CDC guidelines. Tapering of existing opiate prescriptions and transitions to non-opiate therapies, including referral to the medication-assisted treatment (MAT) program when appropriate, are part of the model. Treatment plans employ referrals to appropriate non-pharmacologic therapies, including chiropractic care, physical therapy (of limited availability to the population served), and cognitive behavioral therapy, both through individual behavioral health appointments and pain-centered group therapy sessions. This not only provides patients with access to pain management services within the health center, but also provides network primary care physicians with referral options and support for patients with chronic pain that would benefit from team-based pain management care and multimodal treatment strategies.

**Impact or Result:** Per a retrospective chart review, Affinia evaluated 200 patients through the primary care pain team program over the first 17 months of the program’s operation. Of these, 56% returned for continued pain-team follow-up care: 10% of patients attended chiropractic care referrals; 24% attended pain-management group therapy with behavioral health; and 19% were referred to external specialty care services. Ninety-five patients (48%) presented with initial active opiate prescriptions. Of this cohort, 36% had their opiate prescriptions tapered and discontinued by their final visit with the pain team, and 22% were successfully switched to a buprenorphine prescription. Increases in non-opiate prescription categories were found as well, most notably in the categories of antidepressants and topical pain medications. Overall, the pain teams decreased active opiate prescriptions while increasing non-opiate prescriptions and utilizing multimodal treatment options, thus demonstrating that this model of team-based chronic pain care is possible in the primary care setting.

**Replicating this Innovation:** Most community health centers have the internal capacity to replicate this treatment approach. Administrative support for the team including policies, procedures, and patient communication is essential. Establishing external partnerships for musculoskeletal pain treatment and behavioral health when not available within the system is also helpful.

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**CP53**

**Twelve-Month Outcomes from the Integration of Community Health Workers into Interdisciplinary Health Care Teams in a Federally Qualified Health Center**

**Poster Type:** Research

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

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

**Research Objectives:** To reduce health inequities, many FQHCs are establishing interdisciplinary health 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 evaluates the impact of CHW-integrated patient care teams on quality of care and health outcomes.

**Study Design/Methods:** Using a participatory approach, community and academic partners conducted a non-randomized, repeated measures study to evaluate processes/outcomes from integrating CHWs into CHASS Center’s health care teams. CHWs worked with adults with uncontrolled type 2 diabetes (HbA1c =9%), and/or depression (PHQ9 =10), by conducting patient assessments, helping patients set and implement health and lifestyle goals; providing resource and health care referrals; providing case management and diabetes self-management education; advocating for patients; providing peer support; and helping team members understand patient issues. Data from medical records, surveys, and semi-structured interviews were collected at 6 and 12 months (n=179 and 160, respectively).

**Principal Findings and Quantitative/Qualitative Results:** Compared to control group, significant intervention effects were found at 6 and 12 months for HbA1c (-1.53, -1.35); non-HDL cholesterol (-15.8, -16.2) and depressive symptom scores (-2.29, -2.81). Patient activation scores increased (by 4.50, 4.66). Patients/team members regarded CHWs and their contributions to the team and patient health very favorably. Barriers to integrating CHWs into care teams included low knowledge, lack of role clarity, not identifying CHWs as team members by some, and limited direct interaction of CHWs/clinical staff. Facilitators to CHW integration included team receptiveness and interest in working as a team, and value of CHWs and collaboration.

**Conclusions on Impact on Health Centers:** As health care team members, CHWs may contribute to patient care by: conducting patient assessments, helping patients develop/implement care plans that support their health/lifestyle goals; providing referrals and specific disease/self-management education; linking patients to other health care services; and helping other team members better understand patient issues. Increasing opportunities for face-to-face interaction and education among clinical and CHW team members may facilitate integrating CHWs into health care teams. Integrating
CHWs into health care teams significantly increased multiple clinical outcomes and improved patient activation among patients with uncontrolled diabetes, demonstrating great potential for promoting health equity in FQHCs and similar settings.

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Presenter(s): Gloria Palmisano

CP54

Improving Colorectal Cancer Screening: A Multidimensional Program with Multidimensional Results

Poster Type: Innovation

Primary Funding Source: American Cancer Society in collaboration with the Iowa Department of Public Health and University of Iowa Center for Evaluation Research

Category: Quality of Care and Quality Improvement

Issue or Challenge: Colorectal cancer (CRC) screening guidelines decrease cancer incidence and mortality significantly. Screening rates for the general population are below national targets and those rates are even lower among minorities, patients with limited income, and those with no health insurance. There are many barriers to colonoscopies which may be magnified in this population including the need for detailed preparation, transportation requirements, and language limitations. Implementing a successful multicomponent intervention that increases the adherence to CRC screening will lead to earlier detection of CRC and help to address CRC screening disparities.

Description of Innovation: Community Health Care, Inc., a Federally Qualified Health Center, implemented a multidimensional program to improve CRC screening rates. Initially, patient navigators were hired to perform patient outreach and close care gaps for patients lacking recommended colorectal screening. The patient navigators were tasked with performing chart reviews, chart updates, and following up on previously ordered CRC screenings. Social determinants of health were considered when working with patients to develop an appropriate plan of care. Furthermore, a population health tool was implemented and used as a primary component of pre-visit planning to create provider and health care team awareness of patient CRC screening needs. This enabled providers and the care team to take real-time action at time of visit in order to have a discussion with the patient, determine plan of care, and address any social determinants of health that may hinder the patient’s ability to complete the testing. This data, in addition to a peer chart review process, was also compiled on a monthly and quarterly basis to bring awareness to providers and health care teams about the overall clinic and individual provider CRC compliance rates. Finally, FIT screening was integrated into clinical use. Lean improvement projects were completed throughout 2017 in order to increase completion rates of the ordered FIT screening. This process included a thorough root cause analysis and development of several interventions to increase completion rates. Standardized workflows, with a focus on appropriate patient education, were implemented to increase patient compliance.

Impact or Result: The primary outcome of the project was the overall CRC screening compliance rates aligning with the standardized Uniform Data Sets (UDS) measure. A patient was considered compliant if a FIT or fecal occult blood testing was done within the last year or a colonoscopy was done within the last 10 years. Initial project UDS data, in 2015, revealed a 24% compliance rate (1300 compliant out of 5353 eligible patients). After the project, the 2018 UDS measures reveal a 46% compliance rate (3011 compliant out of 6566 eligible patients). This surpasses the 2017 National Health Center UDS rate of 42.02%. Not only was the overall compliance improved, but those significant improvements were seen among every language spoken, insurance status, housing status, race, ethnicity, gender, and income level. These multidimensional results emphasize the widespread impact of our program among every category within this diverse population of patients.

Replicating this Innovation: There is a significant replicability of this project in other primary care organizations. The methods and the results could be relevant to any patient population because our outcomes were improved regardless of the language spoken, race, ethnicity, gender, insurance status, and/or income level of the patients. Any patient population can benefit from the multidimensional program to improve CRC screening rates. The specific components of a patient navigation program and utilization of a population health management tool do have some initial up-front costs, but become cost-effective due to incentive programs through payer contracts. The components of the patient navigation program and population health management tool are also transferrable to other UDS or care measures.

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CP55

Assessing Utilization of the One Key Question™ Reproductive Life Plan in the Electronic Health Record Among AllianceChicago Network Health Centers

Poster Type: Research

Category: Quality of Care and Quality Improvement

Research Objectives: The US Centers for Disease Control and Prevention recommend that clinicians routinely assess patients’ reproductive life plans (RLPs). This study examined the utilization of a known RLP, the One Key Question™ (OKQ, “Would you like to become pregnant in the next year?”), within the AllianceChicago electronic health record system.

Study Design/Methods: To understand current use of OKQ for reproductive counseling, we reviewed clinical encounters for patients with a Chicago zip code between 2016-2017. We determined number of encounters with answers to OKQ, and when OKQ was asked, we described proportions by answer. OKQ offers four responses, “Yes, No, Unsure, and OK Either Way.” For encounters with OKQ data, we describe patient characteristics, including age, sex, insurance, visit type, race, and ethnicity, and differences in response by key variables, such as age, ethnicity, and visit type.

Principal Findings and Quantitative/Qualitative Results: Of the 1,180,191 encounters, there were 3,281 (<0.5%) at which OKQ response was documented. Of those encounters, close to 90% documented that patients did not want to get pregnant. OKQ was primarily documented in encounters with patients over twenty (91%), those with female sex (99%), African American race (67%), and Non-Hispanic ethnicity (33%). Encounters were also primarily among patients with Medicaid insurance (58%), and patients presenting for visits outside of prenatal or postpartum care (89%). Comparative findings included variation in OKQ responses by age, visit type, and race.

Conclusions on Impact on Health Centers: The findings from this study highlight the continued and critical need to expand reproductive life planning in the community health center (CHC) setting, across all visit types. The OKQ is a low-burden, quick tool that can be utilized by primary care providers to support their ability to facilitate preconception and family planning care and/or referrals within their own CHC. Next steps include studies that examine outcomes based on receipt of OKQ and best practices for training and implementation in the CHC setting.

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CP56

Improving Colorectal Cancer Screening Rates at Illinois Health Centers Through Partnerships

Poster Type: Innovation

Primary Funding Source: PCA grant from the Health Resources and Services Administration (HRSA) and in-kind support from the American Cancer Society and University of Chicago’s Cook County CARES

Category: Quality of Care and Quality Improvement

Issue or Challenge: According to the American Cancer Society (ACS), colorectal cancer (CRC) is the second most common cause of cancer death in the US when men and women are combined. In 2019, an estimated 101,420 new cases of colon cancer and 44,180 cases of rectal cancer are expected to be diagnosed and an estimated 51,020 deaths from CRC are expected to occur. According to 2017 Uniform Data System, the Illinois CRC screening rate among health centers was 38.62%. The Illinois Primary Health Care Association (IPHCA) has made it a priority to provide assistance to health centers in increasing CRC screenings and thereby helping reduce overall CRC rates.

Description of Innovation: IPHCA worked in partnership with the University of Chicago’s Cook County’s Cancer Alliance to Reignite and Enhance Screening (CARES) and the ACS, to develop and provide an opportunity for CHCs in Illinois to increase their colorectal cancer screening rates by implementing up to three quality improvement strategies and evidence-based interventions. Both CARES and ACS are experts in providing CHCs tailored technical assistance (TA) to improve CRC screening rates. IPHCA disseminated requests for applications (RFAs) to all member health centers to apply and CHCs were selected based on need and partners’ capacity to address need for population. Three rural sites and one urban site were ultimately selected.

Through the partnership, participating CHCs received TA and consultation which included the following: system self-assessment; implementation preparation and planning; data reporting and analysis; EMR capacity and accurate reporting; enhancement of staff/provider capacity on various topics; and reporting. Each participating CHC implemented one or more evidence-based strategies tailored to their population such as providing feedback to health care providers, patient/provider reminders, helping to reduce structural barriers, utilizing media to inform and motivate, patient navigation, and motivating health seeking behaviors. Additionally, participating health centers shared strategies, successes, challenges, lessons learned with Illinois CHCs and other health systems and stakeholders through two webinar sessions. The quality improvement projects and consultation from expert partners are still ongoing in the participating health centers till June 2020.

Impact or Result: Between October 2017 and January 2019, three Illinois CHCs have been receiving ongoing TA from ACS. Each CHC has implemented QI strategies tailored to their population need:
• Health Center A began with baseline CRC screening rate of 14.5% and is currently at 78%. Staff conducted PDSA cycles to improve workflows to distribute FIT kits. Through one-on-one education, staff were able to improve rates of FIT kits returned.

• Health Center B began with CRC screening rate of 54% and is currently at 75.9%. They implemented EHR alerts for provider reminders and had clinic coordinator speak individually with patients to explain FIT kits and provide education.

• Health Center C began with CRC screening rate of 47% and is currently at 53%. Their strategies included workflow changes to create a process for distributing FIT kits and sending patient reminders; campaign calls for patients due for screening; monitoring data for GI referrals; and a Flu-FIT program.

Replicating this Innovation: Such an innovation can be replicated in other organizations through partnerships and leadership. Experts such as the American Cancer Society are available nationwide to help conduct assessments and implement quality improvement changes. Strategies used in this particular innovation to improve CRC screening rates are available from the Centers for Disease Control and Prevention’s Community Guide and resources and tools can be accessed from the National Colorectal Cancer Roundtable to assist in implementation of QI project.

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Presenter(s): Naila Quraishi

CP57
Using a Data-Driven, Team-Based Care Approach to Viral Load Suppression

Poster Type: Innovation

Category: Quality of Care and Quality Improvement

Issue or Challenge: Viral load (VL) suppression is key to both improving patient outcomes in HIV and to decreasing community viral load. Patient adherence to antiretroviral therapy (ART) is crucial in achieving VL suppression and preventing viral resistance. Urban Health Plan (UHP) Primary Care Unit (PCU) care teams provide team-based care to all HIV positive patients whose viral load is not suppressed (≥200 copies/ml) to determine social determinants of health and barriers to treatment adherence. Unsuppressed patients are provided with a higher level of support and linked to appropriate services and resources.

Description of Innovation: We used treatment cascades and drill down data to determine which patients were not virally suppressed and developed strategies for identifying and addressing barriers to treatment adherence and viral load suppression.

Impact or Result: We achieved a 20% improvement in viral load suppression, from 58% in 2013 to 78% currently, organization-wide even while our population had grown.

Replicating this Innovation: Other organizations can work with their informatics teams who can create special reports from their EMR of virally unsuppressed patients. They can then use those patient lists to conduct targeted assessments and interventions.

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CP58
Fake News: “Empanelment is Easy”
#TeamBasedCareinaTeachingFQHC

Poster Type: Innovation

Primary Funding Source: The Colorado Health Foundation

Category: Quality of Care and Quality Improvement

Issue or Challenge: In a growing FQHC, with a family medicine residency continuity clinic, managing empanelment had always been a challenge. Quality Improvement (QI) became more difficult to engage at all levels. With a grant-funded program from the Colorado Health Foundation on team-based care, we followed Bodenheimer’s “10 Building Blocks of High-Performing Primary Care” beginning in 2015. We will share key lessons learned from this journey.

Description of Innovation: With a provider staff comprised of approximately 12 FTE, but 30 individuals and 13 residents, we balanced 4 teams within the primary care medical staff and core support staff. We reviewed and adjusted primary care panel sizes, reinvigorated QI engagement, and regularly evaluated our practice for qualities of “High-Performing Primary Care.”

Impact or Result: Improved processes for empanelment, including working with EPIC. Established teams for scheduling, quality improvement efforts, and continuity measurement. Incorporation of residents into teams. Regular method of assessment of team-based care. Improved engagement of all staff in QI.

Replicating this Innovation: We can demonstrate our assessment tool, how we modified the “4 cut method” to get empanelment fixed, reference the Bodenheimer article, and our QI database developed for this project.
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**CP59**

**Targeted Pharmacist Services to Improve Quality of Care and STAR Ratings**

**Poster Type:** Innovation

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

**Issue or Challenge:** Quality care metrics are being implemented broadly and playing a more substantial role in determining provider compensation. The Center for Medicare and Medicaid Services’ (CMS’) five-star quality system evaluates the performance of Medicare Advantage plans. The CMS rating system includes triple weighted measures for medication adherence and diabetes control. PrimaryOne Health is piloting a process to improve the organization’s STAR measures through a pharmacist-driven medication adherence service and increased utilization of an existing pharmacist diabetes management service. The objectives of the project are to enhance patient care, improve STAR measures, and increase eligibility for bonus incentive payments.

**Description of Innovation:** Pharmacists utilize reports provided by the payer to identify patients who are non-adherent or at risk for non-adherence to medications for diabetes, hypertension, or cholesterol. Pharmacists and student pharmacists initially review the patient’s chart for appropriateness of the target medication, and then reach out to the patient’s community pharmacy to see if the patient has refilled and picked up the medication, or needs refills. If the patient has not picked up the medication, a PrimaryOne Health pharmacist or student pharmacist will reach out to the patient to assess barriers to adherence and help the patient overcome any identified barriers. If appropriate, pharmacists will work with providers to obtain prescriptions for 90 days to help patients achieve better adherence. Pharmacists utilize reports provided by the payer to identify patients who have an A1c >9%. Pharmacists reach out to the identified patient’s provider for a referral to the pharmacist diabetes management program. Pharmacists then meet with patients for comprehensive diabetes management. These visits include a comprehensive diabetes assessment, including symptoms, home blood glucose testing, laboratory values, medications, and preventive care. During these visits, pharmacists provide education and work with providers to manage medications to ensure patients are receiving top quality care.

**Impact or Result:** Our STAR ratings for adherence metrics in 2017 were: diabetes medications - 1 (36 members eligible), hypertensive medications - 2 (49), and cholesterol medications - 3 (35); while our projections for 2018 are 2 (78), 1 (195), and 2 (181), respectively. Currently five patients with A1cs of >9% from this Medicare Advantage plan have been referred to pharmacist diabetes management. The pilot is in process, but we anticipate sharing the number of patients and community pharmacies contacted and preliminary data on adherence and A1c measures at the time of poster presentation in August. Preliminary data include data from October to December 2018, showing a total of 22 patients were assessed for medication adherence, 10 interventions made by pharmacy team, and 13 prescriptions picked up leading to increasing patient adherence. Patients have expressed gratitude for pharmacy team educating them on the importance of their medications and helping solve medication adherence barriers.

**Replicating this Innovation:** Our health center continues to improve quality in care and patient health outcomes. Our commitment to improve quality metrics and member care gaps was motive to establish a Managed Care Program Manager position. This manager is essential to replicating this service. The manager focuses on relationships with payers which has helped our health center identify patient care opportunities and opportunities for incentive bonuses.

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**Presenter(s):** Alexa Valentino, Jangus Whitner

**CP60**

**Piloting an Integrated Care Model to Improve Diabetes and Depression Care at a Federally Qualified Health Center in Northern Virginia**

**Poster Type:** Innovation

**Primary Funding Source:** Virginia Health Care Foundation

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

**Issue or Challenge:** According to the American Diabetes Association, complex psychosocial factors substantially influence adherence to diabetes self-management practices and the achievement of glycemic control within a primary care setting. Of those psychosocial factors, depression is one of the most prominent. Depression impacts one-in-four diabetics, although it is unrecognized and untreated in approximately two-thirds of diabetic patients. To improve the efficacy of care for patients with both conditions, the ADA asserts that patient-centered psychosocial care, practiced thorough intensive communication, problem identification, psychosocial screening, and tailored intervention services, is necessary to contextualize patient needs and optimize diabetic care to improve clinical and psychological outcomes.

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**Presenter(s):** Alexa Valentino, Jangus Whitner
**Description of Innovation:** In February 2018, Neighborhood Health (NH) initiated a two-year integrated care program to pilot an integrated and patient-centered approach for patients with diabetes and depression. The program’s intent is to enhance collaboration between behavioral and medical services and to increase the prevalence and frequency of supports to improve patient self-efficacy and meaningfully reduce patient A1c levels and depressive symptoms. This pilot introduced diabetic education to enhance patient knowledge and intensive case management to provide continuous patient contact and to alleviate barriers to adherence by facilitating access to necessary internal and external resources including family, dental, and referral services.

Throughout the program’s first year, patients with uncontrolled diabetes received in-person depression screenings. Patients who screened positive were invited to participate in the program. Enrolled patients committed to regular medical visits and labs, a minimum of one behavioral health visit, attending group or individual diabetes education, maintaining correspondence with the case manager, performing blood glucose (BG) checks, and submitting BG logs for medication adjustment. The Integrated Care Team met monthly to discuss and modify individualized care plans for complex patients. Changes in A1c, PHQ9 score, weight, and BMI were monitored quarterly to identify trends and inform changes to improve program processes.

**Impact or Result:** Within the first year, 857 medical visits and 110 behavioral health visits were conducted among the 100 program participants. The CDE conducted 279 diabetic education sessions. The ICM conducted 123 in-person consultations and performed 523 telephone encounters. To elucidate if the integrated care program improved outcome measures, the study population was compared to 100 randomly-selected patients who received the usual source of care. Of program participants, 46% achieved glycemic control within the program’s first year compared to 32% of controls. Within the treatment group, 87% of patients who experienced a decrease in A1c also experienced a decrease in PHQ9 score, with an average change of -3.8 points. In the control group, 51 patients screened negative for depression, 14 screened positive and 35 did not receive any screening. None of controls with a positive screening received a follow-up screen, therefore no change in depression alongside A1c could be assessed.

**Replicating this Innovation:** This program demonstrates the benefit of patient education and greater provider-patient interaction to enhance support for emotional and physical chronic disease. In other resource-limited organizations, this same model may be accomplished by expanding the roles of existing staff. Clinicians may be trained to identify and document patient self-management goals in the patient chart. Nurses may be trained in the practice of motivational interviewing to administer diabetic education and address concerns pertaining to a patient’s self-management goals. Medical assistants may serve as pseudo case managers, following up on lab reminders, medical and behavioral appointments, and conducting regular self-management check-ins.

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**Presenter(s):** Amanda Hirsch

**CP61**

**The Diabetes Extravaganza Project: Improving Diabetes Control by Increasing Provider Comfort with Injectable Medications**

**Poster Type:** Innovation

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

**Issue or Challenge:** Within our clinic the number of patients with uncontrolled diabetes, defined as an A1c greater than nine, was above 16.1%, the goal recommended by Healthy People 2020. We serve a population in which diabetes is a common health concern. Uncontrolled diabetes can lead to devastating complications including blindness, non-healing wounds, dementia, renal disease, heart attacks, and neuropathy. We identified an underutilization of injectable medications such as insulin and GLP-1 agonist among providers and designed an intervention to promote the use of these medications. Improving control of diabetes leads to improved outcomes in our patients.

**Description of Innovation:** One World utilized a multifaceted intervention that included case-based clinician education regarding more aggressive use of injectable medications, team-based pre-visit planning, clinical pharmacists and diabetes educator support, and team dashboard metrics with the goal of bringing its four satellite locations and residency clinic under the organization goal of less than 22% of diabetics with an A1c greater than nine. The champions for this project were the associate medical director for the satellite clinics, a physician champion for the residency clinic, clinical pharmacists, and diabetes educators. Together, the planning team developed a lecture series for clinicians to improve their knowledge and comfort with the use of injectable medications. Additionally, monthly interdisciplinary meetings between medical assistants, nursing, providers, clinical pharmacists, and diabetes educators were held at which all patients with an A1c greater than nine, who were being seen over the next month were reviewed. Barriers to diabetes control were identified and team-based solutions were developed to help empower patients and providers to increase utilization of injectable medications and adequately control their diabetes. Clinics were additionally provided with monthly quality metrics regarding the number of diabetics with an A1c greater than nine and the number of patients who had an A1c greater than nine over the last year and were not on an injectable medication.

**Impact or Result:** One World focused on two metrics to evaluate the quality of diabetes care. The number of diabetics with an A1c greater than nine over the last year, not on an injectable medication was used as an immediate metric of...
appropriate prescribing. The percentage of patients with an A1C greater than nine served as an overall metric for quality of diabetes care. Over one year, three of the four satellite locations met the organization goal of less than 22% of diabetics with A1C greater than nine. One World, as a whole, decreased the number of diabetics with an A1C greater than nine over the last year, not on an injectable from 36.3% to 32.9% and the percentage of diabetics with an A1C greater than nine from 25.5% to 23.5%. Additionally, clinicians reported an increased comfort with diabetes management.

**Replicating this Innovation:** We will provide the lecture curriculum and the materials utilized within One World to provide the initial resources to replicate this innovation within other health centers. Our diabetes champions are also available to assist and advise others in reproducing this innovation to fit the needs of their health center.

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**Presenter(s):** Melanie Menning, Jeremy Howe

**CP62**

**Identifying and Curing Persons with Hepatitis C Through Collaboration Between a County Health Department and Community Health Center**

**Poster Type:** Innovation

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

**Issue or Challenge:** Programs serving predominantly uninsured persons at risk for hepatitis C virus (HCV) infections frequently have limited resources for testing and treatment; inadequate systems for linkage, referral and retention in care; and a lack of providers trained in HCV care.

Treatment of HCV with direct acting antivirals (DAA) can cure over 95% of patients, resulting in lower morbidity and mortality. However, some persons with chronic HCV infections face barriers including access to care, transportation, costs of therapy, and other challenges contributing to health disparities. Innovative linkages and coordination of care between public health departments and community health centers can bridge gaps in care.

**Description of Innovation:** The Durham County Department of Public Health (DCoDPH) and Lincoln Community Health Center (LCHC) collaborated to test, link, and treat persons with chronic HCV. Key steps:

- DCoDPH partnered with the University of North Carolina (UNC) to secure grant support for HCV testing and linkage-to-care; HCV antibody and reflex RNA testing were conducted through the NC Public Health Laboratory.

- A DCoDPH social worker contacted chronic HCV-infected persons and linked them to trained LCHC providers.

- For non-insured patients, LCHC covered tests including quantitative HCV RNA and genotyping.

Training needs were addressed through the NC Division of Public Health Carolina Hepatitis Academic Mentorship Program (CHAMP) which provides ongoing mentorship with HCV experts. Six LCHC providers received training, including one providing care for the homeless. Providers work with case managers and nursing staff, who help arrange evaluations and follow-up for adherence. Non-insured patients obtain access to specialty services and fibroscans through Project Access, a Durham organization with Duke University Health System (DUHS) collaborations. Population included 45% non-insured. The LCHC Pharmacy worked with patient assistance programs to provide DAA medication. A pharmacist educated and tracked patients, called at 2 and 6 weeks regarding tolerance and adherence. Insured patients were treated with assistance from specialty service pharmacies.

**Impact or Result:** Screening timeframe was November 2016-September 2018:

284 identified with chronic HCV, 66 referred out (provider choice); 218 remained in care at LCHC; 139 baby boomers/79 non-baby boomers; 141 uninsured/77 insured; 176 linked to care (81% of those at LCHC); 113 received pre-treatment labs; 103 prescribed HCV medication; 92 started therapy (53% of linked patients); 2 still on treatment; 2 d/c therapy mid-treatment, remain HCV+; 88 finished therapy (96%+ of those started); 57 cured by sustained viral response (SVR); 12 are not yet due for SVR; 1 death before SVR, unknown cause; 17 are due for SVR, but have not received it (problem with follow-up); and 1 reinfection. LCHC with DCoDPH and collaborators were able to establish an effective program to test, link, and cure patients with HCV at reasonable costs.

**Replicating this Innovation:** Training opportunities are available in many areas through ECHO-modeled programs expanding primary care capacity to treat HCV. Collaborations between public health and community health centers are feasible to enhance linkage and maintenance in care and provide data to better coordinate and inform care. Working with health centers or specialty pharmacies helps greatly in treating patients. Patient assistance programs are available for effective HCV medications.

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**Presenter(s):** Barbara E. Johnston
The CenteringPregnancy Program at Heart of Ohio Family Health Centers

**Research Objectives:** CenteringPregnancy is a model of group prenatal care demonstrated, improving birth outcomes and reducing infant mortality rates. There is more provider and patient contact time to address concerns as social determinants of health and health disparities, especially for patient population at FQHC, hence increased patient and provider satisfaction.

**Study Design/Methods:** The CenteringPregnancy program follows the recommended schedule of 10 prenatal visits, each visit is 90 minutes to two hours long - giving women more time with their provider. The patients are enrolled in the program through initial intake, with detailed history, physical exam, and lab work. CenteringPregnancy brings 8-10 women, all due at the same time, together for their care. Moms engage in their care by taking their own weight and blood pressure and recording their own health data with private time with their provider for physical exam. Lastly, the provider and support staff “circle up” moms to address health topics.

**Principal Findings and Quantitative/Qualitative Results:** CenteringPregnancy allows moms to relax and providers to get to know them on a much deeper and meaningful level. The group education increased health promotion, social support, and introduced behavioral change in patients leading to higher compliance rate. Patients enrolled in CenteringPregnancy presented with the following findings: increased initiation in prenatal care - 70% of moms began their care in first trimester; higher breast feeding rates - 71% of moms initiated breast feeding; lower rates of preterm birth; higher rates of return to postpartum appointments; lower rates of postpartum depression; and higher rates of contraception use in postpartum phase.

**Conclusions on Impact on Health Centers:** Centering model of prenatal care is an effective method of prenatal care to reduce infant mortality and improve birth outcomes. The higher risk population seen in an FQHC is specifically the most important group to address in improving outcomes. It has helped patients to coordinate transportation with consistent schedules and has eliminated wait times. Patients are empowered to take and monitor their weight gain and vital signs each week. In Centering program, providers ensure that everything from nutrition, common discomforts, stress management, labor and delivery, breastfeeding, and infant care are covered in group.

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**Presenter(s):** Parminder Bajwa

Making Process Improvement Common Practice at a Community Health Center

**Issue or Challenge:** Across the health care landscape there is a need to operate leaner and do more with less. How do we as health care administrators accomplish this while not diminishing quality? This conundrum is elevated in public health where there are many, often conflicting, priorities. The answer at Erie Family Health Centers was to create a process improvement team. The purpose of the team would be to not only manage clinical quality outcomes, but their drivers and workflows. Members of the process improvement team allow the entire organization to think and operate in a leaner way.

**Description of Innovation:** Community health centers must have staff dedicated to quality improvement and quality management. However, most health centers interpret this requirement to be one of data reporting in order to understand where you are at and perhaps where you’ve been. Process improvement takes quality data and analyzes the how and why. Process improvement involves a culture shift; it is a way of working. At Erie Family Health Center, the core work of the process improvement team is to monitor quality data and help leaders identify opportunities for improvement by facilitating a variety of exercises such as process mapping, root cause analyses, and PDSAs. In many ways we are a project management team. The real innovation, however, is the approach to our work with Lean, Six Sigma, and Change Management methodologies. The culture has transformed in just two years. Meetings run more efficiently. Conversations regarding safety culture and high reliability are being had. Front line staff are more empowered to report incidents. The team of five Process Improvement Leaders has allowed the agency to develop leaner processes and ways of working across the operations spectrum.

**Impact or Result:** Operations runs leaner as a result of the daily work of the process improvement team. We have streamlined meetings by embedding process improvement leaders with health center operations meetings and senior provider leader meetings. This has allowed for more streamlined communication and allowed Erie to consolidate the monthly leadership team meetings in order to provide only the most valued information to the most appropriate parties. There is less duplication across the sites. Staffing needs have also decreased as a result of the process improvement team’s ability to work on several high-level strategic projects at once while managing other day-to-day strategies. Hundreds of thousands of dollars have been saved due to the leaner practices the process improvement team is able to influence and provide. Clinical leaders are also more engaged in the clinical quality outcomes of their respective sites.
Replicating this Innovation: A process improvement leader is someone who understands data and analysis and who also understands operations and workflows. The process improvement leader must also be able to shift from detailed project management tasks to high-level strategic plan developments. An organization looking to implement a process improvement team must first identify what would dictate the work of the team. At Erie, it is a combination of the strategic plan and key clinical quality measures.

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Presenter(s): Elizabeth Bennetts

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CP65

A Staffing Model in a Community Health Center to Minimize Delays in the Dispensing of Medications Requiring Prior Authorization

Poster Type: Research

Category: Workforce

Research Objectives: We created a staffing model that will allow multiple departments to work together to process prior authorization (PA) requests, for prescription medications, in a timely manner. Our goal was to decrease turnaround time to less than 72 hours from time of prescribing to when patient receives the medication.

Study Design/Methods: A 6-week pilot was conducted and included the implementation of a platform called CoverMyMeds (CMM) for completion of medication PAs. Staff were encouraged to enter all PA requests received into the CMM website. Once the PA was processed and approved, CMM sends an email to both the provider team and pharmacy. The pharmacy is then able to process the prescription and dispense to the patient. Turnaround time was tracked and compared to data preceding the use of CMM. Staff satisfaction and ease of use data was also collected by survey.

Principal Findings and Quantitative/Qualitative Results: Turnaround times were significantly reduced during the 6 week pilot period in all phases as follows: initiation to resolution (Approval) - 3.5 days vs. 10.3 days; resolution to patient pick-up - 0.4 days vs. 20.7 days; total turnaround time - 3.7 vs. 31 days; and total turnaround time was reduced by 88%. Overall, staff satisfaction with CoverMyMeds as a platform for processing prior authorizations was 7.7 out of 10.

Conclusions on Impact on Health Centers: Prior authorizations increase the time required for patients to receive prescribed medications. This delay could increase the need for further provider appointments, hospital visits, and potentially require medication substitutions that are less effective with more adverse effects. Community health centers serve the most vulnerable populations, which already face issues related to disparities of care; prior authorizations are one more barrier to the care we provide. Developing a best practice that can be reproduced in other community health centers would greatly impact the care given to our patients and would decrease delays for necessary medication therapy.

CP66

Community Health Workers Are the Key: Community Health Workers as an Integral Team Member

Poster Type: Innovation

Category: Workforce

Issue or Challenge: Cherry Health Maternal Infant Health Program (MIHP) is working to reduce maternal/infant mortality and morbidity. The US has the worst rate of maternal deaths in the developed world; more women in the US are dying from pregnancy-related complications than in any other developed country. The US is the only developed country in recent years where the maternal morbidity rate has increased. The infant mortality rate is an important measure of the health of a society because it provides information on maternal and infant health. As of 2017, Michigan has had an infant mortality rate of 6.8/1,000, which has decreased over the past decade.

Description of Innovation: Cherry Health has been participating in the MIHP for the past 20 years and the Strong Beginnings program for the past 10 years. Cherry Health has worked to create a program that serves patients holistically. With the integrated health system, staff can work to make sure patients are receiving proper medical care while also striving to reduce/remove the social detriments of health that prevent our patients from reaching their best potential within the health care system. Cherry Health MIHP works with other partners in the community to help provide community resources, transportation, housing, behavioral health, dental, vision, and physical health services through monthly home visits. Cherry Health MIHP’s community health workers (CHWs) create mentorship bonds with our patients and walk with them during their pregnancy journey. CHWs can offer pregnancy education, create reproductive life plans with patients, discuss and support breastfeeding efforts, and give guidance on appropriate child development guidelines. Cherry Health MIHP
CHWs provide an innovative way of delivering health care to mothers and infants which can provide better health outcomes and higher levels of satisfaction for patients/staff members. Through improving health outcomes, Cherry Health MIHP has seen reduction in cost of health care and Medicaid expenses.

**Impact or Result:** Through providing an innovative approach to patient care using CHWs, Cherry Health MIHP has demonstrated reduced rates of rapid repeat pregnancy, elimination of elective early delivery, reduction in low and very low birth weight infants, improved breastfeeding rates, reduced NICU and maternal hospital stays, and better access to care and health screenings. In terms of cost effectiveness, the MIHP program across the state of Michigan creates a net savings of $1,238,569 for Medicaid, furthermore for every $1 spent on prenatal services for MIHP mothers, Medicaid saves $1.38 in costs associated with preterm birth in the first month of life. This impact has reduced the cost of health care and Medicaid expenses while better meeting the needs of pregnant women, mothers, and infants. Cherry Health’s MIHP has also shown increased patient engagement with 95% of patients completing a postpartum visit and 100% of patients accepting lactation support visits.

**Replicating this Innovation:** To replicate, we recommend recognizing the significance and need for CHWs in patient-provider relationships and assure that CHWs have adequate education and training, so they are prepared to work within health care teams to support patient’s access to care. CHWs must be able to fluctuate the work they perform depending on the community’s specific needs. Organizations need to look holistically at their patient population to see what specific needs should be addressed for their patients to be successful and look for community relationships that meet those needs. By developing partnerships with other organizations, it facilitates a smoother referral process for patients.

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**Presenter(s):** Claire Titcombe

**CP67**

**Improving Quality Through the Implementation of a 3-Step Training Program for Health Care Professionals**

**Poster Type:** Innovation

**Category:** Workforce

**Issue or Challenge:** A self-reported questionnaire was administered to clinical staff of health centers in Puerto Rico to assess experience and knowledge on quality improvement (QI). Results from 48 participants found that 18% had no previous experience in QI, 36% had some experience, and 44% had more than 3 years of experience. In terms of knowledge, 55% reported mastering PDSA model, 30% flowcharts, and 26% root cause analysis; 15% or less mastered other methodologies and 30% reported not mastering any. A 3-Step training program using the QI Essential Toolkit from the Institute for Healthcare Improvement (IHI) was developed to address these gaps.

**Description of Innovation:** Training programs are a key strategy to increase knowledge on QI methodologies among health care professionals. Based on assessment findings, a 3-Step QI training program was developed by the Health Center Controlled Network (HCCN) at Puerto Rico Primary Care Association. On Step 1, trainings were provided for the following clinical quality measures (CQMs): children immunization, cervical and colorectal cancer screening, diabetes control, and low birth weight. Training content included statistics, performance evaluation, clinical guidelines, and evidence-based strategies. Step 2 consisted of workshops on the following QI essential tools: cause and effect diagrams, failure modes and effects analysis, driver diagrams, project planning model, flowcharts, histograms, pareto charts, PDSA model, run and control charts, and scatter diagrams. Evaluation forms were collected after each intervention, and 3 assignments were requested to promote knowledge application. On Step 3, participants developed QI projects applying concepts and tools learned. Project requirements included: QI team members and roles, goal setting using SMART guide, root cause analysis diagram, methodology and selection of QI essential tool, preliminary results, promising practices, and lessons learned. Visits were performed to provide face-to-face technical assistance.

**Impact or Result:** A total of 18 health centers participated in the 3-Step QI training program. Kirkpatrick’s Model was used to evaluate its impact based on the following 4 levels: reaction (how participants felt or react), learning (if participants increased knowledge), behavior (if participants applied what they learned and changed their behavior), and results (if quality improved because of the training program). Qualitative data showed participants reacted positively to the 3-Step QI training program, perceiving an added value and self-reporting quantitatively a 20% average increase in knowledge. To assess change in behavior, 3 assignments were requested with response rates of 94%, 78%, and 83% respectively. Direct technical assistance was provided to evaluate and guide the application of knowledge and tools learned. Selected CQMs for QI projects were diabetes control (72%), cervical and colorectal cancer screening (11% each), and low birth weight (chosen by PRHA). Preliminary results have shown an improvement in selected CQMs.

**Replicating this Innovation:** Program structure and educational curriculum can be shared with other organizations and implemented as developed by PCA and HCCN. Although some documentation is available in English, others are in Spanish. Delivery methods may change depending on geography. As a small island, local travel was viable for attendees to participate in trainings and workshops and for the provision of face-to-face technical assistance. External partners were key in the success of this 3-Step QI training program. Fortunately, most of them have national presence and can be accessed by PCA and HCCN from other states or territories.
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Presenter(s): Rose Marie Velez-Rodriguez, Jean Ortiz-Alvarez, Alexandra Conde-Toro

CP68
Fostering Leadership and Accountability in the Medical Assistant Workforce Through Clinical Scorecards

Poster Type: Innovation
Category: Workforce

Issue or Challenge: The challenges inherent in managing the performance of frontline clinical employees at a statewide FQHC are compounded by outcome measures that evolve over time to reflect the changing needs of our patients. Payment models continue to change, shifting the focus to value-based care. Clinical staff need timely, accurate, and meaningful feedback about their own performance in order to apply themselves effectively to our shared goal of improving patient outcomes. This feedback should be team specific, which can often be challenging given that it requires breaking each measure down into specific role assignments in order to foster appropriate accountability.

Description of Innovation: During the course of the past four years much work has been spent developing a clinical scorecard to accompany the usual qualitative performance appraisal that was received by medical assistants on a yearly basis. This was very important because it was difficult to truly drive change when there was little accountability to actual performance on clinical outcome measures. Prior to this, much work had been done to identify each action and a team member owner to get a better understanding of clinical measures and the specific lines of responsibility for the purpose of supporting individual responsibility as well as overall improvement. The scorecard was initially implemented with ongoing feedback from both the frontline medical assistants (MAs) and their nurse managers who ultimately met with each MA to review their specific report. Over time, this has been improved to refine the measures, scorecard format, and ultimately the process of selecting, refining, and fully implementing a clinical measure to ensure the scorecard is an evolving document. This process is supported through collaboration between Community Health Center, Inc.’s (CHCI’s) business intelligence team, population health department, and the nursing clinical leadership.

Impact or Result: This poster will review the overall evaluation of measures over time as they were added to the clinical scorecard. This will include a basic workflow diagram of the process associated with identifying and implementing new measures, and utilizing them to support the work of CHCI’s medical assistants.

Replicating this Innovation: There are two crucial resources that this innovation are highly dependent on – a single EHR for the organization (instead of multiple departments using different EHRs), and a data warehouse that can be interrogated by database queries. The ability to create data-driven dashboards using the clinical information you have about your patients makes it possible to give frontline staff timely info about what care needs to be done for the patients in front of them, also making it possible to evaluate performance over time and correlate patient outcomes. A meeting that includes QI/BI team members, clinicians, and clinical leadership can best determine what the ultimate goals and priorities are for using data to monitor staff performance.

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Presenter(s): Mary Blankson, Tierney Giannotti, Patrick Murphy

CP69
Family Medicine Residency Training in an Urban CHC, Reflections After Twenty Years

Poster Type: Innovation
Primary Funding Source: Health Resources and Services Administration (HRSA) Primary Care Residency Expansion Grant (2010-2015)
Category: Workforce

Issue or Challenge: Recruitment and retention of family medicine physicians. Denver Health is a vertically integrated, safety-net health care system, which includes an acute care hospital, and a network of 9 CHCs [Denver Community Health Services (DCHS)]. DCCHS first hired family physicians in the early 1980s, primarily to staff smaller sites. Facing increasing recruiting challenges with competing HMOs, DCCHS had difficulty recruiting and retaining high-quality family physicians, and started negotiations with the University of Colorado to expand their residency programs to start a track in one of the CHC sites.

Description of Innovation: In collaboration with the University of Colorado Family Medicine Department, the leadership at Denver Health designed a track of the University of Colorado Family Medicine Residency (UCFMR) that would be located at one of the Denver Health affiliated CHCs. The program was approved in 1997 as a 2-2-2 track of the UCFMR, which at the time had 4 residents a year in their primary site, and another two residents a year in a rural track at another local health center. Initial funding for the residents was through a GME expansion awarded to Denver Health, and a HRSA Title VII grant
to the Department of Family Medicine. The program opened with the first residents in 1998, and first graduate in 2001. Over the ensuing years, we have expanded the residency, and currently are training 5 residents a year at the same site, and are exploring further expansion at other family medicine clinics within DCHS.

**Impact or Result:** The implementation of the residency program benefited faculty recruitment and retention. Inspired by the mission to work with underserved patients, the majority of the residents have stayed on in either underserved/CHC settings, or have gone on to teach in other residency settings. Since 2001, we have hired a total of 15 of the 48 graduates at Denver Health, another 10 have gone to work in CHCs, most in Colorado, 3 to rural practice sites, 2 as residency faculty, and 14 have sought additional training in OB or sports medicine. Faculty retention is excellent, with turnover rate below 10%. Virtually all of the 30+ family physicians on staff are involved in teaching residents or in undergraduate medical education. Residents have also expanded access, with each resident seeing over 1600 patients in the course of their training--approximately 6000 visits yearly for all 12 residents.

**Replicating this Innovation:** Implementation of residency training in a CHC is not for the faint of heart. There have been numerous studies describing the required adaptations both of the CHC and the academic health center to support successful development of a residency. NACHC is currently working on developing a readiness tool to assist CHCs in assessing what they may need to implement training. Adequate funding to support the cost of residency training remains a major issue. It is key to have a team of physician staff who are interested in residency education, and can be provided with protected time for residency teaching and administration, and scholarly work. The support is especially important in the planning and initial start-up phases.

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**A.T. Still University-School of Osteopathic Medicine in Arizona**

**CP71**

**Relationship Between Health Literacy and Parent-Completed Autism Screens in a Spanish-Speaking Population**

**Poster Type:** Research

**Category:** A.T. Still University

**Research Objectives:** Our study aimed to assess if a relationship exists between health literacy and number of items failed on the Spanish Modified Checklist for Autism in Toddlers (M-CHAT). We hypothesized that a higher number of failed M-CHAT items is associated with low parental health literacy.

**Study Design/Methods:** We conducted an anonymous cross-sectional survey of a convenience sample of Spanish-speaking parents of 16 to 30-month-olds in primary care. Parents completed the Spanish M-CHAT and were interviewed for demographics including their country of birth and # of years living in the United States (US). The Newest Vital Sign (NVS) assessed health literacy. We performed descriptive statistics, and used Spearman correlations to test the relationship between number failed M-CHAT items, parental NVS, and # years living in the US.

**Principal Findings and Quantitative/Qualitative Results:** Of 50 eligible parents, 30 (60%) have participated to date. Of immigrants, median years living in US was 10 (range 3-25). Of those reporting, 13/28 (46%) had 3rd-6th grade, 6/28 (21%) had 7th-11th grade, and 9/28 (33%) had 12th grade or higher. Overall 4/30 (13%) M-CHAT screens were positive (>2 failed items). Median number failed M-CHAT items was 1 (range 0-6); the most frequently failed item was #12, irritability to loud noises. Overall, 18/30 (60%) parents scored in the lowest NVS category (0-1, high likelihood limited literacy). The number of failed M-CHAT items was negatively associated with NVS score (rho=-0.41, p<0.05) and years living in the US (rho=-0.43, p<0.05).

**Conclusions on Impact on Health Centers:** Preliminary analysis supports the hypothesis that a higher number of failed M-CHAT items is associated with low parental health literacy. The low literacy and educational level in this sample raise questions about the utility of self-completed M-CHAT and other pre-visit screens in our population of primarily Hispanic immigrants. Further data collection will help clarify the relative contributions of health literacy, education level, and possible acculturation on the utility of M-CHAT screening in this and other immigrant populations frequently served by community health centers.

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**Presenter(s):** Svetlana Duvidovich
CP72

An Evaluation of Communication Methods for Community Outreach in Patients with Diabetes

Poster Type: Research

Category: A.T. Still University

Research Objectives: To prevent health complications, patients with type 2 diabetes mellitus should be regularly seen by their medical provider and routinely checked for hemoglobin A1c levels. However, many patients do not return for routine visits. The objective was to evaluate the efficacy of two communication modalities in scheduling patient appointments.

Study Design/Methods: Patients with a hemoglobin A1c > 9.0 not seen in clinic in >6 months were randomly assigned to a control or experimental group. All participants received an initial text message offering help with scheduling an appointment. The control group was contacted via a second text message and the experimental group was contacted via phone call. Additionally, the experimental group was asked to identify perceived health care barriers. In addition to the reported barriers, data included patients who scheduled and kept appointments in each group when data was available. Chi-squared test (p-value of <0.001) was performed.

Principal Findings and Quantitative/Qualitative Results:
The total number of participants was provided verbally by staff, the total number of patients with an HbA1c > 9.0 not seen in clinic in >6 months were randomly assigned to a control or experimental group. All participants received an initial text message offering help with scheduling an appointment. The control group was contacted via a second text message and the experimental group was contacted via phone call. Additionally, the experimental group was asked to identify perceived health care barriers. In addition to the reported barriers, data included patients who scheduled and kept appointments in each group when data was available. Chi-squared test (p-value of <0.001) was performed.

Conclusions on Impact on Health Centers: The study demonstrated that combined use of text messaging and phone calls could lead to higher rates of scheduled appointments. Future studies could address whether appointments made with this method of contact are kept. One factor that limited scheduled appointments was that 16% of patients indicated they were no longer being seen at El Rio. This suggests the need for an additional feature to be placed in NextGen where staff can indicate that patients are no longer being followed. Results of our research were presented at El Rio Research Fair in May 2019.

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Presenter(s): Elysia Tjong, Aaron Salazar

CP73

Assessing Unity Health Care Staff Awareness of the Stork’s Nest Program

Poster Type: Research

Category: A.T. Still University

Research Objectives: Stork's Nest is a nationwide program with the mission to promote prenatal care participation and encourage healthy behaviors during pregnancy through education and incentives. The purpose of this project is to increase awareness and ultimately attendance of the program for expecting parents to decrease the risk of preterm labor.

Study Design/Methods: Unity Health Care staff were invited to participate in 3 focus group sessions, lasting about an hour, to better understand the staff’s knowledge regarding the Stork's Nest program. Focus sessions were held for each group (nurses, medical assistants, and providers). Team members facilitated sessions guided by a 10-item questionnaire while recording attendee responses. The questionnaire assessed prior/current knowledge of the program, referral rates, barriers to referring, likelihood to refer after attending the focus group, and opinions on what would help increase referral rates. The questionnaire responses were qualitatively analyzed to determine the best way to increase awareness of the program.

Principal Findings and Quantitative/Qualitative Results:
A total of 19 Unity staff (out of 93 invited) attended the 3 focus groups (5 nurses, 8 medical assistants, and 6 providers); 100% of attendees completed the post-survey. Results showed that 67% of participants were unaware of the Stork’s Nest program. Other barriers included inapplicable patient population and unknown logistics of the program. Nurses did not contribute responses of barriers to recommending the program. The majority in each session recommended increased advertisement as a means to increase awareness of the program. The overall opinion of Stork’s Nest was positive with staff receptive to the goals of the program.

Conclusions on Impact on Health Centers: Awareness and education were found to be the biggest barriers to referral of patients to the Stork’s Nest program. Due to low attendance, the total number of participants was provided verbally by staff,
Community-Based Intervention to Increase Usage of Medication Disposal Bins

Poster Type: Research

Category: A.T. Still University

Research Objectives: Despite the existence of medical waste disposal sites, many patients do not know how to discard their unused and expired medications. The goal of this project is to assess health care providers’ knowledge regarding proper medication disposal (PMD) and measure the effectiveness of a brief provider intervention regarding PMD.

Study Design/Methods: We designed a brief two-minute presentation regarding PMD which was delivered to two Multnomah County Clinics during their all-staff meetings. One of the clinics (Clinic A) had an existing medication disposal box, while the other one (Clinic B) did not. Changes in knowledge were evaluated using paper pre- and post-surveys. The surveys were administered anonymously before and after the presentation. Surveys were analyzed by determining health care providers’ increase in knowledge of PMD post-intervention. Additionally, staff members who attended the meetings were given a flyer designed by project team members which summarized the information presented and medication disposal locations.

Principal Findings and Quantitative/Qualitative Results: A total of 55 health care providers (Clinic A, n=25; Clinic B, n=28) received the PMD presentation; 52 (95%) completed the pre- and post-surveys. Pre-intervention knowledge of PMD was higher in Clinic A where there was an existing medication disposal box (92% accuracy) compared to Clinic B which did not have a medical disposal bin (52% accuracy). Survey results showed improvement in 36% of Clinic A participants and 14.3% of Clinic B participants (p value = 0.0086).

Conclusions on Impact on Health Centers: Our results showed that the pre-intervention knowledge, regarding proper medication disposal, was higher in the clinic which had a medication disposal bin. Based on this finding, we can conclude that the presence of a medication disposal bin is positively correlated with provider knowledge regarding proper medication disposal.

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Presenter(s): Gillean Cortes
on factors such as the time of day or day of week calls are made, and patients' preferred language. Additional research can also be done on other frequencies and methods of contact, such as text messaging or emailing on a monthly basis.

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CP76
Impact of a Two-Minute Educational Video on Flu Vaccination Knowledge in a Community Health Center Setting

Poster Type: Research
Category: A.T. Still University

Research Objectives: Health literacy has traditionally been one of the largest barriers to proper access to health care. We aim to assess the impact of a short, two-minute educational video on the knowledge of and attitudes towards the influenza virus and vaccination in a relatively health-illiterate community health center setting.

Study Design/Methods: Our project utilizes the pre-test-posttest model to evaluate the participants' foundational knowledge of and attitude towards the influenza virus and vaccination. Upon the participants' consent, a pretest is first administered, followed by our intervention - a two-minute, animated educational video that provides information regarding the influenza disease and vaccination. The script is written at a middle-school reading comprehension level to be inclusive of the Sunset Park neighborhood population in Brooklyn. The video is translated into Spanish, Hindi, and Cantonese to encompass the diverse population. Finally, the posttest is administered to assess the participants' change in knowledge and attitude.

Principal Findings and Quantitative/Qualitative Results:
A total of 98 men and women above 18 years old participated in the project. Pre-intervention, 52.6% answered "Why is the flu vaccine beneficial?" incorrectly, and post-intervention, 84.7% answered correctly. Pre-intervention, 37.4% responded "yes" and 26.3% responded "unsure" to the question "Can the flu vaccine give you the flu?"; but post-intervention, 15.3% responded "yes" and 3.06% responded "unsure" to the same question. Pre-intervention, 51.5% said they are very likely to receive the flu vaccine for the 2018-2019 flu season, 68.7% indicated they are very likely to receive the flu vaccine.

Conclusions on Impact on Health Centers: Our target population, the residents of the Sunset Park neighborhood in Brooklyn, is a microcosm of the larger health illiterate population in the United States. Per the NYC 2015 census, in this neighborhood, 42% have not obtained their high school degrees and only 29% have college degrees. Our intervention demonstrates that a simple educational video has a profound effect on knowledge of and attitudes towards the influenza virus and vaccine. While this project focuses on the influenza virus, it has further implications as videos can be made to cover a wider variety of topics to further improve health literacy.

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Poster Presentations

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2020 Community Health Institute (CHI) & EXPO

Manchester Grand Hyatt
August 28 - September 1
San Diego, CA