

P01: A Novel System for Sharing Patient-Reported Outcomes in ADHD between Parents, Pediatricians and Teachers

Alexander G. Fiks, MD, MSCE; Jeremy Michel, MD; Stephanie Mayne, PhD

Robert W. Grundmeier, MD, Denise Stewart, Siobhan Leavy, Ed.D., Lisa Snitzer, MSS, LSW, Maritza Pedlar, MPH, Caroline Broomfield, Sarah Hubbard, MPH, Jeff Miller, MAS, Matthew Bryan, PhD, Nathan J. Blum, MD, Thomas J. Power, PhD, James P. Guevara, MD, MPH

BACKGROUND:

Attention-deficit/hyperactivity disorder (ADHD) is the most common chronic childhood neurobehavioral disorder. Although portals have been developed for pediatricians to collect information from parents and teachers, we lack systems that share relevant information between families, pediatricians and teachers in order to overcome fragmented care that worsens outcomes.

This study aimed to co-produce and evaluate innovations to an existing ADHD survey collection system to enable information sharing between families, pediatricians and teachers.

METHODS:

This prospective technology development and implementation evaluation engaged 8 parents, 11 pediatricians and 8 educators in the iterative process. From 9/2015 to 9/2016, 2 family advisor, 3 educator, 3 pediatrician and 2 joint parent-educator meetings were held to set priorities. The original system, which collected information from families and teachers by sending survey links by email following parental consent and presented this information to the pediatrician within the electronic health record (EHR), was implemented in December, 2014 in 31 pediatric primary care practices in 2 US states. Information collected from parents includes treatment preferences and goals and the Vanderbilt rating scales for ADHD symptoms, co-morbidities and performance (validated measures). In the present study, parent willingness to share information with teachers was described. T-tests and chi-square tests assessed the association of child symptoms, performance and co-morbidities with parents' willingness to share information with teachers.

SETTING & PARTICIPANTS:

RESULTS:

The stakeholder-engaged design process prioritized the following features: (1) parents' ability to control which survey components (goals, symptoms, performance, medication side-effects) were shared with teachers and (2) parents' and teachers' ability to receive information entered by each other and retain their own submitted information. These features were added in January, 2017. 209 parents submitted responses within 28 days of the upgrade. Of these, 138 (66%) agreed to share information (114 (83%) sharing all information). Parents of children with greater hyperactivity ($p=.03$) as well as impaired performance (76% versus 46%, $p<.001$) were more likely to share than others. Parents of children with ADHD co-morbidities (oppositonality, anxiety, depression) were more likely to share information than those of children without co-morbidities, though results were not statistically significant (92% versus 71%, $p=.2$).

CONCLUSION:

A stakeholder-engaged process developed feasible and acceptable upgrades to an EHR-linked system that support parents' information sharing with pediatricians and teachers for a common behavioral condition. Results indicate that parents of children with greater symptomatology and impairments, those likely to benefit most, were most likely to share. This system provides a model for how patient-reported outcomes may be shared between families and interdisciplinary care teams.

RELEVANCE STATEMENT:

In this study, parents, teachers, and doctors improved an existing system for sharing information to support and improve children's ADHD treatment. Parents of children with greater ADHD-related symptoms were especially likely to share information. Overall, this research shows that families are willing to use technology to partner jointly with pediatricians and teachers for the benefit of their children.

P02: Choosing Wisely: Monitoring Quality Improvement efforts to reduce thyroid screening in primary care

Kimberly Wintemute MD, CCFP, FCFP; Michelle Greiver MD MSc CCFP; Warren McIsaac

Lisa DelGiudice, , Frank Sullivan, Babak Aliarzadeh, Sumeet Kalia, Chris Meaney, Rahim Moineddin, Alex Singer, Marwan Asalya, Deepak Sharma

BACKGROUND:

Population based screening of asymptomatic adults for thyroid disorders is not recommended. The recommended test for the detection of hypo or hyperthyroidism is a Thyroid Stimulating Hormone, or TSH. In one Ontario-based report, this test accounted for the second highest laboratory costs after microbiology cultures.

There is documentation of large practice variations in TSH ordering in the UK. An ongoing study in two family practices in or near Toronto found significant rates of over-use. Using a preliminary analysis of EMR data for 133,710 patients from the University of Toronto PBRN (UTOPIAN), we found that 62% of patients without thyroid disease and not on thyroid medications had at least one TSH test recorded in their chart in two years. 93% of those tests were normal; 38% of patients with a normal test had one or more repeat test in a two-year period.

Choosing Wisely Canada (CWC) is conducting a project to reduce thyroid screening in asymptomatic adults at family practices affiliated with six hospitals in or around Toronto, Ontario, Canada. This will involve Clinical Leadership, education and Knowledge Translation activities.

Our aim is to provide reports on TSH ordering for adult patients without thyroid disorder in primary care to support this CWC initiative.

METHODS:

We will use routinely collected clinical EMR data from the UTOPIAN database. The population is all patients age 20 or over, with at least one encounter in the past two years. We will exclude patients with a diagnosis of thyroid disease (hyperthyroid, hypothyroid, thyroid cancer) or those prescribed thyroid replacement therapy. Patients with indications for thyroid testing (i.e. prescription for amiodarone or lithium, currently or recently pregnant, or investigated for infertility) will be excluded. While the data may not allow a complete differentiation between screening and case finding, we will report parameters commonly associated with case finding: obesity, depression. The prevalence of thyroid disorders is greater in the presence of auto-immune conditions; we will include the commonest condition, rheumatoid arthritis, as a co-factor. We will also look for evidence of TSH ordering being done as a screening test by measuring the prevalence of testing concurrent with blood tests that are commonly ordered for screening purposes (total cholesterol, HbA1c).

We will compare patients from primary care sites participating in CWC's initiative and contributing data to UTOPIAN to other UTOPIAN practices using a parallel cohort design, both cross sectional and using time trend analyses. Analysis will be performed at the individual level to allow for the adjustment of different patient/physician/geographical characteristics. The rate of TSH orders will be aggregated for each quarter from 2010 to 2016. Time series plot will be obtained using multivariate logistic regression where exchangeable correlation structure will be used to capture the correlation among repeated measures over time for each patient.

SETTING & PARTICIPANTS:

Family practices in or around Toronto, Ontario, Canada

RESULTS:

We expect a reduction over time associated with this initiative, and a greater reduction than comparators

CONCLUSION:

A PBRN can provide EMR based reporting that can be used to support health system quality improvement initiatives.

RELEVANCE STATEMENT:

PBRNs can provide efficient reporting to support Choosing Wisely Canada's interventional efforts in the primary care Canadian context.

P03: Complementary and Integrative Health Preferences of Women Veterans: A Women's Health Practice-Based Research Network Veteran Feedback Project

Rachel Golden, DrPH, MPH; Diane Carney, MA; Susan Frayne, MD, MPH

BACKGROUND:

The Veterans Health Administration (VA) aspires to be a learning healthcare system where data informs practice and policy. As a test of the 60-facility Women's Health Practice-Based Research Network's (PBRN's) capacity to provide a pathway for rapid data collection in support of quality improvement (QI), at the request of the Office of Patient Centered Care and Cultural Transformation and Women's Health Services, we assessed women Veterans' (WVs') preferences for Complementary and Integrative Health (CIH) services, and whether preferences differed for women receiving primary care at VA Medical Centers (VAMC) versus Community-Based Outpatient Clinics (CBOCs).

METHODS:

This cross-sectional Veteran feedback project asked WVs about 5 CIH modalities plus one locally-relevant CIH modality, including prior use of the modality and what delivery approach they would prefer. We also asked WVs their age and where they receive primary care (VAMC, CBOC, Other). Over a 1-2 week period, clerks/nurses distributed this anonymous, confidential, 1-page survey to sequential WVs in primary care clinic settings, which WVs then submitted to a lockbox in clinic. The PBRN Coordinating Center conducted descriptive analyses of data from 24 sites.

SETTING & PARTICIPANTS:

The project was carried out in 24 sites across the VA with Women Veterans.

RESULTS:

Among WVs who completed surveys (N=1,129), 49%, 45%, 16%, 57%, and 35% had tried Yoga, Mindfulness/Meditation, Tai Chi/Qigong, Therapeutic Massage, and Acupuncture, respectively, and 53%, 54%, 43%, 76% and 61% would participate if offered at the VA. For Yoga, Mindfulness/Meditation, and Tai Chi/Qigong, 31%, 33%, and 28% would participate in televised classes offered at the VA, 46%, 47%, and 41% would participate in televised VA classes at home, and 53%, 48%, and 47% preferred women-only classes. Preferences were similar for WVs receiving PC at VAMCs vs CBOCs ($p > 0.05$).

CONCLUSION:

The PBRN was successful in rapidly collecting patient-centered preferences for care from women at 24 sites around the country. Many WVs have used CIH and express high interest in participating in CIH in-person at the VA, in televised classes at the VA, or from home. About half preferred women-only CIH classes. Consistent with learning healthcare system principles, results were transmitted to national partners to inform policy and planning, and to front-line teams at participating sites to inform their local QI efforts.

RELEVANCE STATEMENT:

The PBRN provides a perfect venue for rapidly collecting patient-centered preferences for care. Many WVs have used CIH and would like to access CIH care through the VA.

P04: Integrating Population Health and Clinical Data to Understand the Characteristics of Patients Receiving Opioid Prescriptions from Primary Care Clinicians

*Sebastian Tong, MD, MPH; Roy Sabo, PhD; Alex Krist, MD, MPH
Camille Hochheimer;
Paulette Lail Kashiri, MPH;
Teresa Day*

BACKGROUND:

Opioid misuse is a growing national problem with an estimated 12.5 million individuals misusing prescription pain relievers in 2015. Primary care clinicians contribute significantly by writing 45% of all opioid prescriptions. Multiple professional organizations and legislative bodies have published recommendations, regulations and laws to reduce the risks of opioid-related harms from chronic opioid use. However, primary care clinicians are receiving little guidance on how to manage their patients on chronic opioids across their patient panels. We aimed to understand the population health and individual characteristics of patients receiving opioid prescriptions in our PBRN.

METHODS:

We extracted electronic health record (EHR) data for all patients who had received an opioid prescription for at least three consecutive months in 2016. We then mapped patients to census tracts by their reported place of residence and, using Virginia Department of Health data on heroin and prescription opioid death rates, we calculated patients' risks of fatal overdose based on their place of residence. EHR data were then used to create a risk profile for each patient based on Centers for Disease Control and Prevention-identified risks for opioid related harms.

SETTING & PARTICIPANTS:

Patients receiving chronic opioid prescriptions from two health systems, one urban underserved and one suburban, within the Virginia Ambulatory Outcomes Research Network.

RESULTS:

Analysis is ongoing and will be presented in full at the conference. Preliminary results suggest that substantial proportions of patients from each health system were prescribed opioids for at least 3 consecutive months in 2016. Results that will be presented include geographic distribution of patients on chronic opioids (by census tract), patients' risk of overdose death rate based on the census tract of residence (calculated from 2007-2015 Virginia Office of Medical Examiner records), proportion of patients with individual risk factors such as hepatic or renal disease, obstructive sleep apnea and concurrent benzodiazepine prescription and average morphine milligram equivalent. These will be presented at both the practice and clinician levels.

CONCLUSION:

Helping identify patients on chronic opioids who are at high risk of opioid-related harms may help primary care clinicians risk stratify their patients who are on chronic opioids. Our next step is to test if risk profiles of patients on chronic opioids change clinician prescribing behaviors to help lower opioid related risks.

RELEVANCE STATEMENT:

Long term use of opioids may lead to addiction and other negative consequences. We described patients on chronic opioids in two health systems in our practice-based research network using both individual and community characteristics.

P05: Ontario's primary care teams are moving beyond measurement to improvement

Carol Mulder, DVM, MSc, CUTL, DBA (cand); Rick Glazier, MD, MPH, FCFP;

PLEASE USE THIS VERSION of this abstract: a previous version was submitted early (ie apr 1) with an attachment that had only 1 figure. Please discard that and use this version with 2 figures in the attachment. Thanks

BACKGROUND:

Primary care teams in Ontario have been voluntarily contributing data to a performance measurement report called Data to Decisions (D2D) for 3 years. Participation has increased from under 30% in the first iteration to nearly two thirds for the past 3 iterations, with over 85% of members contributing to at least one of the 5 iterations to date. Nevertheless, the aggregate performance on individual indicators and the composite quality measure has not improved over the 5 iterations, although there are some signs that variation in performance between teams is decreasing. This study was undertaken to identify and better describe teams that might be improving (if any!) and thus learn from them to help the entire membership move beyond measurement to improvement in subsequent iterations of D2D.

METHODS:

Observational study of patient experience survey, EMR and administrative data contributed by teams to 5 iterations of D2D since Oct 2014. Teams were divided into 3 categories on the basis of how much their performance changed between iterations: increasing, decreasing or little change in performance. Characteristics of the teams in each category were described. Actual performance (as distinct from the degree of improvement) was then compared across the categories using a composite measure of quality.

SETTING & PARTICIPANTS:

Approximately 85% of the 184 interdisciplinary primary care teams (members of AFHTO) providing care for approximately 3 Million Ontarians, about 25% of the province's population.

RESULTS:

11 teams were among the teams with the 10 biggest improvements between iterations for at least 2 iterations ("increasers"). 13 teams were among the bottom 10 for at least 2 iterations ("decreasers"). The remaining 141 teams were considered together ("middle of the pack"). The category definitions were chosen to generate groups with extreme values at either end of the improvement spectrum to make it easiest to detect differences between them, if any. Increasers were more likely to be non-teaching teams and have better integration of their EMR with hospital systems. Decreasers were more likely to be rural. There was no difference in size of teams, patient complexity (as measured by Standardized ACG morbidity index) and the willingness of teams to have their identity unmasked if requested, to facilitate peer learning. Completeness of data increased over time in all three categories of teams. Increasers had the lowest overall quality (as measured by the D2D composite quality indicator) in the initial iteration. They went on to have higher quality than other groups in the most recent 2 iterations. Decreasers, by contrast, had highest overall quality initially but had lower quality than other groups in all subsequent iterations. The changes in quality appear to be independent of completeness of data. The median quality score for the middle of the pack increased with each subsequent iteration.

CONCLUSION:

Some teams tend to increase performance with each subsequent iteration of D2D. The data suggests that these teams that are able to improve are also able to achieve higher performance, even though they started at lower levels of performance. Since most of the increasers agreed to be unmasked to facilitate learning, further exploration of the characteristics of these teams is underway to better understand enablers for improvement and thus better performance. In the meantime, the increase in median Quality score among the "middle of the pack" suggests that while overall aggregate performance is not yet possible to detect, there is incremental movement beyond measurement to improvement among sub-groups of teams. The patterns in the data could be little more than a "regression to the mean". However, in the real-time context of these data, even that observation holds important learnings, especially for teams who have relatively high performance but fail to improve over time. The learnings are also important at the aggregate level to inform strategies to support improvement for all providers across the sector.

RELEVANCE STATEMENT:

Primary care teams that steadily get better at what they do over time end up providing better quality care, even if they started out with worse quality than others. The opposite is also true - ie teams that may start with higher quality but don't improve end up with worse quality. The next step is finding out what helps teams get better so that others can learn to do the same.

P06: Qualitative Methods for Identifying Reasons Behind Missed Well Child Care Visits

Alex H. Krist, MD, MPH; Elizabeth R. Wolf, MD, MPH; Jennifer A. O'Neil, BA

Rebecca Aycock, PhD

Martha Gonzalez, BA

Paulette Lail Kashiri, MPH

James Pecsok, BS

BACKGROUND:

The American Academy of Pediatrics recommends at least 14 well-child care (WCC) visits between birth and 6 years of life. It is estimated that, on average, children miss about one third of these visits, with children from low-income families missing an even greater proportion of WCC. Missed WCC can have deleterious effects on children's health due to missed immunizations, preventive counseling, and screenings for acute and chronic disease. Attendance of WCC visits has been associated with decreased emergency department utilization and hospitalizations; this association is even more pronounced among children from low-income families.

METHODS:

This is a qualitative assessment of caregivers for children aged 0-6 years who have missed two or more WCC visits. English and Spanish-speaking caregivers were mailed invitations to participate in a semi-structured interview. Respondents were contacted by telephone for interviews, which focused on four different themes: 1) the importance of WCC visits, 2) the most valuable aspects of WCC visits, 3) challenges with attending WCC visits and 4) ways that WCC attendance could be improved. Interviews were recorded and transcribed. The research team used an iterative, structural approach to identify themes from the caregiver interviews.

SETTING & PARTICIPANTS:

Participants included caregivers of children who had missed 2 or more WCC visits in the Virginia Commonwealth University Health System from 2011-2016. This health system includes a diverse group of pediatric and family medicine clinics that serve a predominantly low-income population from the city of Richmond and its surrounding counties.

RESULTS:

Of 205 English-speaking caregivers and 94 Spanish-speaking caregivers who were contacted by mail, 17 agreed to participation in the study (12 English-speaking and 5 Spanish-speaking). Nearly all caregivers considered WCC to be an important part of their child's care. Valuable elements of WCC identified by caregivers included vaccinations, monitoring growth and development, and identification of underlying disease. Caregivers stressed that continuity of care and personal characteristics of the provider were critical to maintaining the caregiver-provider relationship. They also thought that the friendliness of the staff and facility characteristics were important factors in attending WCC visits. Frequently cited challenges in attending WCC visits were competing childcare or work commitments, financial stressors and transportation. There was a diverse range of WCC reminder types preferred by caregivers including texts, phone calls, emails and electronic portal messages.

CONCLUSION:

Caregivers of children that have missed 2 or more WCC seem to recognize the importance of WCC but have competing priorities and social stressors that make it difficult for them to attend scheduled WCC appointments. Further study needs to be done to better understand whether addressing social determinants of health can improve attendance of WCC visits.

RELEVANCE STATEMENT:

This study uses qualitative interviews of caregivers to delve into the reasons behind missed WCC visits. These findings can help to shape the design of future interventions that can increase attendance of WCC visits.

P07: The Feasibility of Obesity Management Embedded in Primary Care Practice: Can we tackle the Obesity Epidemic in the Office Setting?

Jacob E. Jones, MD, MPH; Louis Everett, LPN; Bradley J. Touchet, MD

BACKGROUND:

Our practice serves urban, low-income patients with a high prevalence of chronic diseases and co-morbid obesity. When the bariatric center for our health network closed last year we explored the feasibility of obesity management embedded within primary care practice. We employed methods we found successful in helping 68 of our obese staff members lose more than 500 pounds in a 16-week "biggest loser" campaign in early 2016.

METHODS:

Adult patients with BMI ≥ 30 with visits June 1, 2016 through February 28, 2017 were targeted to address the health impact of obesity. An obesity assessment evaluated the patient's willingness to change energy balance behaviors, comply with weekly weigh-ins, and receive dietary counseling and exercise instructions during a 12-week program. Patients agreeing to participate completed bio-impedance measurements to estimate basal metabolic rate and determine total daily energy needs, macronutrient diet composition, and exercise prescriptions. Individual and group visits were provided for education and exercise instruction; medications for weight loss were not recommended. Weight was monitored serially, and the difference between first and final weights for all patients in the period was compared between program participants and non-participants with and without obesity assessments. Regression models were used to model weight change and adjust for potential confounding by age, sex and visit frequency.

SETTING & PARTICIPANTS:

Academic urban family medicine practice, 2460 obese patients receiving primary care in the study period (mean 45.7 years, 76% female).

RESULTS:

376 (15.3% of 2460) obese patients completed physician-directed assessments of the impact of obesity on their health at their primary care visits during the period, and 94 (25%) of these patients expressed willingness to enroll in the obesity management program. During the study period, these 376 patients lost 483 pounds, mostly attributable to the 349 pounds lost by the 94 program participants. When compared to the 2084 referent patients not assessed for obesity, mean weight loss was related to level of participation: 9 participants completing ≥ 12 weight checks lost 15.2 pounds more than the referent group (95% confidence interval [-24.4, -6.0]; $p = 0.001$), 17 participants completing 6 - 11 weight checks lost 7.0 pounds ([-13.3, -0.7]; $p = 0.029$), and 69 participants completing 0 - 5 weight checks lost 2.2 pounds ([-5.3, 1.0]; $p = 0.178$). Patients with obesity assessment only without program participation lost 1.3 pounds ([-3.1, 0.5]; $p = 0.150$). Participants completing 6 or more weekly weight checks were 17 times more likely to achieve a 7% reduction in body weight when compared to other primary care patients (odds ratio 17.3 [1.3, 230]).

CONCLUSION:

Obesity management embedded in our primary care practice was feasible and helped our motivated patients achieve weight loss. Unfortunately few of our obese patients were assessed during this period, possibly due to barriers of visit time limitations and provider or patient attitudes regarding successful long-term weight loss sustainability.

RELEVANCE STATEMENT:

The obesity epidemic could be favorably impacted with these methods since patient continuity is a central tenet of both primary care and obesity management. These methods might be particularly useful among low-income patients with no other obesity care alternatives.

P08: The quality of life of chiropractors involved in a practice-based research network.

Joel Alcantara, DC; Jeanne Ohm, DC; Junjoe Acantara, DC

BACKGROUND:

The quality of life of various healthcare professions such as medical doctors, dentists, optometrists and physical therapists have been examined in the scientific literature. However, to the best of our knowledge, no study has examined the quality of life of chiropractors. Physician well-being has been hypothesized to contribute to clinical competency and improved delivery of patient care. The purpose of our study was to examine the quality of life of chiropractors using the Patient Reported Outcomes Measurement Information System (PROMIS).

METHODS:

Chiropractors participating in a practice-based research network were asked to complete the PROMIS-29 AND PROMIS Global Health questionnaires to measure their quality of life. The PROMIS-29 measures domains of QoL (i.e., anxiety, depression) and PROMIS Global Health measured global physical and mental health.

The PROMIS data was analyzed using scoring manuals provided by the PROMIS Assessment CenterSM. For each PROMIS short form (i.e., anxiety, physical functioning, pain interference), a scoring table was developed to associate the raw scores to a T score metric, which is referenced to (and centered upon) the US General population with a mean of 50 and standard deviation of 10. The greater the T score, the greater the measured quality of life domain. A Pearson product-moment correlation coefficient was computed to assess the relationship between Global Physical Health and Mental Health mean T scores and various mean T scores of the PROMIS-29 domains.

SETTING & PARTICIPANTS:

Practice-based setting in individual private practices of Doctors of Chiropractic.

RESULTS:

A convenience sample of 98 chiropractors (76 females; 22 males) comprised our responders. Their mean age was 33.29 (range: 25-53; SD=6.09) and had, on average, 6.28 years of clinical experience (range:1-22; SD=5.12). The mean T scores for the various quality of life domains are: physical functioning (56.37; SD=2.41), anxiety (48.03; SD=8.64), depression (43.66; SD=4.83), fatigue (45.12; SD=7.43), sleep disturbance (43.85; SD=7.09), satisfaction with social role (56.53; SD=8.36) and pain interference (43.53;SD=4.56). The mean pain numeric rating (0=no pain; 10=maximum pain) was 0.98 (range:0-6; SD=1.26). The mean T scores for Global physical health and mental health were 56.08 (SD=6.41) and 56.18 (SD=7.96), respectively.

There was a negative correlation between global mental health and anxiety ($r = -0.53$; $p < 0.0001$; $N = 96$) and depression ($r = -0.53$; $p < 0.0001$; $N = 96$). A negative correlation was also observed with global physical health and fatigue ($r = -0.74$; $p < 0.0001$; $N = 96$) and with pain interference ($r = -0.46$; $p < 0.0001$; $N = 96$). A positive correlation was found between global physical health and physical functioning ($r = 0.36$; $p < 0.001$; $N = 96$).

CONCLUSION:

When compared to a representative sample of the US population, our chiropractor responders have overall higher quality of life with greater mean T scores in anxiety and fatigue but less in depression, pain interference, and greater in physical functioning and satisfaction in social roles. Future research should examine the covariates that improve quality of life.

RELEVANCE STATEMENT:

Given that physician well-being has been hypothesized to contribute to clinical competency and improved delivery of patient care, this is the first examination of the well being of chiropractors.

P09: Who Is Mary? Stories from the Implementation Frontline

*Joan Nelson, PA; ; Aleksandra Sumic, MPH;
Rachel Gold, PhD, MPH; Stuart Cowburn, MS, MPH*

BACKGROUND:

Practice transformation (PT) research aims to develop effective evidence-based interventions to improve quality of care. The frontline learnings of practice coaches (PC) involved in PT studies can help future study designs better match the operational realities of clinical environments.

METHODS:

An informal summary of frontline learnings and related illustrative stories (only one provided here) from a portfolio of PT studies with implementation and practice coaching components.

SETTING & PARTICIPANTS:

OCHIN - a non-profit health information and innovation network, and the administrative home to the OCHIN PBRN - is comprised almost exclusively of federally qualified health centers (FQHCs) and rural health centers (RHCs). OCHIN supports a network-wide EHR with one master patient index that links 93 organizations in 18 states serving >1.4 million unique patients. OCHIN PT efforts include a portfolio of studies examining how to provide FQHCs with appropriate support to successfully implement evidence-based care processes and tools.

RESULTS:

Frontline learnings from our PT studies include:

- 1) "If you've been to one FQHC, you've been to one FQHC!": Understanding clinic context is crucial. Clinics vary greatly in a number of characteristics (organizational structure, culture, learning capacity, etc.) which impact the implementation of diverse interventions. PCs can help illuminate relevant characteristics.
- 2) "We don't have time for this until fall!": Tailoring support to each setting and aligning it with operational requirements and priorities is critical for successful implementation of study tools and processes.
- 3) "Who is Mary?": On-site time at clinics is invaluable for tailoring implementation support and illuminating barriers to implementation. In a study designed to examine the effectiveness of different implementation strategies at enhancing adoption of clinical decision support (CDS) related to cardiovascular preventive care for people with diabetes, each study clinic was asked to assign an implementation point person, and given some guidance as to the type of person appropriate for this role. The PC had difficulty engaging one clinic, but on her first site visit, found the clinicians and support staff receptive to the use of the CDS tools. When told that Mary was their implementation point person, the lead diabetes champion physician said, "Who is Mary?" As Mary was a data entry person whose office was not directly connected to the clinical exam area, she did not routinely interact with the clinical staff. Shortly after this, a new point person was assigned by the medical director and more traction was obtained in tool implementation.
- 4) "Why can't we talk to them?": Clinics in the OCHIN collaborative are accustomed to reaching out to one another for peer-to-peer learning. In our study comparing implementation support strategies, we had to refuse a request for clinics to interact in order to protect randomization.
- 5) "How can we let others know about this?": The richest learnings sometimes occur outside of the formal study aims, and therefore may not be reported in peer reviewed scientific publications.

CONCLUSION:

Practice coaches involved in PT research in FQHCs can identify barriers to adoption of interventions. Lessons learned from these efforts should be considered in the design of PT and other intervention studies.

RELEVANCE STATEMENT:

Practice coaches involved in PT research in FQHCs can identify barriers to adoption of interventions. Lessons learned from these efforts should be considered in the design of PT and other intervention studies.

P10: Behavioral Health Integration in Primary Care: Lessons from the Field

Jessica L. Alpert, BS; Erin E. Sullivan, PhD;

BACKGROUND:

The global demands on primary care and healthcare systems call for innovative approaches to care delivery that can better cultivate patient and provider satisfaction. While primary care leaders and practices have been chronicled in many venues, readers are limited to learning what these leaders or practices are doing, not how. The Harvard Medical School Center for Primary Care (the Center) seeks to fill this critical knowledge gap by profiling domestic and international exemplar systems to address how they operate and defy systemic challenges to deliver high-performing primary care.

METHODS:

In order to understand how practices deliver primary care, the Center developed an original research program featuring mixed methods case studies. These cases aim to create and disseminate knowledge about best practices in primary care systems and highlight innovative, high-functioning care delivery. Case studies allow the Center to evaluate the operational and clinical structures of systems and examine varying forms of integration, such as behavioral health integration in primary care.

SETTING & PARTICIPANTS:

The participants include the case organizations and their personnel, as well as a Case Writer and the Research & Curriculum Director from the Center. This abstract highlights three select organizations, located in Anchorage, AK, Pasadena, CA, and Ajo, AZ.

RESULTS:

A growing body of evidence calls for increased behavioral health integration in primary care. It is posited that this integration ultimately improves quality of care and outcomes and decreases costs. Despite barriers to integration, three case organizations have integrated behavioral health services using varied approaches.

Southcentral Foundation (SCF): Based in Anchorage, Alaska, SCF serves the Alaska Native and American Indian population and delivers care to 70,000 people. Due to the high volume of behavioral health associated primary care visits, SCF created master's level behavioral health consultant positions (BHCs) that are integrated with primary care teams. BHCs typically conduct 15-20 minute consults and provide basic behavioral health education. Furthermore, psychiatrists and their staff are co-located within the primary care clinics. Co-location increases opportunities for direct PCP-psychiatrist consultation, and also decreases the number of duplicate referrals. This ultimately reduced stigma and patients were 400% more likely to make their behavioral health appointments.

Southern California Permanente Medical Group (SCPMG): SCPMG recently launched a Depression Care Management (DCM) initiative. An initial pilot indicated that depression was undiagnosed and untreated, necessitating increased behavioral health services for their 4 million patients. Designed to provide care for patients with mild-to-moderate depression in a primary care setting, the DCM program relies on regionally funded multi-disciplinary teams at each primary care medical office. DCM teams are allocated regionally and assess patients using the Patient Health Questionnaire (PHQ9). Based on patients' scores, the primary care physicians can determine whether the patient should be referred or if they require a consult about treatment options.

Desert Senita Community Health Center: Desert Senita, a rural FQHC in Ajo, Arizona, is the sole care provider for 4,000 patients and is 100 miles away from the nearest hospital. Behavioral health services are provided at the medical facility site by a behavioral health clinician team in collaboration with medical and dental providers. Behavioral health staff provide counseling services for depression, anxiety, stress, and other conditions. Individual, family, and group counseling services are also available and often focus on evidence-based approaches, mindfulness, and expressive art therapy. Despite the high demand for behavioral health services and prominence of PTSD in the community, one counselor notes that there is little stigma around receiving these services and credits this achievement in part to the integration with medical services.

CONCLUSION:

Each of the organizations in question use different approaches to integrating behavioral health into primary care. These organizations demonstrate that perhaps there is not one model of integration that should be used broadly, and instead the most effective models are those that are tailored to each organization's structure and to the needs of their respective patient populations. Through these examples, observers can extract lessons in integration and consider them at their own practices and systems.

RELEVANCE STATEMENT:

There is an increased demand and pervasive need for behavioral health integration in primary care. Although there are several barriers to integration, integration is vital to increasing quality of care and improving outcomes. In order to offer lessons in approaches to integration, the Center provides insights through three examples from the field.

P11: Describing the Structure of Primary Care Practice Facilitation in the EvidenceNOW Initiative in Oregon: A Synopsis of Practice Engagement and Retention

Steven C. Brantley, MPH; Raja A. Cholan; Angela Combe, MS

Cullen Conway, MPH

Kristin Chatfield, MPP

Nicholas V. Colin, MA

Beth Sommers, MPH

Emily Chirnside

Caitlin Dickinson, MPH

Michael Parchman, MD, MPH

LJ Fagnan, MD

BACKGROUND:

Context: The EvidenceNOW initiative, funded by the Agency for Healthcare Research and Quality, intends to expand quality improvement (QI) infrastructure in primary care practices by providing practice facilitation around clinical quality measures (CQMs) and practice transformation. In Oregon, 106 practices enrolled. Six practice facilitators (PFs) from the Oregon Rural Practice-based Research Network (ORPRN) provided facilitation with QI activities and overall transformation goals to practices in regionally-defined cohorts, and two PFs from the Department of Medical Informatics and Clinical Epidemiology (DMICE) assisted with health information technology. PFs from ORPRN and DMICE collaborated to provide support to practices in tandem. Practices were encouraged to create cross-functional QI teams that would meet monthly with PFs for 15 months. Practice facilitation meetings happened either in-person or virtually, with the mode, structure, and duration of meetings being tailored to fit practices' preferences. Quarterly CQM data surveys were used as a primary data collection tool. Objectives: In this poster, we aim to understand practice engagement and retention by describing (1) our facilitation structure and practice retention success, (2) the percentage of practice facilitation meetings completed, and (3) the percentage of quarterly CQM surveys collected in the first 17 months of the project.

METHODS:

We collected the date and mode of each monthly meeting from November 2015 through March 2017, as well as the completion rates for five quarterly CQM data surveys for 2015 through 2016. In that timeframe, practices had completed between 7 and 15 months of facilitation. A meeting was counted as cancelled when a practice was not able to meet with their PF in a six week period. We determined practice retention as the percentages of practices that completed facilitation meetings, practices that withdrew from the project, and practices that adopted a modified project curriculum. Finally, we compiled the percentage of the required quarterly CQM surveys each practice submitted.

SETTING & PARTICIPANTS:

PFs engaged with clinicians, administrators, and staff at 106 small- to medium-sized primary care practices across Oregon.

RESULTS:

Practice Retention: In 17 months, 93% of practices (n=99) held at least one facilitation meeting and 18% (n=19) withdrew from the project. Of those that withdrew, 37% (n=7) did so before their first meeting and 63% (n=12) did so subsequently. Of the total enrolled, a further 9% (n=10) of practices adopted a modified curriculum consisting of only some aspects of the project (e.g. facilitation, data submission, enhanced learning opportunities). There were 1,114 meetings scheduled, of which 87% (n=969) were intended to be in-person and 13% (n=145) were scheduled to be facilitated remotely. Overall, 68% (n=752) of all scheduled meetings were held; 32% (n=312) of the scheduled in-person meetings were cancelled, while 34% (n=50) of the scheduled remote meetings were cancelled. CQM Collection: Of the 530 required CQM surveys from all 106 practices, 75% (n=398) were collected. 70% (n=74) of practices submitted all CQM data while 22% (n=23) submitted none, with an average of 4.80 submissions among those who submitted at least one. Among currently active practices (n=86), 87% (n=382) of CQM surveys were collected. We observed no correlation between either meeting mode (in-person/remote) or percentage of cancelled visits and CQM submission rate.

CONCLUSION:

We saw nearly identical rates of cancellation for in-person and remote meetings, however face-to-face interactions were favored with 87% of scheduled meetings being in-person. It is difficult to predict the right time, mode, and frequency for practices to engage in practice-transformation efforts, as shown by the number of cancelled meetings, adoption of modified project curricula, and withdrawals of practices from the project. Furthermore, while the majority of practices were able to report CQM data surveys, we observed challenges with CQM reporting in 13% of active practices. A broad range of causes were noted for cancelled meetings, lack of CQM data submissions, and withdrawal from the project. Common causes included but were not limited to practice disruptions (e.g. loss of clinician or administrator), a lack of dedicated time for QI efforts, and a lack of resources for CQM data reports (e.g., limited support from system vendors). The presence of engaged leadership, and buy-in for data-driven QI, were anecdotally noted as strong predictors for engagement by all PFs.

RELEVANCE STATEMENT:

Primary care practices require a QI infrastructure to improve their level of evidence-based guideline adoption, and practice facilitation can be an effective tool to that end. Without engaged meetings with PFs, practices may not be able to meet the requirements of value-based practice transformation efforts.

P12: Identifying Patient and Family Centered Outcomes around Antibiotics for Acute Respiratory Tract Infections in Children

*Julia E. Szymczak, PhD; Alexander G. Fiks, MD, MSCE; Jeffrey S. Gerber, MD, PhD, MSCE
Darlene Barkman, MA
Kathy Conaboy, BA*

BACKGROUND:

Outpatient acute respiratory tract infections (ARTIs) account for the vast majority of antibiotic exposure in children, with broad-spectrum antibiotic use increasing despite uncertain benefit. Comparative effectiveness (CE) research on broad- versus narrow-spectrum antibiotic use for pediatric ARTIs is needed. It is increasingly being recognized that outcomes examined in CE studies should be meaningful to patients and families. We know little about the outcomes surrounding antibiotic use for ARTIs that are important to parents and children. Our objective in this study was to identify outcomes surrounding antibiotic use for ARTIs that are important to parents and children.

METHODS:

We conducted a qualitative interview study to better understand parent and child perceptions of antibiotic therapy for ARTIs. Interviews were conducted in-person using a semistructured guide and audiorecorded. Data were analyzed by two coders using a modified grounded theory approach. Results were discussed with family partners to determine how to operationalize patient and family centered outcomes.

SETTING & PARTICIPANTS:

We conducted interviews with parents of children presenting with ARTI symptoms to one of 4 diverse practices in a large hospital-affiliated network of pediatric primary care practices. We conducted interviews with healthy children over the age of 8 who were regular patients in the same pediatric primary care network.

RESULTS:

Interviews were conducted with 109 parents and 24 children from 4 practices (2 urban and 2 suburban) from March 2014 to March 2015. Parents across our sample identified missed school and work, child suffering, child sleep quality and speed of symptom resolution as important outcomes related to the treatment of their child's ARTI. Children reported concern about missing school, being uncomfortable, being unhappy, not sleeping well, their parents having to miss work and were focused on getting better as soon as possible so they could return to their normal routine. Based on these findings we determined that we needed to include measures in our CE study that captured child suffering, disrupted sleep and/or fatigue, missed school and work, and speed of symptom resolution. In close collaboration with our family partners and thorough literature review, we selected the PedsQL Pediatric Quality of Life Inventory to capture child suffering and disrupted sleep/fatigue. We designed simple questions to quantitate missed school and work and duration of symptoms.

CONCLUSION:

A systematic qualitative investigation into the perceptions that parents and children have about the treatment of ARTIs, coupled with engaged review by family partners, led to the selection of outcomes to be used in a CE study that were patient and family-centered.

RELEVANCE STATEMENT:

Researchers should engage patients and families in defining the question and outcomes to be examined in a study comparing different kinds of treatments. We interviewed children and parents to find out what outcomes related to the treatment of pediatric respiratory tract infections were most important to them. Children and parents identified a number of important factors to consider in future research on antibiotics for respiratory tract infections including sleep disruption, missed school and work and how quickly a child gets better as important outcomes.

P13: Lessons Learned by a Practice Facilitator in a Rural Practice Based Research Network

Christin Sutter; Linda Zittleman, MPH; Doug Fernald, PhD

BACKGROUND:

The number of formal practice transformation programs and initiatives have increased in some regions of the United States. In rural regions, primary care practices may be less likely to take advantage of practice transformation programs due to a real or perceived disconnect between the practice and facilitation support available to them, as facilitators and other support are often urban-based. Practices that do undertake transformation work may be less likely to continue or engage in research due to real or perceived limited capacity (staff, knowledge). The High Plains Research Network (HPRN) is a rural, 16-county practice-based research network (PBRN). The HPRN staff includes locally-based individuals who serve as research extension agents/community research liaisons/practice coaches and facilitate research and quality improvement as well as practice transformation work.

METHODS:

Synthesis of qualitative, personal reports from the field.

SETTING & PARTICIPANTS:

A practice-based researcher with a decade of experience working as a research team member, practice facilitator, and community research liaison for transformation in primary care clinics and communities in rural eastern Colorado.

RESULTS:

Practice facilitators external to practice staff are a valuable resource to help primary care practices implement quality improvement processes and successfully engage in transformation. Over the last decade, the HPRN has offered practice transformation facilitation with a locally-based staff member within a PBRN environment has allowed the Practice Facilitator to address primary care challenges and maximize community resources in the following ways:

1) Ongoing relationships: Years of working together on research and programs enhances the relationship between clinic team and facilitator. Practices have learned to communicate effectively with the PBRN and facilitator as well as trust the facilitator to be aware of their local needs. This relationship leads to an increased willingness to embrace change and think outside the box for solutions to challenges. 2) Synthesizer role: Facilitators working within the PBRN understand the broad scope of projects in which clinics participate, how to assure that clinics aren't overwhelmed, and - especially critical - how to help practices "connect the dots" between projects to streamline process and maximize benefit. 3) Community Awareness: Working over a period of time within the PBRN region and participating clinics as the local extension agent/liaison, the Practice Facilitator is aware of locally relevant programs and materials and best practices to help connect not only clinics to resources, but also help clinics to be aware of resources available to share with their patients. 4) Sustainer: The HPRN PBRN strives to maintain a presence beyond an individual project. When one project ends, the facilitator is still able to continue to provide resources, materials and support to practices and communities to move them further with their quality improvement work.

CONCLUSION:

Practice facilitation within a PBRN offers rural clinics an opportunity to participate with a local partner in their transformation work. The work of a PBRNs add value and sustainability to transformation work as well as extending the opportunity for collaborative work and connection to community resources.

RELEVANCE STATEMENT:

The HPRN Practice facilitator has often heard rural practices express hesitation to participate in transformation activities and programs. Practices often worry that outside organizations won't understand our small local communities and will come in for one program and leave them without continued support and resources. Working within a PBRN has allowed the HPRN facilitator to encourage participation in transformation work by offering sustainable, local support. Facilitation support through a PBRN is a potential model or inspiration for other practice transformation organizations around country, particularly in rural regions.

P14: Parental attitudes and preferences about participation in child health research: Results of an anonymous survey of parents from diverse settings in a pediatric PBRN

Evelyn C. Reis, MD; Carrie Fascetti, LSW;

BACKGROUND:

Enrolling children in clinical research requires consent from their parents. Child recruitment efforts are often based on assumptions about parental motivation and concerns. Improving knowledge about parents' attitudes and preferences about child health research can assist with parental engagement and may enhance participation in child health studies.

METHODS:

A two-phase study of parental attitudes and preferences about participation in child health research was conducted in a pediatric PBRN in Southwestern PA. In Phase 1 (Qualitative), parents completed an anonymous open-ended survey to assess the range of responses. In Phase 2 (Quantitative), parents completed an anonymous structured survey assessing agreement with common themes identified in Phase 1, including: 1) perceived importance, benefits and risks of child health research; 2) recruitment preferences; and 3) enrollment location preferences.

SETTING & PARTICIPANTS:

A convenience sample of 52 parents completed the Phase 1 survey. A separate convenience sample of 627 parents completed the Phase 2 survey and were recruited from 6 diverse pediatric primary care practice settings (1 urban, 1 rural, 2 northern suburbs, 2 southern suburbs) representing 3 counties in the PBRN. Four settings have in-office research recruitment. Parents varied significantly by age, income, and race: urban and rural parents were younger and had a higher proportion of children insured by Medicaid than suburban parents. Urban parents were predominantly African American; parents in the other settings were predominantly Caucasian.

RESULTS:

(Quantitative) Despite demographic differences, nearly all parents in each of the 6 settings agreed that child health research is important in helping doctors and parents: "prevent childhood illness" (90.9%), "diagnose or identify problems" (90.3%), and "treat or cure conditions" (95.0%.) When asked to select benefits or "reasons to participate", parents from all settings most commonly selected the altruistic statements: "We could improve care for children" (74.2%) and "We could help find answers that may help other children and families" (67.3%.) Parents in settings with in-office research staff perceived more personal benefit ("We could learn more about my child's health condition") than parents in settings without (62.2% vs 40.5% (p=.002.)) "Compensation" was rarely selected as a research benefit in any setting (17.6%.)

When asked about perceived risks or "reasons not to participate", parents most commonly selected "concerns about side effects of study treatments" (60.2%), "concerns about my child testing something new" (60.0%), and "concerns about discomfort from study tests or treatments" (52.1%). Parents from the one of the northern suburbs (older, more affluent) also selected "My family is too busy" as a common reason not to participate (64%). Parents rarely selected "privacy or confidentiality concerns" (9.7%) or "I don't trust researchers" (2.9%.)

Most parents (64.6%) would like to learn about research opportunities in the future. They preferred most commonly to be asked in person in the pediatrician's office (68.2%) or by email (55.8%.) Few parents preferred to be recruited by texts (17.3%) or social media (11.4%.)

Most parents preferred to enroll their child in studies taking place in the pediatrician's office (62.7%), more often among parents in settings with in-office research staff compared to settings without (68.5% vs 50.3% (p=.01.)) Parents also preferred enrollment in their home (56.7%.) Parents in the urban setting were much more likely than parents in rural or suburban settings to prefer enrollment in the city's children's hospital (48.8% vs 13.8% (p<.001)) or university location (46.6% vs 11.4% (p<.001.))

CONCLUSION:

Surveying parent stakeholders in diverse settings demonstrated that nearly all appreciated the importance of child health research and that altruism is a universal motivator. Contrary to popular thought, compensation was rarely seen as a reason to participate, even in low income settings. Common barriers to participation were concerns about side effects and discomfort for children. Older, more affluent parents were also concerned about the time commitment of participation. Most parents endorsed on-site and email study recruitment, but were not interested in receiving texts or social media outreach. Most parents preferred to enroll their children in their pediatrician's office or in their home.

RELEVANCE STATEMENT:

A better understanding of parental motivation, barriers and preferences regarding participation in child health research can enhance engagement with this key stakeholder group. PBRNs and PIs can better address common parental concerns and use limited recruitment resources more effectively by employing strategies and locations that match parent preferences. PBRNs can also share the parental preference for on-site recruitment and enrollment with host practices to support ongoing collaboration.

P15: Capturing Adult Core Quality Measures in Emerging Behavioral Health Homes

Elizabeth Needham Waddell, PhD; Mark Remiker, MA, CCRP; Kelsey Branca, MPH, CCRP

Emily Chirnside, Practice Enhancement Research Coordinator (PERC), Oregon Rural Practice-based Research Network (ORPRN), Oregon Health & Science University

Sonya Howk, MPA, Research Associate, Oregon Rural Practice-based Research Network (ORPRN), Oregon Health & Science University

Rita Moore, PhD, Policy Analyst, Oregon Health Authority

BACKGROUND:

Oregon has identified integration between physical health and behavioral health through patient-centered medical homes as an important strategy to achieve the Triple Aim. Between 2014 and 2016, the Behavioral Health Home Learning Collaborative (BHH LC) supported the efforts of 11 organizations to bring physical health care into behavioral health sites serving high needs, high cost populations experiencing severe mental illness or substance use disorder. The BHH LC was funded through the Adult Medicaid Quality Grant Program as part of a broader effort to increase the proportion of Medicaid members enrolled in medical homes. The program was implemented with technical support and data collection provided by the Oregon Rural Practice-based Research Network (ORPRN).

METHODS:

ORPRN's Practice Enhancement Research Coordinators (PERCs) used a range of organizational development, project management, quality improvement, and practice improvement approaches and methods to help participating organizations identify barriers to integration and conduct quality improvement activities. In Year 3, each site collected up to four Adult Core Quality Measures (ACQMs) to assess treatment and control of chronic conditions among integrated patients who were members of the Oregon Health Plan (OHP). These included: Adult Body Mass Index (BMI); Controlling High Blood Pressure (CBP); and Comprehensive Diabetes (DM) Testing and Control.

SETTING & PARTICIPANTS:

Participating sites identified a total of 2,927 integrated BHH clients who were Medicaid members with both a primary care and behavioral health visit in the measurement year. A total of 449 clients received services in one of the In-house BHH models, 40 received services through a facilitated referral model, and the majority (N=2438) received services in a co-located BHH model.

RESULTS:

Overall, 87% of BHH clients had a BMI recorded in their electronic health records (EHRs) or paper health record. Of those with diagnosed hypertension, 71% were reported by sites to be controlled. Among those with diagnosed diabetes, 91% had a Hemoglobin A1c recorded in their health record, and only 29% were poorly controlled.

CONCLUSION:

A majority of clients entering care in BHHs did not arrive with medical histories, and clinicians were frequently diagnosing conditions at the first visit. Tracking control of chronic conditions over time is challenging, as clients with incomplete histories are likely to be excluded from analyses. Validation of clinic-based measures against state-level encounter data would improve the quality of data reported on both sides. Significant collaborative effort at the clinic, state and community level will be required to effectively track health and social indicators for populations with SMI and SUD, who are often poorly tracked in single systems. To fully assess the effectiveness of BHH models versus delivery of primary care in typical Patient Centered Primary Care Homes, evaluation metrics need to include robust indicators of social as well as medical outcomes. These may include but are not limited to: Justice Involvement, employment, housing, and enrollment in state-sponsored supportive services.

RELEVANCE STATEMENT:

Program effectiveness of Behavioral Health Home models is not adequately measured through standard quality metrics derived from electronic health record data. Underestimated prevalence of chronic conditions in the medical record likely translates to inflated estimates of adequate control and underestimates of chronic conditions. Assessment of patient wellness must accommodate multiple data sources, developing IT infrastructures, and the challenges of tracking transient populations.

P16: Dancing, Not Wrestling: Promoting Patient Behavior Change by Becoming the Change

Johanna Becho, MA; Walter Calmbach, MD, MPH, FAAFP;

BACKGROUND:

Designed with obese patients in mind, the South Texas Ambulatory Research Network (STARNet) developed an educational intervention utilizing Motivational Interviewing (a counseling style) to assist STARNet physician members in meeting the needs of this patient population. Though the project teaches primary care practices an evidence-based obesity intervention, the study revealed hidden potential for igniting change at the organization level, while cultivating an interest for research. This presentation invites attendees to consider research methodology through a Systems Theory lens as a means for "perturbing the system" (clinic) and promoting quality improvement.

METHODS:

"Motivational Interviewing" (MI) is a goal-oriented, patient-centered, counseling style for eliciting behavior change. MI positions patients to explore and resolve ambivalence associated with making change. Key skills of motivational Interviewing include: 1.) OARS (Open ended questions, Affirmations, Reflective Statements, Summaries); 2.) Agenda Setting; 3.) Scaling Importance and Confidence; and 4.) Recognizing/Eliciting Change Talk. STARNET member physicians and staff are invited to participate in 4 Motivational Interviewing (bi-monthly) training sessions. Trainings include a brief PowerPoint lecture that incorporates short video vignettes, 5-minute practice sessions, and open group discussion. Unexpectedly, participating practices also responded favorably to invitations for a "Research 101" (Human Subjects Protection) training, for a total of 5 sessions prior to actively launching the study. Participants rate sessions using a 4-item evaluation form assessing presentation skills and content, video vignettes, and practice sessions. A modified version of the Motivational Interviewing Knowledge and Attitudes Test (MIKAT) is also administered to determine content retention. STARNet physician members complete a mandatory written Human Subjects Protection Training quiz. Clinic staff are highly encouraged to share and debrief about their experiences, ideas and concerns through the entire process.

SETTING & PARTICIPANTS:

Setting: Physician-owned and operated primary care practice clinics located in South Texas

Participants: Primary care physicians, physician assistants and nurse practitioners, medical assistants, clinic office managers and additional administrative staff

RESULTS:

Practice trainings to date have taught our team new lessons about the value of viewing each clinic as a "system", independent of one another; each with its own collective "personality", and each with its own set of strengths and weaknesses (feedback loops). Unique to this study is its transformative potential to ignite change at the micro level (staff/clinic) in order to produce change on the macro level (community/patients). Variables that may contribute to a systems' capacity to successfully achieve change include: A.) training intervals B.) Relationships / Collective participation C.) Addressing power differentials D.) Cultural considerations D.) "Zip Codes" (economic resources) E.) Model the "Spirit of Motivational Interviewing" F.) Approachability & Communication (post training debriefing), G.) Research as a form of "Investing" H.) Igniting research appreciation, especially for non-research oriented practices.

CONCLUSION:

Field observations suggest primary care practices may benefit by participating in research initiatives that offer intervention strategies, yet strengthen infrastructure and promote cohesion among staff at the organization level, while inciting a genuine passion for the research process.

RELEVANCE STATEMENT:

This information sheds light on the most important points to consider when recruiting clinics for research participation. Every practice is a (terribly busy)"system" and naturally resistant to change. Every practice can improve their capacity to function optimally as a whole. Every practice can fall in love with research!

P17: Prevalence of mental disorders, association with medical comorbidities and sociodemographic factors in Zanmi Lasante mental health clinic, Saint-Marc, Haiti

*Emmanuel Fabrice Julcéus, MD; Yadine Saint-Fleur, MD; Romulus Dornevil, MD
Benjaminel Urimmaculus Scaide, Statistician
Yoldie Alcindor, Psychologist*

BACKGROUND:

Mental disorders consisting in 13 % of the world health problem represent a heavy burden for global public health. They are associated with medical comorbidities in more than 50% of cases. Few data are available in Haiti about this aspect. Then, this study aimed to determine the prevalence of mental disorders, their association to medical comorbidities and sociodemographic factors in the mental health clinic at two public facilities of Saint-Marc.

METHODS:

This analytic cross sectional study used secondary data from the registers of the mental health clinic. The criteria of «Diagnostic and Statistical Manual of Mental Disorders, fourth edition » and « Zanmi Lasante Depression Symptom Inventory» were used for the diagnoses. Data were collected and processed on excel 2013, analyzed on Epi info 7.2 using descriptive statistics and chi-square.

SETTING & PARTICIPANTS:

Saint-Marc has two public facilities managed by the non-governmental organization Zanmi Lasante: the outpatient clinic (SSPE) and the Saint-Nicolas Hospital (HSN) where family physician are trained. Patients seen in their mental health clinic from January 2015 to June 2016 whose diagnosis of mental disorder was made by competent mental health care providers (psychologists, psychiatrists, and other trained physicians) were included.

RESULTS:

There were 245 patients divided in 63 men and 182 women. Among them, depression, psychosis, anxiety and anxious depression held the highest prevalence, respectively 28.98%, 17.96%, 13.06% and 11.84%. Regarding medical comorbidities, 73.88% of the patients didn't have any, 12.24% had HIV and 4.49% epilepsy. The proportion of patients who came without medical reference was 40.91%, 21.28% and 12.68% respectively for psychosis, anxiety and depression ($p= 0.0002$). The proportion of women was higher with depression, anxiety and complicated mourning while the proportion of men was higher with psychosis and mental retardation ($p= 0.01$). Mental retardation was associated with age under 30 years old, complicated mourning and anxious depression with age between 30 and 49 years old ($p= 0.028$).

CONCLUSION:

Depression, anxiety and psychosis were the three most common mental pathologies. The majority of patients didn't have related medical comorbidities. Medical reference, sex and age were associated with some of the mental disorders. Population's education about depression and anxiety and awareness of health care providers on a rigorous screening of mental disorders are necessary.

RELEVANCE STATEMENT:

This study helps to figure out the need for education on depression and anxiety because people with related symptoms less came without medical reference. Also it allows to target the screening for mental disorders according to sex, age and medical comorbidity.

P18: Primary care physician perceptions of quality data reporting: A qualitative study

*Nancy C. Elder, MD, MSPH; Lenisa Chang, PhD; Barbara Tobias, MD
Saundra Regan, PhD; Susan McDonald, MA; Harini Pallerla, MS; Rebecca Wang*

BACKGROUND:

The role of value-based care continues to increase in importance for primary care physicians (PCP). While there are a number of surveys of practicing PCPs' opinions about quality and quality metrics, there are few qualitative studies of their hopes and concerns for the role of quality data reporting.

METHODS:

Semi-structured interview study. Analysis was via the editing method, where coding categories were determined from the data themselves

SETTING & PARTICIPANTS:

We interviewed 25 PCPs (Family Medicine (FM), internal medicine (IM) and medicine pediatric (M/P) physicians) in the Cincinnati region about their experiences with quality and quality reporting. We purposefully selected them from 1) providers who reported diabetes quality data to a regional consumer website in both 2010 and 2013 (to include variability around initial quality rankings and direction of quality change over time; and 2) a convenience group of non-reporting PCPs. Within both groups, we sought variability around health system employment and gender. We asked participants about quality improvement experiences, motivation, public reporting, pay-for-performance and concerns about quality reporting

RESULTS:

Participants' mean age was 53; they were 56% male, 84% white and 52% FM; 88% came from the group that reported data to the website, and of these 59% improved or maintained the same level of diabetes quality from 2010 to 13. Motivation for improving care quality was a complex interaction of intrinsic and extrinsic motivators. A sense of "doing their best for patients and the practice" was the most commonly mentioned influence. This was followed by their internal competitive spirit fed by external reports and feedback provided by practices, health system and insurers. The role of pay-for-performance was mixed, with PCPs acknowledging that it did influence their decisions to improve quality, but with many physicians uncertain if they even received quality payments. Quality projects initiated at the health system level was a frequently mentioned extrinsic motivator, but public reporting on commercial and consumer websites was rarely seen as an important instigator for quality. Concerns about quality reporting were related to 3 areas: lack of attention to patient disease severity and socioeconomic status, poor quality data dependent on "clicking boxes," and an under-appreciation of the role of patient self-determination in quality outcomes. These concerns dampened PCPs' trust in quality reports and feedback, and increased their uncertainty about the future of pay-for-performance and value based care. The findings were consistent across all groups of participants

CONCLUSION:

PCPs are invested in providing high quality care to their patients. Feedback and benchmarking reports feed the competitive nature of many PCPs to do better, and system-based quality initiatives assist PCPs to improve quality. Until PCPs' concerns about quality reporting are addressed, however, value-based care reforms will likely be met with physician skepticism

RELEVANCE STATEMENT:

Understanding the complexity of PCP decision making regarding quality and quality reporting is important as quality improvement, practice transformation and payment models evolve in the coming years

P19: The use of a Virtual Learning Collaborative to enhance alcohol screening and brief intervention among primary care practices

Michelle Nichols, PhD, RN; Lynne Nemeth, PhD, RN, FAAN;

BACKGROUND:

Excessive alcohol use can contribute to chronic medical conditions and affects approximately 3 out of 10 adult primary care patients. Risk screening, based on clinical guideline recommendations set forth by the National Institutes on Alcohol Abuse and Alcoholism (NIAAA), is recommended for all primary care patients. Further recommendations include consideration of primary care providers to medically manage through pharmacotherapy and motivational brief interventions individuals with alcohol use disorders (AUD). In spite of recommendations, little progress has been made among primary care clinicians to adopt systematic screening and brief interventional efforts in their practices. This study seeks to evaluate the effectiveness of a novel strategy to engage primary care providers and their staff in practice level quality improvement of alcohol screening, brief treatment, and referral through a multicomponent virtual learning collaborative.

METHODS:

This study is being conducted using a Virtual Learning Collaborative (VLC) platform, which includes academic detailing to scaffold learning across settings and participant groups and offers asynchronous educational content delivery, optimizing flexibility among participants. VLC content incorporates embedded educational material and facilitated discussions led by an inter-professional team (nursing, medicine, pharmacy). Baseline practice level data on alcohol screening and related prescription rates were collected and are gathered quarterly from electronic health record (EHR) data during the 18-month study period.

SETTING & PARTICIPANTS:

Participants include primary care sites (clinical providers and practice staff) recruited from Primary (Care) Practices Research Network (PPRNet) practice sites. Each enrolled site (N=21) was invited to include all providers and clinical staff members to join the VLC.

RESULTS:

Enrolled sites were randomized to intervention, which includes active participation in the VLC, or control. All sites engaged in a baseline overview webinar. Intervention sites participate in monthly training with content delivered via the VLC and active engagement through sharing of experiences to facilitate collaborative learning and promote practice improvement and implementation.

CONCLUSION:

Initial baseline reports indicate practice site alcohol screening rates ranging between 2-94.36%, pre-study documented alcohol treatment interventions in only 12 sites (6 intervention/6 control), and pharmacological agents prescribed for alcohol treatment ranging from none to just below 10% (9.86), confirming a need for further practice level quality improvement.

RELEVANCE STATEMENT:

This study evaluates the use of virtual learning technology as a means to increase alcohol screening and treatment among patients seen in primary care practices and evaluates facilitators and barriers to learning in a collaborative environment.

P33: Willingness to Pay and Willingness to Accept: A Brief Educational Intervention with Hypertensive Patients in Primary Care in United States and Canadian Healthcare

*Julie Gleason-Comstock, PhD, MCHES; Alicia Streater; Karin Przyklenk
Allen Goodman, PhD; Phillip Levy, MD, MPH*

BACKGROUND:

Elevated blood pressure is a major risk factor for cardiovascular disease and stroke, but patients often discount recommended behavioral changes and prescribed medication. This study will evaluate effectiveness of a brief primary care educational intervention in addition to comparing healthcare models in the United States and Canada.

METHODS:

The contingent valuation model will be used to assess patient willingness to accept (WTA) and willingness to pay (WTP) for a brief educational 2-session intervention on hypertension using an interactive kiosk with support from a health worker. Patient self-monitoring of blood pressure, pre-post assessment and the WTP/WTA survey will be conducted.

SETTING & PARTICIPANTS:

100 primary care patients will be recruited over a year from a Detroit/United States clinic (n=50) and a Windsor/Canadian clinic (n=50). Inclusion criteria are age 21-80 years, diagnosed with uncontrolled blood pressure and one prior primary care visit for the uncontrolled blood pressure.

RESULTS:

Blood pressure control and patient satisfaction with the educational intervention are outcomes. Time price multiple linear regression analysis will be performed to estimate predictors of WTA and WTP.

CONCLUSION:

Although effectiveness interventions to promote adherence to blood pressure control have been developed, cost-effectiveness from the patients' perspective has not been well studied. Additionally, the results will be used to assess the effectiveness of this approach in a primary care setting in two healthcare models (USA and Canada).

RELEVANCE STATEMENT:

Prior studies by the researchers have shown clinic-based multi-session interactive educational modules in a primary care clinic can provide beneficial short-term outcomes for blood pressure control. This brief intervention and WTP/WTA and surveys could be used by primary care providers as a patient-centered cost-effectiveness approach.

P20: Carolinas Asthma Coach: Preliminary Evaluation Results of an Information Technology Solution for Asthma Shared Decision Making and Decision Support.

Kelly W. Reeves, BSN, RN, UXC; Andrew McWilliams, MD, MPH; Lindsay E. Shade, MHS, PA-C

BACKGROUND:

Asthma is a high impact chronic disease that is difficult to manage and associated with marked disparities in outcomes. Despite the availability of effective treatment options and evidence-based guidelines, most asthma patients are unlikely to be adequately treated based on current guidelines. Shared Decision Making (SDM) is a process by which a healthcare choice is made jointly by the patient and provider. SDM has been shown to improve patient engagement and patient-oriented outcomes. While evidence-based guidelines and patient engagement tools like SDM face many barriers to pragmatic dissemination, the rapidly evolving field of health information technology (IT) is increasingly recognized as perhaps the most promising solution.

Using participatory research, iterative design, and user centric methodology, our team partnered with patients, caregivers, and providers to create a digital solution called Carolinas Asthma Coach. The interactive web-based application engages pediatric patients and their caregivers in a personally tailored experience while collecting patient reported data. The background logic then incorporates the complex asthma guidelines to determine level of asthma severity or control and pulls forward tailored guideline-based treatment recommendations for both the patient/caregiver and provider in two respective summaries, supplying decision support for both audiences. These summaries can then be used by the patient, caregiver, and provider to reach a shared decision around the treatment plan.

The overall goal of this project was to improve asthma outcomes by leveraging a health IT solution that facilitates standardized asthma care delivery and makes the care process more efficient, promoting patient/caregiver engagement and activation in their self-management.

METHODS:

Quasi-experimental, pre-post to evaluate efficacy outcomes, and RE-AIM measures for implementation. Main outcomes were 1) Change in asthma knowledge, 2) Perception of SDM, 3) User satisfaction, and 4) RE-AIM measures for implementation.

SETTING & PARTICIPANTS:

Pediatric patients 7-17 years old and their caregivers (dyads) seeking asthma care within a large healthcare system in Charlotte, Mecklenburg County, NC. Prospective series with convenience sampling. Recruitment is ongoing at this time.

RESULTS:

- Both patients (n=26) and caregivers (n=26) showed increases in asthma knowledge on pre- and post-survey results. Patient scores improved on average from 56% to 82% and caregiver scores improved on average from 70% to 85%
 - Of the patient/caregiver dyads surveyed about their perceptions of SDM to date (n= 25), 96% reported some degree of shared decision making with the provider in their asthma treatment plan. 68% of those surveyed indicated they shared equally in determining the treatment plan
 - 100% of patients, caregivers, and providers (n=78) have demonstrated satisfaction by answering affirmatively when surveyed: "Would you recommend Carolinas Asthma Coach to a friend or colleague?"
- 100% of patients contacted (n=11) were interested, started and completed the module, and their summaries were all deemed to be high quality by the provider

CONCLUSION:

Health IT solutions like Carolinas Asthma Coach may facilitate more widespread use of SDM, help to standardize asthma education, and improve adherence to guidelines.

RELEVANCE STATEMENT:

Iterative design in partnership with patients, caregivers, and providers likely improves overall usability and acceptability of health IT applications and likely has the potential to increase communication and change the dynamic of the relationship between the care team and patient.

P21: Recruitment Methodology for the EvidenceNOW Initiative: Describing Oregon's Healthy Hearts Northwest Recruitment Process

LJ Fagnan, MD; Katrina Murphy; Caitlin Dickinson, MPH

Michael Parchman, MD, MPH

Director, MacColl Center for Health Care Innovation

Kaiser Permanente, Washington Health Research Institute

BACKGROUND:

Context: During the first year of the EvidenceNOW initiative (May 1, 2015-April 30, 2016), Healthy Hearts Northwest (H2N) involved the recruitment of at least 250 small- to medium-sized primary care practices in Oregon (100), Washington (120), and Idaho (30) to participate in a pragmatic clinical trial comparing the impact of different evidence-based methods for disseminating cardiac risk reduction interventions. Recruitment in Oregon was conducted by the Oregon Rural Practice-based Research Network (ORPRN), an Oregon-centered practice-based research network with five offices throughout the state and eighty "member" practices. Recruitment in Washington and Idaho was conducted by Qualis Health, the CMS Quality Improvement Organization and HITECH Regional Extension Center (REC) for Washington and Idaho. In order to reach the Oregon recruitment target, ORPRN extended their reach beyond their eighty member practices. Objectives: To date, the methods required to enroll small primary care practices in large, regional initiatives are unknown. For this poster, we aim to describe ORPRN's recruitment approach and process for enrolling 100 Oregon clinics in the H2N initiative.

METHODS:

ORPRN project leaders tracked data on the recruitment methods used for identifying and connecting with practices. Multiple modalities were implemented to provide information about the initiative and to enroll practices, including: newsletter articles and conferences and in individual meetings with leaders from health and hospital systems, accountable care organizations, independent practice associations, the Oregon Academy of Family Physicians (OAFP), the Oregon Primary Care Association (OPCA), and with other local health organizations. In addition the ORPRN 10-member Steering Committee agreed to recruit for the study.

SETTING & PARTICIPANTS:

In addition to collecting data on recruitment methods, ORPRN project leaders tracked who from the organization conducted recruitment activities and who they connected with.

RESULTS:

Over the course of one year, ORPRN recruited 675 practices for H2N, with 102 practices enrolling in the project. The majority of the practices recruited in Oregon were health/hospital system-owned (46%) compared to physician-owned (39%). Among enrolled practices, 49% were health/hospital-owned practices and 36% were physician-owned. Rural practices made up 57% of enrolled practices. We succeeded in recruiting small and medium-sized clinics-16% of enrolled practices were solo, 53% small (2-5 clinicians), and 31% were medium-sized (>6 clinicians).

Recruitment highlights:

- Individual e-mail (23%), in-person (20%), and phone (14%) contacts were the most frequent modalities to introduce enrolled practices to H2N.
- It took time to enroll practices. Our first practices were enrolled at month four. It took approximately 7 touches - from multiple ORPRN staff members - (range=1-25). Independent practices required an average of 4 touches as compared to 8 touches for health/hospital system practices.
- ORPRN instilled an "all-hands-on-deck" recruitment approach, and most ORPRN staff (22/24) - including network leadership, the H2N project manager, practice facilitators, and research assistants - assisted with H2N recruitment.
- Recruitment for the project was not an isolated effort; ORPRN relied on outside organizations (27) for connections to practices.
- Pre-existing partnerships with practices and warm handoffs increased the likelihood of recruitment success. 44% of enrolled practices had previous relationships with ORPRN; 31% of practices without a prior ORPRN relationship enrolled in the study due to a warm handoff from trusted connections.
- Without health system or clinic leadership support, it was impossible to engage practices. However, even with health system and clinic leadership support and sanction, there was no guarantee that individual practices would enroll in the study.

CONCLUSION:

Recruitment of primary care practices for a large-scale regional study of quality improvement and practice transformation includes multiple modalities and team member roles. Building on established relationships increases the likelihood of recruitment success. Practice ownership did not play a major role in recruitment success. Health system leadership was both a facilitator and barrier to recruitment success.

RELEVANCE STATEMENT:

Understanding the recruitment process can help: 1) provide a realistic timeframe for recruitment efforts in future projects, 2) determine the appropriate team members - from both the recruiting organization and clinic - to involve in the recruitment process, and 3) drive mechanisms for reaching out to practices.

P22: Technology to assist in direct observation of health professionals: A case study in the dialysis unit

Rosa Hand, MS, RDN; Jeffrey Albert, PhD; Ashwini Sehgal, MD

BACKGROUND:

Direct observation has a rich history in practice based research networks (PBRNs) to describe the activities completed by practitioners and the proportion of time activities take. When compared with other time and motion study methods, direct observation has been validated as the most accurate. Research indicates that the Hawthorne effect disappears within 15 minutes of beginning the observation. Direct observation is time intensive, and it has been difficult to time activities with precision.

To our knowledge, direct observation has not been used with registered dietitian nutritionists (RDNs). Surveys have shown that RDNs working in dialysis units complete many administrative activities and non-patient care responsibilities. Therefore, the purpose of this study was to describe the percent of time spent in direct patient care vs. other activities among dialysis RDNs. This abstract describes how new technology facilitated precise timing of activities, and summarizes field notes as a process guide for other investigators.

METHODS:

We used the WOMBAT (Work Observation Method By Activity Timing) software, licensed from Macquarie University, Australia on a Samsung Tab 4 8-inch tablet computer. WOMBAT is a customizable platform with a web-based interface for setup and a tablet computer application for data collection. WOMBAT can collect up to 30 main variables with additional subcategories. Each time the subject changes activities, the observer selects the relevant descriptors on the WOMBAT tablet interface and an internal timer begins. Activities can be marked as interrupting a previous activity and/or being conducted simultaneously (multi-tasking). Wifi is not required for data collection; data are stored locally until the user selects an upload command on the tablet.

We programmed WOMBAT with variables to describe renal RDN activities (based on our previous surveys and an expert panel of RDNs). We also developed and programmed variables for individuals and equipment with which the RDN might interact to complete an activity. Finally, each activity was classified as being conducted in a patient care area or not. A single investigator conducted all observations, so interrater reliability was not tested. Observations were scheduled for 3 hour periods; 2 observations could be conducted in a single day, provided that the investigator took a 1 hour break between observations, in order to maintain concentration. The project was approved by the Case Western Reserve University IRB, DaVita Clinical Research, and Frenova Research. Participants were recruited from DaVita, Fresenius Medical Care, and Centers for Dialysis Care dialysis centers in Northeast Ohio. RDNs were considered the research subjects and provided signed informed consent. The goal was to observe each RDN for 12 hours total. No patient information was collected during the observations.

SETTING & PARTICIPANTS:

Participants were recruited from DaVita, Fresenius Medical Care, and Centers for Dialysis Care dialysis centers in Northeast Ohio. RDNs were considered the research subjects and provided signed informed consent. The goal was to observe each RDN for 12 hours total. No patient information was collected during the observations. At the writing of this abstract, 8 RDNs have been recruited to participate, and 3 observations have occurred.

RESULTS:

WOMBAT was easy to customize and use. Dialysis RDNs' work is known to be cyclical, surrounding monthly lab draws, as RDNs are generally responsible for reviewing labs with patients and adjusting clinical protocols based on lab results. Therefore 2 days may not adequately capture the variety of work RDNs do. While previous work with WOMBAT has been mostly in an inpatient setting, allowing for unannounced observations, at dialysis centers there is generally only one RDN so observations must be scheduled in advance. We emphasized to RDNs that they should pick usual days for our observations, but in conversation it became clear that they believed that they should be picking "interesting" days to schedule with the observer. This may lead to an overrepresentation of patient care activities vs. the administrative work that we expected. Additionally, one participant remarked that patients were much less chatty when the observer was visiting, which was similar to her experience when a student was shadowing her.

CONCLUSION:

New technology facilitates direct observation with precise and easy time measurements. This is a new opportunity to open the "black box" of dietetics practice, just as it was in primary care 20 years ago, and is an opportunity to report on changes in health care across professions. However, when observing in sites with cyclic schedules, or with only one participant per site, determining how to schedule observations on representative days is an important methodologic consideration. Random scheduling may need to be implemented even if unannounced observation is not possible.

RELEVANCE STATEMENT:

Using direct observation helps describe and quantify what health professionals do. Activities can then be linked to patient outcomes to determine which activities provide value.

P23: Understanding Shared Situation Awareness Cognitive Requirements for EHR Design for Primary Care Teams

Amanda Hoffmann, MPH; David Hahn, MD, MS; Shimeng Du, MS

Randi S. Cartmill, John W. Beasley, Laura J. Farrell, Linsey M. Steege, Paul D. Smith, Jessica Tarnowski, Regina M. Vidaver, Tosha B. Wetterneck

BACKGROUND:

Efficient, high-quality primary care delivery is dependent upon electronic health records (EHR) that support functional teamwork. Unfortunately, current EHR design does not adequately support the cognitive needs of primary care teams or individual clinicians. An understanding of team goals and team situation awareness (SA) is needed to design an EHR that supports the work and cognitive demands of both clinicians and their teams. This study seeks to understand primary care team members' cognitive processes, i.e., goals, decisions and information needs, as they relate to shared goals and use this analysis to identify design requirements for EHRs around the goal of involving other clinic team members in patient care.

METHODS:

Goal-Directed Task Analysis (GDTA), a form of cognitive task analysis based on user-centered design and SA, was used to guide our data collection and analysis. Observations and interviews with participants focused on gathering their goals, decisions, and information needs required to conduct patient care. Data analysis compared physician/APP and nurse/MA cognitive processes to understand shared goals, decision making and information needs and to inform design needs for individual and team shared SA.

SETTING & PARTICIPANTS:

Four primary care teams including physicians, advanced practice professionals (APPs), nurses and medical assistants (MAs), from two community-based Midwestern clinics.

RESULTS:

Thirteen clinicians' data are included. Researchers identified multiple shared goals and decisions around involving other clinic team members, e.g., health educators, case managers, or pharmacists, in patient care during a visit with the physician/APP. Further analysis of shared SA shows multiple shared assessments being made, e.g., continuity of care through ongoing relationships between patients and team members; urgency of the need for intervention in the patient's condition; patient level of chronic disease control, and clinic team member availability. Mutual information needs supported these assessments, but varied in the breadth and depth of the information required. In addition, each clinician group had certain unique assessments and information needs, indicating the need to balance having team member's decision-making processes visible to others while avoiding information overload.

CONCLUSION:

Use of GDTA methods allows understanding of physician/APP and nurse/MA goals, decisions and information needs and shared SA. These analyses are useful for optimal EHR redesign to support primary care teams' delivery of high-quality patient care.

RELEVANCE STATEMENT:

Understanding the cognitive needs of primary care teams is important for optimal EHR redesign to support high quality care delivery.

P24: An Online Database of Industry Research Sponsors Created for a National PBRN

Rachel R. Chennault, PhD; Diana M. Sobieraj, PharmD; Nicole M. Acquisto, PharmD

*Collin Hovinga, PharmD
caHovinga@seton.org*

*Daniel Riche, PharmD
driche@umc.edu*

on behalf of the Community Advisory Panel of the American College of Clinical Pharmacy Practice-Based Research Network

BACKGROUND:

To conduct collaborative research related to the safe and effective use of medications and clinical pharmacy services, the American College of Clinical Pharmacy Practice-Based Research Network (ACCP PBRN) and its investigator partners seek external funding to support specific studies and their use of the network's research infrastructure. Potential funding for ACCP PBRN research may come from mechanisms identified through government, foundational, or pharmaceutical industry sponsors. However, the ACCP PBRN is currently limited in its ability to systematically identify funding opportunities offered through non-government agencies, particularly companies within the pharmaceutical industry. The goal of this project is to increase the network's awareness of funding opportunities/priorities from pharmaceutical industry sponsors and improve its ability to respond to these opportunities in a timely manner with collaborative research proposals.

METHODS:

The ACCP PBRN Community Advisory Panel (CAP) held meetings to define essential elements needed to create a registry of funding opportunities that would help the network and its investigators become more aware of and able to respond to opportunities in a timely manner with collaborative research proposals. Agreed upon variable fields were used to develop a registry form in REDCap, which was pilot tested amongst the leadership of a subgroup of ACCP membership who hold positions within pharmaceutical companies; their feedback was used to revise the registry form. Industry sponsors were selected from the top 50 Pharmaceutical Companies based on FY2016 sales for inclusion in the registry. Initially, members of the subgroup representing these companies were asked to complete the registry form, populating a database of information about their respective companies' funding priorities and processes for soliciting or receiving research proposals. To complete the database, ACCP PBRN CAP members sought missing data from existing industry colleagues or compiled data from company website searches. All data will then be incorporated into an online, searchable database that may be accessed by network staff and collaborating members. CAP members will pilot test the searchable database prior to release to ACCP members. Website tracking metrics will enable ACCP PBRN staff to gauge database usage among its members.

SETTING & PARTICIPANTS:

ACCP is one of the leading organizations for clinical pharmacy practitioners, scientists, educators, administrators, students, residents, and fellows from more than 60 countries committed to excellence in clinical pharmacy and those with sub-specialty interests. The goal of the ACCP PBRN is to drive collaborative practice-based clinical pharmacy research that advances health care with ACCP members and external collaborators.

RESULTS:

A total of 13 fields are populated in the database per sponsor, including details for the mechanism of funding (call for proposals versus investigator-initiated), research priority areas, publicly available posting of funding opportunities or priority areas, description of submission requirements and designated contact information for funding opportunities. From the 50 target industry sponsors, 39 (78%) have been registered into the database thus far. Most sponsors (n=34, 87%) do not provide funding through official calls for proposals, but rather they sponsor investigator-initiated research (n=35, 90%). Mechanisms to submit investigator-initiated proposals most commonly include submission through an online portal (n=25, 71%), and/or direct interaction with a Medical Science Liaison (n=6, 17%). A specific template for proposal submission is available by download from 9 (23%) of registered sponsors, representing the most common field of the database where information was not available and therefore unknown.

CONCLUSION:

The ACCP PBRN has established a registry for network investigators to identify sponsorship opportunities for research. Pharmaceutical industry members of ACCP may also be responsive to this registry information, leading to potential collaborations with the network. Finally, the ACCP PBRN support can be focused on priority areas, improving the response time to network member interest. Future work will include regular updates to sponsor information contained within the database, as well as supplementing the registry with foundation or organization funding opportunities.

RELEVANCE STATEMENT:

This registry will serve as a resource for ACCP PBRN members to identify potential funding avenues. The ACCP PBRN can use the registry priorities in targeted communications to members with similar interests, increasing network member awareness of funding opportunities and priorities.

P25: Association between Level of Hypertension Knowledge and some Complications among Hypertensive Patients at the University Hospital of Mirebalais - Haiti, 2016

*Emmanuel Fabrice Julcéus, MD; Nicole Dana Gaudard, MD; Philippe Cleophat, MD
Dufens Pierre-Louis, MD
Aurelie Gilles, MD
Bernard Junior Joseph, MD
A. Cuza Diaz, MD
Gene Kwann, MD, MPH*

BACKGROUND:

Complications related to hypertension are responsible for 9.4 million deaths in the world. In Haiti they are the leading cause of death. Good management of hypertension is essential in prevention of complications. Patient's level of knowledge about this condition is an important issue affecting blood pressure control and adherence to treatment. This study aimed to search for an association between level of hypertension knowledge and occurrence of left ventricular hypertrophy, heart failure and chronic renal failure related to hypertension among hypertensive patients at the University Hospital of Mirebalais (HUM).

METHODS:

This analytic cross-sectional study used primary data. The "hypertension knowledge level scale" developed in Turkey, used in Greece has been translated, adapted, counter-translated and piloted at HUM. A score above 12 points over 20 was considered satisfactory. The complications were diagnosed by clinical exam, electrocardiography, kidney function test, renal and cardiac echography. An amount of 151 patients exhaustively and successively chosen would give a power of 80% to detect a difference. Descriptive statistics, chi-square, T-test were used for the analysis on Epi Info 7.2.

SETTING & PARTICIPANTS:

HUM is a teaching hospital with cardiologist, nephrologist and sonographers, receiving patients from multiple region of Haiti. This study included hypertensive patients over 35 years of age seen in the Internal Medicine Department of HUM from July 2016 to September 2016. Excluded were those with Mini Mental Status Exam score <24 or any other pathology that could lead to complications sought.

RESULTS:

Among the 170 patients analyzed the mean age was 57.86 years, 64.12% were female, 24.12% attended secondary school or university, 72.94% had a satisfactory level of knowledge. In the subgroup analysis 92.86% of the 86 patients informed by a medical staff and 54.49% of the remaining 84 had a satisfactory level of knowledge (P value <0.00001). Unlike qualitative level of knowledge, average score of patients without left ventricular hypertrophy was higher than those affected, respectively 15.07 and 14.05 (P value= 0.04).

CONCLUSION:

The patients informed by medical staff had more satisfactory level of knowledge. The score achieved in the knowledge questionnaire was inversely associated with left ventricular hypertrophy. Medical HUM staff should make arrangements to educate more hypertensive patients in order to reduce the occurrence of at least one of their complications.

RELEVANCE STATEMENT:

This study helps to advocate that medical staff spend more time educating hypertensive patients on hypertension to reach higher satisfactory level of knowledge. It also shows the importance of education on hypertension because the level of hypertension knowledge contributed to reduce occurrence of left ventricular hypertrophy.

P26: Cancer Survivor Anxiety Persists Long After Treatment Completion

Anna Mark, M3; Jeanette Daly RN, PhD; Maresi Berry-Stoelzle, MD, PhD

BACKGROUND:

Cancer survivors in the USA are expected to increase from 13.7 million in 2012 to 18 million in 2022. The goal of the project is to identify gaps in the care provided to cancer survivors to better define the role of primary care within this population. A survey of the American Society of Clinical Oncology members showed that 73.8% of members in the United States felt oncology specialists should provide continuing care to cancer survivors which would include general medical care. However, only 61.2% members in the United States felt comfortable providing ongoing general medical care to cancer survivors. An important aspect of this care is management of mental health goals. The current American Society of Clinical Oncology Guidelines state that anxiety should be routinely screened for by all health providers. They recommend screening from the time of cancer diagnosis and onward including throughout cancer survivorship. Important to any medical care is patient engagement, the purpose of this study is to identify how patients view the engagement of their primary care provider in diagnosing and managing anxiety associated with the cancer diagnosis and therapy.

METHODS:

Purposive sampling was used to find survivors to participate in a focus group. Eligible participants were ≥ 25 years of age, had any type of cancer diagnosis, and were at least 18 months from treatment. The data collected from three 2-hour focus groups focus groups was transcribed and analyzed using the constant comparison method

SETTING & PARTICIPANTS:

Twenty two survivors of cancer attended one of three focus groups and participated in discussion about their survivorship experience. The focus groups were conducted in a conference room at the University of Iowa Hospital and Clinics. This provided a neutral space for the focus groups to take place.

RESULTS:

Anxiety as an emerging theme. Survivor's experience of anxiety was groups in four themes: the memory of anxiety, the management of anxiety, communication and anxiety, and the influence of anxiety.

Memory of Anxiety

Participants reported increased anxiety at all stages of the cancer trajectory. This included from before the diagnosis, at diagnosis, during treatment, and after treatment. They identified all

[Memory of Anxiety After Treatment] : "[...] My experience of going to oncology versus going to my internal med is it's almost like I had a little bit of a PTSD response to go back into the oncology clinic."

Management of Anxiety

Some participants felt that either oncologists or primary care providers should treat all aspects of health including anxiety. During therapy, this was may have been managed by the oncology team, afterwards, it was managed by a primary care provider.

Communication and Anxiety

Participants discussed anxiety in relation to communication. Two smaller themes that emerged from communication were access and the communication between patient and provider as well as between providers.

"I just want somebody that will return my calls, cause I get concerned about my health, I get really anxious."

Influence of Anxiety

Some participants described the influence anxiety had on decisions they made regarding their health. This included deciding whether to have procedures, general health decisions, and what location to have tests performed and receive care.

CONCLUSION:

The focus group data shows survivors support a role for primary care in assessing and managing anxiety at all phases of the cancer.

RELEVANCE STATEMENT:

Primary care providers are well placed to deliver care relating to anxiety in cancer survivor population. This is because they offer care that covers the physical, psychological, and social aspects of medicine. In addition, they often have a pre-existing relationship with the patient and their families which facilitates tailoring therapy to the patient and their support network.

P27: Cancer Survivors in Primary Care: surviving cancer in outside the oncology suite

Maresi Berry-Stoelzle, MD, PhD; Jeanette Daly, RN, PhD;

BACKGROUND:

The number of cancer survivors in the United States is expected to increase from 13.7 million to 18 million in 2022 with a 37% increase in those living longer than five years from diagnosis. In 2011, the state of Iowa had 124,000 of its 3 million inhabitants living with cancer, and the percentage of survivors and future survivors is growing. Critical for this post-treatment long-term health care, cancer survivors follow-up care needs to be planned and coordinated to promote a healthy lifestyle, check for cancer recurrence, and manage lasting side effects. Of particular interest for this study is the role of patient's in determining the course of post therapy care. Iowa has a large thinly distributed rural population and a strong primary care network. The PBRN, Iowa Research Network (IRENE), is active with primary care providers in the state. The purpose of the project is to identify interventions which may assist a primary care provider in integrating cancer survivorship status in the routine care of his or her patients. The literature on the patient engagement in the survivorship process is inconclusive. The study was to gather themes important to cancer survivors on the role of the primary care provider in their past and future medical care.

METHODS:

Purposive sampling was used to find cancer survivors to participate in one of three focus group meetings. As this research group is located at the University of Iowa, initial focus groups were done with local cancer survivors. While there is a cancer center nearby, Iowa City has less than 75,000 inhabitants and is not near a larger city. A campus wide research email was distributed inviting any adult patient 25 years or older with a cancer diagnosis who was at least 18 months or longer after completion of cancer therapy, such as radiation, surgery or chemotherapy, to participate in a focus group meeting. A qualitative analysis was conducted with the focus group as the fundamental unit of analysis. Focus group transcripts were coded by three research team members and emerging themes were identified using constant comparison.

SETTING & PARTICIPANTS:

22 cancer survivors (20 female), 18 months or longer from cancer treatment, attended the focus group meeting in the department of family medicine conference room. Participants were given a \$20 gift card. Fifty-three persons responded to the mass email to participate in the focus group meetings. Four persons didn't meet inclusion criteria and 17 didn't respond to the invitation that included the date and time of the meetings.

RESULTS:

Themes identified included patient engagement and access, primary care provision of care during treatment and after treatment, patients' perceptions of communication between primary care provider and oncologist, transition from oncologist, survival care, long-term complications and side effects. The primary care provider would play a role in reconnecting the patient to oncology services. This is particularly important in patients who have moved, or whose providers had retired or left the system. In interactions with a primary care provider, awareness of the cancer diagnosis, and verbalization of this awareness by the primary care provider was reported as positive. Physical symptoms were of continued concern for this group of patients, both sequelae from the malignancy and therapy as well as evaluation of any new symptoms. Cancer survivors were very aware of their own mental health, as well as the mental health of their support system.

CONCLUSION:

There are many general themes, there is significant individual variation in how a particular survivor would like their survivorship structured. Particularly the aspect of adapting interventions to a patient's individual needs and circumstances are a daily work of a primary care provider. As patients engage or disengage from their cancer provider, primary care is an important touch point in the medical system and continues to be important in managing their cancer survivorship.

RELEVANCE STATEMENT:

As cancer survivors become an increasing percentage of the general medical population, primary care providers will be providing an increasing percentage of their care. Patient concerned with regards to their survivorship show many themes where primary care providers are skilled in managing.

P28: Diabetic Retinopathy Screening in Rural Primary Care: Using Advanced Telemedicine Technology to Improve Quality Measures and Preserve Patients' Vision

*Stacey Whanger, MPH; Adam Baus, MA, MPH, PhD; Gregory Peters, MD
Dana King, MD, West Virginia University Department of Family Medicine
Ronald Gross, MD, West Virginia University Eye Institute
William Lewis, MD, Harpers Ferry Family Medicine
Mathew Weimer, MD, Valley Health Systems*

BACKGROUND:

Diabetic retinopathy is a vision threatening complication from diabetes. Mild-to-moderate forms of retinopathy often present without the patient noticing vision loss. However, fewer than half of people with diabetes have had a dilated eye exam within the past 12 months. There are four systematic places needed to function properly for this quality measure to be fulfilled in primary care: 1) provider reminder during visit, 2) the patient's intent to follow through, 3) the patient's access to care, and 4) the returned findings report once exam is performed. A large number of rural patients with diabetes face one or more of these challenges. Across 55 counties, West Virginia has retinal specialists in only 9 counties and ophthalmologists in 19. The purpose of this study is to examine the impact of this screening method in primary care quality measures while being able to offer service to overcome the barriers patients face to receive eye care. In addition, primary care management may also improve by retinal disease progression indicating the need to apply systemic control criteria more aggressively.

METHODS:

Patients with diabetes that had not fulfilled their eye care measure, were scanned using a new telemedicine-enabled retinal imager by primary care staff during the visit. Clinic staffs run quality reports for diabetic eye exams to identify those patients that are not receiving or have documented eye care in the electronic medical record (EHR). Once images were captured and transmitted to ophthalmologists for grading, patient reports were retrieved by the primary care provider within 24 hours. The report is uploaded into the EHR system to fulfill the diabetic eye care quality measure and provided providers with ophthalmic analysis with referral recommendations.

SETTING & PARTICIPANTS:

The study was conducted in outpatient primary care practice in the West Virginia Practice-Based Research Network (WVPBRN) with clinics reporting less than 20% quality compliance in the diabetic eye care measure. These health systems span across 16 counties, 9 of which do not have ophthalmic specialists. Adult patients without known retinopathy and no record of a diabetic eye exam in the EHR within the year were recruited from these sites.

RESULTS:

A total of 1698 patients were screened in the first year at five Appalachian practices in the WVPBRN. Of the 1512 images were gradable, 285 (16.8%) patients had diabetic retinopathy pathology and referred for treatment. The primary care sites had an average eye exam quality measure increase of 34.5%, ranging from 22-44% within the first 12 months. This substantial increase in diabetic eye exam quality measures is helping to meet compliance quality measures and provide early treatment to those found to have diabetic retinopathy.

CONCLUSION:

By utilizing an easy and convenient device in a rural primary care setting does increase the number of patients identified and treated for diabetic retinopathy. Providing treatment to these patients early in the disease is crucial in maintaining functional vision. As a result, this project data has impacted three payers, WV Medicaid, Public Employees Insurance Agency (PEIA), and Highmark, to change their policy and now cover this service in primary care at a sustainable rate.

RELEVANCE STATEMENT:

Diabetic retinopathy imaging technology addresses the four systematic areas that contribute to eye exam quality measures being low (provider reminder, the patient's intent to seek exam, the patient's access to eye exam, and the returned findings). This process can inform rural practices to improve quality measures by incorporating efficient processes into the patient's medical home, while also providing sight saving screening and treatment to patients that may have otherwise remained unaware their disease progression.

P29: Does trauma exposure increase the likelihood of drug allergies and adverse drug reactions?

*Carissa van den Berk Clark, PhD MSW; Jocelyn Fowler, MFT; Mayra Aragon-Prade, MFT
Joanne Salas MPH, Adam Seehaver MSW, James Plurad MD*

BACKGROUND:

Despite extensive research investigating the links between psychiatric disorders and multiple medication allergies, few studies have examined a potential association between traumatic stress and multiple drug allergies in adults. Psychoneuroimmunology (PNI) literature indicates perceived stress and traumatic events deregulate the body's immune system, increasing susceptibility to disease and exacerbating the inflammatory response and increased pro-inflammatory cytokines. Therefore, considering this ability of trauma to interfere with the proper functioning of the human immune system, traumatic experiences may predispose individuals toward developing medication allergies. Multiple medication allergies account for an estimated one third of all adverse drug reactions, which in turn affect 10-20% of hospitalized patients and greater than 7% of the general population. Additional research into the predisposing factors of drug allergies could lead to improved preventative measures, reducing the medical and financial burden of these conditions. Traumatic stress is a known risk factors for numerous chronic diseases, however little is known about trauma exposure among individuals with multiple drug allergies

METHODS:

We developed an indicator of probable trauma exposure by using ICD-9 trauma codes. Chi square and logistic regression tests were used to determine differences between trauma-exposed vs. not trauma-exposed patients when it comes to likelihood of having 3 or more drug allergies. This study is preliminary data for ongoing study mentioned in discussion section.

SETTING & PARTICIPANTS:

Saint Louis University's ARCHNet's SLUCare registry of 31,569 Family and Community Medicine and General Internal Medicine patients.

RESULTS:

The likelihood of having 3 or more allergies was significantly higher for patients with trauma ICD-9 codes (OR=2.52; 95%CI 2.29, 2.76) in unadjusted models and models that adjusted for demographics, depression, anxiety and utilization of health services (OR=1.72, 95%CI 1.56, 1.90). The effect of trauma codes on drug allergies was higher than that of depression (OR=1.57, 95%CI 1.38, 1.78) or anxiety (OR=1.39, 95%CI 1.19, 1.62).

CONCLUSION:

Trauma exposure was associated with having 3 or more drug allergies vs. less than 3 allergies. Although we utilized ICD-9 trauma codes to assess trauma-exposure in this study, many types of trauma exposure is generally not reported in medical records. Physicians may want to screen for Adverse Child Events (ACEs) when managing patients with multiple drug allergies and depression and anxiety, to ensure that these issues are addressed in behavioral health treatment. We are currently advancing this study in our PBRN by surveying 300 patients with 3 or more drug allergies and 300 patients with less than 3 drug allergies to measure ACEs, mood disorder and personality disorders to determine if ACEs are associated with multiple medication allergy after controlling for these other factors. This ongoing study will also be presented at the time of the presentation.

RELEVANCE STATEMENT:

If patients report multiple drug allergies, physicians should consider screening for trauma and referral to behavioral health providers.

P31: Readiness assessment of implementing the Cardiovascular Health Awareness Program in subsidized social housings in the province of Quebec

Magali Girard, PhD; Janusz Kaczorowski, PhD; Marie-Thérèse Lussier, MD, MSc

Gina Agarwal, MD, PhD

Associate Professor, Departments of Family Medicine and Clinical Epidemiology and Biostatistics, McMaster University

BACKGROUND:

This project aims to promote a change to the delivery of health services by reaching out to residents living in subsidized social housing to adapt a successful community-based chronic disease prevention and management program. Subsidized social housing residents form a vulnerable population, living on low income, known to be in poorer health than tenants in private housing or home owners. Adults living in poverty are more likely to have unmet needs for health care due to accessibility problems. Over the last 16 years, members of our group developed, implemented and evaluated the Cardiovascular Health Awareness Program, a community-based chronic disease prevention and management program with the goal of reducing the burden of chronic diseases on healthcare system by addressing risk factors, connecting participants with primary care and improving linkages with community resources.

METHODS:

Taking the form of a readiness or needs assessment, the main objective of this project is to evaluate the attitudes of key stakeholders (willingness for change, commitment to achieve change), the conditions (context, structure) and the resources (human, material and financial) needed to establish a CHAP-like program in social housings in Quebec in order to improve access and coordination of primary care.

An integrated knowledge translation approach is used, grounded in consultations with clinicians, participants (from the tenants associations of participating buildings), health system managers, managers from social housing buildings and paramedics (Urgence-Sante) to adapt CHAP to meet local needs. Stakeholders are actively involved in the design of the intervention, the program's implementation, and the interpretation and dissemination of results. The intervention includes a series of focus groups with key stakeholders and a survey targeting social housing residents.

SETTING & PARTICIPANTS:

This project will take place in clinics and social housings located in the McGill University PBRN and University of Montréal PBRN. Two social housing units and two clinics per PBRN are expected to be recruited.

Participants of focus groups will include clinicians, social housing residents, health system managers, managers from social housing buildings and paramedics. Around 100 participants (25 tenants per building, two buildings from each PBRN) will be recruited. Collaboration with tenant associations and building managers will facilitate the recruitment of participants and interpretation of results.

RESULTS:

Outcome measures will include a health profile of social housing tenants, an identification of health care needs and health literacy levels. The focus groups will inform on stakeholders' attitudes, conditions and resources to take part in CHAP-like programs for social housing residents. It is expected that connecting primary care clinics situated in the vicinity of the buildings with adults living in these dwellings will enable these clinics to get a better knowledge of this clientele, and will eventually facilitate health care provision for this vulnerable population, who would otherwise not be receiving primary care.

CONCLUSION:

Results of the survey and the focus groups will be essential to draw recommendations and write an implementation guide for future implementation of similar programs. Furthermore, it is expected that a good portion of subsidized housing residents do not regularly engage with primary care and may not have a family physician; the implementation guide will include a follow-up protocol for these participants when risks factors will be identified during the sessions (e.g. participants with high blood pressure and no family doctor).

RELEVANCE STATEMENT:

This project aims to promote a change to the delivery of health services by reaching out to residents living in subsidized social housing to adapt a successful community-based chronic disease prevention and management program. Taking the form of a readiness assessment, we are actively involving vulnerable residents from social housing buildings, primary care physicians and health system managers. The intervention will include a series of focus groups with key stakeholders and a survey targeting social housing residents. Results will be essential to draw recommendations and write an implementation guide for future implementation of similar programs.

P32: What Group Concept Mapping Can Tell Us about Stakeholder Views on Engaging Community Voices in Primary Care Research: A Visual Display of Findings

*Barbara L Norton, DrPH; Zsolt Nagykalai, 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 method allows a group to describe and represent the collective ideas visually through a series of graphic products. The yearlong exercise was named "Making Research Matter."

SETTING & PARTICIPANTS:

The multi-site academic team recruited a practice-based research network (PBRN) and a patient or community organization as project partners in each of the three project sites to participate. The community partners included a large metro CBO providing services to a Latino and immigrant population, a rurally-based community health improvement coalition, and a long-established patient advisory group, drawn from an inner city neighborhood and linked to one of the project's academic partners. Half of the approximately 100 GCM participants represented these community organizational voices and the other half represented community clinician members of PBRNs and primary care researchers based in academic institutions.

Using a total of 243 ideas submitted in response to the question: "What action can bring community input and voices into the study of health and healthcare improvement?", the participants used online and face-to-face methods, tailored to different languages, cultures, and SES levels, to organize brainstormed statements into groups of like ideas and assign them values using importance, feasibility, and impact scales.

RESULTS:

GCM is a method in knowledge visualization and, thus, display of its results lends itself well to a poster presentation. Using its graphic products, among them, various types of cluster maps, Pattern Match charts, and "Go Zone" graphs, we will visually depict the thematic results overall and for each major stakeholder group. We will also identify specific action steps that were rated as most actionable. In each case, the project team and its partners will show how we improved upon the two-dimensional GCM analyses to generate displays of the project's results across three scales, three sites, and three major stakeholder groups.

CONCLUSION:

Different patient and community groups have different needs and are at different stages of "research engagement". The GCM results reveal a high degree of agreement overall on what is most important as strategies for engaging communities with researchers on a more sustained basis. But, the results also show differences between sites and community partners on what is seen as most feasible and impactful.

RELEVANCE STATEMENT:

It is hoped that the engagement framework created by these GCM results can offer insights about ways to more effectively tailor "push-pull" strategies for building reciprocal and meaningful engagement between communities and researchers on primary care research.

P34: Accuracy of Electronic Health Record Data for Identifying Patients Likely to Benefit From Lung Cancer Screening

Allison M. Cole, MD, MPH; Bethann Pflugeisen, MS, Med; Malaika R. Schwartz, MPH

BACKGROUND:

Lung cancer is the leading cause of cancer death in the United States.¹ However, evidence from clinical trials indicates that annual low-dose computed tomography (LDCT) screening reduces lung cancer mortality.² We assessed the sensitivity, specificity, and positive and negative predictive value of an electronic health record (EHR) query in comparison to the gold standard of patient self-report, to identify patients who may benefit from lung cancer screening.

METHODS:

Cross sectional study comparing patient self report to EHR derived assessment of tobacco status and need for lung cancer screening. We invited 200 current or former smokers, ages 55-80 to complete a brief paper survey. 26 responded and 24 were included in the analysis.

SETTING & PARTICIPANTS:

RESULTS:

For 30% of respondents, there was not adequate EHR data to make a lung cancer screening determination. Compared to patient self-report, EHR derived data has 67% sensitivity and 82% specificity for identifying patients that meet criteria for lung cancer screening.

CONCLUSION:

While the degree of accuracy may be insufficient to make a final lung cancer screening determination, EHR data may be useful in prompting clinicians to initiate conversations with patients in regards to lung cancer screening.

RELEVANCE STATEMENT:

Electronic health records may be an important tool for prompting discussions between patients and clinicians about appropriateness of lung cancer screening.

P35: Needs Assessment to Improve Participation of Family Physicians in Practice-Based Research

Katherine Sheridan, M.D. ; Denise Kropp, B.S., C.C.R.P.;

BACKGROUND:

The Northeast Ohio Network® (NEON®) is a practice-based research (PBR) network through the Department of Family and Community Medicine at Northeast Ohio Medical University (NEOMED). In recent years, NEON® has faced dwindling participation from its community members, as well as a slowing in the completion and distribution of research studies. The NEON® Executive Board wants to reverse this trend by increasing recruitment efforts and participation. The board views a needs assessment of community family medicine (FM) physicians as the first step toward increasing awareness, interest, and participation in NEON® and its research efforts. The purpose of the needs assessment is to identify provider characteristics and potential barriers that could be addressed in order to increase participation of community FM physicians in practice-based research.

METHODS:

E-mail addresses were obtained from the Ohio State Medical Board for all family physicians whose mail address zip codes were located in NEON® communities. The NEON® Executive Board designed a ten-question survey that was e-mailed to potential participants. The survey asked about factors that encourage and discourage participation in PBR, current practice settings, current clinical interests within FM, and type of residency attended by participants. Free-text comment sections allowed participants to elaborate on answers and provide contact information if they desired to learn more about or become a member of NEON®.

SETTING & PARTICIPANTS:

The needs assessment only had one inclusion criterion: participants had to be family physicians in the communities serviced by NEON®. There were no exclusion criteria. Surveys could be completed anywhere the participants had internet access.

RESULTS:

Out of 1462 eligible FM physicians, 225 responded (15.4%) and 193 completed the survey (13.2%). Thirty-two physicians no longer practiced medicine and opted out of completing the survey. Participants came from a variety of types of practices, types of residency training, and clinical foci within FM. The two most common factors that discouraged participation in PBR were lack of time (n=124, 64%) and lack of staff to administer research protocols (n=99, 51%). The two most common factors that would encourage participation in PBR were personal interest in contributing to research (n=85, 44%) and the opportunity for continuing medical education (CME) credit (n=82, 42%). Using Cramer's V to analyze strength of association between variables, the following correlations were found: 1) moderate association between type of residency and lack of interest in research (0.21), 2) moderate association between type of residency and lack of staff to help administer research protocols (0.23), 3) moderately strong association between practicing in a group practice and the desire to receive financial reimbursement for participation in research (0.26), and 4) moderately strong association between practicing in an outpatient-only setting and the desire to earn CME credit for participation in research. (0.27).

CONCLUSION:

Prior to the needs assessment, the NEON® Executive Board assumed that lack of time and lack of resources, especially staff, were the main reasons for family physicians in the NEON® communities to not participate in PBR. This assumption turned out to be correct. The survey results also confirmed a belief that the opportunity for CME credit would encourage community family physicians to participate in PBR. It was somewhat surprising to learn that almost half of local family physicians who responded to the survey actually had an interest in contributing to research, since community FM often is viewed as more clinical and less research-oriented. It seems that NEON® could improve participation by offering support staff and CME credit for FM physicians who participate in NEON® studies.

RELEVANCE STATEMENT:

NEON® and other family medicine practice-based research networks can use the information collected in the needs assessment to tailor recruitment efforts and increase community family medicine physician participation in future practice-based research studies.

ONLINE RESOURCE:

P36: Primary Care Screening Intervention Increases Identification and Linkage to Care for Hepatitis C and HIV Patients within a Large Healthcare System

Thomas Ludden, PhD; Lindsay Shade, PA-C; Hazel Tapp, PhD

Michael Leonard, MD; Sveta Mohanan, MD; Brisa Hernandez; Jeremy Thomas, MSW

BACKGROUND:

Societal and economic burdens of hepatitis C virus (HCV) and human immunodeficiency virus (HIV) continue to grow. The Center for Disease Control and Prevention recommends a one-time HCV screen for individuals in the Baby Boomer population (those born between 1945 and 1965) and a one-time HIV screen for all individuals between ages 13-64 regardless of risk factors, with more frequent screening for both conditions based on individual risk factors.

METHODS:

A system-wide electronic medical record alert prompting HCV screening was implemented in May 2016 targeting the Baby Boomer population. In addition to the system alert, a provider peer to peer educational program detailing disease epidemiology, screening recommendations, and algorithms to guide screening efforts was developed by a quality improvement team to increase HCV and HIV screening and linkage to care for positive patients.

SETTING & PARTICIPANTS:

Carolinas HealthCare System (CHS) is a large, non-profit, vertically integrated healthcare system with approximately 12 million patient encounters per year across the Southeast US. Twelve primary care practices, including five safety-net practices serving predominantly Medicaid and uninsured patients, with total of 43,000 patients born between 1945-1965 were selected for the educational intervention.

RESULTS:

Prior to the system-wide HCV alert, from May-December 2015, 2430 patients were screened for Hepatitis C. At one year post-HCV alert, from May-December 2016, 8872 patients were screened, resulting in a 350% increase in screening. Chi-squared analysis comparing the percentage of patients tested during the two time periods was significantly different ($p=0.001$). For the educational intervention initiated in November 2016, the average number of patients receiving HCV testing over the 12 sites was 1480 per month before the intervention, and increased to 1713 per month post-education implementation ($p=0.001$). Similarly for HIV testing, the number of patients completing HIV testing was on average 493 per month before, and increased to 621 per month after the educational program ($p=0.001$).

CONCLUSION:

EMR modifications and provider education along with availability of connect to care partners within a large, vertically integrated healthcare system can significantly enhance screening and care for patients with HCV and HIV.

RELEVANCE STATEMENT:

HCV and HIV are high impact chronic illnesses that affect millions of Americans, many of whom are not aware of their diagnosis. Innovative interventions are needed to improve screening rates and link positive patients into care.

ONLINE RESOURCE:

P37: Scale-up of the Women's Health Practice-Based Research Network using Needs Assessment Survey

Anju Sahay PhD; Diane V. Carney, MA ; Susan M. Frayne MD, MPH

Alyssa Pomernacki MPH; Rachel E. Golden DrPH; Elizabeth M. Yano PhD, MSPH; Alison Hamilton PhD, MPH; and Ruth S. Klap PhD

BACKGROUND:

The US Dept. of Veterans Affairs' (VA) Women's Health-Practice Based Research Network (WH-PBRN) focuses on improving care of women Veterans (WVs). It promotes a culture of continual organizational learning by fostering collaboration, supporting practice-based research/quality improvement (QI) initiatives, and disseminating findings. WH-PBRN was formed in 2010 with four sites and has now expanded to 60 sites. Clinicians and researchers participate as Site Leads (SLs) and Co-Site Leads (Co-SLs). To inform its next phase of scale-up, we conducted a needs assessment of WH-PBRN SLs and Co-SLs to characterize their participation and elicit their perspectives.

METHODS:

In Fall 2016 we emailed a cross-sectional, 2-page, self-administered survey.

SETTING & PARTICIPANTS:

This survey was e-mailed to all SLs and Co-SLs (n=65) at 57 sites (after excluding 3 with SL in transition). It asked about recent involvement in PBRN activities, willingness to participate in future activities, and perspectives about usefulness/importance of participation.

RESULTS:

The 65 respondents (response rate 78%) came from 50 sites. Among 45 SLs, 76% were clinicians and 24% researchers; among 20 Co-SLs, 85% were clinicians and 15% researchers. Most had been in the role for at least 12 months (80% of SLs, 70% of Co-SLs).

During the past 12 months, respondents participated actively by attending the monthly national calls 1-5 times/year (43%) to 6-12 times/year (48%) and read the monthly Newsletter 1-5 times/year (52%) to 6-12 times/year (40%). Going forward, 72% expressed willingness to serve as a key informant for a rapid-cycle Practice Scan survey (describing elements of local women's health clinical practices) at least quarterly, and 23% were willing to complete it 9-12 times/year. All (100%) respondents rated the monthly national calls as somewhat/very useful to hear results of research studies, for presentation about SL roles, and to learn about the structure of WH care at other facilities; 93% rated as useful the WH-PBRN's quarterly Full Community calls, open to not only SLs and Co-SLs but also clinicians, managers and researchers at the site. All (100%) reported the following as somewhat/very important to them regarding their WH-PBRN role: improve quality of care for women Veterans; strengthen local site connections; participate in multi-site research/QI; and learn about new WH research findings.

There were no statistically significant differences in responses based on role (SL vs Co-SL) or duration in role (

CONCLUSION:

Nearly all clinicians and researchers in the national WH-PBRN community of SLs/Co-SLs participate in WH-PBRN activities, though scope of engagement varies by site. Findings have triggered modifications to WH-PBRN processes, in preparation for scale-up efforts, and provide lessons relevant to other PBRNs seeking to engage members from diverse backgrounds.

RELEVANCE STATEMENT:

Clinicians and researchers engage in WH-PBRN activities, find value in their role, and are willing to participate in future rapid-turnaround practice characteristics surveys - all of which bodes well for the WH-PBRN's ability to support VA's efforts to be a learning healthcare system.

ONLINE RESOURCE:

P54: Personalizing Obesity Management in Primary Care: Collaborative design of an intervention and its impacts on patients' everyday life obesity self-management

Thea Luig, PhD; Robin Anderson, RD; Arya M Sharma, MD, PhD

Dr. Denise L Campbell-Scherer, MD, PhD

University of Alberta, Department of Family Medicine, Edmonton, Canada

Grey Nuns Family Medicine Clinic

BACKGROUND:

In their efforts to improve obesity management practice and outcomes, interdisciplinary clinicians in a Primary Care Network (PCN) in Alberta, Canada, identified the pressing need to understand what works to support patients in their everyday self-management. Previous research shows that patients want personalized strategies and interdisciplinary care to navigate their individual set of drivers to weight gain and barriers to management. In collaboration with PCN clinicians and patients, this project uses in-depth qualitative methods to identify key elements of personalized obesity assessment and care planning as well as appropriate patient outcomes with the goal to develop an effective intervention for further testing. Research focuses on how patients perceive the consultation including interpersonal work, communication, and content; and how this experience impacts their ability to make changes to improve health as a result.

METHODS:

The intervention is informed by PCN providers' clinical experience with techniques such as motivational interviewing and goal setting, the evidence-based "5As of Obesity Management" framework, and the theoretically informed Collaborative Deliberation model for patient care communication. It is refined by the emergent findings of iterative data analysis, and ongoing validation and interpretation discussions with patient champions, PCN providers and teams. Data includes 20 video-recorded personalized consultations of 45 minutes, immediately followed by patient and clinician interviews, and documentation of impact on patients' self-management through diaries and two follow-up interviews over the course of 6-8 weeks. Interviews are between 20 and 70 minutes long. Data is managed and coded in NVIVO 11. For thematic analysis, a code manual was established through iterative inductive and deductive cross-coding and inter-coder agreement.

SETTING & PARTICIPANTS:

20 patients living with overweight or obesity and associated with a large urban Primary Care Network including 2 patient champions. Purposeful sampling to ensure a diversity of patient contexts and comorbidities. Collaboration involves dietitians, behavioral health consultants, registered nurses, a family physician, and the PCN evaluations manager. Intervention and interviews take place at the PCN.

RESULTS:

Three themes emerged that appear central to achieving a personalized and impactful intervention from the patient perspective: (1) the clinician listened to the story of their obesity and anchored the assessment of root causes and patient context in this story; (2) the story informed a collaborative effort of identifying preferences and strategies to address root causes and barriers that were then integrated into a care plan that utilizes interdisciplinary care resources; and (3) telling and re-telling their story with the clinician helped patients to shift toward increased awareness of the multiple connections between their life context, emotions, thoughts, and health, increased self-efficacy, positive self-image, and realistic expectations for weight management. These are interpersonal processes that underpinned several pertinent intervention elements, such as patient story, motivational interviewing, and goal setting and that were decisive for patients to become activated and make changes in their everyday lives to improve health.

CONCLUSION:

Preliminary findings suggest that interpersonal processes occurring during collaborative, personalized obesity assessment and care planning are key in supporting patient self-efficacy, activation, and self-care as well as for coordinating optimal interdisciplinary clinical care to improve health outcomes.

RELEVANCE STATEMENT:

Our goal is to improve primary care for people living with obesity. Together with patients we explore how to understand people's individual root causes and to address them in a personalized care plan that is realistic in their everyday life and supports them in achieving their health goals. Findings will be used to develop an intervention that can guide clinicians in providing personalized obesity care and better coordinate interdisciplinary support for patients.

P38: Cancer Survivorship as a Chronic Condition: qualitative analysis of impact on team-based training on rural practices

Kelsey Ford, MPH; Linda Overholser, MD, MPH; Linda Zittleman, MSPH

Carol Hodgson, PhD; Timothy Garrington, MD; Betsy Risendal, MPH; Madeline Leh; Alexis Shinn; Lori Jarrell; Christin Sutter; John Westfall, MD, MPH

BACKGROUND:

The number of cancer survivors is expected to increase by 30% in the next 10 years. Many patients have unique health needs and chronic conditions due to their cancer and treatment. In rural areas, primary care providers (PCPs) are a central source for health care and information; however, PCPs may not have adequate training in cancer survivorship (CS) needs. A multi-component practice-based cancer survivorship curriculum, iSURVIVE, was created and implemented over four visits in rural primary care practices to increase survivorship knowledge and care planning.

METHODS:

As a part of a mixed methods evaluation, a qualitative assessment was conducted to understand the impact of the intervention on CS care and contextual factors influencing change. Semi-structured key informant interviews aimed to describe attitudes towards CS care and changes relevant to survivorship care. Interviews were conducted 12-18 months after a practice completed training and until saturation of information was reached. A team-based approach, immersion crystallization method was used to identify emergent themes and analyze data.

SETTING & PARTICIPANTS:

2-3 team members (providers, support staff, managers, others) at participating primary care practices in the High Plains Research Network, a rural PBRN in eastern Colorado.

RESULTS:

A total of 44 individuals from 21 practices participated in key informant interviews. Four major themes emerged. 1) Overall positive perspective and immediate impact of training. Most participants stated the iSURVIVE training was educational and altered their individual approach to cancer survivors by increasing empathy and awareness of CS needs. 2) Putting it into Action. Implementation of cancer survivorship care varied across participating practices, with most practices reporting 1-2 changes (if any). 3) Training Created Intention to Make Future Changes in Survivorship Care. iSURVIVE training generated new ideas for CS care that foster patient-provider shared responsibility. Many suggestions replicate existing processes used for other chronic conditions, focusing on efforts within the electronic health record, including the creation of cancer survivor databases/registries, reminders and alerts, and protocols for survivor follow-up care. 4) Contextual Impact (Barriers and Facilitators) of Survivorship Care in Primary Care Setting. Lack of execution of CS care included limited established workflows, limited actionable items, practice/organization readiness, internal capacity, external policy factors, and competing priorities. Facilitators of CS care included actionable next steps, personal attributes of staff, patient initiation, and continuity of care in rural practices to observe long-term effects.

CONCLUSION:

Using Shared Onsite Knowledge Dissemination (SOuND) Team Training model, the iSURVIVE training for rural primary care practices was successfully implemented in rural practices. Practice team members perceived the training as highly educational and motivational. Reported improvements to cancer survivorship care included both practice- and personal-level changes. Many changes and suggestions to improve survivorship care replicated chronic care processes already in place. While the knowledge acquired as a result of training is an essential part of CS care, our findings illustrate the need for very explicit support in practice change to bridge knowledge and action.

RELEVANCE STATEMENT:

Cancer survivorship (CS) is increasing. Cancer and treatment-related conditions are increasingly recognized as chronic conditions. Successful strategies used to manage chronic conditions (e.g., diabetes or cardiovascular health) need to be similarly applied to CS care. The iSURVIVE Training aims to increase CS knowledge and care. To our knowledge, iSURVIVE is the only CS-focused intervention that engages primary care providers within a PBRN.

ONLINE RESOURCE:

P39: Childhood Underinsurance in the Era of the Affordable Care Act

Gregory M. Eberhart MD; Adrienne Stolfi; John Pascoe, MD

BACKGROUND:

Health insurance plays a major role in children's medical care and well-being. The advent of the Affordable Care Act (ACA) presents the United States with an opportunity to expand primary child health services.

METHODS:

1101 families were approached to participate from seven primary care pediatric practices within the Southwestern Ohio Ambulatory Research Network (SOAR-Net) located in southwestern Ohio. Clinical sites were diverse and included a Federally Qualified Health Center and several suburban private practices. 114 (10%) of potential respondents refused to complete the survey for a total convenience sample of 987 surveys collected between July and December 2016. Entrance criteria were English language and health insurance for the index child during the past 12 months. Underinsurance was determined if responding parents/guardians were unable to obtain recommended medical services for their index child in at least one of six areas: medications, visit to subspecialist, delay in needed medical care, unable to have a test, unable to keep an appointment, and unable to get other medical care due to inability to pay despite having health insurance for their child.

SETTING & PARTICIPANTS:

Primary care pediatric practices within SOARNet practice based research network. 987 families were surveyed.

RESULTS:

The overall underinsurance rate was 14%, 82% of respondents were white and three quarters were the index child's birth mother, two thirds were married, 94% had at least a high school education and 49% had annual household income \geq \$50,000. Almost 30% of families with a deductible of \$3000 or more reported their child was underinsured. Only 11% of children with public insurance were underinsured while one third of children from families with private health insurance making $<$ \$35,000 a year were underinsured. The parents/guardians of underinsured children were much more likely to report their child's health had suffered because they were unable to pay for needed services (35%) compared to children who were NOT underinsured (1%, $p<0.001$). Almost one half of families of underinsured children thought getting care for their children had become harder during the past three years.

CONCLUSION:

About one in seven children in this sample of midwestern families remain underinsured despite the advent of the Affordable Care Act. It is apparent that "affordable" is a misnomer for many families and there is much to be done to make children's health insurance more affordable for this nation's families.

RELEVANCE STATEMENT:

In this convenience sample of midwestern families, one in seven children did not receive services recommended by their pediatrician because their family could not afford to follow through with the recommendation.

P40: Implementation of Advanced Access in Canadian Family Medicine Teaching Units: a Participatory Action Research Project

Mireille Luc, RD, MSc, PhD(c); Marie-Claude Beaulieu, MD; Catherine Hudon, MD, PhD

Isabelle Boulianne, RN, M.Org.M, Mylaine Breton, PhD, Louise Champagne, MD, Sandra Conway, Nick Côté, MD, Jean-François Deshaies, MD, Marylène Fillion, M.Ed., Philippe Villemure, MD

BACKGROUND:

Few Family Medicine Teaching Units (FMTU) have implemented the Advanced Access Model to address the crisis of limited access to primary care in the Province of Quebec (CANADA). The aims of this project were (1) to support implementation of the Advanced Access Model in FMTU of the University of Sherbrooke Practice-Based Research Network, and (2) to identify potential barriers and solutions to teaching advanced access to family-medicine residents.

METHODS:

A participatory action research project was conducted, from August 2015 through to January 2017, with the community of practice of FMTU directors and deputy directors, using a qualitative descriptive method. Data were collected through a total of six 1.5-hour focus groups, each co-animated by two members (ML and CH) of the Accessibility Committee. Focus groups were held with heterogeneous groups of directors and deputy directors from FMTU at differing stages of implementation (installation, initial and full implementation stages). Implementation topics were discussed during focus groups based on expressed needs, including any barriers to teaching advanced access to residents. Solutions discussed during focus groups were shared among FMTU directors and deputy directors. Relative degree of satisfaction with the implementation process was rated by directors and deputy directors of the community of practice throughout the project. Qualitative data were analyzed using thematic analysis (by ML and CH), and results were then validated with the community of practice.

SETTING & PARTICIPANTS:

The project was carried out in 10 FMTU, all located in the Province of Quebec and part of the University of Sherbrooke Practice-Based Research Network. FMTU hosted 110 clinical preceptors and 220 residents. For the purposes of the project, FMTU were represented by a "community of practice" comprising 18 directors and deputy directors. An Accessibility Committee was formed to oversee the implementation process. The Committee was chaired by the Research Director (CH) of the University of Sherbrooke Department of Family Medicine and Emergency Medicine. The Committee also included a coordinator (ML), two FMTU directors (LC and PV), a resident (NC), a partner patient (SC), an organizational change expert (MF), a quality improvement expert (DB), an expert in advanced access (MB) and two Department representatives (MCB and JFD). The Committee met 8 times, including prior to every community-of-practice meeting (n=6).

RESULTS:

All 10 FMTU adopted the Advanced Access Model. A majority (80%) implemented it for both their preceptors and residents. Four major challenges to teaching advanced access to residents emerged from our thematic analysis: 1) defining optimal patient pool sizes and types, depending on both on resident's level of experience and patient's degree of vulnerability; 2) ensuring continuity of care e.g., when residents leave to pursue external internships; 3) adopting a multidisciplinary approach; and 4) teaching advanced access to residents and educating patients. Different knowledge transfer strategies for implementation and teaching of the Advanced Access Model were used. This approach proved successful in mitigating barriers e.g., delivery of various change-management tools to the community of practice throughout the implementation process. Mean satisfaction rated high (85%) and, overall, the process not only catalyzed implementation of advanced access, but also instauraed a community of practice to help overcome the challenges posed by teaching of advanced access.

CONCLUSION:

Forming a community of practice of FMTU directors and deputy directors contributed to sharing solutions that were instrumental in implementing the Advanced Access Model in FMTU. Subsidiarily, because implementation was carried out with residents, this may help pave the way to integration of similar models in future clinical practice, further supporting primary care accessibility.

RELEVANCE STATEMENT:

Results will help inform scaling up of implementation of the Advanced Access Model, or similar processes, in other clinical teaching settings interested in enhancing access to care.

P41: Patient Activation and Empowerment among Patients Living with HIV - The Addressing HIV Treatment Disparities Using a Self-Management Program and Interactive Personal Health Record: Get Ready & Empowered About Treatment (G.R.E.A.T) Study

Tameir Holder, MPH; Kevin Fiscella, MD, MPH; Jonathan N. Tobin, PhD

Mechelle Sanders,

Jennifer Carroll,

Andrea Cassells,

Subrina Farah,

Michele Boyd,

Marie Thomas

BACKGROUND:

This parallel design, patient-level randomized controlled trial assessed a multimodal eHealth group behavioral intervention structured to empower patients living with HIV (PLWH) to improve patient activation and reduce activation disparities.

METHODS:

Patient and clinician stakeholders partnered with the University of Rochester and Clinical Directors Network (CDN) to design a patient-centered intervention which consisted of: (1) a customized electronic personal health record (ePHR) for PLWH using an iPod device to access the internet; (2) six 90-minute group-based training sessions in use of the iPod, ePHR and web-searching for health information; (3) a pre-visit coaching session; and (4) clinician training in supporting patient empowerment. Participants randomized to the intervention arm of the study received both the iPod, and the ePHR, as well as education and support through the six training sessions. The control group received usual care from their primary care clinician during the intervention phase and also received an iPod with information on the ePHR after completion of the follow-up assessment. The primary outcome was the Patient Activation Measure (PAM). It is a validated 13-item questionnaire that assesses a patient's confidence in managing their health and health care and is associated with improved adherence and reduced hospitalizations. Participants were assessed at baseline (T0), 6-8-weeks post randomization (T1) and at the end of the study (T2) to evaluate changes in patient activation. The current analysis evaluates pre/post changes in patient activation by comparing mean PAM scores between intervention and control groups. Scores at baseline (T0) and study completion (T2) were compared to ascertain relative improvements over time using paired and two sample t-tests.

SETTING & PARTICIPANTS:

Three-hundred and sixty PLWH were identified and enrolled from four HIV practices in Rochester, New York and four CDN (www.CDNNetwork.org) member Community Health Centers in New York and New Jersey.

RESULTS:

Patients who were randomized to the intervention had statistically significant greater improvements in patient activation, than did those receiving usual care. From T0 to T2, mean PAM scores increased by 3.32 among patients randomized to the intervention, as compared to an increase of 0.74 among control patients ($p < 0.05$). Further evaluation of performance across each quartile showed that improvements were largest among patients in the lowest quartile of PAM scores at T0.

CONCLUSION:

This group-based intervention improved patient activation and participants with the lowest level of baseline activation showed the greatest improvements. Future analyses will examine the behavioral and contextual elements that motivate and encourage PLWH, as well as examine the association between patient-centered measures such as PAM with clinical outcomes, such as HIV viral load and receipt of evidence-based care.

RELEVANCE STATEMENT:

Group-based training focusing on use of an ePHR improves patient activation among PLWH. Potentially, this approach could be extended to people living with other chronic conditions.

FUNDING: Patient Centered Outcomes Research Institute (PCORI R-1306-03104)

P42: Shared Decision Making in Prostate Cancer Screening

Jinping Xu, MD, MS; Voncile Brown-Miller; Victoria Neale, PhD

Margaret Holmes-Rovner, PhD, Hayley Thompson, PhD, James Blessman, MD, and Partners for Better Prostate Health

BACKGROUND:

Prostate cancer (PC) is the most commonly diagnosed cancer in men. African Americans (AA) have the highest incidence and mortality of PC among all racial groups in U.S. The prostate specific antigen (PSA) screening for early detection of PC is highly controversial because it may cause more harm than benefit. As a result, most expert groups recommend patient and doctor shared decision-making (SDM). However, there are few studies that involved both clinicians and patients in the SDM for PSA screening.

METHODS:

Through the Tier 1 of PCORI Pipeline to Proposal mechanism for community engagement, we recruited key stakeholders to identify research questions and goals that matter to them.

SETTING & PARTICIPANTS:

Participants include local AA men (without diagnosis of prostate cancer), prostate cancer survivors, family members, black churches, community advocate organizations, a local insurance payer, plus primary care physicians in the MetroNet PBRN.

RESULTS:

Over a 7-month period, we had monthly face-to-face meetings and bimonthly conference calls in which we established a working relationship with these key stakeholders and formed a Community Advisory Council called Partners for Better Prostate Health. We also set up a governing structure, selected a logo and developed a mission statement.

CONCLUSION:

As a group, we brainstormed and prioritized a list of top community concerns, and drafted research questions in the area of shared decision making of prostate cancer screening.

RELEVANCE STATEMENT:

Next steps are to strengthen the partnership and build its capacity in the research process and continue to develop and refine the research questions and priorities by obtaining Tier 2 award. The final result of this work will be the development of viable comparative effective research questions for the submission of a full PCORI application.

P43: Changes in Risk for Type 2 Diabetes among Mexican American Children

Kimberly Fulda, DrPH; Susan Franks, PhD; Shane Fernando, PhD

Anna Espinoza, MD; Assistant Director, NorTex; Anna.Espinoza@unthsc.edu

University of North Texas Health Science Center, Texas College of Osteopathic Medicine

Didi Ebert, DO; Assistant Professor; Didi.Ebert-Blackburn@unthsc.edu

University of North Texas Health Science Center, Texas College of Osteopathic Medicine

BACKGROUND:

Significant increases in the prevalence of type 2 diabetes (T2DM) have been observed for white, black, and Hispanic youth. Disparities by racial/ethnic group have also been observed with rates per 1,000 population of T2DM at 0.17 for white, 0.79 for Hispanic, and 1.06 for black youth in 2009. Furthermore, youth with T2DM may be at higher risk of developing diabetes related complications than youth with type 1 diabetes. The increase in incidence along with the potential consequences associated with T2DM point to both a need for proper diagnosis and improved prediction of children who are "at-risk" for T2DM. The purpose of this study was to examine how risk for T2DM and other metabolic factors changed in Mexican American children over two years.

METHODS:

Child participants from a research study titled "Factors Associated with Being at Risk for Type 2 Diabetes among Mexican American and Mexican Children (DMMX)" were asked to return for a follow-up visit at approximately two years. The following were measured on child participants: height, weight, BMI, percent body fat, blood pressure, glucose, total cholesterol, HDL, LDL, triglycerides, and presence of Acanthosis Nigricans. Child participants were classified as "high-risk" if they had ≥ 3 of the following: BMI ≥ 95 th percentile, history of hypertension or average systolic or diastolic blood pressure readings ≥ 95 th percentile, Acanthosis Nigricans, family history of T2DM, elevated finger stick glucose test (random 140 - 199 mg/dL or fasting 100 - 125 mg/dL). McNemar Test for Related Samples was used to compare baseline and follow-up for glucose risk (high/low), presence of Acanthosis Nigricans (AN) (yes/no), BMI 95th percentile (yes/no), and risk status for T2DM (high/low). Paired samples t test was used to compare changes in percent body fat and lipid markers.

SETTING & PARTICIPANTS:

The DMMX study included 144 Mexican American children 10-14 years with one parent/legal guardian recruited through the North Texas Primary Care Practice-Based Research Network (NorTex) and local community.

RESULTS:

Fifty children returned for a follow-up. Thirty (60.0%) were male, and 20 (40.0%) were female. Average age was 11.9 (sd=1.5) at baseline and 14.3 (sd=1.6) at follow-up. Follow-up occurred approximately 2 years after baseline [mean follow-up time=27.7 months (sd=4.5)]. Fourteen (28.0%) were high risk for T2DM at baseline, and 17 (34.0%) were high risk at follow-up ($p=0.01$). Mean HDL significantly decreased from 48.2 mg/dL (sd=122) at baseline to 45.2 mg/dL (sd=11.0) at follow-up ($p=0.01$). No other significant changes were observed.

CONCLUSION:

This study assessed change in risk factors for T2DM among Mexican American children living in north Texas. Over approximately two years, there was a significant increase in being high risk for T2DM and a decrease in HDL. Dyslipidemia, including low HDL, is associated with having T2DM in children; therefore, detecting changes in lipid markers early may serve as an indicator to increase prevention efforts. Not all children were fasting during collection of blood samples. Glucose was categorized as high/low based on whether the child was fasting or not, but the lipid markers were not controlled for fasting or not. Future research should examine racial/ethnic differences in risk for T2DM and psychosocial factors associated with change in risk.

RELEVANCE STATEMENT:

Due to the potential for severe complications associated with type 2 diabetes, it is critical to identify high risk children early and introduce preventive measures. It is also critical to understand how risk for type 2 diabetes changes and what factors are associated with that change.

P44: Does History of Prematurity Prompt Blood Pressure (BP) Evaluations at Primary Care Visits?

Laura E. Banks, MD; Benjamin D. Kornfeld, MD; Adolfo J. Ariza, MD
Gal Finer, MD, Liliana Bolanos

BACKGROUND:

Prematurity (gestational age (GA) < 37 weeks) is a risk factor for hypertension that should prompt BP screening at primary care visits of children ages 0-33 months. No studies have described provider adherence to this recommendation or outcomes of these BP screenings.

METHODS:

To understand the patterns of care related to BP screening of children born prematurely and determine the frequency and outcome of these screenings.

SETTING & PARTICIPANTS:

46 pediatric practices were invited to complete a site review assessing readiness to measure infant BP. A retrospective medical record review was conducted to identify these practices' patients born prematurely over an 18 month period and who would have been at least 36 months of age at the time of the review. Data reviewed included demographics, birth weight and GA. Visits at ages 0-33 months were reviewed for height, weight, BP, BP interpretation, BP-related diagnoses and comorbidities. BP readings were interpreted by investigators using standard references. Elevated BP was defined as any measurement >90th %ile for age/sex/height. Chi-square test evaluated frequency of BP screening by GA groups and comorbidity status.

RESULTS:

26 practices (57%) provided information on BP management at the practice. 5 practices (19%) did not have an infant BP cuff available. Only one practice had a protocol to measure BP in patients born prematurely.

CONCLUSION:

Children were 56% male, 52% private insurance and most (60%) were born at 32<37 weeks (21% 28<32 weeks; 19% <28 weeks). 27% of children had at least one BP documented before age 33 months. There was no difference in BP screening by child GA group ($p=0.922$). Among the 32 children with documented BP, 34% had at least one reading elevated; 10/15 elevations were >95th %ile. 4 of 6 children with a kidney-related diagnosis had BP screening performed versus 25% screened among the 113 without such diagnosis ($p=0.044$). There were 19 children with known history of umbilical catheter use; having this risk factor did not significantly alter screening ($p=0.531$).

RELEVANCE STATEMENT:

While children with history of prematurity are at increased risk for elevated blood pressure, they very infrequently have their blood pressure screened before 3 years old despite recommendations to do so and availability of equipment.

P45: Training the Research Clinicians of Tomorrow: The BRAIN Psychiatry Resident PBRN Project

Andrew Hunt, MD, MHA; Awais Aftab, MD; James Werner, PhD, MSSA

BACKGROUND:

There is a need to train clinicians to actively participate in practice-based research. Residency and Medical School are ideal times to involve residents in research training. However, residents vary widely in their motivation and interest. BRAIN: The UH/CWRU Psychiatry PBRN has extended an invitation to residents to propose, design, and implement a PBRN project, leveraging our regional clinician network to gather data. The goal is to involve as many trainees as possible in research roles through every step of project completion. This poster details the process by which we have engaged and trained residents toward the completion of their project, entitled: "The Impact of Psychiatric Hospitalization on Patient Trust and Collaboration with Outpatient Psychiatric Providers."

METHODS:

Residents have been exposed to Practice-Based Research through lectures, faculty mentorship, and involvement in research roles. These roles included: Literature Review, Research Question Development, Methods Design, IRB Submission, Practice Enrollment and Engagement, Data Management, Statistical Analysis, Authorship, and Dissemination. PGY3 Awais Aftab was designated PI, and mentorship of senior faculty was established. Meetings were held to organize trainee participation, present process steps, and discuss Practice Based Research principles. All residents involved were encouraged to complete CITI certification as a precursor to study involvement. A Pre-Post survey is being completed measuring research interest and knowledge, and role satisfaction, before and after study completion.

SETTING & PARTICIPANTS:

All Trainees were UH Psychiatric Residents in various stages of training. Each resident has been placed at a community training site which served as clinical and research setting.

RESULTS:

Survey results are pending, and will be presented along with materials demonstrating the study design and training role experiences. Results will also detail the numbers of residents who participated in each role, and completed CITI certification. We will also present qualitative evidence of trainee experience.

CONCLUSION:

Practice-Based Research Networks represent a fertile ground for trainee acculturation to research skills and involvement, as well as influential research. The UH Resident PBRN project has provided opportunities for many residents to participate despite differences in prior training, academic interest, and motivation. Future considerations include measurement of long-term research participation amongst trainees, work to enhance trainee experience, and possible development of a Practice Based Research training tract in residency training.

RELEVANCE STATEMENT:

The training of future PBRN researchers is of high value and importance to the development of the field. The UH Resident PBRN project represents an innovation in residency training that may be an effective model for other training programs. PBRNs can be training innovations while also producing seminal research.

P47: Assessing the quality of the after visit summary (AVS) in a Residency based Primary Care Clinic - Patients perspective.

*Amanda Mohammed, MD ; Tasaduq Mir, MD; Zaiba Jetpuri, DO
Amimi Osayande MD, FAAFP
Philip Day, Ph.D.*

BACKGROUND:

Small Randomized Controlled Trials looking at the AVS with primary outcomes as patient satisfaction and recall of AVS content conclude that primary care patients like to receive an AVS that contains specific individualized explanation of their problems and personalized health goals. Patients also prefer to have up to date and accurate information on their medications and problems list included in the language that they speak.

National data indicate that since more than one third of US adults have limited health literacy levels, patient instructions should be provided at a 5th grade literacy level. In 2014 Osayande, Mir et al carried out a study on the quality of the AVS provided to patients in the Parkland Health & Hospital System Family Medicine Clinic and found that although a 100% of patients received an AVS following their visit, 16% of patients received an AVS which content was not considered "meaningful" by CMS standards and 15% received their instructions in a language other than their first language. Criteria to make this conclusion were based on a 3W's question format; a modified version of the National Patient Safety Foundations tool the "ask me 3 program" a program designed to improve communication between patients and their health care providers. Based on our study, we concluded that although we demonstrate meaningful use of our EHR system, there is always room to improve on AVS content. Within the residency program, residents have always been encouraged to provide clear take home instructions following the patient encounter.

This project is a counterpoint which aims at assessing the relevance of the After Visit Summary (AVS) to our Family Medicine Clinic Patient Population from the patient's perspective.

METHODS:

250 randomly-selected patients were surveyed regarding the relevance of the AVS received after their physician visits. Again we used a 3 questions format, this time comprising of the following questions:

- Do you read after visit summary (AVS) provided to you after each clinic visit?
If yes answered to above patient goes on to answer the next 2 questions
- Do you understand the instructions provided to you in after visit summary (AVS)?
- Do you find after visit summary (AVS) useful?

We also reviewed the patient demographics for age and literacy levels.

SETTING & PARTICIPANTS:

This is a cohort study of adult patients seen in the Family Medicine Residency Clinic at Parkland Health and Hospital Systems, a CMS affiliated academic Primary Care center.

RESULTS:

The outcome measure is the patient perceived relevance of the AVS as a tool designed for improved patient - provider communication. A frequency analysis of data was used to determine this.

Of the 250 patients surveyed, 82.85% acknowledged reading the AVS, while 17.2% of them did not. Educational literacy level was not shown to be a barrier as majority of the patient population sampled - 90% had 5th grade level education and above while others had family members read to them. 82.0% of patients reported that they understand the instructions, while 16% reported not to have understood the provider's instruction. Of the number of patients that read the instructions, 80.4% of the patients reported finding the instructions provided in the AVS useful. 16% did not find it useful and 3.6 % of the patients did not respond to the question.

CONCLUSION:

Most of our patient population do read the instructions provided by physicians in the after visit summary and report finding this information useful. Physicians in our program will need to continue to improve on the content in order to involve them in the management of their chronic disease conditions.

RELEVANCE STATEMENT:

The Health Information Technology for Economic and Clinical Health (HITECH) Act, signed by President Obama in 2009 requires as one of the criteria for meeting meaningful use, that all health care providers give clinical summaries known as the after visit summary (AVS) to patients within three business days of an office visit. The purpose of this study was to determine the usefulness of the AVS and the clinical implications of our patients' chronic medical conditions if clear instructions are given.

P48: Creating an Alternative Model of Care: Spanish-Speaking Diabetic Group Model in an Urban Community Health Center

*Brittany Almaraz, MD; Stephen Eckart, MD; Christine O'Dea, MD
Daniel Hargraves, MSW; Nancy Elder, MD*

BACKGROUND:

Providing comprehensive diabetes care for Spanish-speaking patients in an area with a small population of Spanish speakers presents unique barriers. In partnership with The Christ Hospital/University of Cincinnati Family Medicine (FM) Residency, FM residents created a group visit model for Spanish-speaking patients with diabetes at Crossroads Health Center (CHC), an urban Federally Qualified Health Center to provide patients a better understanding of their chronic illness, and create a community of support for a growing population that currently comprises 3% of the greater Cincinnati area.

METHODS:

We first performed a needs assessment by 1) interviewing the CHC Volunteer Coordinator and Care Coordinator; 2) determining the potential population from the Electronic Health Record (EHR); 3) Performing a brief phone survey of Spanish speaking patients to assess interest and availability to these patients; and 4) holding a focus group of interested participants to discuss facilitators and barriers to Spanish group diabetes visits and desired content. Using focus group input and existing diabetes group visit information, we created a Spanish curriculum and held 8 monthly group visits. We evaluated the program via participant surveys (diabetes understanding, physician support, medication adherence, personal health goals) and EHR clinical outcomes such as glycohemoglobin and blood pressure.

SETTING & PARTICIPANTS:

Participants were Spanish-speaking patients with diabetes at an urban federally-qualified health center. Many participants who used the center for their diabetes care came from across the Cincinnati area, often utilizing public transportation and/or ride sharing with other community members to appointments.

RESULTS:

There were 67 Spanish speaking patients with diabetes at CHC, however the mean number of participants at the group visits was 2 (range 1 to 5). Interim results showed high satisfaction with the care received during group visits, but patients who attended multiple sessions expressed frustration that more patients did not return. Barriers we faced included a small patient pool, the fact that Family Medicine residents work only one day per week in the clinical environment where we performed our intervention (making communication with ancillary staff difficult), having limited Spanish-speaking staff and a non-Spanish-speaking care-coordinator, having several key members of our project team leave during the course of our project, and living in a city where many patients have difficulty accessing public transportation.

CONCLUSION:

Providing comprehensive diabetic care for Spanish speaking patients is a challenging endeavor. We created a compelling curriculum that made a qualitatively positive impact on the regular group visit attendees. However, we found that many barriers limited the ability of our specific intervention to provide a sustainable model of care for our desired population.

RELEVANCE STATEMENT:

Group visits for diabetes management may be advantageous for both providers and patients in addressing key barriers to self-care as a group in a shared, secure environment, particularly for a Spanish-speaking population. However, infrastructure support and resource access must be considered in the planning process to optimize the results.

P49: Developing a Primary Care Practice Fragility Index

Zsolt Nagykaladi, PhD; John Zubialde, MD; James Mold, MD, MPH

BACKGROUND:

The work of the late Barbara Starfield has shown conclusively that the overall health of a nation can be measured and even predicted by the strength of its primary healthcare system. Mediocre health outcomes and twice as costly healthcare compared to other developed countries is not surprisingly associated with a battered primary care in the United States. It has never been more important to measure and improve the health of primary care practices, especially in rural communities. However, no comprehensive measure is available that could assess the fragility of vulnerable practices and suggest interventions.

METHODS:

Using Delphi methodology, an expert group inquiry is being conducted to incrementally create a preliminary conceptual model for measuring practice fragility. Cycles of scoping reviews conceptualization, and expert input were followed by a systematic search for existing and actionable measures and instruments for each identified fragility sub-domain. Consequently, an efficient assessment tool will be synthesized and its face validity will be determined. Finally, the fragility index will be benchmarked and compared to other measures and the observed history of practice health.

SETTING & PARTICIPANTS:

Several recent community-based studies, including a large EvidenceNOW project in our state revealed that there is an alarming level of turmoil in rural primary care practices, weakening the health prospects of underserved populations. We have initiated a project in our statewide PBRN to create a comprehensive Primary Care Practice Fragility Index (PCPFI) to more systematically capture and analyze what is happening in these practices.

RESULTS:

At the time of this submission, five primary domains of practice fragility have emerged, encapsulating 14 sub-domains (2-4 per domain). These domains included: Human Resources, Healthcare Environment, Adaptive Reserve, Lived Experience, and Improvement Capacity. Half of the sub-domains could be linked to at least some existing measures with varying capacity for integration into a comprehensive fragility index. The other sub-domains are linked to frequencies, proportions, and financial indicators (e.g., solvency ratio), some of which will require further development.

CONCLUSION:

Although primary care practice fragility is becoming one of the main barriers to care quality improvement and PBRN research in rural and vulnerable settings, there is a dearth of tools and methods to assess the health of these practices in a quantitative manner. The development of the proposed PCPFI may help address some of these shortcomings.

RELEVANCE STATEMENT:

Our study is highly relevant to PBRN research, considering the unfavorable regulatory and funding climate and increasing trends of turmoil in small practices, which may threaten not only care improvement initiatives, but the ability of practices to participate in PBRN research.

P50: Development of Community/Academic Review Process for community oriented grants

Ardis Olson MD; Deborah Johnson; Scott A. Berry

BACKGROUND:

The Dartmouth CTSA initially supported basic science and clinical researchers in T1 to T2 translational research projects. The next stage was engagement of community and practice based research members in rural settings to plan the review process for two types of grants; grants conducted by academic investigators in close partnership with community agencies; and grants in primary care settings that engaged community partners. This presentation will discuss the pilot project reviewer process and lessons learned.

METHODS:

Individuals within the medical center patient advisors group and practice-based research network were invited to participate. Criteria were curiosity about medical research, interest in advancing community-engaged research and commitment to the health of their communities.

Group training was led by two community engaged research scientists using a case study of earlier submitted grants. Training was based on NIH review criteria were used with additional components for community engagement. Cues of issues to consider were provided to reviewers.

SETTING & PARTICIPANTS:

8 reviewers from primary care and communities were trained.

RESULTS:

In the first cycle of reviews individual interviews were conducted for all reviewers afterwards. While jargon was sometimes an issue the reviewers felt strong levels of inclusion and the process satisfying. Academic center reviewers and community reviewers had similar levels of concordance. All reviewers adjusted scores for the final score after proposal discussion. Community, primary care and academic researchers in follow up evaluation had similar levels of understanding of the review criteria At the next cycle of review, more reviewers enlisted than could be utilized.

CONCLUSION:

The training and review process led to consistent outcomes in the review process. In the future this process of community engagement will be expanded into other internal grant funding for pilot projects that address earlier stages of translational research

RELEVANCE STATEMENT:

Community and primary care perspectives are important to include when determining funding of pilot research grants. A successful process of community/academic collaboration has been developed.

P51: Impact of 9-Valent Human Papillomavirus Vaccine on HPV Vaccination Coverage of Youths, Ages 9-17, in North Carolina

*Tamera Coyne-Beasley, MD, MPH; Justin G. Trogon, PhD; Brianna Lindsay, PhD, MPH
Paul Shafer, MA*

BACKGROUND:

The 9vHPV vaccine was approved by the FDA in December 2014. To understand how the availability of 9vHPV may impact vaccine uptake, we developed a retrospective observational study to assess recent HPV vaccine uptake patterns. The primary objective was to evaluate the impact of introduction of 9vHPV vaccine on HPV vaccination uptake, initiation, completion and compliance. The secondary objective was to describe timing of administration and characteristics of children who received 9vHPV compared to those who received 4vHPV beginning in July 2015.

METHODS:

The study used a retrospective cohort analysis using North Carolina Immunization Registry (NCIR) data from January 2008 through October 2016. To address the primary objective, we used an interrupted time series design. The dependent variables were area-level HPV vaccination uptake (doses), initiation, completion and compliance among age-eligible children. The key explanatory variable was an indicator for the introduction of 9vHPV in North Carolina in July 2015. To address the secondary objective, we used logistic regression. The sample was restricted to those doses of HPV vaccine administered during or after July 2015. The dependent variable was an indicator variable for receiving 9vHPV (relative to 4vHPV). The key explanatory variables were child and area-level demographic characteristics and other area-level market characteristics.

SETTING & PARTICIPANTS:

Children between the ages of 9 and 17 years in 2016. The NCIR contains complete vaccination history, including date of administration and type of HPV vaccine, for this cohort of children, the oldest of which were nine in 2008.

RESULTS:

Introduction of 9vHPV was not associated with a change in HPV vaccination rates (doses per capita, initiation, three-dose completion, or compliance) in North Carolina Zip Code Tabulation Areas (ZCTAs). Among children receiving the HPV vaccine, they were more likely to receive 9vHPV instead of 4vHPV if they lived in a ZCTA with a larger age-eligible (i.e., 9 to 17) population, a higher number of annual outpatient visits per capita, or a higher number of religious organizations. They were less likely to receive 9vHPV if they were younger, African American (relative to white), or lived in a ZCTA with a higher percentage of the population with less than a high-school education.

CONCLUSION:

While the quick transition from 4vHPV to 9vHPV was not associated with higher overall vaccination rates, there were disparities in the diffusion of 9vHPV across areas of North Carolina.

P52: Patient-Centered Outcomes of Broad vs. Narrow Spectrum Antibiotics for Acute Respiratory Tract Infections in Children

*Alexander G. Fiks, MD, MSCE; Jeffrey Gerber, MD, PhD; Rachael K. Ross, MPH
Matthew Bryan, PhD, A. R. Localio, PhD, Julia E. Szymczak, PhD, Richard Wasserman, MD, Darlene Barkman, MA, Folasade Odeniyi, MPH, Kathryn Conaboy, Louis M. Bell, MD, Theoklis Zaoutis, MD, MSCE*

BACKGROUND:

Outpatient acute respiratory tract infections (ARTIs) account for the vast majority of antibiotic exposure in children and broad-spectrum antibiotic prescribing has been increasing, even when narrow-spectrum antibiotics are recommended. In the absence of head-to-head trials, it remains unclear if treating ARTIs with broad-spectrum antibiotics leads to improved patient-centered outcomes compared to treatment with narrow-spectrum agents, information needed to shape well-informed preferences.

METHODS:

A prospective cohort study was conducted in a network of 31 pediatric primary care practices to compare the effectiveness of narrow- and broad-spectrum antibiotics on patient-centered outcomes previously identified via semi-structured interviews of caregivers and patients. Between January 2015 and April 2016, a stratified sample of caregivers of children treated with antibiotics for an ARTI (acute otitis media, Group A streptococcal pharyngitis, acute sinusitis) were contacted by telephone to complete two structured interviews, one at 5-10 days and one at 14-20 days post diagnosis. The primary outcome was health related quality of life measured by the PedsQLTM total score obtained at the first interview. Secondary patient-centered outcomes included missed school/daycare, requiring additional childcare, side effects, and persistence of symptoms 3 days after diagnosis. Propensity-score based full matching was conducted to obtain adjusted PedsQLTM score or risk differences.

SETTING & PARTICIPANTS:**RESULTS:**

Telephone interviews were conducted with 2472 caregivers. Treatment of ARTIs with narrow-spectrum antibiotics versus broad was associated with a higher health related quality of life score (mean 91.6 [SD: 9.3] vs. mean 90.2 [10.5], $p = .01$). Use of broad-spectrum antibiotics was associated with increased risk of adverse drug effects (percent experiencing adverse effects 35.5% vs. 25.2%, $p < .001$) but was not associated with improved outcomes on any of the other secondary patient-centered outcomes compared to narrow-spectrum antibiotics (all $p > .08$).

CONCLUSION:

On patient-centered outcomes, treatment with broad-spectrum antibiotics was inferior to narrow-spectrum antibiotics for children with acute otitis media, streptococcal pharyngitis, and acute sinusitis on a quality of life measure and was also associated with higher rates of adverse drug effects. Given increasing antimicrobial resistance secondary to overuse of broad spectrum antibiotics, these data should inform families' preferences for treatment in an area of consequence for child and public health.

RELEVANCE STATEMENT:

Overuse of broad-spectrum antibiotics has contributed to an increase in bacterial resistance. This research showed that narrow-spectrum antibiotics may be a better choice than broad-spectrum antibiotics from the patient perspective for treatment of common respiratory infections, leading to fewer adverse drug reactions and improved quality of life.

P53: Practice-based research networks: training the next generation of residents in practice-based research

*Treah Haggerty, MD, MS; Stacey Whanger, MPH; William Lewis, MD
Christine Plaucher, MS, West Virginia School of Osteopathic Medicine
Adam Baus, MA, MPH, PhD, West Virginia University School of Public Health
Jay Mason, West Virginia Clinical and Translational Science Institute
Eric Radcliffe, MD, United Hospital Center*

BACKGROUND:

The healthcare climate in the US is changing dramatically. Practice transformation initiatives required clinics to undergo rapid systems of change designed to improve health outcomes, enhancing access and quality, and reducing healthcare costs - the Triple Aim. As many providers are adapting to the changes, it can be difficult to incorporate new education and experiences needed for medical students from within their residency programs. Practice-based research networks (PBRNs) are established to provide support to practicing providers in clinical research and quality improvement. Mentoring, promoting research projects, and providing forums to present projects have shown to increase the research and quality improvement productivity of the program leading to clinical practice success. Our goal is to use that information to develop opportunities for PBRNs to engage residents in clinical research early and enhance their skills to be able to thrive in this changing healthcare environment.

METHODS:

A pilot study was conducted at four university-affiliated primary care clinic training programs over a 3-month period (April - June 2016). The study population included residents training at four facilities in West Virginia. Residency leaders came together to discuss needs of assessing current residency programs' research and quality improvement training efforts. A previously developed questionnaire was chosen to assess (1) skills, (2) experience and (3) requirements in research and quality improvement initiatives. Modifications were made for this specific population and concepts of confidence and understanding of usefulness were added.

SETTING & PARTICIPANTS:

The West Virginia Practice-Based Research Network (WVPBRN) aims to examine the residency programs within the network by surveying the current residents on their perspective, knowledge, and level of activity toward research and quality improvement activities. Four network site residency programs were included in this study.

RESULTS:

Forty (40) residents responded to the survey representing four resident training sites around the state (response rate 58.85%). Residents who submitted to a competitive forum found that submitting was beneficial, $X^2 = 3.88$, $p = 0.049$. Although 81% of the residents felt either "very satisfied" or "moderately satisfied" with the residency program's research and quality improvement curriculum, only 15% felt "very confident" to perform a project.

CONCLUSION:

Lower project participation and confidence among current primary care residents shows an opportunity to assess the current curriculum and provide new strategies to enhance quality improvement skills and jointly benefit disciplines through closer alignment of practice-based research and quality of care improvement. A resident training series is being developed by the WVPBRN to provide network support in research and quality improvement projects.

RELEVANCE STATEMENT:

Although many networks also work with medical residents, the residents often have different needs, experiences, and time demands best met with a customized support system. Integrated with the patient care process is now increased expectation of quality of care improvement and the shift toward value-based care reimbursement and significant clinical impact. PBRNs have an opportunity to provide unique support to resident research that could lead to greater enthusiasm and skill in performing research and quality improvement projects throughout their career.

P55: Collaboration between Canadian and UK PBRNs: distributed analysis of Terminal Digit Preference blood pressure recording

Sumeet Kalia MSc; Michelle Greiver MD MSc CCPF; William Hinton

Babak Aliarzadeh, Teja Voruganti, Rahim Moineddin, Martin Dawes, Frank Sullivan, Saddam Syed, John Williams, Simon de Lusignan, Aashka Bhatt

BACKGROUND:

Increasingly large EMR-based research databases are being developed in different jurisdictions; leading to the potential ability to compare and contrast routinely provided primary care. We wish to conduct analyses distributed between Canadian and UK PBRNs using this exemplar study.

Evidence supports the switch from manual blood pressure measurement to Automated Office Blood Pressure Measurement (AOBP) in primary care. Canadian hypertension guidelines now recognize AOBP as the preferred method for office-based measurement of blood pressure. In addition to improved accuracy, AOBP measurement in randomized controlled trials and observational studies substantially reduces systematic recording errors such as terminal-digit preference because of the presence of a digital display. For example, guidelines in the UK recommending adoption of AOBP were associated with a large decrease in zero terminal digit preference, from 71.2% in 1996-1997 to 36.7% in 2005-2006. Changes in the proportion of terminal digit preference could therefore be used to estimate penetration of AOBP in primary care.

The aims of this study include:

- 1) To describe the prevalence of systematic recording errors (such as terminal digit preference) for blood pressure measurement in Canadian and UK primary care
- 2) To examine temporal changes in the frequency of systematic recording errors and terminal digit preference from 2006 to the present in both settings.

METHODS:

We will conduct the analysis using national CPCSSN database for Canada and the Royal College of General Practitioners Research and Surveillance Centre (RCGP RSC) database for the UK. All patients age 18 or more with a visit in 2006 or later will be included. We will use a repeated cross-sectional design. The data items will include: sex, age, systolic BP, diastolic BP, BP measurement date, BMI, diagnosis of hypertension, Type 2 Diabetes (T2DM), antihypertensive medications, patient comorbidities (CPCSSN validated condition, and equivalent for RCGP RSC). We will assess the frequency of terminal digit preference in each family practice. In particular, a descriptive method (e.g. heatmap or barplot) will be used to summarize the frequency of terminal digit preference across primary care providers and sites. To explore threshold avoidance, we will study patients with hypertension and Type 2 Diabetes (T2DM) as guideline targets for blood pressure differ for those two conditions.

SETTING & PARTICIPANTS:

The analysts in the UK and Canada will collaborate by conducting parallel analyses of PBRN datasets.

RESULTS:

We expect similar results in the UK and Canada. We will compare and contrast findings.

CONCLUSION:

We expect to learn about the impact of AOBP measurement practices on terminal digit recordings in two countries. As well, the UK and Canadian PBRN teams will learn about data and its management in the other setting.

RELEVANCE STATEMENT:

Increasing amounts of EMR and other data are now available to compare and contrast primary care in different countries. Exemplar studies using distributed analysis of PBRN data may enable future larger scale collaborations.