CP1 - Perceptions of Osteopathy

Poster Type: Research

Category: A. T. Still University

Research Objectives: Community Health Centers (CHC) provide high-quality care to vulnerable people and populations, regardless of their ability to pay. Osteopathic manipulative medicine (OMM) provides a low-cost treatment option, pairing well with the goals of a CHC. This study assessed awareness and receptiveness towards OMM at the Beaufort-Jasper-Hampton Comprehensive Health Services (BJHCHS).

Study Design/Methods: The study consisted of a pre-survey, educational presentation, and post-survey. The study was designed to both gather information and provide a service to the community in the form of education. All participants were patients of BJHCHS who presented for an appointment and agreed to participate. To evaluate participants’ understanding and interest in osteopathy, we collected yes/no dichotomous data and Likert scale ordinal data. We analyzed the data using a relative frequency table along with a paired sample t-test.

Principal Findings and Quantitative/Qualitative Results: There were 29 participants in the study; 29 were approached and all agreed to participate. Our hypothesis was that understanding and receptiveness of OMM would initially be low but would increase after the educational presentation. Key findings included: only 21% of participants had previously heard of osteopathic medicine but after the presentation 100% would consider receiving OMM in the future. Receptiveness to alternative treatment options in general increased significantly (p-value 0.005). We rejected the null hypothesis that familiarity with osteopathy does not correlate with receptiveness to receiving OMM.

Conclusions on Impact on Health Centers: Educating patients about osteopathy increases their receptiveness to OMM. Our project impacted BJHCHS by showing its patients that there are cost-effective treatments available to address common medical conditions, including those which are common to this demographic. We plan to present our findings to BJHCHS later this year. Future research projects could analyze objective physiologic changes in patients before and after OMM treatments, such as changes in blood pressure and heart rate. It could also evaluate patient satisfaction with the OMM modality.

Author(s):

Samuel Parker, OMS-II, ATSU SOMA
CP2 - Continued Evaluation of the Nutrition and Health Awareness Program on Health Knowledge and Literacy with an Update to Current Issues

Poster Type: Research

Primary Funding Source: A.T Still University School of Osteopathic Medicine in Arizona

Category: A. T. Still University

Research Objectives: The purpose of this project was to provide health education to elementary students in order to potentially impact their understanding of a healthy lifestyle. The goal was to acknowledge major pediatric population concerns identified in Mesa, Arizona, including childhood obesity, lack of physical activity, nutrition, vaping and internet safety.

Study Design/Methods: This study consisted of approximately 104 fourth grade students from Mesa, Arizona who participated in five weekly, interactive, one-hour sessions of supplemental educational instruction provided by the Nutrition and Health Awareness organization administered by ATSU-SOMA students. The educational topics included exercise, nutrition labels and portion sizes, dental hygiene, internet safety, and vaping. The lessons were completed over a five-week span. ATSU-SOMA students administered a baseline survey to assess knowledge of these topics at the start of the project and repeated the same survey after the curriculum was complete. A paired t-test was used to compare pre and post-survey data.

Principal Findings and Quantitative/Qualitative Results: 105 students participated; 104 pre and post surveys were completed. Students actively participated in lessons eagerly answering questions. Significant (p=<0.05) increase in correct responses was found for questions involving cholesterol intake, physical activity, food groups, dental hygiene, vaping illnesses and diabetes prevention indicating an increase in understanding regarding those topics. Improvements in understanding of internet safety were nearly significant at p=.055 and a 10.58% increase. Average scores were 66.53% and 79.21% for pre and post questionnaires respectively (12.68% increase, p=2.63313X10^-10). Afterwards, students also reported increases in exercise frequency, how highly they rated their health, and general understanding of their health.

Conclusions on Impact on Health Centers: Overall, this study showed a statistically significant improvement in the 4th grader’s understanding of a healthy lifestyle regarding exercise, food groups, the dangers of vaping, calories, type II diabetes, and along with and increased positive outlook of their general health. Moreover, this age group already had awareness of proper internet safety and vaping prevention but there was room for improvement aided by the program.

There are plans to present this project to the Adelante health center leadership. Future projects may focus on methodologies to involve entire families in preventive health activities.
Author(s):

Amelia Krouse, OMS Student, A.T Still University School of Osteopathic Medicine in Arizona
CP3 - Broadening the Understanding of Exercise through Attendees of Fit Kids

Poster Type: Research

Category: A. T. Still University

Research Objectives: There is a significant lack of understanding of exercise considerations for children. Children should be educated that there are many activities outside of lifting weights and running that count as exercise. Providing a more comprehensive awareness of what constitutes exercise will provide a foundation for living a healthier lifestyle.

Study Design/Methods: We worked with a population of 26 attendees from The FitKids fitness program in Flagstaff, AZ who were given a seven-question survey to capture a baseline level of their definition of exercise and their attitudes toward exercise. After completing the survey, the same attendees were educated on how everyday tasks, like washing cars and lifting weights are considered exercise. The same attendees were given three intervention options to perform for fifteen minutes: potato sack racing, playing catch, and dancing. Afterward, the same attendees were asked to complete the same seven-question survey to capture changes in their understanding of exercise considerations.

Principal Findings and Quantitative/Qualitative Results: The pre-intervention survey found that of the 26 attendees, 34.6% and 38.5% considered ‘scraping snow off a car’ and ‘washing a car’ exercise. The post-survey captured 80.8% attendees selecting, ‘scraping snow off a car’ and ‘washing a car,’ to be exercise. Survey questions regarding participant attitudes to exercise showed a positive increase in perception. Question 3, ‘I am good at exercise’ had an increase of 30.8% to 53.8% answering ‘strongly agreeing.’ Question 5, ‘I feel motivated to go be active and exercise’ had an increase of 46.2% to 61.5% answering ‘strongly agreeing.’

Conclusions on Impact on Health Centers: In conclusion, the intervention accomplished its goal by broadening the understanding of the attendees’ exercise considerations. The results of the research program revealed that educating children on what it means to exercise not only improves their classification of exercise but also improves their motivation. These techniques are important for expanding the foundation of children’s understanding of a healthy lifestyle.

Author(s):

Krupa Shah, OMS-II, A.T. Still University School of Medicine Arizona - Flagstaff CHC

Stephen Raab, MD, MD, A.T. Still University School of Medicine Arizona - Flagstaff CHC

Shipra Bansal, MD, MD, A.T. Still University School of Medicine Arizona

Kate Whelihan, MPH, CPH, COPC and Public Health Research Specialist, Department of Public Health, A T Still University School of Osteopathic Medicine
Joy H. Lewis, DO, PhD, FACP, Professor, Medicine and Public Health Chair, SOMA Dept. of Public Health, A T Still University School of Osteopathic Medicine
CP4 - Improving Knowledge of Services Provided at the Family Support Center of NYU-LH Increases Ability to Address Social Determinants of Health

Poster Type: Innovation

Category: A. T. Still University

Issue or Challenge: The purpose of this project was to address the underutilization of services provided by the NYU-Langone Family Support Center (FSC). We addressed this issue because we recognized that patients and health care professionals were largely unaware of the resources available at the center. The FSC provides social, educational, and emotional support programs for families, children, and older adults. Increased knowledge and utilization of such services provided by the FSC is of great interest to both the public and the health centers. By educating both medical staff patients, we aimed to alleviate some of the negative social determinants impacting patient health.

Description of Innovation: In collaboration with the FSC, a new informative flyer was designed and printed. The new flyer included a comprehensive overview of the programs offered by the FSC, highlighting the services that address a variation of social determinants of health along with the FSC contact information. Services highlighted in the flyer included the FSC food pantry, insurance and benefit enrollment services, SAFE teen health programs, and many more. 500 fliers were distributed in English, Spanish, and Mandarin, reflecting the three major patient populations served by the NYU Family Health Centers (FHCs). In January 2020, we spoke to physicians about the FSC’s programs to increase referral rate. In February 2020, the flyers were distributed amongst four FHC sites: Family Physician Clinic, Park Slope Clinic, Park Ridge Clinic, and the Caribbean American Clinic. Healthcare and administrative staff at all four sites were briefed on the new flyers and provided with an overview of the services offered by the FSC. Another intent of this project was to ensure the measure would be easily replicable amongst our FHCs. The flyers were given to the staff with the intent to distribute as well as placed throughout the clinic waiting rooms in efforts to increase patient exposure.

Impact or Result: The total population from the four FHC sites with patients that visited the FSC between November 2019 to February 2020 was 29,994. Using a paired t-test, the average numbers of unique patients per month and numbers of completed visits per month were compared in the two months prior to brochure introduction, November-December 2019, to the two months following brochure introduction, January-February 2020 (alpha: 0.05). Unique patients account for each individual patient. Completed visits are the number of times patients were seen in a given month.

Average monthly unique patients at the FSC averaged 1,860 in November-December 2019 and 1,889 in January-February 2020 (p-value: 0.5206). Average monthly Completed visits averaged 2,405 visits in November-December 2019 and 2,493 in January-February 2020 (p-value: 0.2026).

Based on these results, there was not a significant change in the numbers of monthly unique patients or completed appointments after the intervention.
Replicating this Innovation: In order to increase awareness of the services provided by the FSC, it is important to engage in community outreach and target members of underserved populations. This was effectively accomplished by hosting staff meetings at local hospitals and clinics, where health professionals were educated about FSC’s mission, services, and resources. Gaining the support of local health professionals was critical to increasing local community awareness. In addition, we requested permission from hospital and clinic staff members to distribute informative multilingual brochures to patients. The brochures were placed in the waiting areas of clinics to reach a large patient population.

Author(s):

Shae Patel, OMS-II, Research Lead, A.T. Still University - School of Osteopathic Medicine in Arizona

Laura Longman, Medical Student, OMS-II, Research Assistant, A.T. Still University - School of Osteopathic Medicine in Arizona

Ava Sadeghi, OMS-II, Research Assistant, A.T. Still University - School of Osteopathic Medicine in Arizona

Melissa Shafer, OMS-II, Research Assistant, A.T. Still University - School of Osteopathic Medicine in Arizona

Patrick Murphy, OMS-II, Research Assistant, A.T. Still University - School of Osteopathic Medicine in Arizona

Sarah Nies, OMS-II, Research Assistant, A.T. Still University - School of Osteopathic Medicine in Arizona

Samuel Grover, OMS-II, Research Assistant, A.T. Still University - School of Osteopathic Medicine in Arizona

Rachelle Esrail, OMS-II, Research Assistant, A.T. Still University - School of Osteopathic Medicine in Arizona

Norma Villanueva, MD MPH, Regional Director of Medical Education, A T Still University School of Osteopathic MedicineKate Whelihan, MPH, CPH, COPC and Public Health Research Specialist, Department of Public Health, A T Still University School of Osteopathic Medicine

Joy H. Lewis, DO, PhD, FACP, Professor, Medicine and Public Health Chair, SOMA Dept. of Public Health, A T Still University School of Osteopathic Medicine
Focus Group Model for Collaborative Health Education with Refugees in King County, WA

**Poster Type:** Research

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

**Research Objectives:** With the use of health-related presentations and focus groups, the goal of this project is to empower both Meskhetian Turkish refugees, and female Afghani refugees to play a more active role in improving their own health and to reduce some of the barriers they face within the U.S. healthcare system.

**Study Design/Methods:** Two presentations were held per population, with a total of 7 Turkish participants and 35 Afgani participants. Topics were chosen based on expressed interests and analysis of common diagnoses using data from HealthPoint community health center. Sessions followed a didactic structure, utilizing a Powerpoint lecture followed by a focus group in which participants shared opinions of the presentation and its pertinence to their lives. A certified translator was utilized to overcome language barriers. The qualitative findings consisted of general opinions, quotes, and findings from employing the teach-back method. These findings were used to measure the efficacy of the presentations.

**Principal Findings and Quantitative/Qualitative Results:** A range of 3 - 20 individuals attended each presentation. During the presentations, participants demonstrated engagement by asking questions. During focus groups that followed the presentations, participants shared personal experiences related to the health topic and explained what they learned from the presentation. Participants stated they would feel more comfortable speaking to their medical providers about the topics after the presentations. During the focus group, participants discussed plans to integrate information from the presentations into their daily lives. Participants from both refugee populations agreed that the presentations were impactful.

**Conclusions on Impact on Health Centers:** The fact participants reported that they would take what they learned and share it with their communities, emphasizes that the potential impact of this project may extend beyond those who attend. The personalized, interactive nature of the education provided an environment where the participants felt comfortable asking questions and engaging in teach-back. Because this project was successful in two unique populations, we believe this model can be replicated at other CHCs to the different target populations they serve.

**Author(s):**

Amy Lee, OMS-II, A.T. Still University

Benjamin Marks, OMS Student, A.T. Still University

Sara Kirkpatrick, OMS-II, A.T. Still University
Janae Rasmussen, OMS-II, A.T. Still University
Sydney Wilkerson, OMS-II, A.T. Still University
Tenaya Kothari, OMS-II, A.T. Still University
Nobel Nguyen, OMS-II, A.T. Still University
Helen Jue, OMS-II, A.T. Still University
Shivani Kamal, OMS-II, A.T. Still University
Dreese Marrakchi, OMS-II, A.T. Still University

Joy H. Lewis, DO, PhD, FACP, Professor, Medicine and Public Health Chair, SOMA Dept. of Public Health, A T Still University School of Osteopathic Medicine
CP6 - Twists, turns, and blockages to Colorectal Screening Follow-up

Poster Type: Research

Category: A. T. Still University

Research Objectives: Cologuard? is a noninvasive alternative to colonoscopy as a colorectal cancer screening tool. However, the test occurs without the supervision of medical personnel, creating several barriers to test completion and result documentation. The purpose of this study is to identify the barriers preventing El Rio Health patients from completing Cologuard?.

Study Design/Methods: The study includes El Rio-El Pueblo patients who had Cologuard? screenings ordered, yet do not have evidence of the results in the Electronic Health Record (EHR). Patients were surveyed via phone call. Investigators followed a script, available in Spanish and English, to determine the potential barriers that prevented a documented Cologuard Screening. If participants did not answer, a second call was attempted within 24 hours, if unsuccessful it was recorded as “no response”. Data were categorized according to the reason that the Cologuard test was not performed or why results were not successfully shared with El Rio.

Principal Findings and Quantitative/Qualitative Results: Fifty-four patients who agreed to complete Cologuard? screening between September to November 2019, but whose EHR show an incomplete test as of March 2020 were contacted via telephone. Of the 54 patients, 33 agreed to the phone survey (n = 33, 61%). A majority understood what Cologuard was 76% (n = 25), received the kit 82% (n = 27), and found the instructions easy to understand 55% (n = 18). A minority needed a replacement kit 18% (n = 6) and forgot to complete the colon screening 12% (n = 4). The survey also revealed a lack of Spanish instructions.

Conclusions on Impact on Health Centers: Survey results show that the most common barriers to adherence of Cologuard? testing are clarity of kit instructions, lack of availability of instructions in Spanish, and problems with kit delivery or replacement. Based on these findings, El Rio Health can create solutions to increase the likelihood of Cologuard? test completion. Our study suggests that variability in patient adherence can be improved if social determinants of health are taken into consideration. We plan to share these findings with El Rio Health and make our survey available to any health center interested in repeating or expanding this study.

Author(s):

Trisha Chaudhury, OMS-II, A. T. Still University

Joshua Bellisario, OMS-II, A. T. Still University

Tushita Verma, OMS-II, A. T. Still University

Kelly Deninger, OMS-II, A. T. Still University
Anna Peterson, OMS-II, A. T. Still University
Kaydee Silva, OMS-II, A. T. Still University
Stephanie Yanez, OMS-II, A. T. Still University
Morgan Chang, OMS-II, A. T. Still University
Jarren Adam, OMS-II, A. T. Still University
Catherine Lin, OMS-II, A. T. Still University
David Lehman, OMS-II, A. T. Still University
Luke Ong, MS, OMS-II, A.T. Still School of Osteopathic Medicine in Arizona
Ray Wagner, MD, MS, FAAP, Regional Director, Medical Education, A T Still University School of Osteopathic Medicine
Christopher Dixon, DO, Regional Director, Medical Education, A T Still University School of Osteopathic Medicine
Kate Whelihan, MPH, CPH, COPC and Public Health Research Specialist, Department of Public Health, A T Still University School of Osteopathic Medicine
Joy H. Lewis, DO, PhD, FACP, Professor, Medicine and Public Health Chair, SOMA Dept. of Public Health, A T Still University School of Osteopathic Medicine
CP7 - Approaches to Nutritional Health Awareness and First Aid in Students with Special Needs

Poster Type: Innovation

Category: A. T. Still University

Issue or Challenge: In response to rising rates in childhood obesity, public health has increasingly focused on childhood physical activity and nutrition-based interventions. While impactful, many existing nutrition studies have not included students with special needs in their programs or included adaptations in the workshops to include students with different developmental abilities. In addition to the overall increased health risks attributed to general childhood obesity, individuals with developmental disabilities are at increased risk for limited food preparation skills, nutrition knowledge, and opportunities to learn about healthy eating behaviors. This lack of access to skills and nutrition education risks marginalizing an already vulnerable community.

Description of Innovation: Our project addresses an identified gap in nutrition and first aid health programming. Researchers have identified four areas of need when developing interventions for children with special needs: medical, physical, learning, and social emotional needs. Our goal is to help bridge the gap in educational programming and facilitate individual empowerment by designing an interactive nutritional and first aid program for grade-school aged students with special needs.

By centering our program within the kitchen, we identified an additional space for promoting safety and health. First aid education programs have significant outcomes for increasing childhood health by teaching students to recognize and manage common injuries in themselves or their peers. In our program, we address the importance of healthy nutrition in food preparation, while also providing tools to circumvent the risks associated with cooking.

We provided an educational workshop to 13 students in the Special Needs Program of a local elementary school. The workshop lasted one full school day, from 9:30 am to 3:00 pm. The workshop consisted of a kitchen hygiene and safety station, a sugar quantity station, and a healthy smoothie station. Each station utilized interactive activities and student-guided conversations to engage the students and promote active participation.

Impact or Result: Important themes emerged from the workshop. Students of all grades understood hand hygiene, while knife safety and kitchen first aid knowledge increased with age. Students successfully identified which food had more sugar, but underestimated sugar quantity in the high-sugar item. Younger students were less likely to try the healthy smoothie due to the ingredients and color, while older students expressed excitement and a desire to make the smoothies at home.

The interactions throughout the workshop demonstrated that students were enthusiastic, able to incorporate learning with hands-on activities, and tie that knowledge into their daily lives. We found that the most impactful activities were the ones where students had visual
representations and active participation. The small workshop setting also allowed facilitators to individualize learning for each student. Post-workshop, we met with the staff of the special needs department, who found the workshop interactive, educational, and voiced interest in future workshops.

**Replicating this Innovation:** This program can be implemented in other organizations, following discussions and needs assessments with community schools and special needs programs. Our workshop demonstrates that interactive, level-appropriate activities can successfully engage students and teach multifaceted lessons about nutrition and kitchen safety. Collaborating with staff who work closely with the students throughout the planning, implementation, and results interpretation of the workshop allows the workshop to best meet the needs of the participants. The community-oriented, interprofessional development of our workshop can be used as a framework for developing similar programs in other organizations, while activities can be tailored to reflect community needs.

**Author(s):**

Amy Wang, MPH, OMS-II, A.T. Still University of Health Sciences, School of Osteopathic Medicine Arizona

Mohammad Moizz Akhtar, OMS-II, A.T. Still University of Health Sciences, School of Osteopathic Medicine Arizona

John Berberich, OMS-II, A.T. Still University of Health Sciences, School of Osteopathic Medicine Arizona

Aviv Crish, OMS-II, A.T. Still University of Health Sciences, School of Osteopathic Medicine Arizona

Rahil Desai, OMS-II, A.T. Still University of Health Sciences, School of Osteopathic Medicine Arizona

Trivianne Franklin, OMS-II, A.T. Still University of Health Sciences, School of Osteopathic Medicine Arizona

Forest Gries, OMS-II, A.T. Still University of Health Sciences, School of Osteopathic Medicine Arizona

Navedeeep Kaur, OMS-II, A.T. Still University of Health Sciences, School of Osteopathic Medicine Arizona

Ryan Pavelka, OMS-II, A.T. Still University of Health Sciences, School of Osteopathic Medicine Arizona

Catherine Shanahan, MD, Regional Director of Medical Education, HealthSource of Ohio, A.T. Still University of Health Sciences, School of Osteopathic Medicine Arizona

Kate Whelihan, MPH, CPH, COPC and Public Health Research Specialist, Department of Public Health, A T Still University School of Osteopathic Medicine
Joy H. Lewis, DO, PhD, FACP, Professor, Medicine and Public Health Chair, SOMA Dept. of Public Health, A T Still University School of Osteopathic Medicine
CP8 - Evaluation of the Intimate Partner Violence Screening Protocol for Pregnant Women at Near North Health Services Corporation (NNHSC)

Poster Type: Research

Category: A. T. Still University

Research Objectives: Intimate partner violence (IPV) is reported by nearly 1/3 of American women during their lifetimes, therefore, IPV detection and amelioration is crucial. Identifying the protocol that Near North Health Service Corporation employs to uncover and assist victims of IPV in the female, pregnant population, is the topic of this study.

Study Design/Methods: A Plan-Do-Study-Act (PDSA) model was used to assess intimate partner violence protocols and readiness (IPV) at the Near North Health Services Corporation (NNHSC). Medical providers who treat female patients over the age of 18 were provided an anonymous survey to assess their screening protocol and readiness for screening patients experiencing IPV. The survey addresses provider specialty, patient population, and provider approach to screening for IPV. Survey responses were compared between the different medical provider specialties.

Principal Findings and Quantitative/Qualitative Results: The population included 23 NNHSC providers who treat child-bearing aged women. 13 surveys were given with 11 responses (84.6% response rate). 9 providers felt IPV screening was important in their practice. Most providers do not have a protocol for IPV screening. 6 providers screen at the initial visit. 8 providers re-screen for IPV only if there is suspicion. 6 physicians do not have a follow-up protocol if patients screen positive. The main resources given are social worker referrals. The main barriers are lack of time and no available screening tools. 8 providers feel they would benefit from IPV screening training.

Conclusions on Impact on Health Centers: While most providers consider IPV screenings important, only 6 of 11 regularly screen their reproductive-aged, female patients at either an initial or follow-up appointment and 3 of 11 respondents did not feel confident where to document their findings in the electronic health record (EHR). We provided NNHSC with a baseline understanding of how their providers screen for IPV. NNHSC can examine their system and decide how to alter their screening protocol in a feasible way for their organization. Another health center could tailor our methodology to study IPV screening within their health center setting.

Author(s):

Huy Ho, OMS-II, A.T. Still School of Osteopathic Medicine in Arizona

Ginny Kim, OMS-II, A.T. Still School of Osteopathic Medicine in Arizona

Aveena Pelia, OMS II, A.T. Still School of Osteopathic Medicine in Arizona

Mohmmad Ahmad, MBA, MS, OMS-II, A.T. Still School of Osteopathic Medicine in Arizona
Brian Cutler, MHS, OMS-II, A.T. Still School of Osteopathic Medicine in Arizona
Nicholas Hemsley, OMS 2, A.T. Still School of Osteopathic Medicine in Arizona
Michela Isono, OMS-II, A.T. Still School of Osteopathic Medicine in Arizona
Yucheng Liu, MSc, OMS-II, A.T. Still School of Osteopathic Medicine in Arizona
Shield Olabamiji, MPH, OMS-II, A.T. Still School of Osteopathic Medicine in Arizona
Shoshannah Rubin, OMS-II, A.T. Still School of Osteopathic Medicine in Arizona
Casssandra De La Torre, OMS-II, A.T. Still School of Osteopathic Medicine in Arizona
Kimberly Au, MD, Regional Director of Medical Education, Near North Health Service Corp., A.T. Still School of Osteopathic Medicine in Arizona
Kate Whelihan, MPH, CPH, COPC and Public Health Research Specialist, Department of Public Health, A T Still University School of Osteopathic Medicine
Joy H. Lewis, DO, PhD, FACP, Professor, Medicine and Public Health Chair, SOMA Dept. of Public Health, A T Still University School of Osteopathic Medicine
CP9 - Mini Docs: Empowering Waianae Coast Adolescents to be Advocates for Their Health and Their Community

Poster Type: Research

Category: A. T. Still University

Research Objectives: The Native Hawaiian population bears higher diabetes and mental illness prevalence compared to other ethnic groups in the United States. Health literacy education has been shown to prevent progression of disease processes. This education program aimed to increase health understanding among intermediate-aged children on Oahu’s Waianae Coast through active learning.

Study Design/Methods: Seventeen children (aged 10-13 years), enrolled in a Waianae, Hawaii intermediate school, participated in a six-week program. Each week included an interactive 30-minute presentation on diabetes, mental health, or substance abuse followed by a relevant 30-minute activity. Students completed identical, anonymous, multiple-choice surveys before and after each presentation and activity, to assess baseline knowledge and improved knowledge on each topic, respectively. Additionally, students completed an anonymous, qualitative, short answer survey to assess intentions and attitudes along with their understanding upon completion of the program. Representative questions were randomly selected for analysis. Pre- and post-presentation data were compared as a group.

Principal Findings and Quantitative/Qualitative Results: All 17 participants readily engaged in all presentations and active learning activities. Participants eagerly prepared and enjoyed diabetic-friendly snacks and low-calorie foods. Outdoor activities, including friendly competitions and games promoting movement and physical activity, were adopted well. Mental wellness stations provided immersive examples of mental illness through sensory input and distortion and were well-received. Overall understanding of major group topics (diabetes, mental health, and substance abuse) improved as a cohort, as assessed through pre- and post-education surveys. Course completion surveys demonstrated 95.6% (65 out of 68 possible) correct responses as a group, with overall positive intentions and self-proficiency of topics.

Conclusions on Impact on Health Centers: This educational program, utilizing activity-based learning, helped to improve the understanding of diabetes, mental illness, and substance abuse and helped to improve positive attitudes toward discussing these subjects among intermediate-aged students. Current evidence suggests that early prevention through education may help to reduce healthcare burden and decrease the presence of chronic disease. Based on the results of this program, it is recommended that Community Health Centers implement similar programs, in larger sample sizes, in order to assess the broader generalizability of utilizing this approach to increase health literacy of a community.

Author(s):
Kevin Perez, OMS-II, A.T. Still University
Marissa Bruno, OMS-II, A.T. Still University
Justin Chen, OMS-II, A.T. Still University
Rea Mae Garcia, OMS-II, A.T. Still University
Kara Imbrogno, OMS-II, A.T. Still University
Jai Kahlon, OMS-II, A.T. Still University
Kara Kono, OMS-II, A.T. Still University
Monica Krakora, OMS-II, A.T. Still University
Robert Mun, OMS-II, OMS-II, A.T. Still University
Karolyn Lam, OMS-II, A.T. Still University

Joy H. Lewis, DO, PhD, FACP, Professor, Medicine and Public Health Chair, SOMA Dept. of Public Health, A T Still University School of Osteopathic Medicine
CP10 - FHCN DO Medicine: Effectiveness of educational events on osteopathic medicine awareness amongst healthcare workers at Family HealthCare Network

Poster Type: Research

Category: A. T. Still University

Research Objectives: Given the complex history of medical licensure and the relatively small number of osteopathic physicians, it is the interest of this research to both quantify and modulate awareness of the osteopathic medicine profession amongst healthcare workers. Additionally, attitudes toward the profession are examined for correlation to one’s awareness level.

Study Design/Methods: Family HealthCare Network (FHCN) providers and staff (MD, NP, midwife, PA, and medical assistants) completed optional, identical and anonymous surveys measuring awareness before and after a presentation about the DO profession. A presentation was given that highlighted the similarities and differences between DOs and MDs in addition to teaching about OMT (osteopathic manipulative treatment) through demonstration. A survey measuring attitudes toward DOs was completed afterwards. The data were analyzed using a paired T-test comparing the pre-survey and post survey; the correlation between the quantified change in awareness and the attitude survey responses were examined using a Two Proportion Z-Test.

Principal Findings and Quantitative/Qualitative Results: One trial (n = 25 staff/providers, Participation rate= 25/35, .71) was performed. Pre- and Post- surveys were given to all present at the staff and provider meeting with a response rate of 100%. The average score pre-education was 39% and improved post-education to 84% (t-score, 6.36, p-value <0.01). Data also showed 96% were more likely to recommend a DO to a patient for medical care, be interested in receiving OMT, and viewing OMM as beneficial for their patients. Effectively, 92% of people answered that they felt comfortable explaining what a DO is after participating in our presentations.

Conclusions on Impact on Health Centers: Results showed we were successful in raising the awareness amongst staff and providers at FHCN Mooney of the distinctions of the DO profession. Our educational material has enhanced the knowledge of osteopathic medicine in our medical providers and showed signs of increased confidence in DOs. This project also showed the potential for other CHCs using our design to educate their health centers using our adaptable education material. The benefits could yield higher patient satisfaction and care in CHCs. Future research on this project would provide a greater sample size to determine greater changes in provider attitudes regarding DOs.

Author(s):

Alisa Seng, OMS Student, AT Still University, School of Medicine in Arizona

Gabrielle Brow, OMS Student, AT Still University, School of Medicine in Arizona

Hira Aladroos, OMS Student, AT Still University, School of Medicine in Arizona
Cody Brazeal, OMS Student, AT Still University, School of Medicine in Arizona
Joshua Daniel, OMS Student, AT Still University, School of Medicine in Arizona
Sasha Haddad, OMS Student, AT Still University, School of Medicine in Arizona
Patrick Matian, MS, OMS Student, AT Still University, School of Medicine in Arizona
Gurjit Mundh, OMS Student, AT Still University, School of Medicine in Arizona
Khaled Saleh, OMS Student, AT Still University, School of Medicine in Arizona
Hasnoor Sandhu, OMS Student, AT Still University, School of Medicine in Arizona
Joy H. Lewis, DO, PhD, FACP, Professor, Medicine and Public Health Chair, SOMA Dept. of Public Health, A T Still University School of Osteopathic Medicine
CP11 - Hygiene and sanitation needs of people experiencing homelessness in Portland, OR

Poster Type: Innovation

Primary Funding Source: A.T. Still University School of Osteopathic Medicine in Arizona

Category: A. T. Still University

Issue or Challenge: Many urban cities across the United States have a large homeless population whose basic needs have yet to be fully met. As an initial step to help curb this issue, the purpose of this community project was to assess the overall health and hygiene needs of various homeless communities throughout Portland, Oregon, evaluate the extent to which their needs were already being met, and utilize our resources to supplement unmet needs as we found necessary.

Description of Innovation: We partnered with two local organizations that serve individuals experiencing homelessness – St. Francis of Assisi Catholic Church and Clackamas Service Center. At both sites, health and hygiene products were distributed in the dining hall for two hours on one day during the first week of March 2020 (10am-12pm at Clackamas Service Center and 2-4pm at St. Francis of Assisi). Participants could voluntarily approach us and select any of the available items they desired. We would then package the selected items into a plastic bag. Options included flashlights and batteries (as a set), socks, hand sanitizers, baby wipes, petroleum jelly, beanies, hand warmers, toothpaste and toothbrushes, deodorant, thermal blankets, sharpies, and nail clippers to each site. Participants were only allowed up to one of each item and could only go through the line once. We started with 30 of each item and recorded our remaining inventory after our distribution period. Distribution rates were calculated between the two sites based on the total number of each item given out relative to the total number of participants. The data collected was analyzed using a two-sample test of proportions with the software STATA.

Impact or Result: A total of 47 individuals between two sites participated and received the products provided as part of this project (n=30, n=17). Overall, the top 5 most distributed items were flashlights and batteries, hand sanitizer, baby wipes, socks, and beanies in that order. There was no significant difference (p<0.05) in distribution rates of items between both sites except for baby wipes (p=0.012). Flashlights were taken by all but one participant in the study. The utility of flashlights as a tool for safety and survival at night may explain this finding. Socks and beanies may have been popular choices because of the colder weather during winter in Portland, Oregon and the relative lack of warm clothing provided to homeless individuals. Hand sanitizer and baby wipes may have been frequently chosen because they could clean and disinfect participants’ hands and other body parts when a sink or washroom is unavailable to them.

Replicating this Innovation: The most difficult aspects of this innovation are fundraising and effectively reaching out to the target population. Fundraising could take various forms depending on an organization’s resources. Reaching out may include partnering with other
local or government organizations to spread the word of a new service for individuals experiencing homelessness. A plan should be developed to distribute items equitably to prevent animosity among individuals. As a useful reference, we found flashlights to be the most needed object followed by baby wipes, hand sanitizers, socks, beanies, hand warmers, petroleum jelly, deodorant, toothbrushes, thermal blankets, sharpies, and nail clippers in that order.

Author(s):

Aryan Sharif, OMS Student, A.T. Still University School of Osteopathic Medicine in Arizona
CP12 - Leveraging Pediatric Clinic Visits to Improve Access to Primary Care in Adult Family Members/Caregivers

**Poster Type:** Research

**Primary Funding Source:** Health Resources and Services Administration

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

**Research Objectives:** There are significant disparities between adult primary care participation rates and those amongst children. This study aims to use pediatric patient encounters to engage adult family members and caregivers to increase awareness of and access to primary care services available to adults within a target health center patient population.

**Study Design/Methods:** Through additive steps in the care team workflow, adults accompanying pediatric patients on scheduled outpatient visits were queried about their access to a primary care provider (PCP). Adults that were found not to have a PCP were offered the opportunity to establish with a PCP at the participating clinic as soon as practical for the provider and patient. Adults with PCPs but in need of services were offered assistance with coordinating a visit with their provider.

**Principal Findings and Quantitative/Qualitative Results:** Approximately 50% of the adults queried as part of this project did not have a PCP, but had interest in utilizing primary care services. Of those interested in primary care services, many were interested in scheduling an appointment within the health center where the pediatric patient they accompanied was seen for care. Adults without a PCP that were interested in receiving services were able to receive assistance with scheduling at the time of the pediatric encounter. This project also facilitated scheduling appointments within the health center for participants who already had a PCP within or outside the health center network.

**Conclusions on Impact on Health Centers:** While the benefits of routine primary and preventative care services are well established, adult primary care participation rates lag behind pediatric primary care participation rates. Pediatric patient encounters can provide an opportunity to engage with adult family members and caregivers to increase awareness of and access to primary care services. Pediatric clinic visits proved to be effective in facilitating access to primary care in caregivers within The Wright Center for Community Health. The strategies used can be shared with other clinics to determine if there is potential for adaptation to facilitate access to quality primary care services.

**Author(s):**

Surekha Appikatla, MPH, Data Informatics Specialist, A.T. Still University
CP13 - Optimizing Health Center Opioid Prescribing and Monitoring Practices

Poster Type: Research

Primary Funding Source: Health Resources and Services Administration

Category: A. T. Still University

Research Objectives: Opioid use in chronic pain treatment is complex, as patients may derive both benefit and harm from their use. The objective of this project is to help support appropriate clinical decisions related to opioid use in the management of chronic pain and optimize efficacy of the care delivery system.

Study Design/Methods: Providers administer the Screener and Opioid Assessment with Pain-Revised (SOAPP-R) questionnaire to screen patients who are prescribed opioids to categorize the patients into low-risk, moderate-risk and high-risk for opioid dependence. Patients with schedule II, III and IV prescriptions are monitored for aberrant behavior using the Current Opioid Misuse Measure (COMM) questionnaire at their routine visits. Providers also check the Prescription Monitoring Program (PMP) for additional opioid prescriptions from other sources. If aberrant behavior related to medication use is detected, providers are guided to refer the patients to behavioral health, pain management, or wean patients off opioids.

Principal Findings and Quantitative/Qualitative Results: There were more than 2,000 opioid prescriptions written during the ~6 month data collection period. The providers completed 124 SOAPP-R questionnaires of which ~50% were positive, indicating the risk for opioid dependence. 130 COMM questionnaires were completed of which ~20% showed positive results for possible aberrant behavior during their visits. There was an increase in behavioral health referrals for patients with chronic pain on opioids and of the patients referred to pain management, all of them had a positive SOAPP-R, positive COMM, or a positive SOAPP-R and COMM.

Conclusions on Impact on Health Centers: As many as 1 in 4 patients receiving long-term opioid therapy in primary care settings struggle with opioid use disorders. This project has the potential to enhance the care delivery mechanism of the clinic by giving providers standardized and clinically accepted tools to assess patient risk for development of aberrant behaviors when prescribed opioids for pain; aid providers in their ability to recognize aberrant behaviors in patients taking opioids to take note of aberrant behavior; and how to properly implement intervention techniques in patients with aberrant opioid-related behaviors.

Author(s):

Surekha Appikatla, MPH, Data Informatics Specialist, A.T. Still University
CP14 - Outcomes from a Medical Home For Patients with Substance Use Disorders housed within an FQHC

Poster Type: Innovation

Category: Behavioral Health Services

Issue or Challenge: Many FQHCs are doing SBIRT as we are as well. In 2017, our FQHC started an integrated substance use treatment program that provides patients with primary care services, medication assisted treatment, psychiatric services, group and individual therapy in a comprehensive FQHC. Our FQHC also collaborated with the local ED to develop an addiction stabilization center that centralizes expertise for addiction emergencies 24/7. Upon discharge they are offered treatment at our FQHC across the street to receive comprehensive services for this life-long illness in our FQHC. We did this to face this crisis with a focus on population health.

Description of Innovation: During 2017, our community was hit hard by the opioid epidemic. There were very few evidence based treatment options in the public health sector. We developed an evidence based treatment program in addition to SBIRT to provide life-saving treatment with buprenorphine/naloxone as soon as patients were ready to reduce overdose rates and increase retention rates for chronic management. Since the program lives within primary care, all patients see primary care while being required to get infectious disease labs like hepatitis c, HIV and syphilis. Many of these patients have not had basic medical care for many years. Patients also had same-day access to mental health care with psychiatry and an assigned therapist. This can all occur in "one stop" so to model motivational interviewing and harm reduction strategies that have been proven to retain people with this condition. Social determinants of health are also addressed. For example, we developed a contract with Circulation, a medical transport service that gets people to and from the appointments as to eliminate transportation as a barrier. Administratively, workflows and policies and procedures were developed from scratch as few programs had attempted to combine the EBM into a comprehensive outpatient model in a public health setting. Developing the community partnerships with a local hospital and fire/rescue were the main challenges in terms of financing the collaboration and contracting but it was achieved with dedicated leadership. Since its inception, ~600 patients have been assessed and ~225 are active. It is sustainable and effective.

Impact or Result: Since its inception, we have been tracking outcomes data using the Brief Addiction Monitor every 3 months. This is a 17 part question that assess functionality after substance use treatment and stratifies the patients as having a "risk score," "protective score" and "use score." The BAM is an attempt to set the standard for an outcome measure other than retention rates (which we follow and is an outcome in other studies), but to also look at harm reduction as an outcome measure. We trend them up to 2.5 years of treatment. Overall, we are seeing protective scores increase, use scores decrease and risk scores decrease but this data is in its early phases. Also, we follow overdoses after starting in the program, hepatitis c treatment and other quality measures. This is serving to
guide quality improvements to our program so that national standard outcomes can be adopted.

**Replicating this Innovation:** Getting started requires dedicated experienced leadership that prioritizes addiction as a chronic medical problem and realizes that FQHCs are the perfect setting for accessible, affordable treatment. Then, an addiction trained psychiatrist should be part of leadership and collaborate with other organizations to develop policies and procedures. Finally, community partnerships to provide a model of continuum of care are essential in getting this program off the ground.

**Author(s):**

Courtney Rowling, MD, Director, Behavioral Health Services, CL Brumback / Health Care District of Palm Beach County, FL
CP15 - Successfully Integrating Substance Abuse Screening Practices into Primary Care to Increase Prevention, Early Intervention, and Treatment Services Among FQHC Patients

**Poster Type:** Innovation

**Primary Funding Source:** SAMHSA

**Category:** Behavioral Health Services

**Issue or Challenge:** As Federally Qualified Health Centers (FQHCs) transition from volume-based to value-based healthcare, FQHCs will benefit by earlier identification of patients who are at risk for substance use disorders (SUDs). Too often, SUD screening is not routine. Rather, screening is triggered only after patient referral to Behavioral Health (BH). This model of care supports treatment goals but misses prevention and early intervention opportunities that can mitigate need for more costly levels of care. To address this issue Health Quality Partners (HQP) launched a five-year, grant-funded initiative for systematically expanding SUD screening and treatment services through primary care integration at five FQHCs.

**Description of Innovation:** In late 2018, Substance Abuse and Mental Health Services Administration (SAMHSA) awarded HQP with a five-year Screening, Brief Intervention, and Referral to Treatment (SBIRT) grant for expanding SBIRT services and delivery capacity among five subcontractor FQHCs. Upon award notification, HQP launched an ongoing series of calls, monthly meetings, site visits, and other communications to assess and address capacity issues and other challenges unique to each FQHC. HQP worked with multiple departments at each FQHC to develop innovative solutions to challenges related to data collection, documentation, and transmittal, patient consent, workflow, inconsistent use of screening tools and scoring results, and staffing issues. During the project’s first year, many of these issues have been successfully addressed. All have implemented or are working toward systematic and universal pre-screening practices and administering the same evidence-based full-screening tools (i.e., AUDIT and DAST-10). Each FQHC’s primary care department has established screening policies and protocols and works closely with their BH department to coordinate care. Healthcare staff report that systematic and universal pre-screening practices in primary care is helping to destigmatize and normalize SUD screening inquiries and is increasing the number of patients they are referring to BH for treatment.

**Impact or Result:** Over a five-year period, this initiative will provide expanded SBIRT services to more than 100,000 patients. To date, all five FQHCs have implemented or expanded SBIRT services and engaged in the following activities: developed integrative SBIRT workflows appropriate for use in primary care settings; instituted policies and protocols for pre- and full-screening patients and systematically documenting results in their electronic health records; developed warm-handoff procedures to BH for patients with positive full-screen results; and integrated GPRA data collection protocols into their workflow. During the first full year of data collection, more than 13,000 primary care patients were pre-screened for SUDs and 416 completed full-screen assessments. A total
of 263 patients received SBIRT treatment for mild to severe SUDs, i.e., Brief Intervention (34 percent), Brief Treatment (23 percent), or a Referral to Treatment (43 percent). Twenty-three providers also attended HQP’s Buprenorphine Waiver Training enabling expanded MAT services capacity at their FQHCs.

**Replicating this Innovation:** HQP plans to support its network of member health centers in expanding SBIRT services. HQP compiles an annual process and outcome report that evaluates programmatic objectives and documents best practices and lessons learned from SOS project staff, including resolving workflow issues and increasing staff engagement across departments. These reports are disseminated to key stakeholders through in-person presentations, quarterly newsletters, and key indicator dashboards.

**Author(s):**

Laura Stanley, PhD, Program Evaluator, Health Quality Partners
CP16 - The Impact of a Student-run Free Clinic on the Dermatological Health of an Uninsured Patient Population in Norfolk, Virginia

Poster Type: Research

Category: Expanding Access to Care and Other Services

Research Objectives: This research aims to highlight the significant need for improved access to dermatological screening and follow-up for individuals without health insurance. This analysis also aims to identify the demographics of Eastern Virginia Medical School's HOPES Dermatology Clinic. Analysis of diagnoses, procedures, and follow-up rates are also investigated.

Study Design/Methods: Data was collected using the HOPES Practice Fusion electronic medical record “Chart Reports” tool to create a query for total dermatology visits from 2012-2019. This data was recorded without personal identifying information. The variables recorded are as follows: Patient Record Number, service date, age, Spanish-speaking (yes/no), English-speaking (yes/no), medications prescribed, cryotherapy performed (yes/no), biopsy performed (yes/no), excisions performed (yes/no), KOH prep performed (yes/no), steroid injection performed (yes/no), recommended follow up (yes/no), did follow up occur if recommended? (yes/no), was a referral outside of HOPES made? (yes/no), and diagnoses.

Principal Findings and Quantitative/Qualitative Results: 215 total patients were provided dermatological care at HOPES (19 Spanish-speaking and 194 English-speaking). The median age was 50 years old. 321 diagnoses were made, indicating many patients had multiple diagnoses. The most common diagnoses include atopic dermatitis (26), seborrheic keratosis (21), and acne (17). 28 skin cancer diagnoses were made: 13 basal cell carcinomas, 8 squamous cell carcinomas, 1 case of melanoma, and 1 case of nonmelanoma skin cancer. 101 medications were prescribed; steroids were the most prescribed. 24 cryotherapy procedures, 27 biopsies, 9 excisions, 5 KOH preparations, and 14 steroid injections were performed. The follow-up rate was 78%.

Conclusions on Impact on Health Centers: This project provided a better understanding of the HOPES Dermatology patient population including demographics, diagnoses, medications, services, and follow-up rate. The significant number of skin cancers diagnosed emphasizes the need for continued education about sun-protective behaviors. More research needs to be done to improve the follow-up rate. Factors that should be considered as barriers to follow up may include access to transportation and clear provider-patient communication about the importance of continued care. 10% of the HOPES dermatology patient population is Spanish-speaking. In order to provide equity, verbal and written education in Spanish should be emphasized and implemented using skilled interpreters.

Author(s):

Erin Bartholomew, MD, Class of 2022, Eastern Virginia Medical School
CP17 - A targeted patient navigation program for follow-up colonoscopy after abnormal fecal testing in a community health center setting

**Poster Type:** Research

**Primary Funding Source:** National Cancer Institute

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

**Research Objectives:** To test the effectiveness of a targeted patient navigation program for follow-up colonoscopy after an abnormal fecal test result in a community health center setting

**Study Design/Methods:** PRECISE is a patient-randomized trial of patient navigation vs usual care for follow-up colonoscopy that will enroll 1,200 patients across 28 community health center clinics (anticipated 37% Latinx). As part of the study, we trained a bilingual patient navigator using an intensive 8-week program, based on the New Hampshire Colorectal Cancer Screening Research Program. The program included multi-day trainings on CRC screening, colonoscopy, patient navigator skills, the phone-based navigation protocol, data tracking, motivational interviewing, script review, and in-person meetings with local gastroenterology offices. We present patient-reported barriers to follow-up colonoscopy and qualitative findings from interviews with patients who received navigation.

**Principal Findings and Quantitative/Qualitative Results:** To-date, 252 patients have been randomized (124 to navigation and 128 to usual care). Common barriers identified during navigation were lack of bowel preparation understanding (89%), fear of procedure or results (24%), appointment or preferred provider availability challenges (16%), not having a companion for the procedure (15%), and transportation (13%). Findings from 12 in-depth interviews with navigated patients (goal = 30) showed that patients reported great value in being able to easily access the navigator for questions and support during key timepoints, such as during bowel preparation; and would use the program again in the future if offered.

**Conclusions on Impact on Health Centers:** CRC screening by fecal immunochemical test (FIT) is an accessible and cost-effective strategy to lower CRC incidence and mortality. However, this mode of screening depends on follow-up colonoscopy after an abnormal FIT result to prevent CRC or find it in early, treatable forms. Unfortunately, half of patients with an abnormal FIT result fail to complete this essential screening component, due to patient and system-level barriers. Patient navigation can provide much needed support for patients to complete the follow-up colonoscopy. This innovative clinical trial highlights the importance of targeted patient navigation to improve CRC screening completion in community health centers.

**Author(s):**

Jamie Thompson, MPH, Senior Research Associate, Kaiser Permanente Center for Health Research
Research Objectives: Since FY13, the proportion of Central American immigrant families crossing the Southwest border relative to unaccompanied children has increased substantially. A retrospective chart review was undertaken to evaluate the need for a redesigned immigrant intake appointment with emphasis on the entire family unit given the recent (2019-20) surge in immigrants.

Study Design/Methods: The surge of Central American immigrants to the US in 2014 brought many new minors (typically teenagers) to Zufall Health Center (ZHC). Based upon their experiences, ZHC clinicians adapted procedures to better serve this population. At that time, the EMR was modified to include questions regarding family structure, country of origin, mode of travel, and new living arrangements. Using this information, the cohort of newly-arrived minors who visited ZHC medical for the first time during FY2019 was then reviewed. The information gathered was evaluated to determine how changing immigration patterns might influence the provision of comprehensive, family-based care at ZHC.

Principal Findings and Quantitative/Qualitative Results: 365 new immigrants, from Honduras, Guatemala, and El Salvador, were seen at one ZHC site (Morristown, NJ) during FY19. Of those with known accompaniment status during immigration (n=286), 82% were accompanied by a family member or friend. This demonstrates a change from Zufall's 2014 experience, in which a majority of new child immigrants were unaccompanied. The guarantor of 28% of these new patients was previously or became a Zufall patient during the evaluation period. The first appointment of all patients peaked in September 2019, in line with the calendar school year.

Conclusions on Impact on Health Centers: Recent trends in Central American child immigration indicate a shift from unaccompanied children (typically teenagers) to family units (frequently with younger children), suggesting a need to redesign the current approach to care. Though recently arrived children are required to visit a healthcare provider to receive school-related physical examinations, the needs and health status – including mental health – of the entire family should be evaluated proactively to ensure the well-being of the family unit. Connections of families to case management, legal, and behavioral services could help mitigate trauma during the immigration experience and address socioeconomic determinants impacting health during the integration process.

Author(s):
Douglas Bishop, MD, Family Medicine Physician, Zufall Health Center
Peter Rentzepis, AmeriCorps Member, Zufall Health Center
Ritesh Karsalia, AmeriCorps Member, Zufall Health Center
CP19 - Bringing MTM to the Patient – Expanding Clinical Pharmacy Services from Clinic to an In-house Pharmacy Setting.

Poster Type: Innovation

Primary Funding Source: BD Helping Build Healthy Communities

Category: Expanding Access to Care and Other Services

Issue or Challenge: Clinical pharmacists manage chronic diseases in many healthcare settings utilizing face-to-face encounters or telemedicine. Underserved patients deal with a unique set of constraints: physical barriers (transportation, time off from work), low literacy, inconsistent technology access, and language and cultural differences. Diabetic patients often miss their numerous medical appointments (doctor, labs, specialists) for these reasons, but most will pick up medications at the pharmacy. The pharmacy is positioned ideally to fill this gap. “Bringing MTM to the Patient” takes elements of a successful clinical pharmacy program and transforms it into a viable medication therapy management (MTM) service in the pharmacy.

Description of Innovation: QueensCare Health Centers is a federally qualified health center with five sites, two of which have a closed-door in-house pharmacy. Many patients are Spanish speaking (60-70%) and have poor literacy or poor health literacy. Our project developed targeted interventions to improve disease knowledge, address adherence and target care gaps. Pharmacy staff (technicians, pharmacists) provided interventions to diabetic patients picking up medications. There were three components: initial trigger, patient assessment, and intervention.

Triggers: We started with the first trigger, then expanded additional triggers:
- Patients picking up any testing supplies (strips, lancets, glucometer)
- Patients picking up any insulin prescription
- Will Call* patients with an elevated A1c (last A1c = 10%)
- Will Call* patients due for A1c (Last A1c = 4 months ago)
*Patients with medications ready but have not picked up yet

Assessment: 2-3 questions asked by pharmacy technician
Examples using first trigger (testing supplies):
- Do you have problems checking your blood sugar regularly?
- Do you know what your blood sugar goals are?

Intervention based on patient responses
Examples:
- Review and demo of testing device and technique

No medication adjustments were made. All encounters were incorporated into pharmacy workflow and documented in a HIPAA compliant app.
**Impact or Result:** Data for over 400 diabetic patients was tracked over 15 months. The average A1c improved from 9.3% to 8.3%. At baseline, less than half of patients had A1c’s less than 9%. This increased to ~2/3.

Approximately 2/3 of patients picking up testing supplies reported they did NOT know their blood sugar goals and 1/3 could NOT use their glucometer correctly. Blood sugar goals were reviewed with patients and colorful stickers with their goals were provided in English and Spanish. In-depth, hands on glucometer training was provided and the patient must demonstrate successful technique before leaving.

Slightly more than half of patients picking up insulin prescriptions admitted they skip injections. The pharmacist provided individual consultation addressing the patient’s reason for missing injections.

We also developed a process to cross reference will call patients (medications ready but not picked up yet) with clinical databases to address overdue A1c labs.

**Replicating this Innovation:** Other pharmacies (retail, independent) can easily replicate our program. The targeted interventions are simple yet address common barriers to diabetes control (competent self-monitoring, medication adherence and timely labs). Interventions do not include high risk interventions such as prescribing new medications or dose adjustments. Community health center support staff such as nurses or community health workers can also provide similar interventions. Our program increases access to care and data show improved clinical outcomes. Our interim results have already been shared at a California Right Meds Collaborative training and will be shared with the Community Clinic Association of Los Angeles County.

**Author(s):**

Cecilia Wu, PharmD, Clinical Pharmacist, QueensCare Health Centers
CP20 - Using Digital Health Coaches to Reach and Impact African Americans with Type 2 Diabetes: A Real-World Study

Poster Type: Research

Category: Expanding Access to Care and Other Services

Research Objectives: African Americans are disparately impacted by Type 2 Diabetes (T2DM). Diabetes self-management support services can help disparately impacted individuals sustain positive coping skills and behaviors. This real-world retrospective study aims to explore the feasibility and impact of a virtual support program to complement clinic-based services for African American populations.

Study Design/Methods: African Americans with T2DM enrolled in a 12-week digital health coaching program including phone, email and text communications with a Health Advisor. Advisors facilitated goal setting, addressed self-management barriers and provided care coordination as needed. Feasibility was assessed using engagement metrics (retention, frequency, call length). A retrospective analysis assessed changes in self-reported HbA1c and Patient Reported Outcomes (PROs) from baseline to 12-week follow-up. PROs included overall physical and mental health, medication adherence, health self-efficacy and diabetes distress evaluated using validated instruments (PROMIS Global 10, CASE, HSE, DDS2). Descriptive statistics and paired t-tests were used to calculate frequency changes and significance.

Principal Findings and Quantitative/Qualitative Results: To date, 415 African Americans enrolled, of which 277 (67%) were retained. On average, participants received 13.75 calls and 43.1 text messages, yielding an average engagement of 252 minutes with 14.16 minutes spent per call. There were improvements in HbA1c, physical and mental health, medication adherence, health self-efficacy and diabetes distress (p<0.0001 across all metrics). HbA1c decreased by 0.54% (pre: 7.74 – post: 7.2%). PROMIS physical and mental health scores increased by 3.3 (pre: 44.59 – post: 47.89) and 3.26 (pre: 48.16 – post: 51.42) respectively.

Conclusions on Impact on Health Centers: Findings suggest that digital health coaching could be a feasible approach to engage and positively impact African American individuals with T2DM. Patient-reported clinical metrics and outcomes demonstrate the potential effectiveness of this approach in improving glycemic control, overall physical and mental health, health self-efficacy and medication adherence. This approach could be used to effectively expand patient access to support services outside of the community health clinic setting, and complement care and education provided within clinics. Additional research is needed to understand how this approach modifies barriers to self-management, and how Health Advisors can most effectively coordinate with clinics.

Author(s):
Jonathan Patterson, MBA, Data Analyst, Research, Pack Health
Megan Martin, MPH, Director, Strategic Partnerships and Programs, Pack Health
Dhiren Patel, PharmD, Vice President, Pack Health

T.R. Wilson, MS, NBC-HWC, Senior Health Advisor, Pack Health

Matt Allison, MS, Director, Research, Pack Health
CP21 - CHWs as integral patient care team members in promoting asthma self-management through health-center and home-based interventions

**Poster Type:** Innovation

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

**Issue or Challenge:** In the Bronx, age adjusted asthma mortality rate in 2015 was nearly three times higher in the Bronx than in NYC overall per 100,000 (3.9 vs. 1.8). Asthma hospitalization among youth and adults in the Bronx is 28.3 per 10,000 residents which is double the rate in NYC (11.4 per 10,000). Many hospitalizations for asthma can be prevented by addressing home based asthma triggers, including cockroaches, mice, second hand smoke, dust mites and pets. Enhanced medical management of asthma coupled with trigger remediation, and better self-management techniques have been proven to make a significant impact.

**Description of Innovation:** In 2019, Bronx Community Health Network launched a pilot Community Health Worker (CHW) led asthma home-based program to reduce exposure to home-based triggers and promote asthma management among patients at a community health center in the Bronx. One year later, the program has been replicated to another health center.

**Impact or Result:** Community Health workers have offered the program to 605 patients: 532 (88%) received asthma education; 119 (22%) of patients who CHWs educated, expressed interest in the home visit component of the program; 98 (82%) of those who expressed interest in home visit scheduled home visits; and 53 (54%) of those with home visit schedule completed at least one home visit with 81% (44) qualifying for referrals to comprehensive Integrated Pest Management services.

**Replicating this Innovation:** BCHN has developed a model of integration that can be seamlessly replicated at any organization with the appropriate resources. After piloting at one community health center for 7 months BCHN successfully replicated the program at another health center serving an expanded population. Leveraging existing resources to facilitate Asthma Educator Certification also equipped BCHN to be subject matter experts to train other organizations working with Community Health Workers to address asthma.

**Author(s):**

Damiris Perez, MPA, Grants and Program Developer, Bronx Community Health Network
CP22 - Enabling Factors and Barriers to Successful Referral Outcomes from CHWs’ perspective

Poster Type: Innovation

Category: Expanding Access to Care and Other Services

Issue or Challenge: Health disparities remain widespread when compounded with unmet social needs such as food insecurity, housing instability and unemployment. CHWs’ unique roles contribute to increasing access to health services, promoting health education, improving care coordination and addressing Social Determinant of Health (SDH) needs. Deploys its community health workers (CHWs) at multiple health centers. The CHWs are seamlessly integrated into the health center teams. CHWs facilitate patient referrals to community resources based on social needs and tracked by the care team members using a robust electronic referral database.

Description of Innovation: Bronx Community Health Network (BCHN) deploys competent and caring Community health workers (CHWs) throughout BCHN supported health centers to serve as a bridge between the patient/client population and the clinical and social service providers in collaboration with the patient care team. CHWs can serve as an integral member of patient care team to successfully refer patients with social needs to community resources and improve the outcomes of such referrals. Some of the barriers to accessing health and social services are lack of awareness of resources; inability to pay for services; fear of deportation; transportation barriers and inability to navigate systems.

Impact or Result: In 2019, 3,820 patients with social needs were referred to CHWs. 63% (2387) of these patients were referred to community resources. 57% of those referred reported successful social service uptake.

Replicating this Innovation: BCHN deploys competent and caring CHWs throughout BCHN supported health centers to serve as a bridge between the patient/client population and the clinical and social service providers in collaboration with the patient care team. This initiative can be replicated in other organizations.

Author(s):

Damiris Perez, MPA, Grants and Program Developer, Bronx Community Health Network
CP23 - Innovation Poster: The All of Us Research Program and Bridging the Digital Divide through an Innovative Approach

**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, NIH aims to enroll one million or more individuals through a digital platform. Many patients do not have or are not fully comfortable with the use of technology such as computers, smart phones and internet, thereby making it difficult for them to utilize technology for communication with health providers or participate in a digital research program like AoURP.

**Description of Innovation:** Digital and health literacy is an important aspect of the AoURP. Since AoURP is a digitally based program, there was an identified need to provide education and assistance to the health center population. Open Door Family Medical Center has addressed the digital divide by developing a robust community-based program that offers free, bilingual, one-on-one digital literacy classes to patients and community members. During these classes, students learn how to purchase low-cost mobile devices and internet as well as how to navigate online resources, such as email, EHR patient portal, AoURP, and job searching.

Offering one-on-one digital literacy classes by appointment has proven to be very effective, as it allows staff to tailor their teaching to each student’s digital literacy level, learning style, schedule and goals. Open Door has also extended its services to community members by holding digital literacy office hours at public libraries, a local senior center and other partner sites. To structure the teaching of the classes, Open Door has developed a comprehensive checklist, curriculum and online resource guide to assess, improve and address barriers to students’ digital literacy, while tracking their goals and progress over time in the path to become fully independent in our digital world.

**Impact or Result:** During the two years of HRSA APM, the health centers have provided over 98,000 brochures, posters and talking points. The health centers had over 85,000 human touch interactions. This consists of face to face engagement, information sessions and community events. Over 610,000 communications with patients and the community through email, phone, text, web advertisements, TV and patient portal. Patients provided feedback about digital literacy training. It is described as "extremely helpful," "life-changing", "empowering" and "convenient".

From April 16, 2019 to January 31, 2020, Open Door (OD) handed out 3806 All of Us Brochures (1033 to patients and 2773 to community members/non-Open Door patients) and had 1602 unique face-to-face encounters with individuals about the Program (701 patients and 901 community members/non-OD patients). From November 25, 2019 (the launch of Open Door’s digital literacy program) to January 31, 2019 (the launch of Open Door’s digital literacy program) to January 31, a total of 81 personalized computer classes were offered to 47 unique patients.
Replicating this Innovation: In an effort to replicate successful approaches for promoting digital literacy, HRSA APM health centers have been regularly exchanging resources, best practices and challenges through a mix of structured and unstructured meetings online. Open Door’s comprehensive, one-on-one approach for promoting digital literacy could be replicated in other medical centers via standardized train-the-trainer sessions that would allow other medical centers to tailor Open Door’s curriculum and online resources to their unique patient populations.

Author(s):

Mariella While-Dart, RN, BSN, MEd, Health Care Consultant, MITRE Corporation

Denise Sun, MSW, Public Health Consultant, MITRE Corporation

Andres Castillo Quintana, Program Coordinator, All of Us Research Program, Open Door Family Medical Center,

Andrea Ruggiero, MPA, Senior Director of Care Coordination and Wellness, Open Door Family Medical Center
CP24 - All of US Research Program: Assessing Digital Challenges on Participant Completion of Online Surveys.

Poster Type: Research

Primary Funding Source: National Institute of Health

Category: Patient and Community Engagement

Research Objectives: The All of Us Research Program’s mission is to advance the science of Precision Medicine and ensure that everyone shares its benefits. It also seeks to maximize effectiveness by considering individual variability in genes, environment, and lifestyle. Cooperative Health was selected to participate in this National Research.

Study Design/Methods: Inclusion criteria: An active Patient of Cooperative Health, age 18 and older with decisional capacity to consent. Enrollment process included digital completion of portal account creation General Consent, EHR consent, and basic surveys, Physical Measurement and Bio-specimen collection. A Gift card is provided for participation. After 90 days of enrollment, participants receive a notification (email/text) to complete new online surveys using tablets, smart phones or computers. That information is relevant and necessary for Scientific Research Studies. This project is aimed to assess challenges encountered with the use of digital components in the Research Program of a Community Health Center.

Principal Findings and Quantitative/Qualitative Results: As of December 31, 2019, a total of 1468 participants were enrolled and eligible to complete New Online Surveys. When analyzing the preliminary results, data showed that 42% completed online surveys. 75% learned about the new surveys in the Clinic during a provider visit and completed with assistant from program staff. 85% required resetting their password and 60% security questions, both with assistance. Black/African-Americans completed surveys in a 36% rate, Hispanics 56% and whites 7%. An average of four types communications were made before completion of the surveys. 35% of the participants changed the communications preference from email to text.

Conclusions on Impact on Health Centers: The All of Us Research Program at Cooperative Health continues enrolling participants with four clinical sites. From 1,468 participants enrolled (up to December 31, 2019), the majority (85%) needed assistance/facilitation completing the online surveys. 75% completed online surveys during their provider visit. Resetting passwords and security questions were the most frequent issues (85% and 60%, respectively). Some participants preferred Text over Email as a communication tool (35%). New strategies for successful survey completion have been recently implemented. However, further evaluation will be needed at a later time.

Author(s):

Carolina Rodriguez-Cook, Engagement and Outreach Research Coordinator, Cooperative Health
CP25 - Centralized Opioid Management and Behavioral Approaches to Treatment (COMBAT)

**Poster Type:** Innovation

**Category:** Public Health Crises

**Issue or Challenge:** Opioid use disorder (OUD) is a chronic disorder with potential consequences including disability, relapse, and death. Opioid overprescribing negatively impacts patients and increases the risk of physician licensure revocation. AltaMed, the largest federally qualified health center in Southern California, identifies over 150 patients for problematic opioid prescribing on a monthly basis. Consistent with CURES, criteria include multiple providers prescribing and over three months of opioid therapy. To ensure that evidence-based guidelines are followed consistently, the AltaMed Institute for Health Equity launched the Centralized Opioid Management and Behavioral Approaches to Treatment (COMBAT) initiative in 2018 by braiding complementary grant funding streams.

**Description of Innovation:** Since 2018, the AltaMed Institute for Health Equity developed the infrastructure of complementary funding streams, capitalizing on funding from two Sierra Health Foundation grants, a CVS/NACHC grant, and four grants from the Health Resources and Services Administration. COMBAT is a multipronged approach addressing barriers to delivering and accessing OUD services in primary care settings. The initiative leverages funding to increase capacity for OUD services including Medicated Assisted Treatment (MAT), train a growing cohort of X-waivered physicians, fund pharmacy support, and reduce patient barriers to treatment, including financial support for transportation and medication. AltaMed has internally invested in personnel time and fostered support across clinics. These resources were used to pilot two models of care: MAT on Demand and Chronic Pain Clinics. The framework has facilitated the development of structural goals including the prevention of new opioid misuse cases through safe prescribing, avoidance of opioid deaths through harm reduction including Naloxone and Buprenorphine prescriptions, treatment of OUD with MAT, and implementation of a “no wrong door” care program for patients with chronic pain and other chronic conditions. Stakeholders are exposed to the larger COMBAT goals, decreasing organizational silos and increasing collaboration to standardize best treatment practices for both providers and patients.

**Impact or Result:** From December 2017 to March 2018, AltaMed had one Naloxone prescription. From December 2018 to March 2019 there were 132 Naloxone prescriptions and the number continues to rise. Since program inception, nine providers have received their X-Waiver. Each year, four providers are supported through X-Waiver training and mentored on MAT services implementation to increase capacity. Each provider can manage 30 MAT patients in their first year and apply for a larger patient load in following years. In 2019, capacity for MAT patients rose to 120 patients compared to no capacity prior to program implementation. This initiative has successfully leveraged collaboration across departments to dedicate hour-long physician schedule blocks for MAT walk-in patients. COMBAT has also resulted in the refinement of high-risk opioid use criteria; identification of physicians with high-risk prescribing patterns; development of opioid
stewardship policies and procedures, workflows, scripts, referral pools and resources in EPIC; and building internal/external partnerships.

**Replicating this Innovation:** The AltaMed Institute for Health Equity envisions expanding COMBAT into a patient-centered, “no wrong door” OUD continuum of care that organizes treatment and support services at a pace that matches the patient’s level of readiness. This model will enable FQHCs to build departmental collaborations to expand OUD services and optimize the delivery MAT services in an integrated primary care setting to ensure that those who need it most can access it. The goal is to transition from grant funding to internal investment of the program. COMBAT is in early stages of development but provides important lessons learned for other organizations.

**Author(s):**

Marisol Frausto, MPH, Project Coordinator, AltaMed Health Services

Qiana Montazeri, MPH, Program Manager, AltaMed Health Services

Indira Sanchez, Grants Manager, AltaMed Health Services,

Aisli Valencia, Community Health Fellow, AltaMed Health Services

Rosa Argueta, Community Health Fellow, AltaMed Health Services
CP26 - Maintaining Access to Family Planning Services During a Pandemic: Drive through DMPA

Poster Type: Innovation

Primary Funding Source: Title X Subcontract

Category: Public Health Crises

Issue or Challenge: When COVID-19 struck the Denver metro area in March 2020, Denver Health (DH) adapted quickly. We limited face to face appointments, except for essential services, and began serving patients using telehealth methods. As an organization, we deemed some services as essential, including OB care, Well Child care and Family Planning services. Many family planning services cannot be offered via telehealth, including LARC procedures, Depo Provera injections (DMPA), and STI testing. In an effort to protect staff and continue to serve patients, we devised methods to continue to provide essential services while minimizing face to face contact.

Description of Innovation: DH implemented multiple changes to the delivery of family planning services to meet patient needs during this uncertain time. One innovation was a “Drive up Depo” workflow implemented at eight community health clinics. As a Title X recipient we house a robust family planning program integrated in Family Medicine, Pediatric, and Women’s Care clinics. Our program includes health educators at each site that provide extensive family planning counseling and services. This team was instrumental in both outreach and implementation efforts.

Key steps included:

• Designing a “drive up” DMPA workflow that mirrored a typical DMPA visit, with telehealth counseling and administration of medication while patients remained in their car
• Workflow approved by nursing and medical leadership
• Piloted workflow at one clinic with a limited schedule of patients over two days, with adaptations based on participant and patient feedback
• Changes to policies to support new workflow including initiation of method for new patients via telehealth, and acceptance of home UPT for patients late for DMPA
• Reviewed new workflow with clinic leadership and health educators and tailored it to work with their specific clinic setting.
• Simultaneous outreach efforts included:
  • Communication via EPIC My Chart to all patients (12-45 years) on how to access family planning services during COVID-19
  • Social media ads across Denver to inform the community that DH continues to provide Family Planning Services
  • Updated messaging on DH Family Planning website
  • Telephone outreach to current clients receiving DMPA injections

Impact or Result: We piloted this program at one site shortly after developing the workflow and then implemented it at all of our Family Planning sites. At a time when many clinics
were forced to stop offering certain methods and services, this innovation allowed us to continue to provide this method of contraception in a safer way, decreasing risk of exposure to COVID-19 for both staff and patients. Between March 23, 2020 and April 10, 2020 there were 141 DMPA visits, majority of which used the new workflow. We received an overwhelming amount of positive feedback about the new workflow. Staff felt safer providing services telephonically and patients highlighted the convenience and safety of the adapted service offering. By mirroring the in person DMPA workflow as much as possible; this innovation did not require any staffing changes. Due to adjustments in health plan coverage during the pandemic we continue to bill normally.

**Replicating this Innovation:** This is straightforward if you already have systems in place to implement telehealth services and deliver “drive by” services.

**Author(s):**

Lucy Loomis, MD, MSPH, FAAFP, Director of Family Medicine, Denver Health

Sarah Warsh, RN, WHNP, WHNP, Family Planning Clinical Coordinator, Denver Health and Hospital Authority
CP27 - All Hands on Deck: Combatting Diabetes and Hypertension Takes a Team

Poster Type: Innovation

Category: Quality of Care and Quality Improvement

Issue or Challenge: In 2016, Coastal Family Health Center served 29,480 patients. Of those, 3,179 patients (10.8%) are diagnosed with diabetes and hypertension. Patients with both conditions and having at least one uncontrolled total 1,002, comprising 31.5% of those diagnosed. In Gulfport alone, one of CFHC’s largest and busiest sites, 471 patients are identified as having both hypertension and diabetes with 181 (38.4%) having at least one of condition uncontrolled. The program encompasses all patients of our Gulfport clinic who have a dual diagnosis of hypertension and diabetes, of which, one or both diagnoses are uncontrolled.

Description of Innovation: The focus of the All Hands on Deck program is improvement in clinical processes and health outcomes for patients with hypertension and diabetes. The program includes the integration of a pharmacist in the care team. CFHC has adopted and invested in the team approach based on the two key concepts of population based care and treatment planning to achieve improved outcomes. The major components of the program include medication therapy management, care coordination, behavioral health, nutrition counseling, and outreach. Medication therapy management (MTM) offered by the clinical pharmacist is the newest component to be added to the health care team. The MTM program will be a standard of care for all dually diagnosed patients, and one diagnosis uncontrolled. The pharmacist conducts a medication review to determine current medications, side effects and reactions, and creates a plan in collaboration with the team to address the findings. MTM will be conducted during the medical visit.

Impact or Result: The reporting period for the program spanned from October 1, 2017 to September 30, 2019. With the implementation of the program, there was a 6% increase in the number of patients with an A1c measuring less than 9%. For patients with uncontrolled blood pressure and/or hypertension, a 5.7% increase of patients with blood pressure less than 140/90 were measured. Medication adherence and reconciliation and the use of the approved formulary was measured to be a 6% increase since the inception of the program.

Replicating this Innovation: The use of the team-based approach and provider/patient buy-in is essential to the success of this program. To replicate this program, sufficient time and resources need to be available to support the development of a solid multi-disciplinary team. The commitment to the redesign must begin at the top, from governance and the executive management. As a community health center, identifying revenues to support an expanded team and services which aren’t billable under current reimbursement methodologies may prove difficult. Identifying other profit centers, reimbursable services, cost savings in other areas to support the additional staff may be needed. Identifying partnerships with area academic institutions, research institutions, and even state agencies or behavioral health providers is advisable. Redesigning the health care delivery
system is not a short-term goal with short-term gains. It is a paradigm shift that requires commitment, patience, and resources. Start small and grow organically is key.

Author(s):
Racheal Butler, PharmD, Director of Pharmacy Services, Coastal Family Health Center
CP28 - Integrating Continuous Quality Improvement with Health Center Based Events

Poster Type: Innovation

Category: Quality of Care and Quality Improvement

Issue or Challenge: Care For the Homeless's business model integrates our internal Continuous Quality Improvement (CQI) data and goals and our Population Health events in order to provide patient-centered, evidence-based care to a socially and medically complex population. We use this model to identify gaps in preventative health services, and engage a population that disproportionately relies on emergency care in preventative screenings.

Description of Innovation: Through this model we use a data informed approach to population-wide outreach, engagement, education, and care. Our CQI goals are tracked closely using the Center for Primary Care Informatics (CPCI) platform, which allows us to monitor real time progress on a site by site basis. CQI information is shared with our Population Health Management Team and drives the focus of site-based health events. These events bring focus to a health topic among the patient population and generate a high volume of provider visits and education specific to that topic. Outcomes from these events are tracked, and through CPCI we can measure changes in our CQI measures following Population Health events. These CQI driven events include enhanced outreach, patient engagement, and education on a health topic, such as diabetes, immunizations, or heart disease. Patients are seen same day by a provider for a screening and/or visit related to the selected topic, for example a point of care A1C test and a nutrition visit for a diabetes focused event.

Impact or Result: CQI-driven Population Health Events have shown to increase the number of daily clinic visits; on average there is a 91% increase in the number of billable visits at a health center during a Population Health Event, as compared to a day without an event. Population Health events also increase the number of screenings measured through quality indicators. For example, an internal CQI indicator is the percent of eligible patients who receive a cervical cancer screening. In January 2019 the Population Health team hosted two cervical cancer screening events, and in the month of January there was a 36% increase in the number of cervical cancer screenings conducted as compared to December 2018. Between July and December 2019 the Population Health Team hosted six childhood immunization events, and in this same time period we saw a 14.3% increase in the Childhood Immunization Status measure.

Replicating this Innovation: Our Population Health events follow a Patient Centered Medical Home model; they are data driven, patient-centered, and use a team-based approach, integrating the Population Health, clinical staff, Outreach Specialists, and the CQI team. Using these principles, other organizations can host similar events based on the needs of their patient population.

Author(s):
CP29 - Pharmacist-led ICS de-escalation in non-asthmatic adults with COPD in a primary care setting

Poster Type: Research

Category: Quality of Care and Quality Improvement

Research Objectives: Latest guidelines recommend to de-escalate inhaled corticosteroids (ICS) in Chronic Obstructive Pulmonary Disease (COPD) patients due to possible lack of benefit and increased adverse effect risk if eosinophil blood counts (EOS) <100 cells/uL. The study’s purpose is to assess pharmacist-provided recommendations for an EOS test and the corresponding medication changes.

Study Design/Methods: This IRB-approved prospective study involved retrospective chart reviews for COPD patients 18 years or older, with no current or previous asthma diagnosis, prescribed ICS therapy, seen by a primary care provider (PCP) for COPD between 1/1/2019 – 8/31/2019, and had an upcoming PCP appointment. Lab order recommendations were sent to PCPs for patients needing updated EOS. If EOS <100 cells/uL, PCPs were recommended to order pharmacist COPD management referrals. If referrals were ordered, appointments were scheduled to assess ICS appropriateness as well as other factors affecting COPD management. Data on recommendations, completed tests, and referrals were collected from medical records.

Principal Findings and Quantitative/Qualitative Results: On initial review, 249 patients had EOS on file (including 4 patients with EOS 100 cells/uL, and 24 (39%) did not have their labs drawn. Major reasons for this include patients not presenting for PCP visits, patients not attending lab, and PCPs not ordering labs. All 5 patients with EOS <100 cells/uL were referred and scheduled with the pharmacist, but none presented for their appointment.

Conclusions on Impact on Health Centers: With majority of the recommendations being accepted by PCPs for updated EOS counts, this study does show the impact of a proactive pharmacist intervention on the uptake of new guideline recommendations for COPD management. However, since no patients presented to the pharmacist COPD appointments, we were unable to assess secondary outcomes related to medication changes. Principal findings of the research demonstrate that further education is needed for providers and patients on the importance of EOS counts and the role of pharmacists in COPD medication management.

Author(s):

Shibu Varughese, PharmD, Pharmacy Resident, Ohio State University/PrimaryOne Health

Sha-Phawn Williams, PharmD, Assistant Professor, St. John Fisher College Wegmans School of Pharmacy

Andrew Faiella, PharmD, BCACP, Clinical Pharmacist, PrimaryOne Health
Jangus Whitner, PharmD, Clinical Pharmacist and 340B Program Manager, PrimaryOne Health

Alexa Valentino, PharmD, BCACP, Lead Clinical Pharmacist, Primary One Health
CP30 - Creative Solutions to Postnatal Care: Mom-Baby Dyad Visits in the Pediatric Primary Care Setting

**Poster Type:** Innovation

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

**Issue or Challenge:** Child health and development is inextricably linked to maternal health and wellbeing. However, for a variety of reasons, many women miss their postpartum care appointments and instead prioritize their children’s care. This results in unaddressed postpartum mood disorders and lack of postpartum contraception among other unmet needs that can have negative implications for the entire family. Offering mom-baby dyad visits in the pediatric primary care setting is a patient-centered innovation to improve postpartum care rates by decreasing the barrier of a separate appointment and by integrating infant mental health providers to emphasize the connection between maternal and infant health.

**Description of Innovation:** When newborns are seen for their 2 day weight check visit with clinic nurses, they are offered a mom-baby dyad visits at 2 and 6 weeks postpartum. During dyad visits mothers and babies are seen by a family physician in the pediatrics clinic who can address all postpartum care needs as well as routine well infant care needs. Topics covered include, but are not limited to, breastfeeding, contraception, maternal mood, child development, infant care, and 2 month immunizations. If needed the dyad provider can prescribe contraception and place long acting reversible contraceptives (LARCs) during these visits. All mothers are screened with the Edinburgh Perinatal Depression Scale (EPDS), and whether positive or negative, they are introduced to one of our infant mental health (IMH) specialists for a discussion of the importance of maternal mental health for bonding and child development. The IMH specialist can provide brief therapy and refer to ongoing support as needed. Following the 2 week and 6 week dyad visits, the dyad provider can remain PCP for both mom and baby, or if the family already has a primary care pediatrician for their family and the mom has an adult PCP, they can transition back to those providers.

**Impact or Result:** In the first 18 months of this program we completed 293 dyad visits. The no-show rate for dyad visits was 19.15% compared to 35.31% no-show rate for postpartum visits at the women’s care clinic that is co-located and where women would otherwise be scheduled for postpartum care. During dyad visits 26 contraceptive implants and 28 IUDs were placed. Westside Pediatrics screened 98.7% of all patients for pregnancy related depression, and 75% of those who screened positive had appropriate behavioral health follow up, though these numbers were not for dyad visits specifically. On patient satisfaction questionnaires, 100% of patients surveyed reported being “very satisfied” with the care they and their baby received and being likely to recommend a dyad visit to friends and family. On staff satisfaction questionnaires, staff overall reported very positive feedback despite some initial hesitancy about the program, and feedback by role will be presented in more detail.
Replicating this Innovation: To replicate this innovation in a pediatrics clinic, organizations need a family physician or APP embedded in a pediatrics clinic capable of seeing both postpartum women and children as well as a behavioral health provider comfortable working with postpartum women. The clinic also needs supplies for GYN procedures and training for medical assistants in setting them up. Additionally a routine processes for distributing, reviewing, and entering EPDS questionnaires is necessary. In a family medicine clinic, scheduling women and children together would be an even easier transition as the appropriate medical providers are already present in the clinic.

Author(s):

Haley Ringwood, MD, MPH, Assistant Professor of Family Medicine, Denver Health

Margaret Tomcho, MD, MPH, MBA, Medical Director, Westside Pediatric and Adolescent Clinic, Denver Health

Caitlin Hernandez, PhD, Licensed Psychologist, Denver Health,
CP31 - Under Pressure: Improving Blood Pressure in Adults with Hypertension

Poster Type: Innovation

Category: Quality of Care and Quality Improvement

Issue or Challenge: The percentage of adult hypertensive patients in a Federally Qualified Health Center with controlled blood pressure was below the clinic's goal. The clinic's hypertension metric being measured was the percentage of patients with diagnosed hypertension with a blood pressure less than 140/90 mm Hg.

Description of Innovation: The high rates of uncontrolled hypertension in adults made it clear that there was a need for intervention. The following areas were identified as contributing factors and opportunities for improvement. The interventions were broken into three categories.

Outreach:
Patients with uncontrolled hypertension were often not identified.

The electronic medical record was utilized to review the hypertensive registry. After identifying hypertensive patients the provider reviewed each patient chart to identify those who would be appropriate for further intervention.

Education:
Another area that was identified as an opportunity for improvement was the clinic hypertension educational handout.

The original handout was verbose and difficult to navigate. A new hypertension handout was created, in both English and Spanish, with three simple key points augmented with pictorial examples.

Lack of time during primary care visits to adequately address hypertension was identified as an opportunity for improvement.

A hypertension clinic was established to allow dedicated time with a provider for direct hypertension counseling including medications, diet, and exercise.

Team based practice:
At the end of a prescription for hypertension medication patients were being lost to follow-up and would discontinue their medications. The provider worked with the pharmacy to funnel patients with a diagnosis of hypertension due for refills, or patients not been seen in the past 12 months, to the hypertension clinic. This intervention had the secondary benefit of capturing patients whose blood pressure was controlled but were at risk of developing uncontrolled hypertension.

Impact or Result: The study was divided into 3 time periods: Pre-Intervention, Phase 1, and Phase 2. During the Pre-Intervention phase, the average monthly compliance rate
was 65.1%. During Phase 1, the average monthly compliance rate was 65.3%. During Phase 2, the average monthly compliance rate was 70.0%. While Hypertension Metric compliance rates improved during Phase 1, they eventually began to decrease again. Therefore, a new set of interventions were implemented in Phase 2 with a substantial and continued rise in compliance rates. In the Pre-Intervention phase, the lowest monthly compliance rate was 62.8% immediately prior to the initiation of Phase 1. During Phase 2, compliance rates steadily rose to the highest level of 74.3% during the last measured period.

**Replicating this Innovation:** Many of the interventions utilized can be replicated. Creating a simple hypertension handout that is applicable to the clinic patient population is a first step. The previous hypertension handout was verbose and patients found it challenging to understand. We spoke with many patients to get their input during the development of the new patient hypertension handout. We also utilized easily replicable registries for outreach. The EMR was a useful tool to quickly evaluate the clinic population that needed further intervention. Creating hypertension specific visits allowed time for direct patient counseling and education around hypertension. The coordination with pharmacy was also critical in capturing patients due for refills. The development of useful educational material, leveraging of the EMR, formation of a condition-specific clinics, and the use of team-based practice models can all be translated to a variety of settings.

**Author(s):**

Ashley Turner, ANP-BP, RN, Nurse Practitioner, Denver Healthy and Hospital Authority
CP32 - Integrating a Lending Home Blood Pressure Monitoring Program in Hypertension Management

**Poster Type:** Innovation

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

**Issue or Challenge:** White coat syndrome, masked hypertension (HTN), and poor technique may produce inaccurate office-based blood pressure (BP) readings and lead to over diagnosis and over treatment with antihypertensive agents. National and international HTN guidelines along with the US Preventative Services Task Force recommend using home BP monitoring in conjunction with office readings for HTN diagnostic and/or treatment evaluation.

To ensure accurate diagnosis and appropriate medication management, our community health center’s Adult Medicine department integrated a loaner home BP monitoring program with office based HTN management. This report details the program from 2016 through 2019.

**Description of Innovation:** The loaner home BP monitoring program is an innovation to support primary care providers in their decision making while engaging patients in their health monitoring. Seeing that primary care providers are often faced with limited time and competing priorities, our clinical pharmacist developed a home lending BP monitoring program to collect blood pressure readings that better reflect a patient’s actual condition. Having the more accurate readings followed up in a later appointment allowed providers to maximize their clinical judgment and adjust treatment options accordingly. Incorporated in the program are BP medication refill histories from the patient’s pharmacy to evaluate BP medication refill adherence.

The program began with a few providers but expanded to all providers in Adult and Family Medicine departments and is currently an integrated part of HTN management in the health center.

**Impact or Result:** From 2016 through 2019, 253 patients were referred for either HTN diagnosis confirmation (n=113) or for BP medication management evaluation (n=140). For those patients referred for HTN diagnosis confirmation, 30 patients were confirmed to have HTN (average clinic BP 150/88; average home BP 142/88) and 83 patients did not have HTN (average clinic BP 144/85; average home BP 126/81). For those patients referred for BP medication management evaluation, 39 patients had medications adjusted or added (average clinic BP 158/92; average home BP 143/88) and 101 patients did not have their BP medications adjusted (average clinic BP 148/82; average home BP 133/80). These data suggest that integrating home BP monitoring in office-based BP management is clinically important and may have impact ensuring HTN diagnosis accuracy and appropriate medication use.

**Replicating this Innovation:** Important features to any home blood pressure loaner program includes using validated meters (preferable with an AC adapter rather than batteries),
direct patient instruction on how to use and document multiple readings over several days, ensuring patient engagement through disease and results education, and defining a pre-determined method how the results are relayed to the provider for evaluation. We have found that having separate office visits from the primary care provider and defined clinical staff to facilitate the program has resulted in a sustainable program, allowing us to expand from Adult Medicine to Family Medicine.

Author(s):

Michelle Jacobs, PharmD, CDE, BCACP, Assistant Clinical Professor, Northeastern University

Julie Crosson, MD, Internist, DotHouse Health

Do Quyen Pham, MPH, Quality and Reporting Coordinator, DotHouse Health,
CP33 - Healthy Eating and Living Spiritually (HEALS) Community Project: Reducing the Incidence of Hypertension, Cardiovascular Disease & Obesity - WITHDRAWN

Poster Type: Innovation

Category: Social Determinants of Health

Issue or Challenge: According to the latest Community Health Status Assessment from the Norfolk Department of Public Health, Norfolk currently faces higher rates of adult obesity (31%) and physical inactivity (25%), when compared to other regions of Virginia (27% and 22%, respectively). With higher rates of obesity and physical inactivity, community members within Norfolk may unfortunately be at higher risk of developing chronic diseases, such as hypertension and cardiovascular disease. As an innovative solution on preventative healthcare, our Healthy Eating and Living Spiritually (HEALS) Project aims to identify food deserts within Norfolk and educate community members about proper nutritional and exercise habits.

Description of Innovation: As a broad overview, the Healthy Eating and Living Spiritually (HEALS) Project aims to identify food deserts within Norfolk and educate community members about proper nutritional and exercise habits. Our project initially involved identifying low-income communities located within food deserts, defined as being located greater than 1 mile from a designated grocery store. We aimed to identify communities at-risk for developing or that already have a high prevalence of chronic disease by using data provided by the Norfolk Department of Public Health. After, we initiated community health fairs by partnering with community health centers for appropriate venues and spreading awareness through public channels. Healthcare providers and students from multidisciplinary health education programs were recruited to provide basic screenings and educate community members about how to properly interpret nutrition labels or distinguish healthier food options, for example. By utilizing a “Teach Back” approach to reaffirm understanding, we empowered individuals to become leaders and then similarly educate others in their families and local neighborhoods. Through these efforts, the HEALS Project aims to break the perpetuating cycle of poverty and poor healthcare outcomes and reduce the incidence of chronic diseases, such as hypertension, cardiovascular disease & obesity, within Norfolk, Virginia.

Impact or Result: As of February 2020, we have held 3 health fairs thus far. Of the 62 participants, 46 (74%) responded to our survey that assessed perception of our healthcare education sessions. The top responses of “agree” or “strongly agree” were: (1) 89% to “My understanding of proper nutrition and exercise habits has improved”; (2) 83% to “I will teach others about what I have learned today”; and (3) 80% to “I will engage in healthier habits by eating better and exercising more.” Overall, the responses indicate a positive perception of our innovative project. We plan to collect more objective data that evaluates the incidence of hypertension, cardiovascular disease & obesity, among other chronic diseases, over a longer time period. From the results, we look favorably towards addressing our initial challenge of impacting Norfolk’s high rates of obesity and physical inactivity.
Replicating this Innovation: Our basic innovative structure provides high feasibility for adoption. The biggest hurdle lies in identifying food deserts and at-risk communities but may be overcome by partnering with an institution with a Public Health Department. Other details, including identifying an appropriate venue or recruiting volunteers, depends upon establishing connections with healthcare institutions and local community organizations. The aim of our project is to develop sustainable habits, which involves investing in community members to educate themselves and their families & neighbors about proper nutritional and exercise habits.

Author(s):

Daniel Mai, Medical Student, Eastern Virginia Medical School
CP34 - Medical Spanish and Health Literacy: Community-Based Efforts in Improving Dietary Habits across the Hampton Roads - WITHDRAWN

Poster Type: Innovation

Category: Social Determinants of Health

Issue or Challenge: The Hampton Roads of Southeastern Virginia currently serves as home to a rapidly growing population of immigrants and families from Spanish-speaking countries, many of whom lack healthcare insurance and access to medical care. Consequently, the Spanish-speaking population of the Hampton Roads is more susceptible to developing chronic diseases, such as hypertension, diabetes, cardiovascular disease, and obesity. To address this issue, the Medical Spanish Health Education Team of Eastern Virginia Medical School has held health literacy sessions to educate Spanish-speaking community members about affordable, healthy, and sustainable dietary habits.

Description of Innovation: As part of the Medical Spanish Learning Initiative at Eastern Virginia Medical School, the Health Education Team has designed a series of health literacy sessions at monthly community health fairs for the purpose of educating immigrants and their families about affordable, healthy, and sustainable dietary habits. The sessions, conducted entirely in Spanish, employ interactive components, in which audience members may choose items within their daily diet and visualize their intake of salt or sugar compared to other options. Through these sessions, we educate individuals about how to properly interpret nutrition labels and compare packaged or processed items with fresher options, such as canned versus fresh beans. In addition, we adopt a systems-based approach by partnering with select medical specialties, such as Ophthalmology, to inform individuals about how certain foods may provoke or protect against various diseases. As many individuals and their families lack financial resources, we have furthermore developed a free and basic cookbook that consists of affordable, healthy and easily prepared recipes. Our innovation relies upon a “Teach Back” approach to assess understanding by asking individuals to teach the audience about what they learned, with the goal of utilizing that knowledge to educate their families and neighbors.

Impact or Result: To evaluate the impact of our educational sessions, we utilized a validated survey, conducted entirely in Spanish, to inquire pre-session and post-session knowledge and perception. Of the 188 participants across 12 health literacy sessions, 149 (79%) responded to both surveys. The pre-session survey evaluated dietary habits at a baseline, with top responses including “Rice and tortillas are a staple of my diet” (86%), “I drink fruit juice every day with meals” (76%), and “I use butter when I cook” (70%). By contrast, the post-session survey evaluated perception to the educational sessions, with top responses including “My knowledge of proper nutrition has improved” (88%), “I know how to interpret a nutrition label” (82%), and “I will use this information to improve my dietary habits” (80%). Our next steps are to follow up with the pre-session survey to evaluate changes in dietary habits after the educational sessions.
Replicating this Innovation: Our health literacy educational sessions can be easily adopted by other organizations. The sessions are designed to be interactive, consisting of common food options to choose and compare their nutrition content. Though props may bolster learning, walking individuals through how to properly interpret a nutrition label serves as the basis of our education and does not require much training beforehand. Consequently, the educational sessions can in theory be resource-free.

Though our mission is to serve the Spanish-speaking population, a similar structure can be applied towards other populations with the support of a robust and trained group of volunteers.

Author(s):

Daniel Mai, Medical Student, Eastern Virginia Medical School
CP35 - Social needs identified among patients referred to an opioid tapering program in a large, integrated healthcare delivery system.

Poster Type: Research

Category: Social Determinants of Health

Research Objectives: Due to a significant number of patients receiving high dose opioid prescriptions, an integrated healthcare system implemented a phone-based, pharmacist-led program to support physicians and assist patients in tapering. The prevalence of screening patients for unmet basic needs in this population has not been well described.

Study Design/Methods: We reviewed electronic health records (EHR) of patients that were referred to the opioid tapering program and either screened for socioeconomic needs, had a community resource referral placed on their behalf, or both, between January 1, 2017-December 31, 2019. The 9-item Your Current Life Situation (YCLS) screener was used to identify unmet basic needs. Referrals were identified by the community referral code in the EHR. Descriptive analysis was applied to identify associations among patient characteristics, unmet basic needs, and frequency of referrals identified via clinical screening.

Principal Findings and Quantitative/Qualitative Results: Initial findings indicate that 3,369 patients were referred to the tapering program during the timeframe examined. Of these, 86% identified as White, 4% African American, 4% Hispanic/Latino, 4% multi-racial, and the remaining 2% consisted of Native American, Alaskan Native, and Asian. A total of 870 patients referred (25.8%) completed the YCLS and 330 (38.0%) identified at least one unmet need. Community resource referrals were made for 427 patients (13.0%). A total of 1,222 referrals (multiple referrals per patient) identified transportation as the most prevalent need for this population (21.9%), followed by government assistance programs (14.3%), and housing and shelter (11.4%).

Conclusions on Impact on Health Centers: Our findings suggest that unmet basic needs and community resource referrals are frequent among insured patients who are referred to an opioid tapering program. We will describe associations between social needs status and patient demographic and clinical characteristics, as well as frequency of opioid prescribing post tapering referral. Future studies are needed to understand whether identifying and addressing unmet needs can improve outcomes of tapering initiatives.

Author(s):

Dea Papajorgji-Taylor, MPH, MA, Project Manager, Kaiser Permanente Center for Health Research - Northwest

Phillip Crawford, MS, Data Integration Analyst, Kaiser Permanente - Center for Health Research

Katherine Reese, PharmD, BCGP, Pain Management Pharmacy Manager, Kaiser Permanente Northwest
Mary Ann McBurnie, PhD, Senior Investigator, Kaiser Permanente Center for Health Research - Northwest
CP36 - Community Clinic’s Initial Findings after Implementing the PRAPARE Tool

**Poster Type:** Research

**Category:** Social Determinants of Health

**Research Objectives:** This project explored the relationship between multiple predictors measured in the Protocol for Responding to and Assessing Patients’ Assets, Risks, and Experiences (PRAPARE) assessment tool and chronic health diagnoses in patients seen in 2019 at Community Clinic, a federally qualified health center (FQHC), located in Northwest Arkansas.

**Study Design/Methods:** PRAPARE surveys were completed and results were reported by 6,481 patients in Community Clinic’s Electronic Medical Records (EMR). A comprehensive report of all factors recorded was produced from EMR PRAPARE SmartForm. After removing incomplete responses, survey results from 3,436 patients were used to explore risk factors for varied health outcomes. Logistic regressions examined the relationship between predictor variables, such as demographic factors (e.g., sex, race, and ethnicity) and social determinants of health measured in the PRAPARE survey, and hypertension and depression.

**Principal Findings and Quantitative/Qualitative Results:** Patients with a diagnosis of hypertension (n=274) had a significantly higher odd of suffering from housing insecurity (AOR=1.20, 95% CI: .790-1.828), experiencing quite a bit of stress (AOR=2.013, 95% CI: 1.248-3.248), and difficulty with consistent transportation (AOR=1.533, 95% CI: .792-2.925). Patients with a diagnosis of depression (n=18) demonstrated a significantly higher odd of suffering from housing insecurity (AOR=1.148, 95% CI: .290-4.547), experiencing very much stress (AOR=10.641, 95% CI: 1.244-91.036), and difficulty with transportation (AOR=3.094, 95% CI: .601-15.929). Those with depression reported participating in less regular socialization, with substantial amounts reporting socializing less than once a week (AOR=2.157, 95% CI: .544-8.548).

**Conclusions on Impact on Health Centers:** Due to small sample sizes within each diagnosis group and adjusted odds ratio in comparison to the number of total respondents, the associations found may be unreliable. However, within the group of hypertensive and depression patients, Community Clinic can look to provide assistance in the areas addressed by the PRAPARE tool. The patient advocates, behavioral health team and other medical staff at Community Clinic can aid in addressing the needs of these patients, regarding housing, transportation, and healthy socialization to improve health outcomes.

**Author(s):**

Abbie Luzius, MS, CHES, CTTTS, Community Development Manager, Community Clinic
CP37 - Incorporating Social Determinants of Health Data into Risk Stratification Models to Address Health Inequities: The PRAPARE Stakeholder-Vetted Risk Stratification Model

Poster Type: Research

Category: Social Determinants of Health

Research Objectives: Risk stratification is the process of identifying and predicting patients that are at high risk and prioritizing the management of their care in order to improve their health. We proposed a new risk stratification model that includes PRAPARE social determinants of health (SDH) to assess patients’ health more comprehensively.

Study Design/Methods: We hosted a PRAPARE Risk Stratification Learning Collaborative (LC), consisting of nine community health center stakeholders, with representatives from eight states, to leverage the experiences of the stakeholders to develop an improved and stakeholder-vetted national standardized PRAPARE Risk Stratification Model with options for localized methodologies and discuss how it can be incorporated into practice to improve population health. During the process, we also worked with the LC teams to conduct two brief Plan, Do, Study, Act (PDSA) evaluations of the PRAPARE Risk Stratification Model.

Principal Findings and Quantitative/Qualitative Results: The final PRAPARE Risk Stratification Model included four components: SDH, Clinical, Mental Health/Substance Abuse (MH/SA), and Utilization. The SDH Component included the SDH factors in the PRAPARE assessment categorized into seven clusters. The Clinical Component included all cancer categories, cardiovascular disease, chronic lower respiratory disease, diabetes, chronic liver disease, HIV, Tuberculosis, and Obesity. The MH/SA Component included conditions of depression and other mood disorders, anxiety disorders, attention deficit and disruptive behavior disorders, other mental disorders, alcohol-related disorders, tobacco use disorder, and other substance-related disorders. The Utilization Component included both Emergency Department (ED) visits and inpatient hospital stays.

Conclusions on Impact on Health Centers: Based on quantitative and qualitative results, all components with the exception of SDH were assigned a weight of 20%. To highlight the critical impact of SDH on patient health, the SDH Component was assigned a weight of 40%. In this collaborative process, we uplifted the community voices that best understand the needs of their underserved patients and, in doing so, we strove to create a system that accurately reflects the needs of this underserved community. We are planning a larger multi-state collaborative to evaluate the validity, clinical utility, and impact of the SDH risk stratification model with patient-level data.

Author(s):

Vivian Li, MS, Research Project Manager and Analyst, AAPCHO

Rosy Chang Weir, PhD, Director, Research, AAPCHO
CP38 - Using Technology to Reduce Barriers in Community Health: An intersection between Broadband Access, EHR & Telehealth Adoption in FQHCs

**Poster Type:** Research

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

**Research Objectives:** Aim 1) Identify how key factors related to HIT adoption, FQHC structure, broadband access, and federal/state level policy impact provider and patient utilization of EHRs (1a) and telehealth (1b) at the census block level. Aim 2) Utilize ArcGIS to spatially and descriptively map adoption of HIT and broadband availability a

**Study Design/Methods:** In this retrospective, observational study, 2018 UDS data and 2018 FCC data were used to examine key influencers on health information technology (HIT) adoption among FQHCs (n=1,356) by analyzing the extent of technology utilization by providers and patients at the census block code level using SPSS. ArcGIS and GeoDa was used to descriptively map adoption of HIT and broadband availability and to examine spatial clustering and correlation of EHR and Telehealth adoption with patient volume

**Principal Findings and Quantitative/Qualitative Results:** While several characteristics, such as CMS grant incentives and meaningful use, were identified as significant factors influencing full utilization of health technology within health centers, only the variable related to patient volume, our indicator of clinic size, was found to impact both EHR and telehealth adoption by providers as well as patients within 2018 FQHCs using bivariate regression analysis. Spatially, there were no obvious associations with adoption of HIT with broadband characteristics of speed and provider density. There was significant clustering noted between patient volume and HIT adoption based on spatial analysis

**Conclusions on Impact on Health Centers:** The purpose of this research was not to evaluate the overall health of FQHC patients, but to instead evaluate the technological tools that have the potential to improve the health of this specific population of patients. This study addressed access to care in a period where an expanded population needs healthcare resources. FQHCs provide healthcare access to the underserved, and with more health information technology, these safety net clinics could better serve this population.

**Author(s):**

Renita Madu, PA-C, PhD, Physician Assistant, Houston Health Department, University of Texas at Houston School of Public Health
CP39 - Uniform Data System (UDS) Test Cooperative: Testing changes to modernize UDS reporting for health centers

Poster Type: Innovation

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

Issue or Challenge: In 2016, HRSA launched the Uniform Data System (UDS) Modernization Initiative to reduce health center reporting burden, improve data quality, and better measure health center program services and outcomes. The objective is to simplify collection and submission of data that accurately reflects quality care provided to high-risk populations. The challenge is to ensure potential changes to the UDS do not adversely affect the health centers.

The UDS Test Cooperative (UTC) was established to test potential UDS changes and determine feasibility and impact on health centers.

Description of Innovation: The UTC is a collaborative network of UDS stakeholders to (1) support early testing of potential changes to UDS reporting before broader implementation and (2) provide insight and recommendations about future improvements. By conducting tests with a representative sample of health centers and related stakeholders, the impacts, challenges and benefits of potential UDS changes can be better understood. Recommendations from the testing are provided to HRSA to consider for potential nationwide rollout.

The UTC is a forum for health centers and other stakeholders to provide input on the UDS and assessments of health center performance. The UTC was formed by first assembling a governance body comprised of thought leaders from health centers and healthcare networks that broadly represent the health center community. Other interested health centers and healthcare networks were then identified based on UTC-specified criteria to participate in the current tests. Membership and participation in the UTC will change over time to enable new representation of health centers and other stakeholders. Finding solutions through these tests will benefit health centers and ultimately, further HRSA’s modernization goals. These recommended solutions will help reduce health center burden by streamlining clinical quality reporting, expanding representation of care delivery beyond traditional clinical settings, and improving transparency to enable insights on care costs and outcomes.

Impact or Result: Since its inception in March 2019, the UTC has concluded its first test on aligning HRSA’s clinical quality measures (CQMs) to CMS-specified CQMs. This test was the first step in identifying CQM differences and understanding burden and feasibility of aligning with CMS specifications.

In late February 2020, the UTC kicked off the next round of tests to provide a more comprehensive understanding of interdependent impacts and challenges. The findings from these tests will inform HRSA’s strategic direction for the UDS. These tests include
defining and calculating CQM performance for routine patients and other types of patient visits; collecting and reporting UDS countable visits by using electronic standards; and aligning diagnoses and services in Table 6A into a common standard electronic representation. By making it easier to submit UDS data, health centers can focus more of their time on patient care and ensuring quality outcomes.

**Replicating this Innovation:** Much of the structure of the UTC can be leveraged by other organizations interested in establishing a forum to engage with stakeholders and gather feedback. In particular, the Steering Committee, the established UTC leadership body, provides an effective way to coordinate executive oversight, elicit input and guidance, and promote the success of the initiative across the stakeholder community broadly.

**Author(s):**

Daniel Duplantier, COR-II, Lead Public Health Analyst, HRSA

Kris Prendergast, UTC Convener, Healthcare Lead, Center for Transforming Health, MITRE Corporation
CP40 - Accuracy and completeness of cancer history data in community health centers

Poster Type: Research

Primary Funding Source: National Institutes of Health

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

Research Objectives: Outpatient Electronic health records (EHRs) may not capture complete or accurate cancer history information. This may be especially true at Community Health Centers (CHCs), which care for underserved cancer survivors. We assessed the accuracy and completeness of cancer history recorded in EHRs of CHCs compared to state cancer registries.

Study Design/Methods: We used retrospective EHR primary care data from the OCHIN community health information network. Data were from 68 health centers and 328 clinic sites serving >1.5 million adult patients in California, Oregon, and Washington. EHR data were linked to the state cancer registries of each state using probabilistic linkage. Cancer records were identified using ICD-O-3 codes for each registry, and ICD-9 and ICD-10-CM codes for EHRs. Measures of agreement (sensitivity, specificity, kappa statistic, and predictive positive value) were computed for ascertainment of any cancer and site-specific agreement using the registry as the gold standard.

Principal Findings and Quantitative/Qualitative Results: Overall, 45% of cancer survivors identified in the registry did not have documentation in the EHR. Similarly, 45% of patients with cancer history noted in EHR did not have a record in the cancer registry. For all states, the overall agreement of having any cancer identified in the EHR compared to the registry was moderate (kappa=0.535). By cancer site, prostate, bladder, and female breast cancers had substantial agreement (kappa >0.60). Cervix and brain/central nervous system cancers had the weakest agreement (kappa <0.30). Cervical cancers were more often identified in EHR than cancer registry data (60% vs. 26%).

Conclusions on Impact on Health Centers: Nearly half of cancer cases recorded in the registries were ‘missing’/not documented in the EHR data. Agreement between EHR and cancer registry data was moderate and varied by cancer site and length of time since diagnosis. These findings stress the important role health technology plays in ascertaining health history, and the need to identify strategies to improve the accuracy and completeness of cancer history in EHRs in CHCs to ensure adequate delivery of care and optimal health outcomes for cancer survivors.

Author(s):

Heather Holderness, MPH, Research Associate, Oregon Health & Science University
CP41 - Using Risk Prediction to Target Navigation for Follow-Up Colonoscopy in Community Health Centers

**Poster Type:** Innovation

**Primary Funding Source:** NIH/NCI

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

**Issue or Challenge:** Colorectal cancer (CRC) screening by annual fecal immunochemical test (FIT) is an accessible and cost-effective strategy to lower CRC incidence and mortality. However, this mode of screening depends on follow-up colonoscopy after a positive FIT result. Unfortunately, nearly one-half of FIT-positive patients fail to complete this essential screening component.

**Description of Innovation:** To deliver interventions cost-effectively, health centers could target navigation to patients who are unlikely to complete the procedure on their own. This can be done by using a risk prediction model that determines a given patient’s likelihood of obtaining a follow-up colonoscopy on their own. These data can population patient registries for patient outreach and intervention.

The Predicting and Addressing Colonoscopy Non-adherence in Community Settings (PRECISE) clinical trial developed a risk model of follow-up colonoscopy adherence and is testing whether patient navigation raises rates of colonoscopy adherence overall and among patients in each probability stratum (low, moderate, and high probability of adherence without intervention).

The risk prediction model consists of 17 patient level variables that predict the probability of completing a follow-up colonoscopy. The variables in the model include demographics (age, race, language, gender, insurance, marital status, homelessness, and county of residence), and clinical factors (flu shot history, BMI, prior screening, hemorrhoids, blood in the stool, the Gagne comorbidity score, number of prior appointments and prior missed appointments). The reduced model showed adequate separation of patients across risk levels for non-adherence to follow-up colonoscopy (C-statistic = 0.65, bootstrap-corrected >0.61).

**Impact or Result:** The use of risk prediction-enabled registries allows systems to target resources to those that need interventions the most.

**Replicating this Innovation:** To replicate a risk prediction model takes analytic capacity. Health systems could also identify groups of patients likely to benefit from patient navigation. These groups could include patients who:

- have an abnormal FIT result
- have never had a colonoscopy
- have prior missed appointments
- have no upcoming colonoscopy appointment
• have no colonoscopy 1-2 months after the abnormal result
• are referred by a provider as needing navigation

Author(s):

Amanda Petrik, MS, Sr. Research Associate, Kaiser Permanente Northwest
Demonstrating Value: A Theoretical and Experiential Approach to Group Learning

Poster Type: Innovation

Category: Workforce

Issue or Challenge: In 2018, HRSA awarded 46 health centers with Advancing Precision Medicine (APM) funding to contribute to the mission of the All of Us Research Program (AoURP): enroll one million or more individuals who reflect the diversity of the U.S., particularly those historically under-represented in biomedical research.

These health centers were tasked with increasing awareness of the AoURP among their patients and communities and to engage and educate about the importance of research and opportunities to self-enroll in the AoURP. Health centers had varied experience contributing to research initiatives, and different program-specific restrictions such as proximity to enrollment sites.

Description of Innovation: The Technical assistance (TA) provided to support HRSA APM health centers’ success evolved with health centers’ needs and learning. Over time, health centers became familiar with the HRSA APM and more versed in research and communicating about it to their patients and communities.

- Phase 1 – the TA team worked closely with the health centers over the first year to ensure completion of action plans and required trainings. Monthly one-on-one meetings and additional meetings, email exchanges, and TA as needed was provided. HRSA hosted a face-to-face meeting at the end of year one, the first opportunity for health centers to interact with one another, share knowledge, and begin group learning activities.
- Phase 2 – As outreach and engagement efforts increased, health centers required a venue for sharing insights and working through challenges together. TA evolved into facilitated, structured monthly meetings with groups of 6-8 health centers. Health centers started taking on leadership roles during group meetings, eventually requesting broader interactions across all HRSA APM health centers.
- Phase 3 – Health centers transitioned from structured monthly group meetings to self-directed open mic sessions, driven by health centers’ needs, questions and insights. At this point, health centers relied more on one another than on the formal TA.

Impact or Result: Evolution from focused one-on-one meetings occurred soon after the July 2019 face to face meeting, during which health centers indicated a need for continued collaboration. Phase two, small group meetings, provided a venue for knowledge sharing and “thinking outside of the box.” There was unanimous approval from the health centers when the TA O/E team recommended moving to this new format. While meetings were structured and somewhat formal, they enabled health centers to communicate with one another, find common ground and solve problems together.
Phase three, open mic sessions, were implemented after five months of small group meetings due to time constraints identified by the O/E TA team, and because several health centers expressed a need to communicate with colleagues outside of their small group. Self-directed meetings enable more fluid discussion and sharing of insights, especially pertinent during COVID-19 as health centers balance HRSA APM activities with important clinical obligations.

**Replicating this Innovation:** Lessons learned reinforce the need to be agile while facilitating groups as their needs evolve over time. The approach used here mirrors Stephen Covey’s model, described in his book, Seven Habits of Highly Effective People. The HRSA APM health centers moved from complete dependence on the O/E TA team, to independence within their small group structures, to interdependence that is facilitated by the O/E TA team during their self-directed open mic sessions. Learnings from the TA provided to the 46 HRSA APM health centers can be translated to similar cohorts considering ambitious, complex, and challenging initiatives.

**Author(s):**

Mariella While-Dart, RN, BSN, MEd, Health Care Consultant, MITRE Corporation
Kathy Lewis, PhD MPH MSN RN, HRSA APM Engagement, MITRE Corporation
Margo Rosner, MPH, Social and Behavioral Scientist, MITRE Corporation,
CP43 - Health Centers and the All of Us Research Program: Innovation in workforce allocation during the response to COVID-19

Poster Type: Innovation

Category: Workforce

Issue or Challenge: Through the All of Us Research Program (AoURP) the NIH aims to enroll over one million individuals as a longitudinal cohort. Six Federally Qualified Health Centers (FQHCs) serve as AoURP enrollment centers, supported by a Central Coordination model designed by the MITRE Corporation.

The emergence and rapid spread of coronavirus disease 2019 (COVID-19) posed complex challenges to the AoURP and FQHC research operations. On March 16, 2020, NIH announced a pause in in-person AoURP activities; this decision, and other impacts of COVID-19 on FQHCs and communities, exposed the need to transform the work environment, to allow non-clinical staff to telework.

Description of Innovation: The AoURP FQHCs, supported by MITRE, transformed the structure of their operations in innovative ways to adapt to the COVID-19 crisis. MITRE worked in partnership with the FQHCs to implement a structure for teams to transition to a telework environment, and to support FQHCs through the pause of in-person activities. MITRE support adapted evidence-based elements of organizational success during a crisis including gathering adequate information to support decision making, the ability to pivot quickly and decisively, and acknowledgement of the human factors related to times of crises. To this end, as FQHC teams were re-orienting themselves to virtual workspaces, MITRE continually scanned the environment for issues that might affect the team and the FQHCs, particularly as new information was being delivered daily about COVID-19. MITRE leveraged many of the principles of disaster management and modified them to fit AoURP to create a stable environment for the FQHCs to position themselves for stability during the COVID-19 outbreak. In addition, MITRE supported FQHCs by offering resources to leverage the activity pause as an opportunity to strengthen teams, instill new skills, and build capacity for success when normal activities resume.

Impact or Result: During the pause in in-person activities, FQHCs successfully implemented various work plans to provide their teams with alternative activities related to continuity of operations, as well as planning for when the program resumes in-person activities. As of this submission date, five teams have transitioned AoURP research staff to full or partial telework, and one team is repurposed to support COVID-19 response at their FQHC. Notably, within the six FQHCs, the innovative approach to reshaping work has resulted in no reduction in staff, either through furlough or lay-off of employees. Additional results/impact will be accumulated over the course of the pandemic and shared at the time of the NACHC conference, particularly as they relate to preparedness to resume normal operations.

Replicating this Innovation: The FQHCs’ rapid response to COVID-19 and application of the disaster cycle to the unique nature of the program can be used as a model for other
longitudinal cohort studies that are reliant on face-to-face communication and interaction for enrollment and retention in the program. Both MITRE and the AoURP FQHCs developed a framework, tools and workflows that could be leveraged during the planning of future crisis responses for non-clinical research teams. Examples of these will be shared as part of the NACHC poster.

Author(s):

Daniela Macander, MPH, Health Centers and the All of Us Research Program: Innovation in workforce, The MITRE Corporation

Derek Inokuchi, MHS, Mr, The MITRE Corporation

Anya Coleman, PMP, CSM, SA, Ms., The MITRE Corporation,

Jessica Burke, MBA, Project Lead, The All of Us Research Program, The MITRE Corporation
CP44 - Readiness to Train Assessment Tool™: Development and Validation of a Tool to Assess Health Center Readiness to Train Health Professionals

Poster Type: Research

Primary Funding Source: HRSA

Category: Workforce

Research Objectives: The study objectives were to develop and validate a survey instrument that: i) can measure and assess health center readiness to engage with and implement health professions training (HPT) programs; ii) is based on organizational readiness theory and experts' judgement of the most important factors influencing successful HPT program implementation.

Study Design/Methods: The project was conducted by the Community Health Center, Inc. and lasted one year (June 2018 - June 2019). It incorporated the following specific methodological steps to guide the process of developing and validating an instrument for assessing health center readiness to engage with HPT programs: 1) development and validation of a conceptual framework by reviewing literature on organizational readiness for change and conducting focus groups; 2) generation of an initial survey item pool; 3) refinement and validation of the survey items using a modified Delphi process; 4) pilot testing of the survey; 5) psychometric and structural evaluation.

Principal Findings and Quantitative/Qualitative Results: A conceptual framework was developed and validated by twenty experts in two focus groups. The mapped to the framework survey-item pool was refined by thirteen experts in 3 modified Delphi rounds and later evaluated in a nationwide pilot-test with 212 health-center employees. The final 41-item, 7-subscale structure of the survey was derived through exploratory factor analysis. Cronbach’s alphas (.79 -.97) indicated good to excellent reliability. The survey measures perceived by the health center employees: readiness to engage, evidence strength and quality of the HPT program, relative advantage of the HPT program, financial resources, additional resources, implementation team, and implementation plan.

Conclusions on Impact on Health Centers: The final survey instrument, the Readiness to Train Assessment Tool™ (RTAT™), is a multi-item, multi-subscale, organizational readiness scale that is both valid and reliable. The instrument covers dimensions of health center readiness for engaging with HPT programs deemed critical to evaluate by subject matter experts. The advantage of the RTAT™ is that it covers organizational readiness dimensions that are relevant to all kinds of health professions training programs and types of health centers. The RTAT™ meets a need at the national level to help health centers address concerns regarding capacity, resources, organizational abilities when launching any health professions training program(s).

Author(s):
Ianita Zlateva, MPH, Doctoral Candidate, Evaluation Specialist and Researcher, Community Health Center Inc.

Amanda Schiessl, MPP, Project Director, National Cooperative Agreement, Community Health Center Inc.

Nashwa Khalid, MA, Project Analyst, National Cooperative Agreement, Community Health Center Inc.

Margaret Flinter, Phd, APRN, SVP/Clinical Director CHCI and Co-PI, NCA, Community Health Center Inc.

Kerry Bamrick, MBA, Director of Postgraduate Residency Training Programs, Community Health Center Inc.
CP45 - Top of License Practice for Registered Nurses: How to Create Your Own Standing Orders

Poster Type: Innovation

Category: Workforce

Issue or Challenge: Primary care registered nurses (PCRN) are vital to care delivery teams. They increase access to providers by playing key roles in chronic disease management, and in health promotion, education and advice. Standing orders are a key intervention to support top-of-license practice for PCRN, but many organizations struggle to implement them effectively. Many barriers exist to effective implementation of standing orders, including provider buy-in, lack of PCRN confidence, and poor planning and implementation. PCRN are critical to many processes, particularly in the age of value-based care. Many organizations are even hiring PCRN for the very first time.

Description of Innovation: CHCI has focused much of their energy to develop many standing orders for PCRN, addressing a wide array of issues. This includes chronic disease standing orders for hypertension, diabetes and asthma, and even acute issues such as pregnancy testing and contraceptive management, but also uncomplicated UTIs, and other issues. Through this ongoing development, CHCI has created a template for standing orders that assists in creation of these policy documents for other issues, both chronic and acute. This template was created to also assist other health center organizations to re-imagine the role of the PCRN and to better leverage their unique knowledge and skill to address complex patients in this changing health care landscape involving value based payment models.

This poster will review these key steps to share with other health centers the anatomy of a standing order, including steps to support provider buy-in, PCRN training and informatics tools to support high quality independent or nurse-assist visits.

Impact or Result: Standing orders for PCRN have created an avenue for proactive top-of-license practice for CHCI’s PCRN. This has increased overall access to providers by providing other opportunities for care to be delivered without requiring direct provider time. This model has also proved sustainable financially given the ability to bill care delivered by PCRN as well as attributing applicable value-based payments to their direct care delivery. The template created by CHCI is intended to support other centers in creating their own standing orders where they could replicate similar outcomes on issues of concern for their communities.

Replicating this Innovation: The goal of this poster is to share the template for standing order creation by reviewing the anatomy of one of CHCI’s standing orders. The hope is that other organizations would be able to walk away with an understanding of how to set out and create their very own standing orders to support their PCRN roles.

Author(s):
Mary Blankson, DNP, APRN, FNP-C, Chief Nursing Officer, Community Health Center, Inc.
Veena Channamsetty, MD, FAAFP, Chief Medical Officer, Community Health Center, Inc.