OP1: Building and Sustaining an Academic-Community Collaborative Amidst Health Reform:
A Case Study of the Community Health Advocacy and Research Alliance (CHARA)

Melinda M. Davis, PhD; Suzanne Cross, MPH; Paul Lindberg
Susan Lowe, Robyn Pham, BS; Brooke Nichols, NP; Rose Gunn, MA; Kristen Dillon, MD

BACKGROUND:

Oregon is in the midst of health care transformation, with regional Coordinated Care Organizations (CCOs) - Oregon's equivalent of Accountable Care Organizations -redesigning Medicaid health care coverage and delivery statewide. Methods are needed to foster academic-community collaborations that enable partners to design, implement, and disseminate findings from research to facilitate health care transformation.

METHODS:

Participatory research study led by a community-based primary care clinician and an academic-affiliated Practice-based Research Network (PBRN) investigator. Agency outreach and key informant interviews were used to engage service providers, health system leaders, and community members, and to establish the relationships and infrastructure for a robust academic-community partnership.

SETTING & PARTICIPANTS:

Project activities occurred within the rural PacificSource Columbia Gorge CCO. CCO community advisory council members and boards of existing regional health and social service organizations were engaged as stakeholders; appreciative inquiry interviews on community health priorities were conducted with 27 patient and clinical partners who represented regional diversity.

RESULTS:

A multi-level network infrastructure was developed to include a core project team, governing board, Partner Agencies (i.e., collaborating organizations), and Research Ambassadors (i.e., individual community members who collaborate on specific research projects). Interviews revealed health is regarded as a multi-dimensional concept, preventive behaviors are highly valued, and community and personal resources contribute to health. Outreach identified approximately 15 priority areas for regional health research. In one year, the core team and partner agencies submitted and received three collaborative research applications, one housed at a university and two held by the community.

CONCLUSION:

Resources to support partnership development enabled community-based capacity development and a joint understanding of community health priorities. Network activities have both direct (e.g. grants received, increased research relevance) and indirect benefits (e.g., local capacity building, skill generalizability).

RELEVANCE STATEMENT:

Aligning the development of our research partnership with local health system transformation enabled us to establish a robust and highly functional infrastructure. However, building a collaborative partnership may prove to be easier than sustaining the partnership across time amidst health system reform.

ONLINE RESOURCE:

OP2: Finding the Right FIT: A Community-led Mixed Methods Study of Rural, Low-Income Patient Preferences for Fecal Immunochemical Test Characteristics

Melinda M. Davis, PhD; Robyn Pham, BS; Kathryn Corson, PhD
Suzanne Cross, MPH; Bianca Fernandez; Coco Yackley; Kristen Dillon, MD

BACKGROUND:

Colorectal cancer (CRC) is the third leading cause of cancer death in the United States, yet one in three Americans have never been screened for colorectal cancer. Annual screening using fecal immunochemical tests (FIT) is often a preferred modality in populations experiencing CRC screening disparities. However, over 56 different FITs are cleared for use in the United States by the FDA and 23 are currently marketed. While multiple studies evaluate the clinical effectiveness of FITs (e.g., sensitivity, specificity), few studies assess patient preferences toward kit characteristics (e.g., collection method, sample requirements). Therefore we conducted this study to identify patient preferred FIT characteristics to inform kit selection by clinic and health plan partners in one rural Medicaid Accountable Care Organization (ACO).

METHODS:

Patient preferences for FITs were assessed using a sequential explanatory mixed-methods design. First, we used quantitative data from FIT user testing to measure acceptability, ease of completion, and specimen packaging and adequacy. Second, we gathered qualitative data from focus groups to refine FIT rankings and gain deeper insight into the pros and cons associated with each tested kit. Participants completed up to six FITs each and associated questionnaires, and were invited to participate in a focus group to discuss CRC screening and rank order FITs. Returned FITs were evaluated for packaging and specimen adequacy. We used descriptive statistics and a qualitative descriptive approach to produce a final FIT ranking and to identify preferred characteristics.

SETTING & PARTICIPANTS:

We collaborated with local health system leaders to select six FITs and recruit low-income, age eligible (50-75) English- or Spanish-speaking participants within a 6-county rural region. This study built on the infrastructure of the Community Health Advocacy and Research Alliance (CHARA) and the Columbia Gorge Health Council, the authority responsible for the provision of care within one of Oregon's 16 Medicaid ACOs.

RESULTS:

Seventy-seven FITs were completed by 19 participants (Mean: 4 FITs, Range 1-6). Over half (58%, n=11) of the participants were Hispanic and 58% were female (n=11). Thirteen participants attended one of three focus groups. Participants preferred FITs that required single samples, used a probe and vial for sample collection, and had simple, large printed instructions with colored pictures. Participants had difficulty labeling samples and multi-specimen tests were frequently completed with a single sample. Even the least popular FIT was preferred over colonoscopy.

CONCLUSION:

FITs are not created equal. Health system leaders, payers, and clinicians can use findings to select FITs that are both clinically effective and incorporate the characteristics preferred by low-income, rural patients, a population at high-risk for experiencing CRC screening disparities.

RELEVANCE STATEMENT:

Many primary care clinics and health plans are focused on increasing CRC screening to meet performance benchmarks. Our results provide information on the FIT characteristics preferred by end users. Selecting FITs that are both clinically effective and display characteristics preferred by patients may improve test completion rates and ultimately lead to reductions in CRC.

ONLINE RESOURCE:

OP3: Managing Chronic Pain: Mapping Out A Successful Journey using Boot Camp Translation

Mary Fisher, MPH; Donald E. Nease, Jr., MD; Matthew Simpson, MD
Colorado Research Network's Patient Advisory Council (CaReNet PAC): Jim Smith, Jo Smith, Sally Merrow, Paul Merrow, Ken Dailey, Marcia Dailey, Esther Cancella, Kathy Chaten, Michele Wheeler, Genevieve Smith, and Anniece Johnson.

BACKGROUND:
Chronic pain is a highly publicized issue, and a deep concern of the communities within the State Networks Of Colorado Ambulatory Practices and Partners (SNOCAP) Practice-Based Research Network. Clear pathways for pain management are lacking; management is not a "one size fits all" approach.

We sought to translate the lessons learned from qualitative, appreciative inquiry (AI) interviews of individuals who were successfully managing their chronic pain into practical messages and tools for our SNOCAP practices and patients.

METHODS:
Researchers from the Department of Family Medicine at the University of Colorado collaborated with the Colorado Research Network (CaReNet) Patient Advisory Council (PAC). We used a Boot Camp Translation (BCT) process to translate the themes and lessons learned from the AI interviews. Traditional BCT takes medical evidence and clinical guidelines and translates them into key concepts, messages, and materials to be distributed throughout the community and local clinics. In this project the AI data along with a medical expert presentation about chronic pain formed the body of evidence to be translated. The PAC and our facilitation team applied their expertise using the BCT process to create a full messaging strategy over the course of 10 months.

SETTING & PARTICIPANTS:
The PAC is a group of 12 mostly-retired individuals living in the Denver/Aurora Metro area. This group has been together since 2000; this was their third BCT process. The idea to focus on chronic pain came out of discussions that the PAC had within their group, as well as with the CaReNet staff.

RESULTS:
Early in the 10-month BCT process, the PAC concluded there was no one way for a person to manage their pain. In the beginning, the PAC thought a recipe or toolbox approach would best fit their messaging, but it became clear during their second in-person BCT meeting that a road map would better describe the journey that managing chronic pain takes. Key messages included: "Each person's pain management story is unique," "You are not alone on this journey," and "'Significant Others' include doctors, family, mental and physical therapists, and fitness instructors that can 'fill your tank' and help you achieve your ultimate goal." The PAC worked with the BCT facilitation team and a professional designer to create a tri-fold pamphlet with a map illustration that incorporated the messages and concepts that arose from the group.

CONCLUSION:
The evidence from personal chronic pain stories (AI) coupled with a tailoring strategy to create locally-relevant messaging (BCT) proved to be a successful method to translate both personal and medical expert data. This map was created by the BCT group to be locally relevant and tailored for the community of impact which leads to an impactful, more meaningful outcome.

RELEVANCE STATEMENT:

The road map to successful chronic pain management wasn't the means by which we began this journey, instead it became the path by which we traveled down to share techniques from those living with chronic pain to those living with chronic pain.

ONLINE RESOURCE:

OP4: Using Electronic Health Records Data to Evaluate the Association Among Biological, Social and Nutritional Status on Adolescent Pregnancy Rates, Physiology and Birth Outcomes

Jonathan N. Tobin, PhD; Amanda Cheng, MPH; Caroline S. Jiang, MS
Mireille McLean, MA, MPH, The Sackler Institute for Nutrition Science/The New York Academy of Sciences
Jan L. Breslow, MD, The Rockefeller University
Peter R. Holt, MD, The Rockefeller University
Rhonda G. Kost, MD, The Rockefeller University
Kimberly S. Vasquez, MPH, The Rockefeller University
Dena Moftah, BA, Clinical Directors Network (CDN)
Daryl L. Wieland, MD, MS-MI, Jacobi Medical Center/North Central Bronx Hospital
Peter S. Bernstein, MD, MPH, Albert Einstein College of Medicine/Montefiore Medical Center
Siobhan Dolan, MD, MPH, Albert Einstein College of Medicine/Montefiore Medical Center
Tyler Evans, MD, MS, MPH, Community Healthcare Network
Elizabeth DuBois, MSN, Community Healthcare Network
Mayer Sagy, MD, Morrisania Diagnostic and Treatment Center
Abbe Kirsch, CNM, Bronx Lebanon Hospital Center
Barry Kohn, MD, NYU Lutheran Family Health Centers
William Pagano, MD, MPH, NYU Lutheran Family Health Centers
Gilles Bergeron, PhD, The Sackler Institute for Nutrition Science/The New York Academy of Sciences
Stephanie Morgan, MS, Montefiore Medical Center
Judd Anderman, MA, Bronx Lebanon Hospital Center
Julie Wilcox, MFA, Clinical Directors Network (CDN)

BACKGROUND:

Investigating adolescent nutritional status, pregnancy rates and birth outcomes require rigorous "Big Data" Analysis. The purpose of this study was to determine if disproportionate health burdens are experienced by low income/minority pregnant adolescents and their offspring up to the age of 24 months. This community-academic partnership involves the creation of a multisite de-identified Electronic Health Records (EHR) database that uses available measures from routine clinical care as a "rapid assay" to explore associations and identify targets for future interventions to address adolescent nutritional and pregnancy outcomes. Preliminary findings have found associations similar to those reported in the published literature. This partnership has engaged community clinicians, investigators and funders in study design and analysis, as demonstrated by the collaborative development and testing of hypotheses relevant to service delivery.

METHODS:

We created a community-academic partnership that included New York City Community Health Centers (n=4) and Hospitals (n=4), The Rockefeller University, The Sackler Institute for Nutrition Science and Clinical Directors Network (CDN). We used the Community-Engaged Research Navigation model to establish a multisite de-identified database extracted from Electronic Health Records (EHRs) of female adolescents aged 12-21 years (January 2011 - December 2012) and their offspring through 24 months of age. These patients received their primary care between 2011-2015. Clinical data were used to explore possible associations among specific measures. We focused on the preconception, prenatal, postnatal periods, including pediatric visits up to 24 months of age.

SETTING & PARTICIPANTS:

The de-identified database contains Electronic Health Records (EHR) information from female adolescents aged 12-21 years (January 2011-December 2012) and their offspring through 24 months of age. These patients received their primary care at the 8 partnering Community Health Centers (CHCs) and Community Hospitals between 2011-2015.

RESULTS:

The preliminary analysis included all female adolescents (n=84,714) and a subset of pregnant adolescents with offspring data available (n=2,917). Patients were mostly from the Bronx; 45% of all adolescent females were overweight (22%) or obese (23%) and showed higher systolic and diastolic blood pressure, blood glucose levels, hemoglobin A1c, total cholesterol, and triglycerides levels compared to normal-weight adolescent females ($p<0.05$). There was a statistically significant association between the BMI status of mothers and infants' birth weight, with underweight/normal-weight mothers having more low birth weight (LBW) babies and overweight/obese mothers having more large babies. The odds of having a LBW baby was 0.61 (95% CI: 0.41, 0.89) lower in obese compared to normal-weight adolescent mothers. The risk of having a preterm birth before 37 weeks was found to be neutral in obese compared to normal-weight adolescent mothers (OR=0.81, 95% CI: 0.53, 1.25). Preliminary associations are similar to those reported in the published literature.

CONCLUSION:

This EHR database uses available measures from routine clinical care as a "rapid assay" to explore potential associations, and may be more useful to detect the presence and direction of associations than the magnitude of effects. This partnership has engaged community clinicians, laboratory and clinical investigators, and funders in study design and analysis, as demonstrated by the collaborative development and testing of hypotheses relevant to service delivery.

RELEVANCE STATEMENT:

Through a community-academic partnership, this electronic health records (EHR) database uses available measures from routine clinical care as a "rapid assay" to explore potential associations in biological, social and nutritional status on adolescent pregnancy rates, physiology and birth outcomes.

ONLINE RESOURCE:

OP5: Evaluation of a Facilitator-Led Method for Implementing Asthma Shared Decision Making into Primary Care Practices State-Wide using the Consolidated Framework for Implementation Research

Hazel Tapp, PhD; Lindsay Shade, PA-C; Rowena Dolor, MD MHS
Kelly Reeves, Jennifer Rees, Lori Henderson, Debra Nirella, Paul Bray, Jacqueline Halladay

BACKGROUND:
Poor outcomes and health disparities related to asthma result in part from difficulty disseminating new evidence and paradigms of care delivery such as shared decision making (SDM) into clinical practice. SDM, an approach to care delivery that involves patients and providers jointly engaging in decisions around treatment options, has been shown to improve medication adherence and disease outcomes for patients with asthma. Practice facilitation, a method of introducing and sustaining organizational change, involves the use of skilled healthcare professionals to help address the challenges associated with implementing evidence-based guidelines into practice. The Consolidated Framework for Implementation Research (CFIR) blends multiple conceptual frameworks that guide the planning and evaluating of dissemination and implementation programs to bring evidence-based research into practice. The ADAPT-NC study evaluated two dissemination strategies where either a "Facilitated" or a "Lunch-and-Learn" dissemination approach was used to implement asthma SDM into primary care practices. In this study, CFIR was used to evaluate the implementation of the SDM intervention.

METHODS:
Four practice based research networks (PBRNs) recruited 30 practices that were cluster randomized into 1 of 3 study arms with 10 practices in each arm: (1) Facilitator-Led dissemination, (2) Traditional "lunch-and-learn" dissemination, and (3) usual care Control. The Lead Practice Facilitator (PF) trained PFs from the PBRNs in a train-the-trainer model utilizing a manual of operating procedures, training day and remote meetings. The implementation across 30 practices was evaluated using the CFIR.

SETTING & PARTICIPANTS:
practice-facilitation researchers and providers evaluated implementation of an SDM toolkit into 30 practices across North Carolina involving 4 PBRNs.

RESULTS:
Overall, implementation was successful and took place across all 30 practices within the 4 PBRNs. At the 10 Facilitated practices, 80% percent (8 out of 10 practices) were able to incorporate SDM into their practices and have sustained the intervention. Degrees of implementation success were reflected by differences in scores between the 40 CFIR measures, with 7 practices in the high, 1 in the medium and 2 in the low implementation adopter ranges. Effective communication with both staff and facilitators proved to be distinguishing between high and low adopters. Additionally, low adopter practices struggled to establish a referral system for asthma patients to be seen for SDM. Tension for change was seen to be present at high adopter practices who expressed desire to improve their current asthma care model. Practices with challenges scored lower in the broad areas of Innovation Characteristics, Inner Setting and Process suggesting that there are no easy fixes for low implementation adopters.

CONCLUSION:
CFIR was used as an evaluation framework revealing multiple specific contextual factors most associated with implementation effectiveness.

RELEVANCE STATEMENT:

Through comparisons with implementations in other contexts and settings, the CFIR results can be used by providers, practices, researchers and policy-makers to advocate for the most efficient ways to fully implement programs such as through the use of practice-facilitators.

ONLINE RESOURCE:

OP6: Final Results for a RCT of a Statewide Shared Decision Making Implementation Intervention

Hazel Tapp, PhD; Thomas Ludden, PhD; Linsday Shade, MHS, PA-C
Yhenneko Taylor, Jacquie Halladay, Katrina Donahue, Tamera Coyne-Beasley, Rowena Dolor, Paul Bray, C. Madeline Mitchell, Kathleen Mottus, Kelly Reeves, Jennifer Rees, Debra Nirella, Beth Patterson, Lori Hendrickson, Andy McWilliams, Sveta Mohanan

BACKGROUND:

Shared decision making (SDM) in the patient/provider encounter increases treatment plan adherence and improves outcomes. However, multiple barriers prevent clinicians from incorporating new evidence such as SDM into daily practice. This trial evaluated two dissemination approaches used to implement asthma SDM into primary care practices. Here the objective was to examine whether a facilitator-led dissemination of SDM would result in fewer asthma exacerbations than traditional approaches.

METHODS:

Thirty primary care practices associated with four practice-based research networks in North Carolina were cluster-randomized to three study arms. Practices randomized to facilitator-led dissemination arm (n=10) received a facilitator-led tailored approach to implementation at the practice. The traditional lunch-and-learn arm (n=10), practices were trained is use of the SDM toolkit through a lunch training with a follow-up one year later. The usual-care control arm (n=10), had no intervention. Patient perceptions of shared decision making were assessed using anonymous surveys. Adjusted logistic regression controlling for baseline utilization compared results across the three arms. Data indicators of asthma exacerbations including emergency department (ED) visits, hospitalizations, and/or oral steroid prescriptions collected for Medicaid patients. Additionally, the number of patients who had one or more of the previously stated exacerbation markers were summarized for each arm. A baseline proportion of patients 12 months' pre-randomization was compared to 12-month data collection periods over 18 months for all three arms using X2 statistic.

SETTING & PARTICIPANTS:

RESULTS:

75% of patients visits at facilitator-led practices indicated they participated equally with the provider in making the treatment decision vs. 66% of patient visits from the Lunch-and-Learn practices (p=0.001). A comparative analysis between all 3 study groups showed marginal significance (P=0.08) between the facilitator-led and usual care practices for ED Visits. All other differences for steroid prescriptions, asthma exacerbations, ED visits or hospitalizations between arms were not significant. The relative change from baseline in the proportion of patients randomized to the facilitator-led, lunch-and-learn and usual care arms with regards to steroid prescriptions decreased 15.9% (p<0.001), decreased 13.2% (p<0.001), and decreased 10.6% (p<0.001) respectively. The relative change in patients with one or more exacerbations decreased 18.2% (p<0.001), decreased 9.5% (p<0.01), and decreased 10.5% (p<0.01) respectively. The relative change in patients with ED visits for the facilitator-led, lunch-and-learn, and usual care arms decreased 13.8% (p=0.21),11.6% (p=0.09), and increased 8.9% (p=0.28) respectively. The absolute and relative changes in hospitalizations in the 3 groups were small and nonsignificant.

CONCLUSION:

CONCLUSION: For facilitator-led practices, along with a reduction in ED visits, more patients with asthma reported having shared in the treatment decision than patients in the traditional arm. All practices across the three arms had significant reductions in steroid prescriptions and one or more asthma exacerbations reflecting a general overall decline in asthma exacerbations in line with a state-wide initiative on improving asthma outcomes.

RELEVANCE STATEMENT:
This study is designed to test what dissemination strategy most effectively increases practice level adoption of a shared decision making (SDM) toolkit for asthma care. Providers using the facilitator-led approach had patients who felt they shared in the decision more than lunch and learn. These patients had fewer emergency department visits than usual practice. All groups had fewer steroid prescriptions and overall asthma exacerbations.

ONLINE RESOURCE:

Dissemination/Implementation

OP7: Methods from Healthy Hearts Northwest, an AHRQ EvidenceNOW cooperative: Using the principles of academic detailing to develop a virtual educational outreach intervention in primary care

L.J. Fagnan, M.D.; Michael L. Parchman, M.D., M.P.H.; Laura-Mae Baldwin, M.D., M.P.H.
Jen Powell
Erika Holden
Leah Tuzzio, M.P.H.
Michael Fischer, M.D., M.S.

BACKGROUND:

The AHRQ EvidenceNOW Healthy Hearts Northwest (H2N) pragmatic trial aims to promote cardiovascular disease (CVD) risk reduction. 104 of H2N's 209 participating practices were randomized to receive education of clinicians and care team staff to increase use of the 10-year CVD risk calculator. H2N developed a phone- and webinar-based educational program, modeled on academic detailing (AD) principles from the National Resource Center for Academic Detailing (NaRCAD). Traditional AD takes the effective communication/behavior change/marketing approach used by pharmaceutical industry sales representatives ("detailers") and puts it in service of providing clinicians with unbiased evidence-based information to optimize clinical decision-making. It involves in-person, one-on-one visits with lead clinicians in a medical practice, conducted by an extensively trained detailer who develops a sustained relationship and has highly interactive discussions with individual clinicians. The H2N trial had constraints that limited its application of traditional AD features: wide geographic spread of H2N practices, a limited number of outreach educators concentrated in two urban cities, and an intervention best targeted to a clinical team rather than individual medical providers. The H2N trial did have practice coaches who met with each practice's quality improvement team at least monthly. This research describes how traditional AD principles were adapted to deliver a virtual educational outreach program under the constraints of the H2N trial.

METHODS:

We created an intervention roadmap (Figure 1) that delineated the intervention aims, what was needed to accomplish these aims (the primary drivers), and the strategies for effecting change (the interventions). We mapped the principles of traditional AD to the features and constraints posed by the design of the H2N trial, then engaged five educators, a cardiovascular disease expert, and an advisory group of five primary care providers in a nine-month process of adapting the traditional AD principles to fit a virtual educational outreach program in a large-scale geographically dispersed pragmatic trial.

SETTING & PARTICIPANTS:

Primary care practices in Idaho, Oregon, and Washington were the recipients of the educational outreach program.

RESULTS:

The adapted H2N intervention (Table 1) included a virtual, 30-minute, webinar-based visit to which any clinical team members potentially involved in cardiovascular disease risk calculation were invited. We created a pre-visit 7-minute educational video demonstrating use of a cardiovascular disease risk calculator to jumpstart the visit, and to share key information with clinicians and care team members unable to attend the visit. Five physician outreach educators were trained to conduct visits through demonstrations and role play activities. We created resource materials including a script that led educators through the 30-minute visit, which covers traditional AD topics - practice needs assessment, key messages, barriers and obstacles to adopting clinical change, and commitments towards change. A "Detail Aid" summarized the three key messages for the educators to cover at every visit: when and in whom to calculate risk, how to use the risk score to motivate patient change, and when to recommend statins. Practice coaches were invited to the phone/webinar visit. After the visit, the educator e-mailed a summary of the visit with the practice's proposed actions to the practice and the practice coach so that these could be discussed at their next contact with the practice.

CONCLUSION:

H2N's innovative virtual outreach program made significant adaptations to traditional AD, while developing strategies that maintained key AD features such as assessing practice/provider needs, succinct presentation of key messages by a well-informed detailer, engaged discussion, and follow-up to support planned changes. Future studies should evaluate the efficacy and cost-effectiveness of this virtual approach compared to traditional AD.

RELEVANCE STATEMENT:

The Healthy Hearts Northwest virtual educational outreach program adapted key features of the successful practice change strategy entitled "academic detailing," in order to efficiently reach geographically dispersed clinicians and their clinical teams in primary care practices across the Pacific Northwest.

ONLINE RESOURCE:

OP8: Relationships, Data, and Quality Improvement Infrastructure: Three Key Dimensions When Medicaid Accountable Care Organizations Partner with Primary Care Clinics to Improve Colorectal Cancer Screening

Melinda M. Davis, PhD; Rose Gunn, MA; Robyn Pham, BS
Amy Wiser, MD; Kristen Hassmiller Lich, PhD, Stephanie B. Wheeler, PhD

BACKGROUND:
Health system stakeholders are increasingly aligning as Accountable Care Organizations (ACOs) to achieve the triple aim. Research is needed to describe how ACOs interface with primary care clinics to implement interventions. Our study explores how Oregon's 16 Coordinated Care Organizations (CCO) - which are the single point of accountability for health care access, quality, and outcomes of Medicaid members - are working with clinics to increase colorectal cancer (CRC) screening, one of 18 CCO quality incentive metrics.

METHODS:
Observational cross case comparative study of Oregon's CCOs using public document review, key informant interviews, and field notes from technical assistance consults with CCO leaders. Data was collected from February 2016 - August 2016, transferred to Atlas.ti and analyzed by a multidisciplinary team using a data driven, emergent approach.

SETTING & PARTICIPANTS:
We engaged 14 CCOs and 26 key informants who represented state innovator agents (n=4), CCO leadership (n=16), and primary care practices (n=6). Over 30% of the informants (n=8) worked with more than 1 CCO.

RESULTS:
CCOs were implementing multiple interventions to improve CRC screening, including efforts designed to reduce structural barriers (e.g., direct mail programs), facilitate provider and patient behaviors (e.g., education, incentives, reminders), and increase the capacity of practices to implement desired changes (e.g., staffing, data management). CCOs addressed three key dimensions as they sought to improve CRC screening in partnership with regional primary care clinics: 1) establishing relationships, 2) producing and sharing data, and 3) developing a process and infrastructure to support quality improvement.

CONCLUSION:
Our research shows that CCOs/ACOs need to consider relationships, data, and quality improvement infrastructure when working with clinics to implement CRC screening interventions.

RELEVANCE STATEMENT:
Researchers, health system leaders and policy makers should consider the importance of relationships, data, and quality improvement infrastructure when working with ACOs and clinics to implement population health initiatives. Prior history and expertise in these areas should inform current partnership goals.

ONLINE RESOURCE:

OP9: Primary Care Practice Disruptions: A Potential Obstacle to Quality Improvement and Continuity of Care

Ann Chou, PhD, MPH; James Mold, MD; Margaret Walsh
Juell Homco, MS.

BACKGROUND:
In response to the rising cost of health care, the changing epidemiology of illness, and opportunities created by advancement in information technology, federal and state governments, insurance companies, and employers are applying substantial pressure on primary care practices to transform the way in which they provide care. These changes create uncertainties, particularly when practices must respond to new reimbursement criteria and engage in quality improvement (QI) efforts. Moreover, major disruptive events (MDEs) like relocations and changes in ownership, clinicians, and key staff primary care practices often present additional challenges, interfering with uptake of and sustaining QI efforts. However, the rates and impact of MDEs have seldom been published due to difficulties of tracking and reporting systematically these occurrences. Our study has the unique opportunity to implement and evaluate QI interventions in small primary care practices, which enables us to gather information about MDEs in these practices both retrospectively and prospectively. Our objective is to document and elucidate MDEs in small primary care practices located in Oklahoma.

METHODS:
During 2015 and 2016, 271 practices distributed evenly across the state of Oklahoma were recruited for study participation, and each enrolled practice worked with a practice facilitator. Surveys were administered to collect practice characteristics such as size, specialty, extent of electronic health record (EHR) implementation. We elicited MDEs occurring during the year prior to enrollment by survey and then recorded MDEs during the first year of the intervention period from practice facilitator reports. Practices were included if they had existed for one year prior to enrollment and remained in the project for one year or more after enrollment. Descriptive statistics were computed and bivariate analyses were conducted to assess associations between practice characteristics and MDE occurrence.

SETTING & PARTICIPANTS:
EvidenceNow is a national multi-center study to determine the impact of facilitated QI support on implementation of the latest cardiovascular risk management guidelines in small (< 10 clinician) primary care practices. Healthy Hearts for Oklahoma (H2O) is one of the seven collaboratives within the EvidenceNow initiative. QI interventions to reduce cardiovascular risks were introduced to eligible and enrolled primary care practices throughout the state of Oklahoma.

RESULTS:
Of the 208 eligible practices, 76 (37%) were clinician-owned. 109 (52%) were non-metropolitan. One hundred seventy five (175) MDEs occurred in 120 (58%) of the practices during the year prior to enrollment, 42 clinics having experienced multiple MDEs. During the first year of the project, 106 MDEs occurred in 89 (43%) of the practices, and 25 practices suffered multiple MDEs during that time. The most frequent MDEs reported during both periods were losses of clinicians and key staff and implementation of new EHR and billing systems. Medium-sized practices (2-10 clinicians) were somewhat more likely to experience an MDE than single clinician and >10 clinician practices (Chi Sq=9.63; p=0.047). No other statistically significant associations were found between practice location, ownership, or number of clinicians and occurrence of at least one MDE over the two-year period.

CONCLUSION:
Our findings showed that the most frequently occurring MDE both years were human resources in the form of personnel loss. The loss in personnel, both clinical and managerial, decreases organizational

resources and inadequate staffing inhibits the ability of the practice to free up personnel to develop or participate in new QI innovations, and training. The loss in clinical staffing would impede practices in their QI efforts, as clinicians are in the frontline and they improve the level of support for QI in general, and evidence-based practice in particular.

RELEVANCE STATEMENT:
In a state with a mix of clinician and health system-owned practices, MDEs occurred at an alarming rate, one that could be adversely affecting both QI and continuity of care. Understanding the nature and cause of MDE will enhance the ability of practices to strategically respond to and manage these uncertainties.

ONLINE RESOURCE:

OP10: The NC Heart Health Now (HHN) Project - Building the Business Case for Practice Facilitation Services - A Look at the First Six Months.

Jacqueline Halladay, MD MPH; Ann Lefebvre, MSW, CPHQ; Monique F. Mackey
Stephanie Pierson, MSHI
Darren DeWalt, MD MPH
Same Cykert MD MPH

BACKGROUND:

The Agency for Healthcare Research and Quality (AHRQ) has funded seven regional cooperatives to assist practices in their efforts to improve the heart health in the US. In NC, the HHN project includes 245 small to medium sized primary care practices that can receive on-site assistance from practice facilitators who guide the implementation of key practice change activities with the expectation that improved patient level outcomes will then follow. Facilitators also support practices via phone, email, and remote communication venues and by finding resources for practices. Facilitators document time the spent each month on these 5 key communication venues and activities. This time allocation data can help our team understand how facilitators spend their time and how we may use this data in future analyses.

METHODS:

We identified 22 practices in our first practice cohort that engaged with a facilitator during the first six months of the project where "Engagement" was defined as receiving a score of at least 1/3 using our "team engagement" measure. We calculated the time spent on each of the 5 time allocation categories during this initial six months. We calculated each practice's hypertension control rates using quarterly HTN control data and generated an overall mean improvement rate between quarters 1 and 2. As an exploratory exercise, we reviewed the time allocation data between the group of practices that achieved improvement rates above the cohort mean vs. those that fell below this mean improvement rate.

SETTING & PARTICIPANTS:

Among these NC 22 practices, 50% designated as medically underserved areas and 73% are identified as FQHC's, Rural Health Clinics, or other public health clinics. The majority of practices (35.3%) have 2-5 providers and half have received PCMH recognition. Among the patients served by the practices, 10.2 % uninsured while 18% have Medicaid.

RESULTS:

During this initial 6- month time interval, an average of 19.6 hrs, SD 13.9 /practice was spent on these activities, with the vast majority of the being spent on-site (10 hrs, SD 7.23/practice). In decreasing order, additional facilitator time was dedicated to researching for information on behalf of practices (4.7 hours , SD 5.9), emailing (3.2 hours , SD 2.0), communicating via phone (1 hour, 0.9), or via remote access. HTN control rates improved by 1.14% (SD, 0.03) over two quarters. Twelve practices achieved improvement rates above this mean. The time spent on each type of communication was similar among the practices that did and did not achieve HTN control rates above the cohort mean, however the total time spent with practices that fell below the mean was slightly higher than those above the mean (17.8 hours vs. 21.8 hours respectively).

CONCLUSION:

The categories of time facilitators spend with practices may be important independent variables in our work to understand what it takes to guide practices to make changes and improve clinical outcomes. Our team will continue to develop our methodological approach the HHN study proceeds.

RELEVANCE STATEMENT:

Understanding the time dedicated by the workforce of facilitators and the associations with practice and patient level outcomes can inform the business case for practice facilitation programs.

ONLINE RESOURCE:

OP11: TWITER #Colon Cancer
Tidewater Interventions to Eliminate and Reduce Colon Cancer

Hansel Lee, MD ; David Amos, MD; Robert Newman, MD
R. Dana Bradshaw, MD, MPH
Bradshrd@evms.edu
Ghent Family Medicine Faculty Attending
Eastern Virginia Medical School - Ghent Family Medicine

BACKGROUND:

Colon cancer is the third most common malignancy among Americans with approximately 135,000 new cases and 50,000 deaths annually in the United States. Overall colorectal cancer death rates have declined by nearly 50% since 1970, but not all groups and areas of the country are affected equally. African Americans and females still encompass the largest percentage of affected peoples, and "hotspot" areas such as Eastern Virginia and North Eastern North Carolina have incidence rates that are nearly 10% greater than "non-hotspot" areas in the country. While colonoscopy remains the gold standard of colon cancer screening, newer and less invasive methods such as fecal immunochemical testing (FIT) are acceptable and may be preferred by patients. The purpose of this quality improvement evaluation is to determine whether mailing or phone call interventions are more effective in increasing colon cancer screening rates.

METHODS:

A chart query was performed on eligible patients to assess current colorectal cancer screening status. Patients of one provider were first mailed a letter offering colon screening through colonoscopy, sigmoidoscopy, or FIT card methods and asked the patient to call to ask any additional questions and state their choice. Patients of the other provider were called and spoken to directly. After four weeks those patients unreached by mailings were then called by phone while those patients unreached by phone call were sent mailings. An additional five months were allowed for patients to respond and complete their screenings and a final chart query was performed to establish effectiveness of the interventions.

SETTING & PARTICIPANTS:

The interventions were evaluated at a medical school based primary care practice located in the Tidewater area of southeastern Virginia that also draws patients from eastern North Carolina. About 56% of the patient population is African American. Participants included patients from 50-75 years of age enrolled with either of the two resident investigators as their primary care physician (PCP) and another third belonging to other PCPs.

RESULTS:

A total of 315 patients were reviewed with 171 (54%) female, 144 (46%) male, and 206 (65.4%) Black, 104 (33%) White, and 5 (1.6%) Asian. Most patients had private insurance with 240 (76.1%) versus 61 (19.4%) Medicare, 11 (3.5%) Medicaid, and three (1%) with no insurance.

After chart review, 133 (42.2%) patients were up-to-date with colon cancer screening and 182 (57.8%) patients were not. Of the 133 patients already up-to-date with colon cancer screening 46% of males were up-to-date versus 39% of females. Black and White patients were nearly equal at 43% and 42% respectively. Further breakdown by gender and race showed that 54% of Whites males were up-to-date compared with 49% of Black males, while 41% of Black females and 35% of White females were up-to-date. No differences were significant by chi-square statistic. By method of screening, 122 patients had elected for colonoscopy, six FIT, three sigmoidoscopy and two colonography.

Of the 182 patients not up-to-date, 37% patients that had received a phone call as an intervention responded while 12.7% of patients who received mailing had a response (RR 2.92, 95%Cl 1.64-5.18, p<0.002). Of patients who had initially received a mailing intervention and then received a phone call 60.5% responded while only 8.8% responded to mailing as a second intervention (RR 6.86, 95%Cl 2.3-20.4, p<0.0001). 105 patients remained unreached at the end of the time period. For patients reached, 30 patients decided on FIT, 43 colonoscopy or sigmoidoscopy, and 32 were undecided. Method choice in up-to-date patients was 97% endoscopy, 3% FIT, but in previously not-up to date patients 59% preferred endoscopy and 41% opted for FIT (RR FIT in previously non-screened 13.5, 95%CI 4.9-36.7, p<0.0001). Tracking the relationship between number of visits with patient's assigned PCP and colorectal screening status only 30% of patients who had not seen their PCP during the period were up-to-date vs. 52% for patients who had 1-5 visits with their PCP and 36% for 6 or more visits.

CONCLUSION:

Study results revealed phone calls were a much more effective method of reaching patients than mailings. The rate of FIT screening increased from just 3% elected of those patients who were already up-to-date to approximately 41% of those who were not up-to-date. Lastly, although there was a clear increase in screening with regular PCP visits, the decrease with six or more visits may reflect patients who have complex chronic issues making it more difficult to discuss routine health maintenance.

RELEVANCE STATEMENT:

While the National Colorectal Cancer Roundtable's goal of 80% colon cancer screening by 2018 is unlikely to be met soon, this study shows that phone calls and a push for FIT testing may help providers narrow the gap in screening rates.

ONLINE RESOURCE:

OP12: Working on the data: Practice Facilitator Experiences in Small Primary Care Practices Using Electronic Health Records and Health Information Technology for Quality Improvement

Jennifer R. Hemler, PhD; Jennifer D. Hall, MPH; Benjamin F. Crabtree
Deborah Cohen, Department of Family Medicine, Oregon Health & Science University, Portland, OR

Melinda Davis, Department of Family Medicine, Oregon Health & Science University, Portland, OR

Laura Damschroder, VA Center for Clinical Management Research, Health Services Research and Development Center of Innovation, Ann Arbor, MI

Sarah Ono, Oregon Health & Science University, Portland, OR; Oregon Health & Science University, Portland, OR

Leif Solberg, HealthPartners Institute for Education and Research, Minneapolis, MN

Raja A. Cholan, Department of Medical Informatics and Clinical Epidemiology, Oregon Health & Science University, Portland, OR

Shannon Sweeney, Department of Family Medicine and Community Health, Research Division, Robert Wood Johnson Medical School, Rutgers University, New Brunswick, NJ

Virginia Brooks, Health Quality Innovators, Richmond, VA

David Cameron, Department of Family Medicine, Oregon Health & Science University, Portland, OR

Jennifer Hayes, Health Quality Innovators, Richmond, VA

Clarissa Hsu, Center for Community Health and Evaluation, Kaiser Permanente Washington Health Research Institute, Seattle, WA

Kyle Knierim, Department of Family Medicine, School of Medicine, University of Colorado, Denver, CO

Cynthia Perry, School of Nursing, Oregon Health & Science University, Portland, OR

Tanisha Tate Woodson, Department of Family Medicine, Oregon Health & Science University, Portland, OR

Bernadette Zakher, Department of Public Health and Preventive Medicine, Oregon Health & Science University, Portland, OR; VA Portland Health Care Center, Portland, OR

BACKGROUND:
Reliable, accurate, easy-to-access data about clinical care are essential to drive quality improvement (QI) and value-based payment initiatives for primary care practices. Clinical quality measures (CQMs) from electronic health records (EHRs) are key data for these purposes; however, practices face challenges producing them: EHRs vary in reporting functionality, and practices may lack the access, ability, or resources to compute CQMs. Practice facilitators are one source of support. We describe how practice facilitators work with practices to access and use their data or develop alternative methods for performing data-driven QI when accurate CQM data are not available.

METHODS:
ESCALATES (Evaluating System Change to Advance Learning and Take Evidence To Scale) performed an independent, mixed-methods program evaluation of the seven Cooperatives participating in the Agency for Healthcare Quality and Research (AHRQ)'s EvidenceNOW initiative. Here, we focus on qualitative data from online diaries where Cooperatives wrote about their interventions in real time, field notes from Cooperative site visits where we observed practice facilitators at work, and transcripts from interviews with a purposive sample of practice facilitators. Our multidisciplinary team used an immersion-crystallization approach to identify how practice facilitators responded to practices' challenges in using EHR data for QI.

SETTING & PARTICIPANTS:
EvidenceNOW was designed to improve cardiovascular health by implementing interventions to improve performance on Aspirin, Blood Pressure, Cholesterol, and Smoking Cessation CQMs. Seven Cooperatives participated across the U.S.- Midwest (Indiana, Illinois, Wisconsin), New York City, North Carolina, Northwest (Idaho, Oregon, Washington), Oklahoma, Southwest (Colorado, New Mexico) and Virginia-enrolling approximately 1500 small-to-medium primary care practices. All Cooperatives provided practice facilitators to support practice change.

RESULTS:
When practices lacked CQM data, practice facilitators worked on non-ABCS-data-driven QI activities aimed at overall practice change and/or helped practices interface with vendors or health systems in requesting reports. When partial data for CQMs were available from EHRs, facilitators helped practices approximate CQM reports using various data sources and tools, like cardiovascular disease (CVD) risk calculators and/or existing EHR reports (e.g., list of patients with CVD). In some practices, practice facilitators implemented custom CQMs, generating patient-level data for QI. When measure reports were available, practice facilitators taught practices documentation workflows and report validation to build data skills and trust in the data. Practice facilitators combined or staggered these approaches to fit the individual practice.

CONCLUSION:
Practice facilitators used multiple approaches to help practices develop the skills to produce and trust data for QI and/or perform data-driven QI without CQMs. Practices need to learn these skills to be prepared for value-based payment programs. Ultimately, the data challenges facing practices need to be resolved at the system level by healthcare stakeholders and informatics experts; practices without access to practice facilitators or similar support may be unable to meet the demands of current governmental and payer-based expectations.

RELEVANCE STATEMENT:
Primary care practices need to be able to access and use their own EHR data to help them measure and improve quality of care. Primary care practices currently cannot do this without infrastructure and support. We describe ways practice facilitators aid practices in working through data challenges.

ONLINE RESOURCE:

OP13: A Multicenter Evaluation of an Opioid Patient-Provider Agreement: PEARL Network Findings

Frederick A Curro, DMD, PhD; Mary P Ghods; Frederick Naftolin, MD, DPhil
Joseph Pergolizzi, MD,(NEMA Research, FL) Nananda Col, MD,(Shared Decision Making Resources, Don Vena,(EMMES Corp.MD) Robert Taylor, PhD,(NEMA Research, FL)

BACKGROUND:
To date there is no universally agreed upon standard for an opioid patient-provider-agreement(PPA) and many professional organizations do not provide details as to what elements the PPA should contain, much less their language.The FDA Safe Use Initiative(SUI) as part of patient shared decision making and patient-centered care formed a working group to establish an opioid PPA. An opioid PPA was developed and evaluated by the PEARL Network in order to elicit and evaluate feedback from both patients and prescribers. A multidisciplinary working group included patient and clinician representation as well as a number of pain organizations in an attempt to arrive at a consensus for the content, format, and framing of a standardized PPA.

METHODS:
The FDA SUI convened a multi-disciplinary working group including patients, primary care physicians, pain specialists, addiction specialists, pharmacists, dentists and plain language experts to develop a model opioid PPA to be used as a shared-decision making tool for patients and prescribers. The PEARL Network led an evaluation study of prescribers and patients, to determine the acceptability of the PPA as an educational and decision-making tool for opioid treatment. The study sought to determine if the PPA might influence decisions about the patient's final treatment and if it had any effect on the relationship between prescriber and patient. The study included demographic data about pain, its history, treatment, and prescribing decisions related to that pain.

SETTING & PARTICIPANTS:
All centers participating in the study were currently using some form of an opioid PPA, and this model opioid PPA was presented to each patient as the standard of care. An instructional work flow was included for prescribers to follow in order to maintain consistency in terms of how the PPA was introduced to the patient. A brief written description of the patient's responsibilities and commitments in opioid therapy formed the basis of the agreement and was given to each patient. A joint decision to use or not use an opioid was made between the patient and prescriber. Patient and prescriber completed a questionnaire and all information was given to a designated office staff person who forwarded the completed questionnaires to the data coordinating center(EMMES Corp. MD).

RESULTS:
The pilot study consisted of 14 providers(physicians, nurse prescriber, dentist) who recruited 117 patients. The PPA was found to be administered by 84% of the practices in 10 minutes or less. patients reported good understanding of the PPA with 97% saying it was "easy to understand". Eighty one percent of the patients thought the length was "just right" compared to 7% who said it was "too long" and 5% who said it was "too short". Among prescribers 37% found the PPA took too long to administer.

CONCLUSION:
The study found that both prescribers and their patients saw value to an opioid PPA, both groups viewed this document as helpful in reaching treatment decisions, and found the document inherently neutral in terms of whether it prompted or discouraged opioid therapy. The PPA was found to be acceptable in terms of time to administer by practitioners. The questionnaire included a description for the proper storage and disposal of the drug by the patient.

RELEVANCE STATEMENT:
Prescribing opioids and the associated risks and side effects involves both the prescriber and patient. A standardized opioid agreement could ensure that both the prescriber and patient consider, at least, alternative medications and treatment before use.

ONLINE RESOURCE:

OP15: Making Research Matter with Group Concept Mapping

Barbara L Norton, DrPH; Zsolt Nagykaldi, PhD; Laurene Tumiel-Berhalter, PhD
Lyndee Knox, PhD, LA Net Community Health Resource Network

BACKGROUND:

The PDQNet Project, a methods study funded by the Patient-Centered Outcomes Research Institute, with its investigative team from The University of Oklahoma Health Sciences Center, University of Buffalo, and LA Net Community Health Resource Network, engaged stakeholders to create a strategic conceptual framework that can help guide health services researchers and community organizations engage in productive, meaningful, and sustained academic-community research collaborations.

METHODS:

To accomplish this, investigators used The Concept System® planning and facilitation methodology, better known as group concept mapping (GCM). GCM is a mixed methods, computer-supported approach that integrates qualitative group processes, like brainstorming, organizing ideas, and assigning value ratings, with multivariate statistical analyses. This allows a group to describe its ideas on a topic of interest and represent the collective ideas visually through a series of graphic products. The yearlong exercise was named "Making Research Matter".

SETTING & PARTICIPANTS:

Eight partnering entities, representing stakeholder groups of patient/community organizations, primary care practice-based research networks (PBRNs), and academic research institutions in three diverse national sites of Oklahoma, Buffalo, NY, and Greater Los Angeles, participated in the GCM exercise. An estimated 100 participants, in an asynchronous but coordinated brainstorming process, contributed 243 statements in direct response to the prompt: What specific action can bring community input and voices into the study of health and healthcare improvement? This same group, using online and face-to-face methods that were tailored to different languages, cultures, and SES levels, organized the brainstormed statements into like ideas and assigned values to each using Likert scales on importance, feasibility, and impact.

RESULTS:

We will describe our process and the ways the research team adapted the basic GCM method to allow for the development of broad conceptual insights, while also surfacing valuable distinctions among stakeholder perspectives. We will present high-level findings, among them, the eight major themes and four high-level constructs as part of a broad strategic conceptual framework representing the full array of ideas contributed by this diverse group. Among the findings across all participants was a high degree of congruence among stakeholders about what themes (clusters) were most important and about what ideas are most actionable. Distinctions about what is feasible and likely to be impactful, however, varied more significantly.

CONCLUSION:

As a group process, GCM is well-suited to developing a consensus around a specific topic because it connects the knowledge of diverse stakeholders with mixed methods to yield a broad framework on issues of significance. At the same time, with sufficient sample size, it can tease out findings for specific stakeholder groups, providing the opportunity for developing action steps both within groups and across them.

RELEVANCE STATEMENT:

There is increasing agreement that we need the involvement of communities to help set primary care research and quality improvement priorities. The challenge lies in knowing how and with whom to begin.

In this project, GCM proved its value in articulating the most salient strategies of the community, PBRNs, and academic researchers, in order to engage them in sustained research partnerships that adopt community-driven priorities.

ONLINE RESOURCE:

OP16: Using Working Groups to Develop Stakeholder-Driven PBRN Research Proposals

Sarah Brewer, MPA; Sean O'Leary, MD, MPH; Jodi Walker
Natalie Crump, MS
Cody Belzley
Sean Crump

BACKGROUND:
Stakeholder engagement in practice-based research network (PBRN) research has the potential to improve the impact of public health research and interventions and many funders now seek stakeholder engagement in research proposals. Many methods exist for engaging stakeholders in various stages of research and many PBRNs use community advisory boards (CABs) to incorporate community feedback in research projects. While CABs provide a sustainable and feasible mechanism for involving stakeholder voices in PBRN research projects, they rarely provide the time, space, and training required to design stakeholder-driven research proposals. There are few other structured models for PBRNs to engage stakeholders, and especially parents, in collaborating on the development of questions and research proposals. The objective of this project was to expand on the CAB model by using Working Groups to develop stakeholder-driven research questions and proposals in partnership with a pediatric PBRN and evaluate the effectiveness of that approach.

METHODS:
After identifying three health issues of high importance to the stakeholder in our pediatric PBRN (mental health, immunization hesitancy, and transitions to adult care), the project team and the PBRN Network Advisory Board (NAB) established three Working Groups, each with a focus on one of the selected topics. Each Working Group consisted of 7-11 members with representation from multiple stakeholder groups. Working Groups held three or four meetings each over six to nine months. Working Groups received a short training on community-engaged research which included expectations of stakeholders, basics of research design, and principles for collaboration with the PBRN. The first meeting included a summary of the group's topic including concerns raised by PBRN stakeholders, followed by discussion of many facets of the topic broadly. The second meeting focused on presenting literature, narrowing the scope of the group's topic to a specific research topic and formulating a broad research question. The third meeting utilized the Problem/Intervention/Comparator/Outcome (PICO) model to develop a research question and draft aims. Stakeholder engagement was measured after each meeting using a short online survey and Basecamp was used to maintain group communication between meetings.

SETTING & PARTICIPANTS:
The research was conducted within a statewide pediatric practice-based research network in Colorado consisting of 60 private practices. Working Group members were drawn from a variety of stakeholder groups were comprised of a majority parents, along with child health advocates, pediatric clinicians, researchers, and other professionals. Nearly all Working Group members were parents of children, regardless of the stakeholder group from which they were selected. Members were primarily female (75%) and privately insured (85%).

RESULTS:
Each of the three Working Groups met at least 3 times over 6-9 months with at least 75% of Working Group members present at all meetings. Stakeholders reported positive engagement in the Working Group process. Participants reported they strongly agreed that they were fully engaged in discussion (92%), able to share their perspectives with the group (96%), respected by the other group members (96%), respected by PBRN staff facilitators (96%) and felt they were contributing to a worthwhile endeavor (92%). In open-ended questions, participants reported they felt like each meeting presented an

appropriate goal and timeframe, felt productive, and benefitted from small group discussion. In addition, parents reported in open answers that they felt the projects they contributed would be beneficial to children and their families.

Following the third meeting, all three Working Groups had developed a research question and a supporting PICO outlining details of a research project proposal. In addition, one of the three groups had developed a draft specific aims page to guide the development of a grant proposal to a national funding agency. Two groups had assigned two members to work independently to adapt their PICO into a specific aims page. All three groups prepared letters of intent to funding agencies within nine months and independently decided to continue their role beyond the original Working Group commitment of nine months.

CONCLUSION:
Working Groups can provide a focused method for creating stakeholder-driven research proposals on a variety of topic areas in the PBRN setting above and beyond a CAB. Overall, stakeholders reported strong engagement in the process and felt the Working Group model was a positive and worthwhile experience.

RELEVANCE STATEMENT:
Working Groups provide focused method for creating stakeholder-driven research proposals on a variety of topic areas in the PBRN setting above and beyond a community advisory board and can engage patients and parents in developing research projects and proposals in the early stages of research.

ONLINE RESOURCE:

OP17: Improving EHR Data Quality: Application of a Quality Control Framework

Jonathan Tobin, PhD; Jennifer Carroll, MD MPH; Kevin Fiscella, MD MPH
Andrea Cassells, MPH, Brianna M. D'Orazio, BS, Subrina Farah, MS, Tameir Holder, MPH, Chamanara Khalida, MD, MPH, Mechelle Sanders, BA, Stephen Williams, MD

BACKGROUND:

Data quality assessment is critical for the valid use of Electronic Health Records (EHR) data for research in pragmatic clinical trials and quality improvement activities. Recently, a proposed harmonized data quality (DQ) assessment framework including data quality terminology was developed for this purpose under the auspices of the Agency for Healthcare Research and Quality (AHRQ) and the Patient Centered Outcomes Research Institute (PCORI). We examined the application of this framework to the use of EHR data in the context of a pragmatic trial in which much of the data were extracted by staff at Federally Qualified Health Centers (FQHCs).

METHODS:

We adopted the DQ assessment framework comprised of: a) data fidelity/conformance, b) data completeness, and c) data plausibility. A composite score across the DQ categories was calculated, ranging 0-10, with 0 being no DQ issues assessed. These clearly specified DQ metrics were assessed for data extracted from the EHRs of 10 sites.

SETTING & PARTICIPANTS:

Data from 7 EHR systems were extracted from 10 FQHCs in New York and New Jersey that are members of Clinical Directors Network, a primary care practice based research network (PBRN), who are participating in BPVISIT, an NHLBI funded study designed to improve blood pressure (BP) control rates among FQHCs.

RESULTS:

Among the 10 sites, we found data quality deficiencies for each of the aforementioned categories of DQ. For data fidelity/conformance, we observed issues at three sites regarding unique patient IDs, two involving meta data, consistency among independent programmers' results and one involving derivation for body mass index (BMI) computation from height (HT) and weight (WT). For completeness of data, we observed presence of all required variables, issues with consistent BP recording at each visit, and distributions of BP values within plausible ranges. For plausibility, we found issues such as negative values for HT, WT, and BP, inconsistent formats of ICD9/10 codes, and BP control rates that did not conform to those reported to the Health Resources and Services Administration (HRSA). This framework was reapplied to subsequent data extractions to test if successful corrective actions were taken to improve data quality by each site. The mean DQ score at baseline was 3.6 and decreased to 0.7 after the final corrective action. On average, 4.2 corrective actions were taken at each site before the DQ standards were met.

CONCLUSION:

A DQ assessment framework is useful for identifying data quality issues related to data extracted from EHRs and for monitoring corrective actions. The framework enhanced EHR clinical data quality for clinical management, quality improvement (QI), and research purposes.

RELEVANCE STATEMENT:

This DQ assessment framework provides a tool to understand the strengths, and limitations of EHR data, as well as a systematic method of EHR data quality assessment that can be used to improve data DQ.

Improved data quality will benefit practices by facilitating the transfer of meaningful data for the Meaningful Use Incentive Program, and for QI and research initiatives.

ONLINE RESOURCE:

OP18: Leveraging Technology for Effective, Fast, Safe, Low-Cost Heart Failure Monitoring

Jeffrey J. Guterman, MD MS; Laura Myerchin Sklaroff, MA; Nina J. Park, MD
Sandra Gross-Schulman, MD, MPH, RN
Khathy Hoang, MPH
Geoffrey Scheib, RN

BACKGROUND:
Heart Failure (HF) is the most expensive preventable condition, regardless of patient ethnicity, race, socio-economic status, sex, and insurance status. Remote telemonitoring with timely outpatient care can significantly reduce avoidable HF hospitalizations. Human outreach, the traditional method used for remote monitoring, is effective but costly.

The Los Angeles County Department of Health Services (LAC DHS) is the second largest safety net system in the nation and has a long history of developing new and innovative strategies to address the needs of patients with a high burden of illness in a resource-constrained environment. Over 6,600 continuity care patients in LAC DHS have HF. Recognizing the need for low-cost remote monitoring, we designed and implemented an automated system utilizing the most accessible technology in use today, the telephone. The Heart Failure Automated Remote Monitoring System (HF-ARMS) is a telephonic data collection tool that supports effective population health management using automated speech recognition.

METHODS:
The HF-ARMS is a data collection tool that uses automated speech recognition to capture patient responses. It negotiates multiple simultaneous outbound and inbound communications to patients on a scheduled and triggered basis. Communication content includes structured scripts and deterministic decision tree logic with clinical decision points that guide patient interviews and the collection of appropriate patient data. Clinical content used in the creation of the HF-ARMS are consistent with the most recent American College of Cardiology and American Heart Association (ACC/AHA) Guidelines for the Diagnosis and Management of Heart Failure. The entirety of the communication flow contains 29 clinical content areas with between one to four secondary questions per area; each call requires only a small subset of the questions as clinically appropriate. HF-ARMS interactions collect objective and subjective physiologic and behavioral data (vital signs, symptomology, maximal activity level, dietary indiscretion, medication use, and rescue care resource utilization).

The HF-ARMS safety study evaluated the degree of clinical concordance between the automated system and traditional human monitoring.

HF-ARMS patient data collection was initiated via system generated outbound calls made Monday through Friday, between 8 AM and 8 PM, following patient preference, on both a scheduled and triggered basis. Utilizing automated speech recognition with backup dual-tone multi-frequency signaling (DTMF) to collect patient responses, the HF-ARMS made one or more call attempts with a decaying call cycle for a 24-hour period. A RA used a skip pattern survey that covered the same clinical content as the deterministic decision tree used by the HF-ARMS to collect the same information within a 2 hour time period of the HF-ARMS call. Call order, human or machine first, was randomized for each call pair. All discrepant combinations were assigned a value of none, minor, moderate or major clinical significance and were evaluated to determine the direction and magnitude that responses could have on triage decisions. Response mismatches and response-null combinations that resulted in potential HF-ARMS or human under-triage of patients were separately identified.

SETTING & PARTICIPANTS:

This prospective, single arm study recruited one hundred and one patients via a convenience sample and through referrals from the cardiology clinic at Olive View-UCLA Medical Center (OV-UCLA), a LAC DHS facility. Inclusion criteria included:

1. Adults (18 years or older)
2. English speaking
3. Heart Failure diagnosis
4. Reliable access to a telephone
5. Cognitive integrity (ability to understand consent material)

15% of patients were African Americans and 65% were Hispanic/Latinxs.

RESULTS:

We determined that the HF-ARMS is effective, 93% of data collected by HF-ARMS is clinically equivalent to that collected by humans. The HF-ARMS is safe, the HF-ARMS and humans have the same under-triage rates and less than 3% of HF-ARMS patients required a follow-up call from a provider. The HF-ARMS is low-cost at 95% lower average cost than traditional nurse calls. That patients like The HF-ARMS: 80% of users preferred the HF-ARMS calls to less frequent human monitoring and 72% of users were satisfied or strongly satisfied. Patients reported anecdotally that HF-ARMS communications resulted in halo effect positive behaviors, ex: "I knew [the HF-ARMS] would ask about my low salt diet so I didn't eat french fries."

CONCLUSION:

Given the success of the HF-ARMS, an updated version of the system, HF-ARMS 2.0 is currently being spread across LAC DHS facilities. It is bilingual (English and Spanish) and accessible through voice (telephone calls), text message to mobile web, and email to web modalities. Updated findings on the current spread of the HF-ARMS, including provider acceptance, language variations, and technology modalities will also be shared.

RELEVANCE STATEMENT:

The Heart Failure Automated Remote Monitoring System (HF-ARMS) is a safe, effective, and fast method to provide HF monitoring to a large group of patients for a fraction of the cost of traditional, nurse-driven remote monitoring (calling patients). We are currently building on our earlier success by spreading a bilingual (English and Spanish) version of the HF-ARMS available through phone calls, text messages/mobile web, and email/web modalities.

ONLINE RESOURCE:

OP19: Scaling Technology to Enhanced Pneumococcal Vaccination Outreach Efforts

Nina J. Park, MD; Laura Myerchin Sklaroff, MA; Jeffrey J. Guterman, MD, MS
Sandra Gross-Schulman, MD, MPH, RN
Khathy Hoang, MPH
Geoffrey Scheib, RN

BACKGROUND:

Streptococcus pneumoniae is a principal cause of serious illness, including bacteremia, meningitis, and pneumonia, worldwide. Improving the quality and coordination of immunization care for high-need, high-cost patients is crucial to reducing health care disparities among vulnerable populations.

A review of Los Angeles County Department of Health Services (LAC DHS) electronic patients' data sources found that fewer than 10% of those eligible for the pneumococcal vaccine had received the appropriate vaccination. This low rate is likely a combination of low immunization rates and poor electronic capture of immunization.

METHODS:

A three-pronged design was used increase pneumococcal immunization rates in LAC DHS, this includes utilization of a standardized protocol in parallel with provider education, electronic identification of at-risk adults, and automated multi-modal outreach and scheduling. A step wedge design was used to rollout the intervention across more than 15 facilities.

Provider Education and Standardized Protocol: One barrier to optimal pneumococcal vaccination is provider knowledge deficits. The details of vaccine indications and exclusions, proper sequencing of PPSV23 / PCV13 and knowledge of motivational interviewing techniques to overcome patient resistance to vaccination are all important components of a successful program.
We have created a standardized pneumococcal immunization protocol allows provider and non-provider clinical staff to facilitate and expedite patient care. This expands which caregivers are able to administer and properly sequence PCV13 and PPSV23 vaccines. The protocol is approved for broad dissemination by the LAC DHS Ambulatory Care Network (ACN) Interdisciplinary Practices Committee and is available on the LAC DHS intranet. A series of Pneumococcal Immunization Protocol Education events were implemented and taught by LAC DHS Health Education staff.

Electronic Identification of At-Risk Adults: We created an electronic algorithm to identify which of our 340,000+ empaneled patients are potentially eligible for pneumococcal vaccination. This was done through the translation of the paper based protocol to work with our electronic health registry.

Automated Multi-Modal Outreach, Education, and Scheduling: Leveraging previous success with automated remote monitoring technology, we created the Immunization Outreach Automated Remote Monitoring System (IO-ARMS).
This technology is a cost-effective, proven technique for improved clinical performance, with positive fiscal and satisfaction outcomes that have demonstrated efficacy for patients regardless of education and technology experience. This technology reduces disparities and improves health outcomes regardless of race, ethnicity and social class.
The Automated Remote Monitoring System (ARMS) is a data collection tool that uses automated speech recognition system that is able to provide multiple simultaneous outbound calls to patients on a scheduled and triggered basis. Communication results with details of the patient interaction are made available via a secure web interface in real-time to care providers. A prior study found that 92% of data collected by the ARMS is clinically equivalent to data collected by humans.

The IO-ARMS contacts patients determined potentially eligible for pneumococcal immunizations via an automated phone call. The communication informs the patient of their eligibility, provides a brief message on the importance of pneumococcal immunization, asks if the patient has received the immunization outside of LAC DHS, allows the patient to indicate if they'd like to speak with an LAC DHS care team member to ask questions, and prompts the patient to select a facility to walk-in for a vaccination.

SETTING & PARTICIPANTS:

LAC DHS is the 2nd largest safety-net in the nation. The population seen at LAC DHS facilities is multicultural and diverse; 15% of patients are African Americans and 65% are Hispanic/Latinos. Many LAC DHS patients have multiple chronic conditions, are non-native English speakers, and remain uninsured or underinsured (43%) at higher rates than state or national levels. Social problems (i.e., poor social/community support, chronic homelessness) compound the impact of disease in this population. Within LAC DHS, more than 40% of patients have diabetes, heart failure, or asthma, and one or more other chronic conditions.

RESULTS:

The IO-ARMS is in use at 18 LAC DHS ambulatory care facilities and has contacted more than 10,000 eligible patients. The cost of IO-ARMS communications average less than fifty cents per communication. Site specific and generalized findings will be discussed. Methods for leveraging health information technology for scaled immunization efforts will be discussed.

CONCLUSION:

Technology driven, automated remote communications can be utilized broadly as part of a coordinated effort to address disparities in vaccination rates for safety-net patients.

RELEVANCE STATEMENT:

Telephones are one of the most common types of technology used by patents in the safety-net. By automating our efforts to educate patients about the benefits of pneumococcal vaccinations for pneumonia prevention, we can reach a large number of people in a short amount of time for a low cost. This is part of a coordinated effort increase our overall vaccination rates.

ONLINE RESOURCE:

OP20: Type 2 Diabetes Mellitus and Mobile Health Technology: Longitudinal Associations with Engagement

Franklin C. Niblock, BS; Katrina E. Donahue, MD, MPH; Laura A. Young, MD, PhD
John B. Buse, MD, PhD; Mark A. Weaver, PhD; Maihan B. Vu, DrPH, MPH; C. Madeline Mitchell, MURP;
Tamara Blakeney, BS; Kimberlea Grimm, BAS; Jennifer Rees, RN, CPF

BACKGROUND:
Mobile health (mHealth) can improve self-management support and communication between patients and providers. Patient characteristics have been shown to be associated with disparities in engagement in mHealth, but previous studies have not examined how these characteristics affect engagement long-term. We used a nested cohort study to characterize the relationship between patient characteristics, adherence and behavior modification for patients with Type 2 Diabetes (T2DM) using mHealth.

METHODS:
Patients received enhanced once-daily self-monitoring of blood glucose (Enhanced SMBG). Meters sent messages prompting changes in lifestyle management and testing schedule according to trends in blood glucose. Patient characteristics including age, gender, race, ethnicity, education, and health literacy were recorded at baseline. Adherence to Enhanced SMBG and odds of testing schedule change after prompting by the meter were assessed at 52 weeks.

SETTING & PARTICIPANTS:
Pragmatic trial across 15 primary care practices in central North Carolina. Participants with T2DM, not using insulin, and >/= 30 years old.

RESULTS:
A total of 148 patients were randomized to receive enhanced SMBG. The mean age was 61, 55% were female, 58% were white, and 37% had limited health literacy. Patients had diabetes on average 9 years with an A1c of 7.6%. In multivariable analysis, patients' age, gender, race/ethnicity, education, and health literacy were not associated with adherence to Enhanced SMBG. Patients with limited health literacy (Adjusted OR=0.49, 95% CI 0.20, 1.20) and females (Adjusted OR=0.45, 95% CI 0.18, 1.16) were less likely to execute a change in their testing schedule after prompting. The average decrease in A1c over the trial period was -0.10. No associations were seen between improvement in A1c and patient characteristics.

CONCLUSION:
We found no evidence that patients' age, gender, race/ethnicity, education, and health literacy affect adherence to mHealth over 52 weeks. However, we noted that females and those with limited health literacy were less likely to respond to an mHealth prompt to change their SMBG testing schedule, suggesting the probability of engagement may be better among males and those with higher health literacy. Patient characteristics such as health literacy and gender should be taken into consideration in the development of future mHealth interventions due to its potential effect on the interpretation of mHealth messages and subsequent behavior modification.

RELEVANCE STATEMENT:
The prevalence of diabetes is rapidly increasing and people with diabetes often need a complex set of services ranging from medication adjustment to psychosocial support. Accordingly, new models of care are necessary to manage these patients. Mobile health has the potential to improve the quality of diabetes care and reduce costs. This study evaluates the influence of patient characteristics on

engagement with mHealth and can inform the implementation of mHealth technology in primary care practice.

ONLINE RESOURCE:

OP21: Barriers and Facilitators to Implementation of an Evidence-Based Colon Cancer Screening Decision Aid into a PBRN Practice

Hazel Tapp, PhD; Lindsay Shade, PA-C; Dan Reuland, MD, MPH
Brisa Hernandez, Alison Tytell, Laura Cubillos, Jeremy Thomas

BACKGROUND:
Colorectal cancer (CRC) screening is underutilized, especially among vulnerable populations. Decision aids and patient navigation are potentially complementary interventions for improving CRC screening rates. A recent study showed that a patient decision aid plus patient navigation substantially increased the rate of CRC screening completion by 40% in vulnerable primary care patients compared with usual care. Poor outcomes and health disparities related to CRC result in part from difficulty disseminating new evidence such as using decision aids to support screening into clinical practice. Here we describe the barriers and facilitators to implementing this decision aid into a real-world primary care practice setting.

METHODS:
A research collaboration between UNC Chapel Hill and Carolinas HealthCare System was formed consisting of members from the original decision aid study research team. The plan for implementation design and evaluation was based on the RE-AIM and CFIR theoretical approaches. First practice leadership was approached, next a provider champion conducted a pilot intervention, and finally a full intervention was rolled-out across the practice. Evaluation measures were based on REAIM and CFIR measures, weekly number of video screenings and % completion of colon cancer screening.

SETTING & PARTICIPANTS:
Family Medicine Practice within large healthcare system. patients, providers and research team.

RESULTS:
Practice leadership were initially hesitant to consider the video implementation due to the length of the 15-minute video and lack of available staff to assist with the navigator component. The research team decided to implement a 5-minute video that was evidence-based and available in both Spanish and English. Discussions on how to implement the video to fit with practice-flow ensued. Pilot data showed the video was best viewed in the examination room after rooming the patient prior to the provider encounter, or at the end of the visit. The rollout was implemented after loading the video on all computers throughout the practice and after explaining the intervention at practice meetings to faculty providers, residents, and nursing staff. Quality team data and "huddle reports" already available to the practice were used to identify patients meeting screening eligibility criteria and allowed for monitoring of the number of completed screenings. Video tracker data shows increasing views from a starting number of 5/week with approximately 10% of about 500 eligible patients currently having seen the video. Feedback from patients identified concerns regarding low volume on some computers so the research team facilitated adding speakers to the examination rooms.

CONCLUSION:
Successful implementation of an evidence-based intervention into busy, real-world practice settings requires a participatory, step-wise, and tailored approach that fits with the flow and culture of the practice.

RELEVANCE STATEMENT:
Typical times of "bench to bedside" implementation of research evidence into practice is estimated at 17 years. The evolving field of implementation science aims to improve the understanding of how to best adopt new evidence. Knowledge of barriers and facilitators to real world implementation adds to this needed evidence and allows for the spread of best practices.

ONLINE RESOURCE:

OP22: Promoting Preteen HPV Vaccination through Primary Care Settings

Tamera Coyne-Beasley, MD, MPH; Joan Cates, PhD, MPH; Sandra Diehl, MPH
Justin Trogdon,PhD, William Calo, PhD, Laurie Stockton, MPH, Arshya Gurbani, Chioma Ihekweazu

BACKGROUND:

Patient-centered communication (PCC) promotes mutuality, shared understanding, and shared-decision making. Our communication intervention, Protect Them, aims to eliminate the lag in preteen human papillomavirus (HPV) vaccination in the US by enabling 11-12 year old patients to understand its importance and participate in the decision to be vaccinated. We partner with primary care settings by fostering preteen-informed dialogue on HPV. Wave 1 of 3 in the study involved 12 primary care practices that used brochures, posters, a video game for preteens and an interactive online training for providers to promote discussion amongst parents, preteens and providers. The objective of this presentation is to describe our study's clinical setting characteristics that could foster an environment conducive to maximizing preteen patients' dialogue in decision-making about HPV vaccination.

METHODS:

From 176 North Carolina Immunization Registry primary care practices, 57 were contacted from a random ordered list to participate in the Protect Them study. Eligibility included having at least 100 patients, ages 11-12, who had not yet initiated vaccination against HPV. In 2016, practice champions for the 12 practices enrolled in Wave 1 were interviewed, for 30 minutes via telephone, regarding their decision to participate in and their implementation of the Protect Them study. Questions included compatibility of the program with clinical practice priorities and with parent/patient expectations of service, anticipated challenges, and perceived success of the intervention within their practice. Interviews were transcribed and analyzed based on selected constructs from the Consolidated Framework for Implementation Research (CFIR) that correlated with study goals. The CFIR constructs used in our study relevant to patient-centered communication included compatibility, adaptability, network & communication, leadership engagement, and learning climate.

SETTING & PARTICIPANTS:

RESULTS:

For context, enrolled practices included nine pediatric, two family medicine, one multispecialty and a county health department; ten were privately owned and two were part of a larger health care system. The number of providers per practice ranged from 1 to 24. Our thematic analysis of interview transcripts yielded insight on characteristics of primary care practices that could support an environment conducive to centering communication on preteen patients. For example, practices that identified preventative medicine exams or HPV vaccination as a priority, previous experience in research studies, support among clinic staff, leadership commitment and a climate that fosters innovative approaches are cited in the interviews.

CONCLUSION:

Protect Them study materials enhancing preteen centered patient communication about medical decisions affecting them are potentially acceptable to primary care practices as a strategy to increase HPV vaccination amongst this population. Waves 2 and 3 of the study will continue evaluating the effect of study materials with the goal of disseminating these communication tools nationwide.

RELEVANCE STATEMENT:

ONLINE RESOURCE:

OP23: Improving maternal health through implementation of IMPLICIT Interconception Care (ICC)

Cleo Rydeski, MA; Lisa Schlar, MD; Abby Smith, B.S
Jessica Brubach, MPA, Sukanya Srinivasan, MD, MPH, Maha Shafqat, MPH

BACKGROUND:

Preterm births occur at a rate of 9.6% in the U.S. and is the leading cause of newborn death. Studies have shown that receiving early and adequate prenatal care has not been successful in reducing these rates. Many modifiable risks responsible for poor birth outcomes occur prior to pregnancy. The IMPLICIT Network, a cohort of family medicine practices, developed a model of interconception care that involves screening mothers at their baby's well child visits (WCVs) in an effort to identify maternal behavioral risks before subsequent pregnancies to promote better maternal health and improved birth outcomes. The IMPLICIT Interconception Care (ICC) model uses an evidence-based approach to screen for smoking, depression, family planning, and multivitamin intake.

METHODS:

Each participating Network site identifies a physician champion and a multidisciplinary team to assist in ICC quality improvement initiatives. Based on available resources, sites develop workflows for ICC screening, addressing positive behavior risks, and data collection. After obtaining Institutional Review Board or quality improvement approval, sites share data in the Network's aggregate database, REDCap. Sites conduct ongoing Plan-Do-Study-Act cycles to improve ICC processes. ICC data is assessed to develop best practice strategies to improve implementation of ICC at sites in an effort to improve maternal health.

SETTING & PARTICIPANTS:

Participants include family medicine residency health centers and community family medicine practices in geographically diverse locations. At participating Network sites, mothers who attend WCVs with their children aged 0-24 months are assessed for risk factors using the standardized IMPLICIT ICC screening tool.

RESULTS:

Since 2012, 20 sites in 7 states have implemented the IMPLICIT ICC model, and 11 sites share data with the Network. At nearly 17,225 WCVs; mothers attended 92.5% of visits and have been screened using the ICC tool at 78.6% of those visits. In addition, 63.5% of mothers screened positive for one or more behavioral risks. Network efforts to improve maternal health have reached 5,731 mothers and their children.

CONCLUSION:

Physician intervention during the interconception period can help to distinguish maternal health risks. The IMPLICIT ICC model is a sustainable and adaptable quality improvement initiative that offers providers the opportunity to assess mothers for behavioral risks and promote positive behavior change. Implementation at Network sites has shown that WCVs are an opportune time to reach women who may otherwise not have received care. By identifying and educating women on harmful behaviors that increase the risk for possible future poor births, providers are able to improve maternal health before subsequent pregnancies

RELEVANCE STATEMENT:

Preterm birth remains an issue of concern in the United States. Interconception care efforts can help address this issue, although no model has been widely-adopted as a standard of care. Implementing the

IMPLICIT ICC model on a larger scale to improve maternal health between pregnancies can contribute to national efforts to promote healthy birth outcomes.

ONLINE RESOURCE:

OP24: Improving primary care management of depression: buddy up, start where you can, learn and then take the next step together

Carol Mulder, DVM, MSc, CUTL, DBA (cand); Peter Selby, MBBS, CCFP, FCFP, MHSc, Dip ABAM; Athina Perivolaris RN, MN
Greg Mitchell, Knowledge Translation Exchange Specialist, AFHTO

BACKGROUND:

Depression is estimated to affect 20% of the population. Primary care providers are well-positioned to screen and manage people with depression. However, people with depression are not consistently identified nor described in EMRs. The challenge in making progress with depression is not so much in finding better strategies but in making sure we fully use the strategies we already know can make a difference. This means being better able to identify peoples with depression who are amenable to intervention and then supporting providers in using management strategies supported by existing evidence.

This session describes an approach to improving depression outcomes in primary care by focussing on two subsets of people: smokers (approximately 40% of whom tend to have mood disorders) and seniors resistant to anti-depressant drugs. The approach takes advantage of the relative ease in identifying smoking and prescription medications in primary care EMRs, compared to finding diagnoses of depression, which are historically inconsistently recorded in EMRs.

METHODS:

CAMH and AFHTO partnered to help primary care teams identify two subsets of people with or at risk of depression via their primary care EMRs. The specific process included the following:

- Leverage AFHTO's implementation of EMR data quality measurement and CAMH's success in deploying a smoking cessation program among primary care providers in Ontario to identify smokers in EMRs.
- Leverage AFHTO's success in developing and spreading standardized EMR queries across the multiple EMRs in use among its member to find seniors receiving anti-depressant medications identified by CAMH as having potential to signal resistance to treatment (ie 2 or more trials for at least 3 months).
- Leverage CAMH's success in supporting front line providers in smoking cessation to extend their capacity to more consistently implement evidence-based care for people with or at risk of depression.
- Leverage AFHTO's growing momentum for measurement to track progress in near-real time to support learning and improvement in effectiveness in depression management.

SETTING & PARTICIPANTS:

Approximately 200 interdiscipinary primary care teams who are members of the Association of Family Health Teams of Ontario (AFHTO), working with Ontario's Centre for Addictions and Mental Health (CAMH). AFHTO members care for approximately 3 Million Ontarians.

RESULTS:

The program is underway. Preliminary evaluation data available include:

- Smoking cessation program uptake: 155 teams -- 80% of AFHTO members
- Performance of standardized query for depression: Available for all users (ie within and beyond AFHTO) of Telus Practice Solutions and QHR's Accuro EMRs (Over 85% of Ontario EMR users); Positive predictive value of 62%. Predictive value for identifying patients with trials of 2 or more candidate anti-depressant drugs being generated.

Data regarding impact on outcomes will be available before Jun 2017. Data currently being assembled include quit rates for smokers with depression, compliance with guidelines for anti-depressant prescription (eg dose, duration, choice of drug) and self-reported depression level via PHQ-9.

CONCLUSION:
It is possible to make for design and implement strategies to improve management of depression in primary care by starting with subsets of people with depression. Existing resources in primary care and addictions management can be rallied to support improvements in primary care management of depression through active collaboration with minimal additional investment.

RELEVANCE STATEMENT:
This session will show primary care providers a way to make progress in helping people with depression by starting with two distinct groups: smokers and seniors who are not doing well on the drugs they are already getting for depression. It will also show a low-cost way that primary care providers can work with addictions and mental health providers to make this happen.

ONLINE RESOURCE:

OP25: Addressing social determinants of health in primary care: piloting social needs screening in the Virginia Ambulatory Outcomes Research Network

Julia Rozman, BS; Jim Pecsok, BS; Alex Krist, MD, MPH
Paulette Kashiri, MPH; Winston Liaw, MD, MPH; Sebastian Tong, MD, MPH; Rhabya Ghafoor

BACKGROUND:
Social determinants of health (SDH) such as income and education impact health outcomes more than clinical factors. Multiple groups have recommended integrating public health data into primary care to better address social needs, but practices lack a roadmap for achieving this goal. Actionable individual and community health data are needed for clinicians to incorporate community context into decision making. While primary care clinicians might benefit from a better understanding of the context in which their patients live, few studies have examined ways of presenting SDH data to clinicians that can result in interventions. We sought to prospectively pilot integrating the collection of SDH into routine care and asking clinicians to reflect on the experience.

METHODS:
Resource poor communities, or cold spots, were identified for participating primary care practices based on four variables: education, poverty, life expectancy, and social deprivation index. Clinicians were alerted prior to seeing patients living in a cold spot to ask those patients to complete a social needs survey during the visit. The social needs survey asked about quality of life, education, housing stability, financial stresses, substance use, transportation, social connections and food access. The completed survey was then reviewed with the clinician. After each visit, clinicians completed a survey reflecting on whether such knowledge affected interpersonal interactions or clinical management. Both patient and clinician survey responses were analyzed in SPSS.

SETTING & PARTICIPANTS:
123 patients from 17 clinicians at 12 primary care practices from the Virginia Ambulatory Care Outcomes Research Network (ACORN) located in Northern Virginia.

RESULTS:
Patients selected to participate were equally representative of different demographics and cold spot designations. Patients ranged in age from 21-79 years (mean= 51.5). This sample was over representative of educated individuals, with 75.8% having a college degree. Overall, from the self-reported social needs survey 29.3% of patients reported depression; 7.6% reported that they have trouble paying for medicine, clinic visits, or supplies; and 86.4% perceived their health to be at least good or better. 45.5% of patients reported a social need with only 3% patients asking for help. From the clinician survey, 22.5% reported they changed their care to some degree and 52.5% of clinicians agreed that they know their patients better as a result of having this information.

CONCLUSION:
Current findings emphasize the benefits of providing clinicians with SDH information to improve population health and wellbeing. Screening for social needs survey based on living in a cold spot led clinicians to be more aware of SDH deficits and facilitated goal directed conversations during patient encounters. Future studies are needed to test screening for social needs in other patient populations, create collaborations with community resources to address SDH, and pilot testing clinical interventions to address social needs.

RELEVANCE STATEMENT:
Social factors, such as housing, transportation and education, can affect health. Even patients seen in practices that care for more advantaged populations may have social needs and identifying these needs can impact clinical care.

ONLINE RESOURCE:

OP26: Patient and Household Colonization and Environmental Contamination with S. aureus in a Comparative Effectiveness Study of Home-Based Interventions Delivered by Community Health Workers/Promotoras to Reduce CA-MRSA Recurrence and Household Transmission

Jonathan N. Tobin, PhD; Rhonda G. Kost, MD; Brianna M. D'Orazio
Chamanara Khalida, MD, MPH(1), Jessica Ramachandran, MBBS(1,3), Mina Pastagia, MD, MS (2), Teresa H. Evering, MD, MS(2), Maria Pardos de la Gandara, MD, PhD(4), Cameron Coffran, MS(2), Joel Correa da Rosa, PhD(2), Kimberly Vasquez, MPH(2), Getaw Worku Hassen, MD, PhD(3), Tracie Urban, RN(5), Franco Barsanti, PharmD(5), Satoko Kanahara, MD(6), Regina Hammock, DO(7), Rosalee Nguyen, DO(7), Mark Trezia, DPM(7), Trang Gisler(8), Herminia de Lencastre, PhD(4), Alexander Tomasz, PhD(4), Barry Coller, MD(2)

(1)Clinical Directors Network (CDN) (New York, NY), (2)The Rockefeller University Center for Clinical and Translational Science, (3)Metropolitan Hospital Center, (4)Laboratory of Microbiology and Infectious Diseases, The Rockefeller University (New York, NY), (5)Urban Health Plan (Bronx, NY), (6)Community HealthCare Network (Bronx, NY), (7)Coney Island Hospital, (8)My Own Med (Bethesda, MD)

BACKGROUND:
Community-Associated Methicillin-Resistant Staphylococcus aureus (CA-MRSA) skin and soft tissue infections (SSTIs) are commonly seen in primary care, with recurrence rates that range from 16% to 43%, and present significant challenges to clinicians, patients, and families. This comparative effectiveness research study aims to develop and evaluate a home-based intervention implemented by Community Health Workers (CHWs) or "promotoras" to prevent recurrence of CA-MRSA in patients presenting to primary care with SSTIs and transmission within their households. This presentation will examine associations between wound microbiology, clinical presentation, and housing characteristics, including housing density and household surfaces contamination.

METHODS:
In partnership with three Community Health Centers and three community hospitals in NYC, this study will recruit patients (n=278) with confirmed MRSA SSTIs and their household members. Participants will be randomized to receive either a CHW/Promotora-delivered decolonization-decontamination intervention (based on the REDUCE MRSA trial) or Usual Care. The highly engaged stakeholder team finalized the intervention protocol, developed and implemented CHW and clinician training, and developed an online health portal application for data management and exchange.

SETTING & PARTICIPANTS:

RESULTS:
923 isolates have been collected from 237 individuals, including 240 wound culture isolates and 683 surveillance culture isolates (nares, axilla, groin). MRSA and MSSA were found in 19% and 21.1% of wound cultures, respectively. 59.5% with MRSA+ wound culture had one or more MRSA+ surveillance culture; 67.8% with MSSA+ wound culture had one or more MSSA+ surveillance culture. Of those with MRSA or MSSA infections, 70% of subjects were male, with an average age of 37.9 [SD=15.9 years]. The most frequent sites of infection were the leg (20%), axilla (18%), buttock (17%), and abdomen/torso (12%). There was no association between the location and type of infection (MRSA/MSSA) (p-value=0.09). The kitchen floor (14.05%) and bedroom floor (14%) were the most common surfaces contaminated with MRSA. These were also the most common surfaces contaminated with MSSA, which was recovered from 10.2% and 9.1% of kitchen floors and bedroom floors, respectively. For individuals

with an MRSA or MSSA wound infection, there was an average number of 3.2 (SD=1.6) co-residents per household, and 36.5% of household members were colonized with either MRSA or MSSA. There is no association between household density (number of co-residents) and type of infection (MRSA/MSSA) (Fisher's p-values = 0.171 and 0.371, respectively). In households of participants with MSSA wound infections, the number of colonized sites is positively associated with the level of household MSSA contamination (p=.027). Further analyses will examine the associations between molecular subtypes, wound location, household surface contamination and household member colonization and infection.

CONCLUSION:

This study aims to understand the patient-and environmental-level factors associated with SSTI recurrence, surface contamination and household transmission, and to examine the interactions between bacterial genotypic and clinical/phenotypic factors on decontamination, decolonization, SSTI recurrence and household transmission. This study will evaluate the barriers and facilitators to implementation of home visits by CHWs in underserved populations, and aims to strengthen the evidence base for implementation of strategies to identify and reduce household reservoirs and then control SSTI recurrence and household transmission.

RELEVANCE STATEMENT:

Skin or soft tissue infections may be caused by Community-Acquired Methicillin-Resistant Staphylococcus aureus (CA-MRSA), a bacteria that cannot be cured with most antibiotic drugs. Most infections go away after taking antibiotics, however some infections keep coming back, and may be caused by patients coming into contact with the same bacteria in the home. This study is aiming to evaluate a home intervention for decolonization and household cleaning to reduce the recurrence of skin infections in patients. To date, participants with an MRSA or MSSA wound infection had an average three household members, and 36.5% of household members were colonized with either MRSA or MSSA. The kitchen floor (14%) and bedroom floor (14%) were the most common surfaces contaminated with MRSA and MSSA. In households of participants with MSSA wound infections, there is a positive association between the number of colonized body sites and the level of household MSSA contamination.

ONLINE RESOURCE:

OP27: Using Appreciative Inquiry and Boot Camp Translation to Apply PCMH Transformation Success Stories

Tristen Hall, MPH; Linda Zittleman, MSPH; Jack Westfall, MD, MPH
Don Nease, MD

BACKGROUND:
While primary care practices are increasingly undertaking practice transformation efforts toward the patient centered medical home (PCMH) model, which can support the quadruple aim of improved patient care, improved population health, reduced costs, and provider resilience, many practices are hesitant to engage in transformation or unsure of what success means for them. Appreciative Inquiry (AI) explores what works in an organization or process and identifies specific elements of successful solutions, rather than focusing on challenges or deficiencies. Boot Camp Translation (BCT) translates health information into usable concepts and tools for communities and organizations. This study tests the combination of AI with BCT to identify patterns of success in practice transformation and develop messages and materials for dissemination to support other practices interested in transformation.

METHODS:
The study team developed a semi-structured interview guide using the AI framework to elicit success stories of practice transformation. Interviews focused on a specific successful narrative or "aha moment" related to transformation as identified by the informant. Teams of two interviewers probed for details regarding elements of success, such as steps leading to the success, team members, facilitating support or resources, and team reactions; focusing on positive aspects of the transformation process and results. Interviews lasting 20-30 minutes were conducted at practices until reaching subject and theme saturation. Interviews were audio recorded, transcribed, and supplemented by notes. Transcripts were loaded into ATLAS.ti Qualitative Data Analysis Software and analyzed utilizing a grounded hermeneutic editing approach. A community-academic BCT partnership held 3 in-person meetings, 3 telephone calls, and two email assignments to learn and discuss the locally-generated evidence from AI into relevant messages and materials for dissemination.

SETTING & PARTICIPANTS:
Providers and staff from NCQA PCMH-Recognized Denver metropolitan area primary care practices participated in AI interviews. BCT participants consisted of 13 community partners with varied roles, including Medical Assistant, Registered Nurse, Physician Assistant, Physician, Practice Facilitator, practice transformation program director, public health and primary care research.

RESULTS:
19 interviews were conducted with providers and staff from 6 Denver area primary care practices, representing Family and Internal Medicine, system and private ownership, and residencies. Notable themes were the significant MA role, key characteristics including trust, openness to change, and leadership style; communication, and shifting attitudes. The BCT group concluded that successful practice transformation included not only tactical but also cultural aspects, which conveyed emotions of trust, pride, and satisfaction. The group sought to develop thought-provoking and emotionally provocative messages. Existing initiatives and messages target practices interest in PT. There are very few messages, however, for pre-contemplative practices that have never even considered or don't know about practice transformation or are very resistant. Sometimes, providers at these practices are near retirement. Therefore, the BCT decided to target this group. Message concepts included "Return joy to practicing medicine," "It takes a team," "That was then, this is now," "It's 2016. Do you know your Practice Facilitator?", "What kind of practice will you have?", and "What kind of practice will you leave your patients?" (directed towards retiring providers). Materials include tri- or quadruple-fold brochure and a

short story-board video for a website and practice visits. The materials' colors and look need to reflect a fresh, provocative, even sexy personality.

CONCLUSION:
AI elicited meaningful themes about practice transformation successes. The BCT partnership successfully used these AI data and themes in the BCT process to develop materials to help guide other practices that wish to move toward the PCMH model.

RELEVANCE STATEMENT:
Use of themes identified in success stories of primary care practice transformation for development of relevant BCT materials can provide both motivation and concrete steps for other practices to follow as they begin the transformation process. AI can be used to identify what works well in this process and reveal specific elements for use in BCT to develop materials that may help other practices replicate successful results.

ONLINE RESOURCE:

OP28: A Community-Engaged PBRN Quality Improvement Intervention to Enhance the Primary Care of Adults with Down Syndrome

Carl Tyler, MD, MSc; Rachel Stulock PharmD; Michael Wells BA
Cindy Norwood, Executive Director, The Arc of Greater Cleveland
Developmental Disabilities- Practice-Based Research Network
The UpSide of Downs

BACKGROUND:

Many individuals with developmental disabilities (DD) receive sub-optimal primary health care. Primary care physicians (PCPs) often fail to implement syndrome-specific clinical guidelines pertaining to their patients and are unaware of community resources that could improve the health and quality of life of their patients with DD.

METHODS:

Developmental Disabilities-PBRN (DD-PBRN) is a multi-stakeholder community-based PBRN with representatives from the disabilities, advocacy, residential service, and health care communities. The DD-PBRN served as a research and technical advisor to a quality improvement initiative aiming to enhance the primary health care of adults with Down syndrome. Upside of Downs, a local Down syndrome support and advocacy organization also served as advisor to the project, from inception to completion.

SETTING & PARTICIPANTS:

1100 adults with Down syndrome receiving care through the Cleveland Clinic Health System were identified though an EMR-based algorithm. In advance of scheduled appointments with the PCP, a multidisciplinary team comprised of PCP expert in developmental medicine, clinical pharmacist, and disabilities advocate reviewed the EMRs of adults with Down syndrome and generated an "e-consult" containing clinical recommendations and potential community resources. The e-consult was embedded in the EMR along with PCP notification. EMRs were reviewed following the scheduled appointments to ascertain uptake of recommendations. PCP recipients of e-consults were interviewed by telephone to examine their attitudes towards the e-consults and recommendations regarding their use.

RESULTS:

One-hundred e-consults were generated over the course of 9 months. Overall, implementation of clinical recommendations was greatest for pneumococcal immunizations, and serologies for thyroid and for celiac disease screening, followed by targeted physical examination maneuvers; least uptake was documented for dental and ophthalmology referrals. Pharmacy recommendations were most commonly related to excessive use of psychotropic medications and statins, and identification of potential drug-drug interactions. The disabilities advocate recommended an average of 5 resources per e-consult, most commonly a local Down syndrome support group, a website for future planning, books about physical and mental health in persons with Down syndrome, and a local branch of The Arc, a national advocacy and educational organization for people with developmental disabilities and their families.

CONCLUSION:

Multi-stakeholder community-based PBRNs like the DD-PBRN can meaningfully inform health system-level quality improvement initiatives. The novel addition of a disabilities advocate to a traditional physician-pharmacist consultation team richly enhanced the content and potential utility of e-consultations. Future research needs to examine patient, family, and caregiver attitudes toward e-consultations and incorporation of advocates in physician-pharmacist consultations teams.

RELEVANCE STATEMENT:

Individuals with Down syndrome and other developmental disabilities often do not receive health care that is individualized to their specific condition and health risks. An "e-consult" team comprised of a physician, pharmacist, and a disabilities advocate reviewed the electronic medical records of adults with Down syndrome prior to scheduled appointments with their primary care physician, then wrote a report to the primary care physician. Many of the recommendations made by the team were completed by the patient and primary care physician. The advocate played a highly valuable role on the e-consult team. This e-consult model may be a useful method for improving health care in other patient groups with very specific health care needs.

ONLINE RESOURCE:

OP29: Engaging Stakeholders to Build Infrastructure for Patient Centered Outcomes Research in the Primary Care Safety Net

Anne Gaglioti, MD; ; Denita Walston

BACKGROUND:
The National Center for Primary Care at Morehouse School of Medicine has been the academic home of the Southeast Regional Clinician Network (SERCN) since its inception in 1995. SERCN is a Practice Based Research Network of Federally Qualified Health Centers (FQHC) and state Primary Care Associations (PCA) in the Southeastern United States (US). In recent years, the network has not updated a stakeholder-defined research agenda. To become a productive laboratory for Patient Centered Outcomes Research (PCOR) that is responsive to the identified needs of its stakeholder partners, the network undertook a process of infrastructure building and engagement to define research and training priorities. The Patient Centered Outcomes Research Institute funded an Engagement Award to achieve these goals. This presentation describes qualitative results from the engagement portion of the project. The mission of the network is to improve health outcomes and eliminate health disparities among underserved populations throughout the primary care safety net in the Southeastern US.

METHODS:
The engagement portion of the project occurs between July 2016 through July 2017. Focus groups were/will be conducted in each state with relevant stakeholders; groups have had 4-13 participants. In depth interviews were conducted in addition to focus groups in cases where interested stakeholders were unable to attend the group. Sessions were audio-recorded and transcribed verbatim. Questions focused on: an assessment of QI/research needs and goals, barriers to implementing research, and educational and reciprocal needs. Transcripts were coded and analyzed with respect to themes using an "editing style" approach described by Miller and Crabtree.

SETTING & PARTICIPANTS:
SERCN encompasses FQHCs and PCAs in 8 Southeastern states, including GA, FL, MS, AL, NC, SC, KY, TN. Focus groups were/are being conducted at a variety of settings including state PCA Clinical Conferences, PCA Quality Conferences, and PCA Quality Improvement Group Meetings. Participants include health center care providers, clinical quality staff, health center and PCA leaders, and others.

RESULTS:
Preliminary results from the three initial focus groups in MS, GA, and TN revealed the following themes: importance of sustainability of quality improvement and research projects, importance in goals alignment with other quality improvement processes, interest in web-based CME activities, and integration of behavioral health/ substance abuse treatment in primary care. The remaining focus groups in NC, FL, KY, AL, and SC will be completed in April and May, 2017.

CONCLUSION:
This ongoing engagement project focused on setting a needs-based research and training agenda in our large PBRN of FQHCs in the Southeastern US can serve as an example for how to conduct a needs assessment in a large, geographically diverse network. Network members value activities that will support their current reporting needs, are sustainable after funding sources cease, and focus on the unmet health needs of their patients.

RELEVANCE STATEMENT:
These results are relevant to other networks as they strive to implement projects that are aligned with the needs and goals of network members. These results may be relevant for other PBRNs in primary care safety net or underserved settings.

ONLINE RESOURCE:

OP30: Integrating the WWAMI region Practice and Research Network into the Pacific Northwest Node of the National Institute on Drug Abuse Clinical Trials Network

Allison Cole, M.D., M.P.H.; Elizabeth Witwer, M.P.H.; Laura-Mae Baldwin, M.D., M.P.H.
Kari Stephens, Ph.D.
Gina Keppel, M.P.H.
Brenda Stuvek, M.S.
Dennis Donovan, Ph.D.

BACKGROUND:
The National Institute on Drug Abuse Clinical Trials Network (NIDA CTN) is promoting research and dissemination of evidence-based substance use treatment in primary care settings across its regional nodes. The WWAMI region Practice and Research Network (WPRN) joined the Pacific Northwest Node (PNW Node) of the NIDA CTN as a core resource for implementation and dissemination of substance use treatment in primary care. We report on one strategy the WPRN Coordinating Center (CC) used to meet our objectives of 1) identifying the substance use topics of most importance and relevance to primary care practices, and 2) growing the interest and capacity of WPRN practices to engage in research related to substance use disorders.

METHODS:
At the 2016 WPRN annual meeting, we used a collaborative research development process with 24 site champions to generate a list of 13 research questions that could be answered using electronic health record data from primary care clinics. Champions chose two questions of greatest interest: 1) What proportion of adult patients seen for a primary care visit in the past year was prescribed at least one opioid medication? 2) Of those patients, what proportion was prescribed a sedative in the same year? The WPRN CC and interested WPRN champions created variable definitions and study parameters to guide an EHR data pull to answer these questions. Ten WPRN clinics conducted EHR queries and submitted aggregate data to the WPRN CC for analysis. We presented results and elicited feedback from WPRN champions at the 2017 WPRN Annual Meeting.

SETTING & PARTICIPANTS:
Primary care patients within 10 WPRN clinics.

RESULTS:
The 10 clinics identified 64,140 adult patients seen in the prior year. 15.6% of these patients had received at least one opioid prescription. Rates varied more than 4-fold across clinics (6.8% to 29.5%). In all but one clinic, the highest opioid prescription rates were among adults 80 and older. Of patients receiving opioids, 21.2% received a sedative prescription in the same year, with even greater clinic variation (5.8% to 59.5%). These results generated spirited discussion and a call for further research. The most popular topics for further research include acute versus chronic opioid prescription, use of recommended best practices for chronic opioid management, and opioid and sedative co-prescription.

CONCLUSION:
The WPRN's collaborative research program successfully identified top substance use topics of importance to real world primary care providers, and stimulated a research project using EHR data that identified substantial variation in opioid prescribing rates across clinics, and the highest prescription rates among elders 80 and older. These provocative results have prompted the WPRN to undertake new research using chart review methodology to explore questions about opioid and sedative co-prescribing practices that could not be answered using EHR data. This will further build the research capacity of

WPRN sites in the area of substance use and help clinics better understand their opioid prescribing practices.

RELEVANCE STATEMENT:
The WWAMI region Practice and Research Network (WPRN) identified opioid prescribing as a top area of interest for substance use research. An early study found dramatic variation in opioid prescribing across 10 individual primary care clinics that is unlikely to be explained by patient need. A follow-on research study will help sites better understand their opioid prescribing practices, which can support quality improvement efforts in opioid management.

ONLINE RESOURCE:

OP31: Setting the stage for more efficient trial recruitment in Diabetes: the Diabetes Action Canada National Data Platform

Frank Sullivan FRSE, FRCP, FRCGP, CCFP; Don Willison MSc ScD; Braden O'Neill, MD, DPhil
Greiver M, Keshavjee K, Medeiros H

BACKGROUND:

Diabetes Action Canada (DAC) is a Strategy for Patient Oriented Research (SPOR) Network in Diabetes and its Related Complications, part of the Canadian Institutes of Health Research SPOR Program in Chronic Disease. DAC's mission is to transform the health outcomes of people with diabetes and its related complications. As part of its work, a new national data platform is being developed to support observational and interventional studies relevant to diabetes: the Patient, Practice and Population Diabetes Risk Management System (PPPDRMS). Here we describe work to set up the initial PPPDRMS containing data on patients living with diabetes that has the potential to identify and invite eligible patients followed in primary care practices to participate in trials.

METHODS:

An existing database derived from primary care Electronic Medical Records (EMR), the Canadian Primary Care Sentinel Surveillance Network (CPCSSN), is being leveraged. A modified algorithm will be used to identify patients with diabetes followed in primary care. Anonymized data for these patients will be extracted and included in the PPPDRMS. We have devised and successfully tested processes for generating lists of patients that met study inclusion criteria using data included in this platform; cleaned and case categorized data were returned to primary care teams, followed by re-identification at the practice site and invitations to patients for a randomized controlled trial. These processes will now be scaled up in additional trials. Consultations with stakeholders and patients are ongoing to determine the acceptability of this approach. Governance mechanisms, including having a majority of patients on the governing council, have been proposed. We aim to create a trusted and trustworthy system that will enable us to contact patients rapidly for studies.

SETTING & PARTICIPANTS:

The PPPDRMS based identification and invitation system will be tested using an exemplar trial: a registry RCT comparing Metformin to a SGL2 inhibitor as first line medication for patients with type 2 diabetes.

RESULTS:

Early consultations indicate reasonable patient and stakeholder acceptance, provided there is good governance with safeguards and privacy protection.

CONCLUSION:

A diabetes data platform-based trial invitation system using Canadian primary care EMR data appears to have reasonable feasibility.

RELEVANCE STATEMENT:

A national platform for diabetes based on primary care EMR data has the potential to increase the exposure of primary care patient populations to information about trials that may be relevant to them. This would improve the efficiency and effectiveness of recruitment to studies conducted in the primary care setting.

ONLINE RESOURCE:

OP32: The Los Angeles County PBRN 2016 Research Fast Pitch Competition: From Shark Tank Dreams to Funded, Implemented Programs

Laura Myerchin Sklaroff, MA; Vipra Bhakri, MSc; Khathy Hoang, MPH
Louise McCarthy, MPP
Jeffrey Guterman, MD, MS

BACKGROUND:

The Los Angeles County PBRN represents care providers, health care systems, and community based programs that provide services to more than 2 million safety-net patients in the greater Los Angeles area. The PBRN is a joint effort by the Los Angeles County Department of Health Services and the Community Clinic Association of Los Angeles County and holds workshops and events in addition to facilitating joint member research efforts. Members regularly meet to discuss collaborative research projects, brainstorm new studies, and to disseminate findings. A constant question from members relates to leveraging grant funding from foundations for PBRN research. In response we held five "Meet the Grant Maker" workshops in 2015. These workshops were presented both online and in person and had program officers from California-based foundations present on their grant application processes and funding aims. Given the success of these workshops, we decided to hold a Research Fast Pitch Competition in 2016.

METHODS:

Modeled on the tv show, "Shark Tank," the Research Fast Pitch Competition gave 6 teams the opportunity to spend 12 minutes pitching a research idea to a panel of five judges who represented various foundations and funding organizations. A call for application abstracts was put out in in June 2016, supported by an informational webinar. Applications were challenged to pitch their ideas to positively impact health care and improve safety-net care delivery. Application abstracts were asked to respond to the following questions: 1) What's the issue? Why is this a problem? 2) How will you solve it? 3) What is the measurable impact? 4) How do you define success? 5) What do you need to transform your vision to reality? The only constraint placed on topics was the need to be safety-net focused and health was broadly defined (mental, physical, etc.).

Blinded reviewers scored applications and 6 teams were selected to present in the Fast Pitch Competition; those moving to the next round were announced in August 2016.

Pitching teams were matched with subject area coaches, for example a team of primary care providers pitching a breastfeeding dashboard were paired with a public health expert on breastfeeding. All teams received mentoring from the NPO, Community Partners, on storytelling and elements of successful funding pitches. Teams worked with their coaches and meet for three practice sessions with Community Partners from August through October 2016.

The Research Fast Pitch Competition was held on October 21, 2016. Competing teams were allotted 5 minutes to pitch their idea and 7 minutes for questions and answers with the panel of judges. Teams were allowed to use props, power points, and handouts as part of their pitch.

Judges scored each pitch on 7 categories: Problem/Need, Solution, Potential Impact, The Ask, Originality, Tells a Story, and Overall Presentation. Olympic style scoring (1-10) was used for each category and judge responses were averaged to calculate winners. Audience members were able to text in to vote for their favorite pitch at the conclusion of all pitches.

SETTING & PARTICIPANTS:

Los Angeles County is more than 4,700 square miles. The majority of patients served by members of our PBRN are clustered in parts of the county with the highest levels of the economic hardship index, which examines percentages of the population who are less than 200% of the Federal Poverty Level (FPL), with less than a high school education, a high housing-cost burden (more than 30% household income needed for housing), and low median household income.

Participants, volunteers, coaches, judges, speakers, and audience members represented more than 20 organizations that include Foundations, Health Care Delivery Systems, Community Based Organizations, Universities, and other care providers. Judges represented the Center for Care Innovation, the California Health Care Foundation, Kaiser Permanente Southern California Community Benefit (all grant making organizations) as well as L.A. Care Health Plan and VisionWorx, a branding and marketing agency with expertise in venture capital. Speakers represented the Community Clinic Association of Los Angeles County and Los Angeles County Department of Health Services. The event was held at the California Endowment in Los Angeles, CA.

RESULTS:
All pitching teams received feedback from judges, both in person at the event and through blinded written comments and presentation scores. Four awards were presented: Best Storytelling (based on storytelling score), Audience Favorite (determined by text voting), Runner-Up, and First Place (both based on aggregate scores from all categories). A chief executive from a hospital who attended the Fast Pitch as an audience member determined that based on the presentations, the pitches from teams based at her location should be enacted with local quality improvement funds. One presenting team from a NPO focused on social determinants of health education for high school students received over $60,000 worth of free brand coaching and presentation development from the judge's marketing agency based on the quality of their pitch. All teams indicated that the feedback they received was invaluable and would be used to set up further meetings/create tailored grant applications for the judge's foundations. Audience member evaluations showed that this was fun and unique opportunity for networking and learning more about the grant funding process.

CONCLUSION:
The 2016 Research Fast Pitch provided an excellent opportunity for teams to refine and pitch creative ideas to improve the quality and delivery of care in the greater Los Angeles Safety-Net. Teams were able to pitch research ideas with to a panel of grant making organizations and receive rapid feedback; this was valuable not only to teams but to audience members as well. Given the success of the event and requests for information on the next Fast Pitch Competition the day of the event, we are currently in the process of planning our 2017 Fast Pitch scheduled for December 1, 2017.

RELEVANCE STATEMENT:
Using the tv show, "Shark Tank" as a model, researchers were able to rapidly pitch and receive feedback on their creative ideas to improve quality of care and care delivery for safety-net patients from a panel of judges representing various funding mechanisms.

ONLINE RESOURCE: