

P10: A Practice-based Randomized Trial of Integrating Behavioral Health and Primary Care for Comorbid Behavioral and Medical Problems

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SETTING & PARTICIPANTS:

40 primary care practices across the U.S., many from PBRNs, will provide 2 levels of participants: providers and staff as well as their patients with medical and behavioral needs.

NEEDS & OBJECTIVES:

Behavioral Health (BH, including mental health, substance use, and health behavior problems) drives much of the mortality, morbidity and costs of health care in the U.S. Many patients could benefit from BH services delivered within primary care. However, primary care practices have difficulty moving beyond traditional models of care. Current literature suggests that just co-locating a BH provider within primary care is not as effective as fully integrating that provider into the workspace to facilitate workflow, case identification, evidence-based BH services, shared care planning, and patient engagement. Furthermore, a structured approach to integrating BH services into primary care - as with an implementation toolkit - can achieve quick and reliable results. The objective of this study is to test an intervention that combines education for practice members with a protocolized method of implementing Integrated Behavioral health (IBH) using Lean workflow analysis.

DESCRIPTION:

Randomized, pragmatic, comparative effectiveness study of co-located care vs. IBH. 20 practices will be randomized to the control arm and 20 to the intervention. All practices will already have a co-located BH provider on site but will not have achieved more advanced integration. Providers and staff in the intervention arm will participate in asynchronous education on the concepts and tools of IBH and will use a Lean "toolkit" of tactics to redesign workflow for patients with BH needs, tailored around the operating and cultural characteristics of each unique practice. Intervention practices will conduct their own redesign efforts, led by a project champion, a project facilitator, and a redesign team. Team members will receive coaching support and participate in quarterly Learning Collaboratives as they plan, redesign, and implement changes to increase integration. Practices will be followed for 27 months. The design of this study, including the development of the study question, the outcome measures, and the vocabulary to describe IBH, was developed by a team of investigators that included community members, patients, and family members who had experienced the need for IBH. The study team incorporates three patients as paid co-investigators to help ensure the study's continued focus on patient-centered IBH. The study also relies on stakeholders from state legislatures, patient advocacy groups, medical practice organizations, accountable care organizations, payers, regulators, and experts in quality improvement and organizational change.

EVALUATION:

The primary outcome is change in health status, measured by repeated surveys of health-related quality of life (PROMIS) of 3000 patients with BH needs. Practice integration will be measured through an on-line self-assessment survey, the Practice Integration Profile, which provides a practice-specific evaluation of six domains of integration. The practices' ability to manage change to improve integration will be measured by a mixed methods assessment of practice context through surveys and interviews, patient focus groups, and field notes from observations. The study design provides innovative features to PBRN research: 1) Lean as a method of implementation results in feedback in 2 directions: to the practice about the success of its intervention (from patients and practice members), and to the research team about the usability and usefulness of the intervention components. 2) Patients and other non-academic collaborators were part of the research team from inception. 3) The mixed methods design uses a nested and serial format that allows the study team to evaluate contextual issues that make practice innovation easy or hard and to adjust questions for later sites.

DISCUSSION/REFLECTION/LESSONS LEARNED:

Previous work to develop the IBH Toolkit demonstrated that successfully managed change is effective if organized into three stages: planning, in which leading practice members cull the key tactics and garner support for change before engaging in the change process; design, in which front line health care workers use a structured approach to redesigning workflow; and implementation, in which the practice carries out manageable tests of change to improve integration. The first stage, planning, is often omitted by practices eager to start, leading to delays, errors, and failures. The Toolkit provides resources for each of these stages.

P11: Adapting the 5As Model to Engage Clinicians and Patients in Improving Blood Pressure Control

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SETTING & PARTICIPANTS:

Sixty clinicians and 2400 of their patients in 12 Federally Qualified Health Center (FQHC) sites in New York and New Jersey, who are participating in BP-VISIT, an NHLBI-funded study designed to improve hypertension control among underserved patients. At the clinician level, eligibility criteria include provision of primary care to adult patients within a participating FQHC. At the patient level, eligibility includes an ICD-9 or 10 diagnosis of hypertension in the visit code or from the problem list, and at least 18 years of age during the reporting year.

NEEDS & OBJECTIVES:

National guidelines recommend monthly follow-up appointments for patients with uncontrolled hypertension. Monthly visits increase the opportunity for clinicians to engage patients in self-management, fostering patient adherence to medications and lifestyle changes. The "5As Framework" has been widely applied to smoking cessation counseling and several other health behaviors. Each of the five As represents a key conversation initiated by the clinician: Ask, Advise, Agree, Assist, and Arrange. The objective of this study was to adapt the 5As model to engage clinicians and patients on strategies to improve blood pressure by promoting more frequent follow-up appointments for patients with uncontrolled hypertension.

DESCRIPTION:

Guided by Self Determination Theory, we adapted each of the A's to clinician counseling of hypertensive patients. We created online videos using simulated clinician-patient visits to illustrate how to operationalize each "A" and used these videos to train primary care clinician at FQHC sites. We adopted "Ask" to asking patients whether they knew their blood pressure goal and why it is important. We adopted "Advise" to provide a tailored recommendation regarding the importance based on the patient's response to Ask. We adopted the "Agree" to include assessment of patients' willingness to commit to reaching their blood pressure goal through monthly visits until their goal is attained in addition to patient's perceptions of barriers to reaching that goal. We adopted "Assist" to discussing anti-hypertensive medication and lifestyle changes in the context of patients' previous response. "Arrange" consisted of scheduling a one month follow-up visit and making referrals based on patients' preferences.

EVALUATION:

We will use a mixed methods approach to evaluate the effectiveness of the 5As for engaging clinicians and patients for blood pressure counseling. We will collect and analyze qualitative data on clinician training experiences, site leadership/clinical champion perspectives, and individual clinician feedback from consultations with the research team. We will also assess patient engagement quantitatively by reporting attendance of monthly visits, blood pressure control rates, and medication prescribing data.

DISCUSSION/REFLECTION/LESSONS LEARNED:

Effective of engagement of patients for chronic disease self-management for conditions such as hypertension is critical to improved outcomes. Despite availability of a range of effective pharmacologic and lifestyle interventions for hypertension, overall rates of blood pressure control remain suboptimal and reflect continued racial/ethnic health disparities. There is need for pragmatic training for clinicians in how to better engage in hypertensive patients in their own self-care and promote shared decision-making. This adaptation of the 5As framework may serve as a tool to facilitate clinicians in better engaging patients in their own blood pressure self-management.

P12: Children's Age, Family Conflict and Children's HbA1c: Are Girls and Boys Different?

Miryoung Lee, PhD; John M Pascoe, MD, MPH; Paul Breyer, MD

SETTING & PARTICIPANTS:

236 Parents completed the study questionnaire in the Diabetes Clinic of a midwestern children's hospital between January 2010 and January 2011. The clinic is within the Southwestern Ohio Ambulatory Research Network (SOAR-Net). The Diabetes Family Conflict Scale (DFCS) is a validated scale for families raising children with DM. HbA1c was employed as a marker of control of DM over time. 79.6% of respondents were mothers, 72.5% were married and 58.1% had more than a high school education. 87% of the index children were Euro-American, 49% were girls and mean age (SD) of the index children was 12.0(3.7) years. Mean DM duration was 4.5 (3.6) years.

NEEDS & OBJECTIVES:

Past research suggests that conflict within families raising children with special health care needs can have an adverse effect on the chronic illness. This study assesses the putative association between family conflict and the control of Type I Diabetes Mellitus (DM) employing a validated family conflict scale for diabetic patients and their families. Study hypotheses were that family conflict will increase HbA1c and families with older girls will report the most conflict

DESCRIPTION:

Poor DM control (HbA1c ≥ 9) was present in 40.3% of index children. Correlation coefficients between the DFCS and HbA1c were .30 for boys and 0.25 for girls ($p < 0.01$). Girls had a higher mean HbA1c level 9.2(1.7) than boys 8.6(1.6)($p = 0.008$) and older children (> 12 years) had higher HbA1c than younger patients 9.1(1.9) VS 8.6(1.4)($P = 0.022$). Mean DFCS scores were similar for families with older vs younger boys, 25.5(.9) vs 25.2(.9)($p > 0.2$). However, there was a statistically significant increase in scores for families raising older girls compared to younger girls, 28.0(1.0) vs 24.9(.8)($p = 0.01$). Having unmarried parents' was associated with poor control in boys, OR (95% CI)= 8.8(2.7-24.0). For girls being non-white was associated with more poor control, OR (95% CI)=3.5 (1.2-10.3).

EVALUATION:

Scores on the DFCS were significantly associated with HbA1c levels and family conflict was highest in families with older girls. Marital status of parents was associated with HbA1c levels in boys, while racial heritage was associated with HbA1c levels in girls.

DISCUSSION/REFLECTION/LESSONS LEARNED:

Family conflict affects DM control for both boys and girls with this chronic illness. Clinicians providing health care to DM patients, especially older girls with DM, should be very aware of this association and provide the support families need to deal effectively with their family conflict.

P13: Children's Behavioral Health in Primary Care: Do Parents Always Share Their Concerns

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SETTING & PARTICIPANTS:

The Behavioral Health Referral Survey was administered to parents whose children were being seen at four socio-economically diverse primary care pediatric practices in the Southwest Ohio Ambulatory Research Network (SOARNet). All respondents spoke English and were raising a child with a BHN (N= 270). Almost 80% of respondents were white, 89.1% had at least a high school education, 53.7% were married, 46.9% reported annual income <\$35,000.00, median age was 36 years, and children's median age was 4 years.

NEEDS & OBJECTIVES:

About 10% of children have a behavioral health disorder that results in functional impairment, but only about 20% of these children receive services. Child health clinicians may not be aware of a child's behavioral health needs (BHN) if parents do not share their concerns with their child's primary care clinician. Objective: This study assessed factors related to parents decision NOT to tell their child's clinician about their child's behavioral health needs.

DESCRIPTION:

The overall rate for parents not telling their child's pediatrician about their child's BHN was 26.7%. Over a third (35.4%) of African-American (AA) parents did not tell (DNT) their child's clinician about their child's BHN compared to 23.7% of white parents ($p=0.02$), 32.6% of unmarried parents DNT their child's clinician compared to 21.4% of married parents ($p=0.02$). Only 11.7% of parents DNT their child's clinician if a professional (e.g. teacher, psychologist) first identified the behavior problem compared to 34.4% DNT if a non professional first noted the behavior ($p=0.000$). Girls parents' were more likely to DNT (35.5%) than boys' parents (19.8%) ($p=0.001$). Both lower and higher income parents had a DNT rate similar to the sample rate (26.7%). The mode age for someone telling parents that their child had a BHN was 5 years for AA parents and 3 years for white parents.

EVALUATION:

Over one quarter of study parents did not tell their child's clinician about their child's BHN. Parents were more likely NOT to tell their child's clinician if they were AA, unmarried, or had been told about their child's BHN by a non-professional. Girls' parents were more likely to DNT than boys' parents. Annual family income was not related to the DNT rate.

DISCUSSION/REFLECTION/LESSONS LEARNED:

Because one tenth of children who are seen in primary care settings struggle with a behavior health disorder, it is incumbent on primary care clinicians who provide primary care to children to ask parents if they have concerns about their child's behavior.

P14: Co-Researching Successful Chronic Pain Management Techniques using an Appreciative Inquiry-Boot Camp Translation (AI-BCT) Process

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BACKGROUND:

Chronic pain management has been repeatedly identified as a top health concern by many practitioners in the SNOCAP Practice-Based Research Network. Management of chronic pain is a topic of much frustration due to the lack of a clear management pathway. Techniques recommended by doctors vary, and most often the approach is to focus on the prevention of opioid misuse and risk mitigation. We sought to understand from the patient perspective how they were successful with managing their chronic pain. Appreciative Inquiry (AI) is an approach in which stories of success, rather than difficulties, are the main focus. AI suggests that the focus should be on the high moments, or what works, and that we appreciate them. Our team chose to use AI as a means of eliciting information about what works with chronic pain management. Second, Boot Camp Translation (BCT) is a community development process by which medical information and clinical guidelines are translated into key concepts, messages, and ultimately materials that can be distributed to those in the community with specific conditions-in this case, for chronic pain. Our research team chose to use both AI and BCT together to both identify stories of success and then translate that information into meaningful messages for others. Interviewees who live with chronic pain bring light to the issues and are the wealth of knowledge, each with their own specific "medical information" and "clinical guidelines" to share. These then become the information and guidelines around which the BCT process is centered.

SETTING & PARTICIPANTS:

A total of 24 interviews were completed from 19 females and 5 males, with ages ranging from 25 to 77. Interviewees described themselves as White, Black, Hispanic, and Other with "Multicultural" written in. Participants were recruited in various ways and all lived in the Denver/Aurora Metro Area.

METHODS:

The research team included researchers in the Department of Family Medicine at the University of Colorado, leaders at 2040 Partners for Health (a local community based organization) and members of the Colorado Research Network Patient Advisory Council (PAC). Data were collected through individual AI interviews. Researchers worked together to recruit participants who identified as successfully managing their chronic pain. Participants had lived with, or were currently living with, chronic pain and had developed their own, specific management techniques or regimens so that they were able to do most things they wanted to do on most days of the week. A group of interviewers worked in pairs to interview participants about each person's pain management story and individual successes. Interviews lasted between 45-60 minutes. Each interview was audio recorded with the participant's approval, transcribed, and entered into ATLAS.ti. A core group of four researchers analyzed the data using both a matrix to organize patterns case by case and also a coding scheme following an editing approach. Themes arose as a small group of researchers developed codes to describe specific parts of success. Data were further analyzed and brought to the BCT kick-off meeting to present to the PAC members, who serve as co-researchers throughout the entirety of the AI-BCT process. The PAC helped determine what "stands out" most in the data, which themes or codes needed further analysis or development, and were ultimately the determiners of the course of the concepts, messages, and materials that are created.

RESULTS:

Key thematic areas that emerged from the coding work included: finding options that work, remedies and treatments may vary, trying an array of helpful choices, aversion to medications, facilitating relationships, "deal with it" attitude and to just "be you." Use of analgesic medications was not a major theme. From these themes, the PAC identified three key messages that resonated with the group: the need for a toolkit approach to manage chronic pain and pain episodes, how relationships positively and/or negatively affect a person's chronic pain journey, and the importance of goal setting for success. Further results of the BCT process are ongoing.

CONCLUSION:

Important messages and themes surrounding chronic pain management, the journey through chronic pain, and techniques used to combat short and long-term pain emerged from the AI interviews. With the BCT process now underway, the academic-community partnership is optimistic with the initial results and energized by the thought of creating meaningful, "patient approved" techniques that can help patients living with chronic pain in the future.

P15: Design and Implementation of the Women's Enhanced Recruitment Process (WERP) of the VA Women's Health Practice-Based Research Network (WH-PBRN)

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SETTING & PARTICIPANTS:

WERP is a collaboration between the CSP591 study team, the WH-PBRN, and the CSP Network of Dedicated Enrollment Sites (NODES). NODES sites have a ready-to-use infrastructure dedicated to conducting CSP studies. Of the seventeen CSP591 sites, six are co-located at WH-PBRN and NODES sites. These six sites will be the focus of WERP activities, and will benefit from the involvement and expertise of all members of this partnership: Local Site Investigators (LSI), Study Coordinators, NODES Managers, WH-PBRN Coordinating Center and CSP Coordinating Center (CSPCC) team members, and WH-PBRN Site Leads. Additionally, each site will devote an additional 20% effort study coordinator dedicated to directly boosting the recruitment of women at their site.

NEEDS & OBJECTIVES:

The number of women Veterans in the Veterans Health Administration (VA) has nearly doubled over the past decade. Women are historically under-represented in VA research; however, like other federal agencies, VA requires equitable inclusion of women to enable valid analysis of gender differences. To accomplish this and overcome barriers related to women's minority status (7% of VA patients are women), enhanced recruitment techniques aimed at increasing participation of women Veterans in research studies may be necessary. The VA Women's Health Practice-Based Research Network (WH-PBRN), is addressing this need by developing and testing a Women's Enhanced Recruitment Process (WERP) to directly increase recruitment of women for the VA Cooperative Studies Program (CSP) Study #591 (CSP591): Comparative Effectiveness Research in Veterans with PTSD (CERV-PTSD).

DESCRIPTION:

WERP activities are comprised of three components: The WH-PBRN Coordinating Center will consult and advise study staff on methodological issues around recruitment of women Veterans, by reviewing study materials and procedures for their suitability to women, and by attending study meetings to ensure that a perspective regarding women Veterans is represented. WH-PBRN Site Leads at WERP sites (and at non-NODES WH-PBRN/CSP591 sites) will provide active, ongoing interactions with local study staff to support recruitment of women, problem-solve local hurdles, and serve as a conduit between the study team and the local women's health clinical program. Local research team members also will directly boost recruitment of women through outreach to women and women's groups, through targeted recruitment mailings, medical record searches that identify potentially eligible women, extended efforts to contact women in person at clinic appointments, and interfacing with women's health clinicians at their facility.

EVALUATION:

WERP activities also include qualitative research methods (open-ended patient survey questions, semi-structured interviews of research staff) and content analysis techniques to identify barriers to and facilitators, and synthesize lessons learned about recruitment of women.

DISCUSSION/REFLECTION/LESSONS LEARNED:

Early innovations drawn from preliminary meetings of this collaboration include: the need to develop recruitment materials that include photos of women Veterans; familiarizing study staff with women's clinic structure and the portals of entry for women at each site; capitalizing on existing site resources like Women Veteran Program Managers and Clinical Applications Coordinators to augment efforts by clinicians; and reducing barriers to participation by providing weekend and evening appointments and travel support for research visits. To reflect what is learned from WERP, the WH-PBRN will develop a toolkit of resources relevant to future studies seeking to enhance inclusion of women Veterans, and will assist sites in identifying local strategies to produce their own toolkits for future local studies.

P16: Expanding the VA Women's Health Practice Based Research Network: Increasing Capacity for Equitable Representation of Women in VA Research

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BACKGROUND:

Veterans Affairs (VA) Women's Health Practice Based Research Network (WH-PBRN) facilitates multi-site WH research through a network of partnered VA facilities, and fosters bi-directional partnership of clinicians and researchers striving to improve the health and health care of women Veterans (WVs). Initial WH-PBRN development was informed by pilot studies conducted at four inaugural sites. The WH-PBRN then expanded to 37 VA sites in 2012. To further grow into a more diverse network, a call for Site applications went out March 2015; WH-PBRN expanded to 60 sites June 2015. As a program evaluation activity, we examined representativeness of WH-PBRN sites (relative to VA sites nationally) before and after expansion.

METHODS:

WH-PBRN Site applications included questions about facility characteristics, including items indicating level of local research support, such as presence of an affiliated HSR&D center at the facility. We coupled that data with aggregated, site-level national VA administrative data from Fiscal Year 2014, describing characteristics of WV patients using each site.

RESULTS:

From Pre- to Post-Expansion, the network grew from 37 sites, representing 146,706 WV outpatients, to 60 sites, representing more than half of all WV outpatients (220,465 WV out of 391,062 nationally). Expansion successfully increased representation of diverse populations. For example, across sites, number of WV from a racial/ethnic minority group increased from 38% Pre to 40% Post. Member sites together are fairly representative of VHA as a whole; for example, 43% of WV at the 60 PBRN sites have age <45 (versus 42% VA-wide), 22% (versus 26%) have a rural residence, 84% (versus 91%) used primary care, and 39% (versus 41%) used mental health services. The main difference is that 35% have a Health Services Research and Development (HSR&D) Research Center (versus 16% VA-wide). Number of VA Integrated Service Networks represented increased from 17 Pre to 20 Post, increasing geographic heterogeneity.

CONCLUSION:

WH-PBRN represents a large and geographically diverse nation-wide network of 60 VA sites. Expansion increased the number and diversity of WVs represented in the network. Across facilities, most women use primary care services, suggesting VHA primary care settings are an excellent venue for recruitment. Similarly, a large proportion receives mental health care: this is important since women's mental health care remains a major focus of VHA research. The expanded WH-PBRN provides greater opportunity to increase equitable representation of WVs in VA research, and to conduct health services research that examines diverse health care delivery systems.

P17: Eastern Oregon Care Coordination Project: Developing and Piloting the Care Coordination Measurement Tool for Primary Care

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BACKGROUND:

Care coordination is a core element of primary care practice transformation, especially in rural and frontier communities where workforce resources are scarce. Coordinating care between primary care practices and resources in the community (e.g., specialty care, hospitals) can support delivery of safe, effective, and appropriate patient care. However, there is a persistent need to learn how care coordination fits into rural primary care practices and how it is financially sustainable within the medical home model. Through the Eastern Oregon Care Coordination Project, a payor-funded quality improvement (QI) project, ORPRN staff worked with primary care clinical teams to develop a tool for monitoring select care coordination activities at the encounter level.

SETTING & PARTICIPANTS:

ORPRN staff worked with 68 practice staff and clinicians from four primary care clinics in rural Umatilla County, Oregon. Two practices had dedicated care coordinators on staff, and two did not.

METHODS:

ORPRN staff reviewed the Agency for Healthcare Research and Quality's (AHRQ) 2011 Care Coordination Measures Atlas to identify an established tool to measure care coordination. Of 61 measures included in the AHRQ Atlas, the Care Coordination Measurement Tool (CCMT) was the only one that tracks encounter-level care coordination activities. ORPRN staff then worked with practice teams using an iterative approach to review, pilot, and refine the tool over a 3-month period, ultimately creating the Care Coordination Measurement Tool for Primary Care (CCMT-PC). ORPRN staff worked with participating practice staff and clinicians to create the CCMT-PC through phone calls, individual and group in-person meetings, and education sessions.

RESULTS:

The initial tool was tested and refined using two rounds of pilot data collection (Round 1 and 2), during which individual staff tracked their care coordination activities at the encounter level for two weeks. Results from each pilot period were reviewed with practices in a series of conference calls and used to further collaboratively refine the tool prior to Round 3. Of the eight originally suggested "focus of encounter" options, participating clinical staff selected three that were critical to monitor over time and included: the management of referrals, medications, and transitions in care. Staff felt these were clinically important and feasible to track for quality and evaluation. The CCMT-PC was also streamlined for completion by a wide spectrum of clinical staff playing care coordination roles, while the original tool was primarily used by clinicians and nurses. Clinical staff recorded over 500 care coordination encounters for over 400 unique patients during Round 2. Round 3 of data collection is underway.

CONCLUSION:

While the CCMT captured a wide range of care coordination activities, the CCMT-PC captured the scope of services of most interest to the practices and was perceived as easy for clinical staff to use. This While the CCMT captured a wide range of care coordination activities, the CCMT-PC captured the scope of services of most interest to the practices and was perceived as easy for clinical staff to use. This project provides an example of using community engagement to add value to tool modification, and can serve as preliminary data for future studies to validate the CCMT-PC.

ONLINE RESOURCE:

<http://www.childrenshospital.org/care-coordination-curriculum/care-coordination-measurement>

P18: Evaluation of a one-time in-person training to improve knowledge and self-reported implementation of an evidence-based practice guideline

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BACKGROUND:

The Academy of Nutrition and Dietetics (Academy) published an Evidence-Based Nutrition Practice Guideline (EBNPG) for the Prevention of Diabetes in 2014. In 2015, a small pilot study was launched to assess whether practice that is more congruent with the EBNPG led to improved patient outcomes. As part of this project, a survey was used to measure self-assessed and quantitative knowledge of the EBNPG and changes over time. Past work has shown that Registered Dietitian Nutritionists (RDNs), like other health professionals, struggle to make accurate self-assessments of their knowledge, and tend to over-report implementation. Analysis of this survey data, in a small group of RDNs tracked over time, will provide information about whether self-assessment becomes more realistic with exposure to a one-time training on a topic area.

SETTING & PARTICIPANTS:

Participating RDNs were recruited through a national PBRN of RDNs and were geographically dispersed.

METHODS:

The primary study was conducted in 2 phases. During phase 1, participating RDNs recruited 5 patients, provided their usual Medical Nutrition Therapy, and documented research assessments, care provided and outcomes in an online outcomes management system. Patients were seen for 2 visits separated by 12 weeks. Documented care was compared to "expected care plans" that had been developed by experts a priori. The expected care plans were based on the EBNPG and utilized standardized nutrition terminology (Nutrition Care Process Terminology-NCPT). RDNs then attended a one-day in-person training in which they received personalized feedback on the congruity of their care to the EBNPG, evaluated using the expected care plans. The RDNs were trained to access, interpret and implement the EBNPG and given instruction on the relationship between evidence-based practice and documentation with the NCPT. Phase 2 followed the training. RDNs followed the Phase 1 protocol for recruiting patients and collecting data. They were instructed to implement the EBNPG based on what they had learned at the training. EBNPG adherence will be compared between each RDN's phase 1 and 2 patients and the relationship between EBNPG adherence and patient outcomes assessed. Immediately before (time 1) and after the training (time 2), and after completing their last phase 2 patient visit (time 3), RDNs were invited to complete an online survey in which they self-assessed their knowledge and frequency of use (each on a 5 point Likert scale) of the Academy EBNPG and other similar guidelines. In addition, RDNs were given a quiz on the content of the Academy's EBNPG. This quiz score will be used as a mediator for analyses of changes in documented guideline adherence over time. These quiz scores offer an opportunity for a secondary analysis, presented here. McNemar's test will be used to assess whether, over the three timepoints, RDNs self-reported knowledge or use of the Academy's EBNPG changed. Repeated measures ANOVA will be used to assess the change in mean quiz score over the three timepoints, with the hypothesis that knowledge would be highest at time 2, immediately after the training. SPSS will be used for all analyses.

RESULTS:

Fourteen RDNs collected data for the primary study. All of them completed the pre-training survey, 12 completed the post-training survey. The final survey will be deployed in early May 2016, with results available by the end of May, in time for the PBRN Annual Conference.

CONCLUSION:

This survey will provide information about the effectiveness of a single training at increasing both quantitative guideline knowledge and realistic self-assessment of that knowledge. Self-assessment is an important skill for health professionals to identify personal learning needs, develop continuing education plans and improve patient care and practice. Self-assessment of guideline implementation is flawed, however it is the simplest method for gathering these data. Therefore, from an implementation research perspective, it is important to understand whether there are groups, defined by training or other characteristics, who are more accurate at self-assessing these behaviors. If an effect of a single training is identified in this small dataset, future research could explore the dose of training that provides both the best retention of

P19: Evolution of a Practice-Based Research Network (PBRN): Coordinator's Reflections on Clinicians' Informal Research Training Through Engagement in Participatory Research

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SETTING & PARTICIPANTS:

The McGill Primary Health Care Research Network is composed of clinicians, clinician-researchers and researchers including family physicians, nurses, residents, managers, a clinical pharmacist, a psychologist and a social worker. The Research Network was developed using an Organizational Participatory Research (OPR) approach and engages clinicians in participatory practice-based research.

NEEDS & OBJECTIVES:

The McGill Primary Health Care Research Network aims to produce and apply knowledge from and for clinical practice to improve patient care, build the research capacity of its members and increase the applicability of research outcomes.

DESCRIPTION:

As the McGill Research Network uses a participatory research approach, clinicians and clinician-researchers receive informal research training through hands-on engagement in research processes. Clinicians learn to develop research questions based on their experience in practice, act as knowledge experts in tool development and interpretation of results, and cultivate skills to eventually head their own research.

EVALUATION:

The Research Network was evaluated using a hybrid qualitative analysis of meeting minutes, opportunistic interviews and the Coordinator's diary. The analysis combines inductive coding and the Capacity Building Framework to identify processes and outcomes associated with the engagements of clinicians in participatory research. The present consists of the Network Coordinator's reflection on his work with clinicians and the results of the evaluation.

DISCUSSION/REFLECTION/LESSONS LEARNED:

Clinicians expressed concern about their investment of time in research and in network participation, as well as lack of funding or financial incentive, and uncertainty about research processes. Through participation in the Network, clinicians developed partnerships with researchers and gained knowledge and confidence regarding their engagement in research.

P21: Feasibility of Adolescent Eating Disorder and Obesity Prevention in a U.S. Military Primary Care Treatment Facility

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Disclaimer: The opinions and assertions expressed herein are those of the authors and are not to be construed as reflecting the views of USUHS or the U.S. Department of Defense.

BACKGROUND:

The prevalence of disordered eating among children of military personnel may exceed the rates in children from civilian families, potentially due to unique stressors associated with their parents' careers. Since loss of control (LOC) eating predicts excess weight gain, military youth may be at particularly high-risk for eating disorders and obesity. Yet, carrying out prevention research in military primary care treatment facilities is a challenge, in part due to families' frequent relocation and the constraints of the military health system.

METHODS:

Through a collaboration with military primary care providers and civilian academic partners, the feasibility of a time-limited, 12wk interpersonal psychotherapy (IPT) group compared to a health education (HE) group for reducing LOC eating, mood symptoms, and excess weight gain in adolescent (12-17y) overweight girls was tested. Participants' LOC eating, anxiety, depression, and BMI %ile were assessed at baseline, 12wks, and 1y post-intervention. Due to relocations, by design, 1y BMI data were collected via AHLTA, the military electronic medical records system, if youth were unable to attend a 1y assessment.

RESULTS:

27 overweight (BMI \geq 85th %ile, BMI z 1.9 \pm .41) female military dependents (14.5 \pm 1.6y, 52% non-Hispanic black/multiple races) were randomized to IPT (n=13) or HE. Girls attended 69 \pm 24% (IPT) v. 79 \pm 25% (HE) of sessions (p=ns). Among those with LOC at baseline (82%), girls in IPT reported fewer LOC episodes at 12wks post-intervention, compared to HE (p=.03). Across groups, mood symptoms were reduced (ps<.05) and BMI %ile was unchanged, with no significant difference between groups (ps=ns). As anticipated, few girls (n=12, 44%) attended a 1y visit; BMI data from 11 (41%) girls were obtained via AHLTA. By 1y, groups did not differ with regard to LOC, depressive symptoms or BMI %ile (ps=ns). Yet, IPT trended toward fewer anxiety symptoms than HE (p=.057).

CONCLUSION:

Despite the challenges of conducting research trials with military families, through the combined efforts of military primary care providers and civilian academic partners, time-limited eating disorder and obesity prevention efforts are feasible and can be tested within military treatment facilities in this high-risk group.

P22: Health Literacy and Frequency of Home Blood Glucose Monitoring among Patients with Non-Insulin Treated Type 2 Diabetes

Laura Young, MD, PhD; C. Madeline Mitchell; Katrina Donahue, MD, MPH

BACKGROUND:

The benefit of glucose self-monitoring in patients with non-insulin treated (NIT) type 2 diabetes is unclear. Treatment recommendations vary widely among primary care providers as do current practices for home blood glucose monitoring among patients. Identifying patient characteristics associated with home glucose testing frequency may inform treatment approaches and thus may improve patient outcomes. The purpose of this study is to identify patient characteristics associated with reported blood glucose testing frequency.

SETTING & PARTICIPANTS:

450 patients with NIT type 2 diabetes from 15 primary care practices in North Carolina (NCnet).

METHODS:

Baseline participant characteristics from an ongoing randomized trial included basic demographics, blood glucose testing frequency, medications, comorbidities, and health literacy. In addition, a baseline A1C was obtained. Bivariate analyses of testing frequency (less than monthly, monthly to less than daily, daily) and patient characteristics were conducted. Controlling for patient characteristics, the association between testing frequency and health literacy was evaluated.

RESULTS:

Patients had a mean age of 60 years, 33% were African American, and 38% had low literacy. On average, patients had diabetes for 8 years, had three comorbidities, were on 6 prescription medications, and had an A1C of 7.6%. Relative to those who tested rarely, patients who tested their blood glucose daily had higher mean number of years with diabetes (9 vs 7), higher mean number of prescription meds (7 vs 5), lower health literacy (48% vs 69%). Daily testers also were more likely to be female (53% vs 44%), African American (43% vs 24%) and less likely to be married or living with partner (61% vs 75%). When controlling for years of diabetes, total medications, A1C, gender, race, education and marital status, lower health literacy remained significantly associated with daily blood glucose testing ($p=0.005$).

CONCLUSION:

Given the uncertainty surrounding the value of home blood glucose testing in NIT type 2 diabetes in terms of improvement of patient outcomes, further exploration is needed on communication about blood glucose testing between patients with low health literacy and their health care providers, subsequent treatment recommendations made and resulting outcomes.

P23: Impact of Adopting PCMH on Teamwork, Patient Access and Safety

Niharika Khanna, MD; Fadia Shaya, PhD; Priyanka Gaitonde; Andrea Bolis, MS

BACKGROUND:

Patient-centered medical homes (PCMH) are the building blocks for integrated health care delivery and population health.¹ The principles of a PCMH model include team functioning and care management which can lead to enhanced access to care, comprehensive chronic disease management, and patient tracking.² Some of the essential components of PCMH teamwork are leadership, role definition, and training of all team members, shared goals, good communication and measurable outcomes.² The Maryland Multi-Payer Program (MMPP) for PCMH was established by the Maryland Health Care Commission, pursuant to Maryland Legislative Resolution HB929/SB855 enacted in April 2010. The MMPP established the Maryland Learning Collaborative, housed at the University of Maryland School of Medicine Department of Family and Community Medicine, to provide educational and logistic support to transform primary care practices to PCMH and for implementation of the advanced primary care model. The five commercial insurance carriers participating in the program are -Aetna, CareFirst, Cigna, Coventry, United; in addition to public insurers Medicaid and Tricare to provide fixed transformation payments toward the advanced primary care model. One-third of fixed transformation payments are dedicated to the development of embedded care management teams to provide comprehensive, coordinated primary care. There are fifty-two practices in the Maryland Multi-Payer Program, representing a mix of rural, semi-rural, urban, and suburban practices. There are thirty-two parent organizations for the fifty-two practices, each with one to four practice sites. Practices are statewide, diverse, and range from small to large systems of care, hospital-owned, practitioner-owned, federally qualified health centers (FQHCs), and academic practices. Each practice has transformed to a Patient Centered Medical Home recognized by the National Council of Quality Assurance (NCQA) and there are 339 practitioners including 266 physicians, 49 Nurse Practitioners and 22 Physician Assistants. PCMH teams are enabled by education and teamwork training provided by the Maryland Learning Collaborative to develop a team process that includes an embedded care manager and, is based on the acquisition of practice specific data to stratify patients by disease using registries or, from the state designated Information Exchange about utilization of hospitals and emergency departments.¹⁵ The observations were carried out by the MLC for the Maryland Multi-Payer Program in 52 Primary care practice sites, caring for 250,000 attributed patients. Payment structures include fixed transformation payments and quality linked shared savings. All 52 practices are NCQA recognized at Level 2/3, all use EHR, utilize their EHR registry function and 77% are linked to the state designated Health Information Exchange. Most practices are linked to their local hospital discharge teams and receive daily data from the hospitals, and from the health information exchange regarding admissions/transfers/discharges for their patients.¹⁶ The MLC provides technical assistance to the PCMHs in teamwork, evidence based medicine adoption, dissemination of patient centered outcomes research, quality improvement, and coordinates health information technology supports through the regional extension center. Therefore, the current study assesses the impact of the trainings and refresher courses conducted by the MLC by comparing the patient-centered teamwork among the participating primary practices through the Teamwork Perception Questionnaire (TPQ).

SETTING & PARTICIPANTS:

The Maryland multi-payer patient centered medical home program has continued to engage 52 practices in advanced primary care models of care for five years. Each practice received financial incentives for care management and became eligible for shared savings based on quality and utilization. Practice supports included collaborative learning, practice coaching and quality improvement. Each of the participating practices in the MMPP received coaching and learning collaborative participation in teamwork; each was also working with an embedded care manager. In all the practices the primary care teams were mainly led by physicians. In June 2014 coaching supports ceased and collaborative learning and quality improvement continued. The data source for this study are the responses of the participating practice personnel to the TPQ administered at two different time points. One of these was administered during spring 2014 while the other was administered during fall 2015. In spring 2014, the responses were collected through the Survey Monkey tool. These were e-mailed to 36 practices followed by reminder e-mails, phone calls, and mailed notes asking all participants to complete the surveys. In fall 2015, the TPQ was administered during the Maryland Learning Collaborative to representatives of the 31 participating practices. In total 29 responses were obtained during spring 2014 while all the 31 practices responded to the TPQ administered in fall 2015.

METHODS:

The TPQ consists of 35 questions that utilize a 5-point Likert scale questions. There are 7 questions in each of the following domains: mutual support, situation monitoring, communication, team structure, and leadership. Response choices consist of strongly agree to strongly disagree. Considering our study objective, we first identified the proportions of strongly agree/agree to individual questions under each domain for the two time-points and compared the frequencies of strongly agree/agree responses versus the others for each question. The difference in the frequencies was tested using chi-square. We also compared the performance of these practices in the overall domains at these two time points. For this, we first combined the responses for all the 7 questions in each domain and created a score. Each strongly

agree/agree response was coded as '1' while others were '0'. Therefore, the highest possible score for each domain was '7' while the lowest was '0'. We tested and compared the mean scores for each of the domains at the two time points using t-test.

RESULTS:

The MMPP had 52 practice locations and included 36 parent practices. A survey was either emailed to (in Spring 2014) or handed over (at MLC, fall 2015) to all 36 practices. In spring 2014 we received responses from n=29 (29/36=_%%) practices while in fall 2015 we received responses from n=31 practices (31/36=_%%). Overall the majority of the questions on the TPQ had a higher response rate for either strongly agree or agree in year 2 (Fall 2015) than year 1 (Spring 2014) (Table 1). There was no statistically significant difference in the proportion of strongly agree/agree for the questions under the mutual support domain during the two time points. However, the practice members significantly strongly agreed/agreed more in year 2 for qualities - 'staff monitor each other's performance', 'staff continuously scan the environment for important information' under situation monitoring domain; for characteristics - 'staff relay relevant information in a timely manner' and 'staff follow a standardized method of sharing information when handing off patients' under communication domain; for characteristics - 'my supervisor/manager models appropriate team behavior' and 'my supervisor/manager ensures that staff are aware of any situations or changes that may affect patient care', and for characteristic - 'staff within my practice share information that enables timely decision making by the direct patient care team'. Table 1: Comparison of Strongly Agree/Agree responses among TPQ survey questions

Year 1 n (%)	Year 2 n (%)	p value
MUTUAL SUPPORT		
24 (77.4)	25 (80.7%)	0.11
Staff assist fellow staff during high workload.		
26 (83.9)	26 (83.9)	0.17
Staff request assistance from fellow staff when they feel overwhelmed.		
25 (80.7)	26 (83.9)	0.24
Feedback between staff is delivered in a way that promotes positive interactions and future change		
22 (80)	22 (80)	0.08
Staff advocate for patients even when their opinion conflicts with that of a senior member of the practice.		
21 (67.7)	23 (74.2)	0.07
When staff have a concern about patient safety, they challenge others until they are sure the concern has been heard		
22 (80)	25 (81)	0.32
Staff resolve their conflicts, even when the conflicts have become personal.		
12 (38.7)	24 (77.4)	0.2
SITUATION MONITORING		
Staff effectively anticipate each other's needs.		
18 (58.1)	22 (71)	0.11
Staff monitor each other's performance.		
15 (48.4)	17 (54.8)	0.01
Staff exchange relevant information as it becomes available.		
23 (74.2)	26 (83.9)	0.09
Staff continuously scan the environment for important information		
16 (51.6)	17 (54.8)	0.004
Staff share information regarding potential complications (e.g., patient changes, appointment availability).		
25 (81)	24 (77.4)	0.11
Staff meets to reevaluate patient care goals when aspects of the situation have changed.		
19 (61.3)	20 (64.5)	0.25
Staff correct each other's mistakes to ensure that procedures are followed properly.		
20 (64.5)	20 (64.5)	0.02
COMMUNICATION		
Information regarding patient care is explained to patients and their families in lay terms.		
23 (74.2)	29 (93.6)	0.06
Staff relay relevant information in a timely manner.		
20 (64.5)	26 (83.9)	0.04
When communicating with patients, staff allow enough time for questions.		
23 (74.2)	27 (87.1)	0.27
Staff use common terminology when communicating with each other.		
27 (87.1)	31 (100)	-
Staff verbally verify information that they receive from one another.		
23 (74.2)	23 (74.2)	0.15
Staff follow a standardized method of sharing information when handing off patients.		
21 (67.7)	28 (90.3)	0.03
Staff seek information from all available sources.		
21 (67.7)	27 (87.1)	0.58
LEADERSHIP COMMENTS		
My supervisor/manager considers staff input when making decisions about patient care.		
24 (77.4)	24 (77.4)	0.3
My supervisor/manager provides opportunities to discuss the practice's performance after an event.		
21 (67.7)	25 (80.7)	0.07
My supervisor/manager takes time to meet with staff to develop a plan for patient care		
17 (54.8)	25 (80.7)	0.07
My supervisor/manager ensures that adequate resources (e.g., staff, supplies, equipment, and information) are available.		
23 (74.2)	27 (87.1)	0.04
My supervisor/manager resolves conflicts successfully.		
22 (71)	20 (64.5)	0.22
My supervisor/manager models appropriate team behavior		
23 (74.2)	24 (77.4)	0.05
My supervisor/manager ensures that staff are aware of any situations or changes that may affect patient care		
23 (74.2)	26 (83.9)	0.01
TEAM STRUCTURE		
The skills of staff overlap sufficiently so that work can be shared when necessary.		
21 (67.7)	31 (100)	-
Staff are held accountable for their actions.		
24 (77.4)	26 (83.9)	0.062
Staff within my practice share information that enables timely decision making by the direct patient care team.		
23 (74.2)	28 (90.3)	0.01
My unit makes efficient use of resources (e.g. staff, supplies, equipment, information)		
25 (80.7)	28 (90.3)	0.09
Staff understand their roles and responsibilities.		
25 (80.7)	23 (74.2)	0.63
My practice has clearly articulated goals.		
22 (71)	24 (77.4)	0.15
My practice operates at a high level of efficiency		
19 (61.3)	22 (71)	0.06

However, when the mean scores for the overall domains namely mutual support, situation monitoring, communication, leadership, and team structure were compared between the 2 assessment years (Table 2), there was no statistical significant difference observed. However, the mean scores overall were higher in year 2 than year 1. Table 2: Difference in mean scores between the years by overall domains

Domain	Mean score Year 1	Mean score Year 2	p value
Mutual support	5.39	5.52	0.68
Situation Monitoring	4.62	4.71	0.82
Communication	5.81	6.16	0.22
Leadership	5.23	5.52	0.54
Team Structure	5.12	5.87	0.2

CONCLUSION:

Observations in PCMHs across the spectrum of practices participating in the MMPP, demonstrated enhanced teamwork specifically in communications, and in leadership resulting in enhanced patient access to care and safety.

P24: Large Scale Practice Transformation: The Cost of Practice Recruitment, the Healthy Hearts Northwest Experience

Lyle J. Fagnan, MD; Caitlin Dickinson; Katrina Murphy; Peggy Evans, PhD, CPHIT, PCMH CCE; Ross Howell, MPH; Leah Tuzzio, MPH; Michael Parchman, MD, MPH

BACKGROUND:

Healthy Hearts Northwest (H2N) is one of seven regional collaboratives funded by AHRQ's EvidenceNOW initiative. H2N involves the recruitment of at least 250 small to medium-sized primary care practices across Washington, Idaho, and Oregon for a pragmatic clinical trial comparing the impact of different evidence-based methods for disseminating cardiac risk reduction interventions. The practices will receive 15 months of dedicated practice coaching, access to clinical experts, and high-value tools for quality improvement and measure reporting. The resources required to enroll independent smaller practices for a larger regional initiative is unknown. Here we report preliminary data regarding the effort and cost of recruitment.

METHODS:

H2N is a regional cooperative based at the MacColl Center within the Group Health Research Institute. Two of the H2N cooperative partners, Qualis Health and the Oregon Rural Practice-based Research Network (ORPRN) are responsible for recruitment and practice support activities. The recruitment goal for Qualis Health was 190 practices in Washington and Idaho and for ORPRN was 130 Oregon practices. Qualis has worked with 886 practices in Washington and Idaho within their role as a Quality Improvement Network and HIT Regional Extension Center. ORPRN is a well-established practice-based research network (PBRN) with over 80 member practices. H2N recruitment began on May 1, 2015 and will be completed on April 30, 2016. The project leaders for Qualis Health and ORPRN collected data on the recruitment effort in terms of the number of touches and time to reach out to eligible practices in their respective regions.

RESULTS:

The Qualis Health team spent 6,070 hours on recruitment from 6/1/15 to 3/15/16. During this time, more than 700 practices in Washington State and Idaho were contacted by phone, email, letters, and in-person visits. As of March 28, 2016, n= 134 clinics enrolled in H2N across Washington and Idaho. For every clinic successfully recruited, there were approximately 4 contacted clinics that did not enroll. Each enrolled practice required 45 hours of recruitment activity. Hourly personnel cost for staff involved in recruitment at Qualis Health is \$160/hour. Therefore, cost of recruitment is estimated to be \$971,200, or \$7,248 per-practice. ORPRN enrolled 103 practices as of April 14, 2016. It took approximately 7 contacts (range, 1 to 25) with each practice to enroll them in the project. Twenty-two ORPRN staff devoted 4,433 hours to recruitment from 6/1/15 to 3/15/16-contacting approximately 700 practices. ORPRN instilled an "all-hands-on deck" approach to recruitment. For every clinic successfully recruited there were approximately 6 clinics that did not enroll. Each enrolled practice required almost 43 hours per recruited practice. Hourly personnel costs for staff involved in recruitment at ORPRN are \$140/hour. Total cost of recruitment was \$617,582, translating to a cost of \$5,995.94 per enrolled practice.

CONCLUSION:

Recruitment of primary care practices for large scale regional study of quality improvement and practice transformation is resource intensive. Organizations should consider up to a 12-month recruitment phase, funding high touch strategies to meet recruitment targets.

P25: Meetings for patient/Users, clinicians and Researchers to Improve primary care Research

Joyce Dogba, PhD; Isabelle Samson, MD; Matthew Menear, PhD; Lilianne Bordeleau, Beatrice Dabarges, Luc Vigneault, Erik Breton, Vanessa Serrano, France Lagare

BACKGROUND:

Research partnerships between patients, clinicians and knowledge users benefit the design, implementation and use of research results. Such partnerships give concrete form to equity between stakeholders from different environments, consensual shared decision making and transfer of knowledge to relevant contexts. They also promote a better match between research questions and what is important to patients, their families and communities. However, the lack of opportunity for discussions among stakeholders is an obstacle to primary care research partnerships, especially in family practice teaching units (FPTUs). We aimed to encourage stakeholder engagement (patients/users, residents, clinicians and other healthcare professionals) in identifying research questions and developing a research project; and to identify optimal conditions for jointly identifying and formulating research priorities in FPTUs.

SETTING & PARTICIPANTS:

Discussion groups will be formed in two FPTUs, one urban and one rural. The participants of each group are patients/users, residents, clinicians, one external researcher and other healthcare professionals.

METHODS:

Over the course of two semi-structured 90-minute meetings, each group will discuss a specific theme (initially suggested by an external researcher who works in the chronic disease field) and a list will be compiled of questions raised by patients, clinical staff at the FPTU, and external researchers. Analysis of the meetings will be based on three sources: direct observations noted in a journal, audio recording of the meetings and an evaluation questionnaire at the end of the second meeting.

RESULTS:

Expected results will be a list of identified research priorities concerning care of patients with chronic diseases among participating FPTUs, and research partnerships between patients, clinicians, research professionals and researchers in those FPTUs. The project will also identify optimal conditions for creating opportunities in all the FPTUs in Quebec province for similar discussions leading to research projects.

CONCLUSION:

This project will enable participants to build a partnership through these meetings, as well as to evaluate the partnership and identify its positive aspects and those that could be improved. Lessons learned will lead to maintaining or creating further opportunities for discussion in FPTUs.

P26: Metabolic outcomes after bariatric surgery in a community health center.

Ana B. Emiliano, MD, MS; Rabih Nemr, MD, FACS; Caroline S. Jiang, MS; Joel Correa da Rosa, PhD; Juan Batista, RD, CDE; Joanne Camille, PhD; William Pagano, MD, MPH; Mikhail Perepelyuk; Jonathan N. Tobin, PhD

BACKGROUND:

Precise eligibility criteria for bariatric surgery are an unmet need. We hypothesized that patient baseline characteristics predict cardiometabolic outcomes after bariatric surgery.

METHODS:

De-identified data from electronic health records of 236 patients (2013-2014) from a Community Health Center (CHC) (NYU Lutheran, Brooklyn, NY) were extracted and analyzed. Mixed models for repeated measures were used to examine changes in blood glucose, hemoglobin A1c, BMI, weight, blood pressure and medication use before surgery and at 3, 6 and 12 months after surgery.

RESULTS:

We report 3-month follow-up, complete data (82%) for roux-en-y gastric bypass (RYGB) (n=84) and sleeve gastrectomy (SG) (n=96). Females represented 80% of the sample, distributed as 50% non-Hispanic White and 50% Hispanic. Approximately 90% of patients completed follow up after RYGB, with the completion rate being 76% after SG (p=0.005). There were 15.8% and 14% decreases in BMI after RYGB and SG, respectively (p<0.0001 for each; interaction p=0.04). Hemoglobin A1C decreased by 9.2% and 15.3% after RYGB (p=0.43) and SG (p=0.001), respectively (interaction p=0.59). Systolic blood pressure decreased by 3% in both groups (p<0.05). Patients with diabetes at baseline (n=57) lost 13.7% of their initial weight, compared to 15.4% in individuals without diabetes (n=123) (interaction p=0.0003). Longer duration of diabetes was associated with decreased weight loss (r=0.32, p=0.02). Outcomes for 6 and 12 months are currently being examined.

CONCLUSION:

RYGB and SG produced equivalent cardiometabolic outcomes at three months in this urban population. Additionally, a diagnosis of diabetes at baseline was associated with lower weight loss by three months.

ONLINE RESOURCE:

www.CDNetwork.org

P27: Mitigating Dual Risk: An NP-PBRN Collaboration in a Diabetes Management and Tobacco Cessation State Initiative

Andrea F. Rodgers Fischl, PhD, MPH; Betty Braxter, PhD, CNM; Jennifer Dickson-Keith MPH; Marlin Williams, MBA

BACKGROUND:

Health Care Reform legislation enabled 32 million uninsured Americans to enter the health care system placing more demands on primary care provider's (PCP) time and efforts to provide prompt care. PCP's are frequently nurse practitioners (NP). NP-PittNet is an Agency for Healthcare Research and Quality (AHRQ) registered Nurse Practitioner (NP)-Practice Based Research Network (PBRN). This PBRN is a group of primary care NPs working together to answer community-based health care questions, translate research findings into practice, and foster research collaboration between universities and community practices. The Pennsylvania Department of Health's Diabetes and Tobacco Prevention and Control Divisions and NP-PittNet combined efforts to evaluate a brief intervention/referral process known as PA cAARds!. PA cAARds! intervention trains healthcare providers to utilize the Ask, Advise, Refer (AAR) model in diabetes self-management and tobacco cessation services.

METHODS:

As a mixed method design, a convenience sample of NPs completed an on-line 29-item survey that accessed practice/professional characteristics and awareness of PA cAARds!. Likert rating scales assessed confidence related to referring/supporting tobacco cessation and diabetes management. Telephone-based focus groups evaluated the PA cAARds! Model. Descriptive statistics were used for the quantitative survey; comparative content analysis for the focus group data

RESULTS:

Twenty-seven NP participants were "somewhat confident" to directly help clients obtain services for tobacco cessation/diabetes management. Focus group themes included; the need to further develop chronic disease management tools(such as PA cAARds!) for practitioners/ patients, and importance of reminder/check-in systems

CONCLUSION:

NP-PittNet demonstrated collaborative ability with state agencies on a policy related initiative. NPs were confident in providing services to clients with the dual diagnosis of diabetes and tobacco use. NP-PittNet evaluation of the PA cAARds! Model supports development of additional tools utilized in chronic disease management, provides information on future practice models and demonstrates ability of NPs to contribute to organizational policy.

P28: PBRN studies: experiences, priorities, successes, and challenges regarding the PBRN research focus.

Jeanette Waxmonsky, PhD; Jennifer K. Carroll, MD, MPH; Jodi Holthrop, PhD; Donald Nease MD, Sean O'Leary MD, Jack Westfall MD, MPH, Mary Wold BS, MPH

SETTING & PARTICIPANTS:

The target population is 11 PBRNs in the US. Eligible participants are current PBRN investigators, directors and coordinators.

NEEDS & OBJECTIVES:

Each year, billions of U.S. tax dollars are spent on research and hundreds of billions are spent on service delivery and community health programs. It is therefore important that the lessons learned from research inform and improve the quality of health, delivery of services, and the utilization and sustainability of evidence-based tools and approaches in primary care settings. Practice-based research networks (PBRNs) have the potential to inform questions about research discovery and clinical practice, which is both a complex challenge and an absolute necessity. Our prior work with PBRNs illustrates their struggle with balancing the requests by university researchers for practice and patient recruitment with the burden to PBRN practices and patients. For example, practice transformation efforts have taxed many practices in new ways and participation in a study not aligned with these efforts is less likely to be of interest to community PBRN practices. Determining what types of studies fit within various PBRN practices and align with their needs is important for developing effective and ongoing successful partnerships. The objectives of this study are to describe 1) the types of studies conducted in PBRNs; 2) a "best fit" type of study that balances the needs of primary care practices, PBRN staffing and investigator research needs; and 3) how PBRN leaders and staff currently work to maintain that balance. The longer term goal is to understand how PBRNs balance the investigator/research portfolio whilst respecting the PBRN infrastructure and resource needs, minimizing practice burden, and maximizing practice relevance and benefits.

DESCRIPTION:

Data collection will consist of individual and/or small group interviews conducted by phone or in person using a semi-structured interview guide. Interviews will be conducted by a PBRN director and coordinator or PBRN researcher, all with expertise in qualitative data collection and analysis. Interview topics will include PBRN background (e.g. history, size, staffing, core features, priorities), study mix and experiences (successes and challenges), recruitment and engagement of practices and investigators, governance, and decision-making/prioritization processes when considering possible research projects.

EVALUATION:

A thematic analysis will be conducted by the study investigators. Analysis will begin with an immersion-crystallization phase in which interview data will be reviewed to identify overarching themes for organizing the data, creating a coding template, coding text segments using this template, connecting themes and patterns to existing knowledge and literature and then corroborating/legitimizing to seek out additional data to confirm or refute insights from the initial analysis. After initial analysis has identified data to support one theme or interpretation, particular effort will be devoted to finding negative or disconfirming evidence. Member-checking will be conducted, and a revision of the thematic grouping finalized at subsequent team meetings.

DISCUSSION/REFLECTION/LESSONS LEARNED:

The primary care landscape has changed dramatically over the last 15 years and with it, implications for practice-based research. The expansion and acceleration of several key developments shaping primary care are the focus of intense national and clinical interest: practice transformation, team-based care models, electronic health records and information technology, new payment models, and population health. These developments create new opportunities and challenges for both practice based research and the networks in which they operate. PBRNs will need to find ways to evolve within these complex adaptive systems as the next step in their development. This study will provide us with knowledge about the actual and ideal types of research that PBRNs consider important, and also yield insights about how to balance research priorities with investigator, infrastructure, and clinical capacity.

P29: Project Facilitation in Primary Care

Rabiya Siddiqui, BSc; Saddam Syed, BSc OCT PGCEhD; Ivanka Pribramska, PhD; Frank Sullivan, PhD FRSE FRCP FRCGP CCFP

SETTING & PARTICIPANTS:

University of Toronto's Practice-Based Research Network (UTOPIAN) UTOPIAN Director: Frank Sullivan UTOPIAN Research Administrator: Ivanka Pribramska UTOPIAN Practice Facilitators: Saddam Syed, Rabiya Siddiqui

NEEDS & OBJECTIVES:

The University of Toronto Practice-Based Research Network (UTOPIAN), created in 2012, established collaborative relationships with healthcare and research organizations to better serve the primary care community and patient population. This venture brings together DFCM researchers, primary care clinicians and practices from all its academic sites to answer important healthcare questions and translate findings into practice. UTOPIAN Practice Facilitators are available to support and facilitate research at both site and practice level.

DESCRIPTION:

Since 2014, UTOPIAN has supported numerous primary care research projects led by DFCM researchers. Currently, UTOPIAN has two Practice Facilitators available to engage in research initiatives across all UTOPIAN sites. Many primary care practices do not have adequate resources, skills or knowledge to undertake essential research activity in their practice. Practice Facilitators provide a wide range of supportive services in order to improve the quality of care delivered, patients' experience with care, and patient outcomes. This support focuses on building organizational research capacity for continuous improvement within the practice and typically includes: assisting with REB applications, recruiting for studies on both family practice and patient level, and conducting EMR searches for/on behalf the project team.

EVALUATION:

In addition to the UTOPIAN Practice Facilitators, the DFCM at the University of Toronto has a number of strengths that power the success of UTOPIAN: world class researchers; exceptional family physicians, statisticians, data analysts, and a large number of diverse sites providing a significant practice base. This means studies will result in internationally excellent, robust, generalizable results. Strengths in education and professional development contribute to enhanced knowledge translation and exchange, with opportunities to explore even more effective techniques and strategies. UTOPIAN is also able to build on existing strengths in areas such as quality improvement, professional development, data management and inter-professional practice and education; in addition to leveraging its relationships with research partners across Ontario province and Canada-wide.

DISCUSSION/REFLECTION/LESSONS LEARNED:

The expertise of experienced Practice Facilitators combined with the practical insights of skilled researchers/clinicians allows for the generation of research ideas and approaches that can be significant for practice. UTOPIAN initiatives including Research Ready and the Idea to Proposal Course have been successful in capturing research interest and generating research proposals from numerous practices. Practice facilitation has allowed busy clinicians and researchers to execute research projects, recruit specific sites and clinics, recruit patient populations and establish realistic, workable processes to ensure the success of their study. One major benefit to involving UTOPIAN practice facilitators is leveraging the existing relationships between practices, hospitals, Research Ethics Boards and UTOPIAN in order to inform and generate participation among all parties involved, and to improve patient care.

ONLINE RESOURCE:

<http://www.dfcm.utoronto.ca/research/UTOPIAN.htm>

P30: Does Facilitated Implementation of Shared Decision Making improve Health Outcomes for Asthma patients? Preliminary Results from a Statewide RCT for an Asthma Dissemination Intervention.

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

BACKGROUND:

Shared decision making (SDM) in the patient-provider interaction increases treatment plan adherence. However, multiple barriers prevent clinicians from incorporating SDM into daily practice. We previously developed a facilitated approach to implementing an evidenced-based asthma SDM toolkit across six practices in Charlotte, North Carolina. Here we evaluated the effectiveness of dissemination methods for adopting this evidence-based SDM toolkit across 30 practices in North Carolina. The objective of this trial was to examine whether a facilitated dissemination (FLOW) of the shared decision making toolkit would result in lower levels of asthma exacerbation than traditional lunch-and-learn and usual care approaches.

METHODS:

Thirty primary care practices associated with four practice-based research networks were cluster-randomized to three study arms. Clinics randomized to the FLOW dissemination arm (n=10) received customized training sessions to incorporate the SDM toolkit into workflows unique to each practice. In the traditional lunch-and-learn arm (n=10), the SDM toolkit was presented at one lunch time meetings with the providers and staff. In the control arm (n=10), there was no interaction with the clinic for 12 months after the randomization. Oral steroid prescriptions, an indicator of asthma exacerbations, were collected for Medicaid patients for all 30 practices from Community Care of North Carolina, who provide analytics for population health for the Medicaid population for North Carolina. The proportion of patients who were prescribed oral steroids were compared 12 months pre and 12 month post the randomization data for all three arms. These changes over 12 months were compared across all three arms.

RESULTS:

Oral steroid prescription data was available for 7,155 patients across the three study arms. At one year post randomization, the percentage of oral steroid prescriptions declined in all three groups. The FLOW dissemination arm had a larger decrease in oral steroid prescriptions than the traditional arm. The traditional arm had a larger decrease in oral steroid prescriptions than the control arm. Since data is still incomplete, statistical testing was not preformed.

CONCLUSION:

Preliminary analysis suggests that a facilitated approach to dissemination of a shared decision making toolkit is associated with reduced oral steroid prescription for patients with asthma compared with a traditional lunch and learn and usual care approach.

P31: Active Surveillance Adoption in a Diverse Population-based Sample of Men with Low-risk Localized Prostate Cancer

Jinping Xu, MD, MS; Elyse Reamer, BS; Cathryn Bock, PhD; Michael Goodman, James Janisse, PhD, Liying Zhang, MD, PhD, Kendra Schwartz, MD, MSPH

BACKGROUND:

Active Surveillance (AS) is being recognized as a reasonable option for low-risk localized prostate cancer. To date, limited data are available as to AS adoption among men with low-risk LPC.

SETTING & PARTICIPANTS:

A population-based survey of white and black men with newly diagnosed low-risk LPC was conducted since 2014 with data collection from two sites (Metro- Detroit, Atlanta). Descriptive data of study sample collected thus far is presented.

METHODS:

Descriptive data of study sample collected thus far is presented.

RESULTS:

Of 674 patients (response rate 52%), 460 (68%) were recruited from Detroit while 214 (32%) from Atlanta. Overall, 77% were white and 22% were black, mean age 62.5 years (SD=7.0, range 39-76). About 54% of patients had \geq college education, 53% income \geq \$70,000/year; 49% were employed, 81% married, and almost all (99%) had insurance. Compared to white, black men were younger (63 vs. 60 years, $p<0.01$), had lower education and income, and less likely to be married. About half (51%) chose Observation (44% AS, 7% Watchful Waiting), 26% Surgery, 15% Radiation, 2% cryotherapy, and 5% others. Descriptive analyses indicated demographics including location, age, race, income, employment as well as self-perceived cancer seriousness were associated with the treatment choice. Compared to white, black men chose Observation less often (43% vs. 54%, $p<0.05$) and Radiation more often (22% vs. 14%, $p<0.01$). Similarly, compared to men in Detroit, men in Atlanta chose Observation less often (43% vs. 55%, $p<0.05$) and Radiation more often (24% vs. 12%, $p<0.01$).

CONCLUSION:

Conclusions: In this population-based sample, about half patients with low-risk LPC chose Observation with majority chose AS. Treatment choice was associated with demographic factors, self-perceived cancer severity as well as geographical locations.

P32: Attending Physician/Resident Differences in Attitudes about Opioids and Chronic Pain

Carissa van den Berk Clark, PhD MSW; Matthew Witthaus, MD; Betsy Wan; Christine Jacobs, MD; Mattie White, MD; Jeffrey Scherrer

BACKGROUND:

Pain is one of the most common ailments which motivate patients to engage with Primary Care Physicians (PCPs). Over the 3 last decades, an opioid epidemic has grown out of treatment of chronic pain in primary care. Prescribing practices vary by regional, socio demographic, contextual variables and to a large extent, by physician attitudes and beliefs. Although there has been significant study of the role of region and specialty on physician attitudes and beliefs about pain patients and prescribing opioids, there is less knowledge about resident vs. attending physician differences.

SETTING & PARTICIPANTS:

Physicians and Residents in Primary Care Residency Programs

METHODS:

We surveyed attending physicians and residents in 2 Illinois and Missouri PCP residency programs and 2 private practices via the ARCHNet PBRN on their attitudes and beliefs about chronic pain patients and prescribing opioid medications (N=51). Wilcoxon rank sum tests were used to compare mean rank differences between attending physicians and residents.

RESULTS:

Residents were more likely to prefer not to work with patients with chronic pain ($z=4.87$, $p<.05$) and less likely to feel comfortable managing chronic opioids ($z=7.87$, $p<.01$) than attending physicians. Residents are much less likely to consider opioids effective ($z=-2.08$, $p<.05$), to believe that they have an obligation to treat chronic pain ($z=-3.18$, $p<.01$) or that long-term opioid use can be necessary ($z=-2.78$, $p<.01$) than attending physicians.

CONCLUSION:

Residents have more negative attitudes about chronic pain patients and opioid medications than their more experienced attending physicians. To ensure that chronic pain patients do not experience poorly treated pain and avoidance from a new generations of physicians, residency programs must include training on chronic pain management and therapy.

P33: Challenges to Engaging Providers in Research Teams: A Glance at Patient Volume

Jacquelyn Favours, MPH, CHES; Alaina Boyer, PhD; Rowena Dolor, MD; Lauren Duke, MA; Alecia Fair, DrPH; Duane T. Smoot, MD; Consuelo Wilkins, MD, MSCI

BACKGROUND:

Comparative effectiveness research emphasizes the need for mutualistic relationships between health care providers across health settings, potentially increasing the generalizability of research findings across populations. However, common barriers to participation on research teams exist including time, staff, and clinic flow, which can be influenced by patient volume. There is limited literature evaluating patient volume as a contributor to provider's lack of time for research participation. Patient volume could be a source of time limitation, deterring providers from pursuing research interests. The objective was to determine if providers' participation in research was impacted by patient volume, and to identify other limiting factors.

METHODS:

Health care providers were recruited to participate in a survey, assessing preferences and attitudes toward research participation, as part of the Patient Centered Outcomes Research Institute (PCORI) funded Mid-South Clinical Data Research Network. Participants were recruited online using a call center, electronically through collaborative groups, in person at greater Nashville and surrounding area community health centers (CHCs) and private practices, and at a national meeting for providers.

RESULTS:

Of the 416 respondents, 61.3% were women, 19.2% African American, 6.0% Asian, 2.6% Hispanic, and 68.5% Caucasian. Among disciplines reported, respondents were 45.2% primary care providers and 29.6% non-physician practitioners, and 23.6% specialty group providers (pharmacists, dentists, nutritionists, physical therapists, psychologist, and administrators). Findings show that the amount of patients per month ($<.01$), percent of work week spent in clinical care ($<.01$), and discipline ($<.01$), were significant in determining likelihood of research participation. Those who had no previous research participation (59.2%) were more likely to spend 75% or more of their work week in clinical care, $F(1, 394) = 5.73$, $p = .017$, when compared to providers who had previous research participation (40.8%).

CONCLUSION:

Factors such as patient volume, amount of time in clinical care, and discipline all stand as limiting factors when engaging providers in research activities. Providers who spent a higher percentage of their work week in clinical care were less likely to have participated in research. Primary care providers and non-physician practitioners are more likely to participate in research than specialty care providers. Additionally, when providers have a patient volume of 600 or less patients per month, they are more likely to participate in research. In attempting to develop research partnerships with providers, these factors should be considered to form effectual relationships. Implications for further research are to explore the provider's level of involvement during research participation and to investigate the existing barriers providers experience to operating as a part of a research team.

P34: Characterizing Barriers to CRC Screening with Colonoscopy in the Primary Care Safety Net

Anne Gaglioti, MD; George Rust, MD;

BACKGROUND:

There are significant racial/ethnic and geographic disparities in colorectal cancer (CRC) outcomes that impact poor, rural, and underrepresented minority populations. One factor that contributes to these well-documented disparities is variation in the ability to obtain complete CRC screening. The ability to obtain a colonoscopy as an initial CRC screening test or a follow up to an abnormal fecal occult blood test varies widely based on geographic location, patients' insurance coverage status, and patients' insurance coverage type. We aim to describe the barriers providers face to obtain a colonoscopy as a component of complete colorectal cancer screening for patients with different types of insurance coverage in the primary care safety net.

SETTING & PARTICIPANTS:

This study is set in the Southeast Regional Clinicians Network (SERCN), a practice-based research network made up of federally qualified health centers and Primary Care Associations in 8 southeastern states (Georgia, Florida, Mississippi, Alabama, Tennessee, Kentucky, North Carolina, and South Carolina). State Primary Care Associations are the organizing bodies in each state for federally qualified health centers (FQHCs). Study participants will be primary care safety-net providers practicing in FQHCs in Mississippi and Georgia that serve high-need, high-disparity populations. Mississippi ranks 47th out of 50 states for prevalence of completion of CRC screening. While in Georgia, African American men face particularly high rates of CRC mortality partially attributable to low screening uptake in this population.

METHODS:

We will administer a short questionnaire distributed by email and/or fax to SERCN providers in Mississippi and Georgia, a total of approximately 650 providers (350 in Mississippi and 300 in Georgia). Study questions will characterize providers' screening practices based on type of health care coverage (private insurance, Medicaid, uninsured), barriers to obtaining colonoscopy as a part of routine CRC screening for patients with different types of health care coverage (either as an initial screening test or follow up of an initially positive screening fecal occult blood test), and the impact of ability to offer colonoscopy as a component of screening on the provider's willingness to initiating/offer CRC screening to their patients. Participants will not be compensated for participation and reminders will be sent at biweekly intervals for 4-8 weeks. Survey results will be tabulated and descriptive statistics will be performed using SPSS statistical software. Results will be shared among and interpreted by a broad group including PBRN leadership, state primary care association leadership, and practices/providers.

RESULTS:

Survey results will be tabulated and descriptive statistics will be performed using SPSS statistical software. Results will be shared among and interpreted by a broad group including PBRN leadership, state primary care association leadership, and practices/providers.

CONCLUSION:

Results from this study may be utilized to: 1) characterize disparities in ability to obtain colonoscopy as a component of complete CRC screening if indicated among patients with three different types of health care coverage (private insurance, Medicaid, uninsured), 2) design interventions to improve providers' ability to obtain colonoscopy in the primary care safety net among patients with different types of health care coverage, and 3) be used as an advocacy tool for describing the attainability of quality measures around CRC screening in the primary care safety net.

P35: Development of the Cleveland Out-of-School Enrichment PBRN: An Innovative Adaptation of the PBRN Model

AnneMarie Grassi, PhD; Earl Pike; James J. Werner, PhD; Maureen Riley Behringer, Patricia Heilbron, Jeanmarie Rose, Karen Carter, Craig Dorn, Holley Fowler, Kristina Knight, Debbie Pence-Meyerberg, Victor Ruiz, Samantha Shahid

SETTING & PARTICIPANTS:

Participants were the leaders of 10 organizations that provide out-of-school time enrichment programs that serve children from grade school through high school.

NEEDS & OBJECTIVES:

Approximately 54% of children in Cleveland live in poverty and most are behind 3 or more grade levels in math and reading proficiency. Numerous non-profit organizations provide out-of-school time services to these children that range from providing meals to developmental enrichment opportunities. In order to increase the impact of their organizations, 10 out-of-school time program Directors formed a PBRN to study the needs of children and their families and to systematically improve the delivery of services. The objectives of this presentation are to describe key steps involved in the formation and development of this network, and to share lessons learned that may benefit other non-traditional PBRNs.

DESCRIPTION:

In 2014, two program Directors partnered to champion the development of an out-of-school PBRN, and together sought the assistance of the PBRN Shared Resource at Case Western Reserve University. The Directors connected with the leaders of out-of-school organizations to assess interest and request their involvement. The group's objectives were to identify common interest areas and to develop an initial research or QI project. Four large group meetings and several small group meetings were held between May 2015 and March 2016. The PBRN's initial project was a QI study of sleep quality in children ages 10-14.

EVALUATION:

This adaptation of the PBRN model drew upon good practices in network development. First, two 'champions' engaged stakeholders and served as anchors for the developing PBRN. Second, the network champions provided an organizational home for the PBRN and hired a facilitator. Next, they accessed the support and expertise of local PBRN experts. Finally, early meetings assessed participants' areas of interest in order to identify an initial study topic rather than focus on roles. The data gathering phase of the QI project was then developed and launched.

DISCUSSION/REFLECTION/LESSONS LEARNED:

Lessons Learned: 1) It was essential for respected organizational leaders to serve as champions for the developing PBRN. 2) PBRN experts provided a 'road map' for network development and conducted the technical and training aspects of the QI project. 3) Momentum was maintained by moving quickly to identify areas of common interest and engage the group in the study development process. 4) Going forward, PBRN leaders plan to identify and utilize windows in the academic calendar when research and QI projects can be most effectively implemented.

P36: Evolution of a PBRN: 'Formal' research training for primary care practitioners through an interactive self-directed online course

Tamara Carver, PhD; Justin Gagnon; Florence Tremblay, MD; Ellen Rosenberg, MD; Isabelle Vedel, MD, PhD; Charo Rodriguez, MD, PhD; Gillian Bartlett, PhD; Jeannie Haggerty, PhD

SETTING & PARTICIPANTS:

The McGill Primary Health Care Research Network is a practice-based research network that brings together researchers from the McGill Department of Family Medicine with primary care practitioners. This network is one of four practice-based research networks, which make up the Quebec Knowledge Network funded by the 'Fond de recherche du Québec Santé' (FRQS). In accordance with the multi-disciplinary nature of primary care, the McGill Primary Care Research Network includes family physicians, primary care researchers, nurse practitioners, nurse managers, a clinical pharmacist, and psychologists from 5 McGill University affiliated Family Medicine Units (medical homes).

NEEDS & OBJECTIVES:

The network's mission is to produce and apply research knowledge from and for clinical practice, build the research capacity of its members, and to increase the quality of research outcomes thereby producing new knowledge that will improve practice and patient care.

DESCRIPTION:

Currently, the McGill Department of Family Medicine is developing an online course for residents as part of the Scholarly Activity requirement of their post-graduate program. Throughout the development of this online course, clinician supervisors from the Family Medicine Units, members of the McGill Primary Care Research Network, were asked to meet three times between September 2015 and February 2016 to provide feedback on the new online course that will be offered to their residents. During these feedback sessions, the importance of creating an online course, similar to the one for residents, but customized and developed for clinicians and clinician supervisors was highlighted. In addition, making this customized course available to all members of the McGill Primary Care Research Network was proposed. Using an online delivery method for the content allows individuals to access the content at their convenience, which can be useful given the time constraints of primary care practitioners. The course will use engaging active learning principles and content will include how to: ask a research question, perform a literature search, develop a research protocol, complete ethics, collect data, analyze data, and knowledge translation. It will be designed to increase motivation to learn by being self-directed and self-paced so that individuals can follow the order provided or skip to the sections they feel they need further clarification. It will use the latest educational technologies to keep the content engaging with video formats, pop-up quizzes, and discussion forums to keep individuals actively involved in the learning process.

EVALUATION:

During the design and development of the online course, an initial assessment of the processes and effects generated by the online course will occur. Participants will consist of members of the McGill Primary Care Research Network and two major issues will be explored: (1) views about the content and implementation processes of this educational innovation (2) perceived initial effects of the intervention on their workload and research capacity. An exploratory case study research design will be adopted, and qualitative and quantitative methods will be used for collecting and analyzing empirical material.

DISCUSSION/REFLECTION/LESSONS LEARNED:

One of the barriers that primary care practitioners often report in participating in practice-based research is uncertainty about research processes. At the completion of the project, we expect to have developed an interactive online course, customized for clinicians and members of the research network, that aims to enhance knowledge of research in primary care and provide skills to increase research capacity. The practical and theoretical contributions of this research project seek to advance and promote the scholar role in family medicine units and for members of the McGill Primary Care Research Network.

P37: Patient Experiences of Care - An Ethnographic Study of Behavioral Health in Jackson, Michigan

Elizabeth Kaziunas, MS; Mark S. Ackerman, PhD; Michael Klinkman, MD, MS; Leslie Paulson, MSW

BACKGROUND:

For people with chronic behavioral health conditions, care is often a chaotic assemblage of specialists, clinics, emergency rooms, family caregivers, and shifting medication regimens and treatment plans. A community's health information infrastructure plays an important, but often-invisible, role in how patients experience care. Currently, there is a lack of research on designing health information technology to specifically support the information work that takes place on a community level to support behavioral health. As a baseline for any community-based evaluation of clinical transformation, it is critically important to understand the lived experience of patients and clinicians in this environment. The best way to do this is to systematically collect and analyze patients and clinicians own stories.

SETTING & PARTICIPANTS:

Series of qualitative, semi-structured interviews of persons currently receiving care in the Jackson community for a wide range of health problems. Individuals from both community and health care settings to obtain maximum variability. Additionally, a parallel series of qualitative interviews with health care providers and key community stakeholders. Aim is to understand the most important issues now faced by persons experiencing health care from all sides (patient, provider, and community stakeholder), and to identify the most important areas to monitor and assess in evaluating the successes or failures of practice transformation over time.

METHODS:

Methods are designed to be generative, rather than hypothesis testing, and will provide a rich source of data to enable us to understand the social context in which care occurs. Our research is informed by medical sociology & anthropology, computer-supported cooperative work (CSCW), human-computer interaction (HCI), and health informatics. Interviews: learning how people manage behavioral health conditions by conducting semi-structured interviews with patients, clinicians, and community stakeholders. Field Work: understanding the socioeconomic, political, and cultural factors that impact health management through participant-observation. Design: exploring ways technology can support a range of health information needs and asking people in the community to help evaluate them.

RESULTS:

Participants often relied on trusted friends and/or family for assistance navigating the local healthcare system. People with "insider knowledge" (e.g. nursing assistants, social workers, and pastors) helped participants formulate questions they should ask clinicians, prepared patients on what they should expect during clinical visits, and recognized potential issues with patient care (e.g. being prescribed too many medications). Participants were frustrated by rushed clinical visitations (e.g. 5 minute meetings to get a prescription.) Barriers to establishing a relationship and/or conveying complex social circumstances. Faith-based organizations, especially local churches, were described by pastors as a "first line of defense" for many people seeking help with behavioral health issues, referrals to behavioral health specialists, and help with financing health care etc. Services ranged from one-on-one counseling to lay support groups to dedicated counseling centers with licensed therapists. Leadership was often overwhelmed by the public's need for care and had only a limited knowledge of available local resources.

CONCLUSION:

Local practices and the community will gain an understanding of what behavioral health care looks like both to patients and clinicians, as well as the current experience of the medical home. This will help practices and community partners plan more effective programs, since we will have a better understanding of where there are gaps, misunderstandings, and strengths. Although we will focus on the lived experience of care, where relevant we will also explore the direct impact of health IT and health insurance coverage on that experience. This work will provide the foundation for all subsequent work in the community and support efforts of Great Lakes Research Into Practice Network (GRIN) in developing a Community-Based Research Network (CBRN).

P38: Patient-Centered Research Priorities in a Pediatric PBRN

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

BACKGROUND:

Practice-Based Research Networks (PBRNs) perform clinically relevant research that is designed to be immediately translatable to patient care. While PBRNs have great capacity for clinician engagement, few PBRNs have engaged parents in the development of research questions. Many PBRNs have seen the value in and have implemented patient advisory boards; however, we are aware of no PBRNs that use these patient advisory boards specifically in the development of research questions, and none that engage parents in the development of research questions that focus specifically on issues related to children. This poses a particular challenge for pediatric and family medicine practices where both patients and parents should ideally be engaged in meaningful conversations with providers and researchers about their most pressing healthcare questions. In addition, research questions arising from patients and parents, in collaboration with clinicians and researchers, are more likely to be relevant and accepted by them. The objective of this study was to develop priority areas for patient-centered outcomes research (PCOR) related to child health issues within a statewide pediatric PBRN, in collaboration with parents, clinicians and other stakeholders.

METHODS:

In 2015, we interviewed 29 parents, 12 adolescent patients, and 12 child health stakeholders (clinicians, public health, payers, policymakers, advocates) in Colorado. Interviewees represented geographic, socioeconomic, racial/ethnic, and language diversity. Questions covered child health issues including personal healthcare experiences, conditions affecting the interviewee and their community, and the healthcare system. Interviews were recorded, transcribed, and placed into ATLAS.ti. As interviews were conducted, they were reviewed for the emergence of key topics and themes. We stopped interviewing when saturation was reached. Analysis followed an editing approach focused on identification of priority health topics and health care processes. Parent advisors participated with researchers in coding and analysis of transcripts. PBRN research staff then collaborated with a Network Advisory Board consisting of parents and stakeholders to set criteria for and identify six issues of highest importance to the network. Criteria for priority issue selection included the salience of the issues to stakeholders, the presence of passion or energy around the topic as evidenced in interview transcripts, the feasibility of researching the topic, and the emergence of potentially acceptable solutions raised by interviewees.

RESULTS:

Preliminary analyses identified the following priority topics: mental health, parent and adolescent education on childhood health, care coordination, immunization rates and refusals, patient-provider relationships, and provider-to-provider communication. Other specific health issues that emerged as concerns were childhood obesity, sexual health, early childhood education, food and nutrition, allergies, and drug use. There were some differences between stakeholder groups. Rural parents and parents of children with special health care needs were more concerned about access to care and resources and about provider-to-provider communication and coordination. Urban parents expressed more concerns about patient-provider relationships and pediatric mental health access. Spanish-speaking parents also identified the patient-provider relationship as a key priority. Together, PBRN staff and the Network Advisory Board identified six primary areas of priority for pediatric research based on the criteria set by PBRN staff and stakeholders:

- Access to and availability of care - opportunities for telehealth, email, or other innovations
- Coordination of care with and among specialists and primary care pediatricians (especially for children with special health care needs)
- Immunizations and vaccines - Colorado's low vaccination rates
- Pediatric mental health - coordination, communication, and/or integration with primary care pediatricians
- The doctor-patient relationship in pediatric settings - ways to improve it
- Training parents (or adolescent youth) as advocates for care with a goal of better health

A number of specific health topics were excluded from this priority list based on lack of stakeholder energy around an issue or lack of potential research questions suggested by interviewees. Other key health issues were viewed as aspects of the selected priority areas, but did not emerge as priority research areas in their own right.

CONCLUSION:

Parents, adolescent patients, and stakeholders identified a wide variety of issues in need of research, with some differences by group. Priority research areas for parents and other child health stakeholders represent both individual and systemic issues. Future work will focus on collaborating with these groups to develop answerable patient-centered outcomes research questions within the identified priority areas.

P39: Personalized Prescribing in Primary Care

Martin Dawes, MB.BS, FRCGP, MD; Diana Dawes MSc; Hagit Katzov-Eckert PhD; Martin N. Aloise BSc; J. Sidney Ang MSc; Pieter Cullis Ph.D., FRSC; Robert Fraser PhD; Andrea Paterson BScPharm, RPh; Paul Stanley MB.BS; Adriana Suarez-Gonzalez MSc

BACKGROUND:

Due to the imprecision of prescribing, personalized medicine which includes pharmacogenetics is an international "hot topic". Fifty per cent of prescribed drugs are ineffective for the individual, 35% of prescriptions are inappropriate, 14% are high risk, and adverse drug reactions are the 4th leading cause of death in the USA. Trial and error prescribing is used due to inability to predict who will benefit from medication and who will be harmed by medication. Pharmacogenetics has the potential for improving the efficacy of drugs and reducing the incidence of drug adverse events. Pharmacogenetics, if integrated into care, should lead to an improvement in the quality of care and quality of life of the population. There will also be cost savings for the healthcare system. For a healthcare professional to integrate pharmacogenetics into their care there needs to be a streamlined process.

SETTING & PARTICIPANTS:

Five physicians and one pharmacy were recruited from six primary care settings. They enrolled adults at least 18 years of age, who were not pregnant or breastfeeding and had a diagnosis of gout, chronic obstructive pulmonary disease, migraine, depression, osteoarthritis, hypertension, hyperlipidemia, atrial fibrillation, osteoporosis and/or epilepsy.

METHODS:

Prospective cohort study design. A primary care pharmacogenetic panel of 33 SNPs was developed. Non-disruptive software that operates within a physician's workflow and timeline was developed with a health technology design team. After genotyping, genotypic data was linked to the web-based decision support system. The primary end point was ability to obtain and genotype samples. The secondary end points were yield and purity of DNA samples, ability to link results to decision support software, use of the decision support software, and feedback from users.

RESULTS:

A system was built that starts with all the possible option pathways for treatment and results in a list of optimal, individualized drug therapy options. Based on the highest levels of evidence these drug options are already adjusted for renal and hepatic function, comorbidities, concomitant medications, and genetics. Family physicians and pharmacists recruited 191 patients. Genotyping resulted in 189 (99%) patients with pharmacogenetic reports linked to the decision support program. At least one actionable genotype for medications included in the decision support system was found in 96.8% of samples. Single variants were seen in 24.3% of patients, 35.1% had two variants, and 37.3% had three or more of the variants tested. The physicians, pharmacists and support staff used the software to review the patients' therapy for one or more condition and then provided feedback about the process. The medication support system was used by the physicians and pharmacists 236 times over a period of three months. These health professionals stated that the clinical decision support makes it easy to incorporate genetic information into decision-making and helps reduce inappropriate prescribing. Patient feedback was positive with statements including, "Its amazing to see how beneficial this can be", and "I'm experimenting with something that isn't on the list and sure enough, I'm not noticing any difference with it." Given the finding that 96.8% of patients had at least one actionable pharmacogenetic variant, and a 5000 patient US study where 96% had actionable pharmacogenetic variants, it is likely that future studies will demonstrate similar numbers. The high proportion of patients with actionable genotypes, coupled with the fact that 11% of Canadians aged 45 to 64, and 30% of seniors aged 65 to 79, take at least five prescriptions drugs concurrently indicates that pre-emptive administration of a pharmacogenetic test has enormous potential.

CONCLUSION:

This is the first time a multi-drug, multi-condition approach has been used in primary care including both family physician offices and a pharmacy. It is feasible to recruit patients, obtain saliva samples, extract DNA, genotype, and use a medication decision support system to translate patient genotypes into condition-based medication options. Pharmacogenetic testing should be part of preventive medicine; if every person is tested prior to a need for medication, when the need for medication arises there would be no need to delay medication or give medication blindly whilst waiting for a test result.

P40: Predictors of Care Management Needs in Primary Care: Results from a CaReNet Card Study

Matthew Simpson, MD, MPH; Aimee English, MD; Jodi Summers Holtrop, PhD; Kyle Knierim, MD; Adlei Carlson, BS

BACKGROUND:

As primary care delivery continues to evolve to meet the comprehensive health needs of a growing population living with chronic conditions, primary care practices are expanding to include a variety of care team members such as behavioral health specialists, care managers, nurse educators, social workers, and more. Primary care providers play an important role in connecting patients with the cluster of services provided by these care team members both through individual patient referrals or through population health strategies. As practices often struggle to determine the best strategy for allocation of care management resources, understanding the prevalence, availability, and the predictors of care management needs is imperative.

METHODS:

A card study was implemented in two family medicine residency clinics (one university-based and one community-based, university-affiliated). Providers completed a card on all non-pregnant adult patients seen during 9 half-day clinic sessions at each clinic. Cards included the following items: patient demographic data (age, sex, insurance type), reason for visit, chronic illness diagnoses, presence of continuity relationship, perceived patient care management needs and level of availability per need identified. The prevalence and availability of each care management need was calculated. Regression models investigated the association between demographic variables, visit type, chronic illnesses, and the presence of a continuity relationship for both total number of care management needs and each individual care management needs.

RESULTS:

The overall response rate was high (471/478 or 98.5%). The patients from the community-based clinic were older (50 vs. 47 years, $P=0.03$), less likely to have private insurance ($P<0.01$), had less continuity with their primary care provider (39% vs. 57%, $P<0.01$), and were more likely to have hypertension ($P=0.03$), obesity ($P<0.01$), or tobacco/substance abuse ($P=0.04$). The mean number of care management needs were similar between the two clinics (1.98 vs. 1.94). More care management needs were identified when the purpose of the visit was chronic illness management (RR = 1.75, $P<0.01$). The chronic conditions most strongly associated with a higher number of care management needs were mental health conditions (RR = 1.72, $P<0.01$), tobacco or substance use disorders (RR = 1.58, $P<0.01$), diabetes mellitus (RR = 1.44, $P<0.01$), and obesity (RR = 1.29, $P=0.014$). The providers in both clinics identified mental health services (35%), self-management support/behavior change (32%), and care coordination between settings or providers (26%) as the top three needs. Patients with a mental health condition, tobacco or substance use disorder, or a diagnosis of chronic pain were more likely to be identified as needing mental health support. Similarly, patients identified as needing self-management support were more likely to use tobacco or other substances or have obesity or diabetes.

CONCLUSION:

The card study methodology is well suited to determining the prevalence and availability of provider perceived care management needs of patients in primary care practices. It can also elucidate the basic relationships between clinical comorbidities and the number and type of perceived additional health needs. Understanding the predictors of specific care management needs may assist in the implementation of care management programs in primary care clinics.

P41: Primary care "measures that matter" to front line clinicians

Rebecca Etz, PhD; Marshall Brooks, PhD; Martha Gonzalez, BA; Melissa Hayes, BS; Heather Librandi, BS

BACKGROUND:

With the passing of the MACRA, federal agencies and insurers are increasing their efforts to identify and implement a parsimonious, meaningful set of primary care measures. More work is needed to ensure that the measures adopted are aligned with the work of personal doctors and the triple aim.

SETTING & PARTICIPANTS:

Virtual primary care networks and social media. 12,000 identified individuals and others reached through targeted social media venues.

METHODS:

Crowd-sourcing and member-checking surveys. Data from first survey twice analyzed: once using a template method with codes derived from common conceptual models, such as the PCMH and the Chronic Care Model; once using an emergent process based in grounded theory. Two web-based surveys. First one asked "how do you know good care when you see it." Second survey used to member-check findings. For element identified through survey 1, survey 2 asked: 1) how important is it, 2) how important is it to you, and 3) are you currently able to measure it.

RESULTS:

Template-based coding (94 codes) of 450 responses to survey 1 identified less than 50% overlap between what is commonly measured and what front-line clinicians identified as foundational to good care. Emergent coding identified 19 foundational elements as identified by respondents. Member-checking survey validated our findings, identified important gaps in current primary care assessment as well as a surprising number of practices invested in measuring elements not required by regulators.

CONCLUSION:

Crowd-sourcing allowed incorporation and engagement of diverse, largely non-academic perspectives. It was also effective in identifying a parsimonious set of elements useful for developing the measures in which primary care, CMS and AHRQ are investing.

P42: Provider Recommendation for Massage Card Study

Diane Mastnardo, BS, LMT; Jeanmarie Rose, MPA;

BACKGROUND:

Communication between massage therapy patients and their medical providers has not been widely described, especially with respect to healthcare in the United States. We examined how often massage therapy patients tell their medical providers about their treatment or are recommended for treatment by them, and which type of providers recommend massage most often.

SETTING & PARTICIPANTS:

Participation in the card study was open to any active licensed massage therapist (LMT) member of the Massage Northern Ohio Practice-Based Research Network (MNO-PBRN), a practice-based research network of LMTs in Northern Ohio.

METHODS:

A cross-sectional descriptive study by licensed massage therapists (LMTs) in a practice-based research network in northeast Ohio. For consecutive, non-repeating visits to their practices, each LMT completed up to 20 cards with information on the patient and visit. Analysis compared visits for patients based on whether they reported telling their health provider about their use of massage therapy or being recommended for massage by a health provider. Descriptive statistics were used to examine the distribution of key outcome and predictor variables. Percentages were calculated for categorical variables. Pearson's chi-squared test (χ^2) for independence was conducted to determine whether there was any significant association between categorical variables.

RESULTS:

Among 403 visits, 51% of patients had told their primary care clinician about seeing a LMT, and for 23%, a health care provider had recommended visiting a LMT for that visit. Patients who told their primary care provider that they use massage therapy were more likely to be established patients, or to be seen for chronic or neurological complaints. Visits recommended by a physician were more likely to be for chronic conditions.

CONCLUSION:

This information will help LMTs target and inform patients about the importance of talking with their healthcare providers about their use of massage and provide LMTs with a starting point of which types of health care providers already recommend massage which will further dialog about the integration of massage therapy in conventional healthcare. This working relationship would be mutually beneficial as LMTs gain access into healthcare, providers will be able to gain more understanding of the mechanics and therapeutic applications for massage.

P43: Stakeholder Engagement to Understand Relevance of Virginia's Opioid Use Epidemic to Primary Care Practices

Sebastian Tong, MD, MPH; Paulette Kashiri, MPH; Alex Krist, MD, MPH

BACKGROUND:

Virginia is facing an unprecedented opioid crisis with a 38% increase in opioid overdose deaths between 2012 and 2014. The opioid crisis has implications on chronic disease outcomes, infectious disease incidence, communities and families. While many regions of Virginia have limited access to specialty addiction treatment services, primary care clinicians are well-distributed and could collaborate with behavioral health clinicians to address opioid use disorder and its adverse health outcomes. Our stakeholder engagement process sought to understand barriers to addressing opioid use disorder in primary care and sought to identify ways to overcome these barriers.

METHODS:

We developed a one-page brief to summarize the Virginia opioid epidemic and propose potential studies to better understand and address this epidemic in primary care practices. The 130 practices in our practice-based research network (PBRN), the Virginia Ambulatory Care Outcomes Research Network (ACORN), were surveyed to query current screening and treatment practices for substance use, barriers to improving substance use care and perceived needs to improve substance use care. We also talked with state policy makers, family medicine leaders and other academicians about addressing substance use in primary care. Based on these engagement efforts, the research proposal was then updated and shared with our ACORN partner advisory board, consisting of clinicians, researchers and practice managers across Virginia, to provide feedback.

RESULTS:

64.2% of survey respondents (n = 53) indicated that their practices screened for substance use disorder. Those who did not routinely screen for substance use identified lack of time, lack of evidence or perception of substance use not being a problem within the practice population as reasons they did not screen for substance use. Needed resources identified by respondents included improved coordination with community referral and treatment resources, electronic health record integration and validated screening instruments. An emerging theme of integrating population health metrics on opioid use, including controlled substance prescribing patterns and opioid overdose rates, was identified. Preliminary county level maps of opioid overdose death rates and controlled substance prescribing rates were then shared with ACORN board members who provided feedback to help shape a research proposal.

CONCLUSION:

Engaging PBRN stakeholders to address the Virginia opioid use epidemic within primary care can help shape research questions and interventions that are better received in primary care practices. In our case, using feedback from PBRN stakeholders, we reshaped our research directions from a study examining the implementation of substance use screening to a study mapping the integration of opioid use public health data with clinical data from primary care practices.

P44: The Formation of BRAIN (Behavioral Research and Innovation Network), a Community Psychiatry Practice Based Research Network (PBRN)

Kathleen A. Clegg, MD; Andrew Hunt, MD, MHA; Christina Delos Reyes, MD; Maureen Sweeney, NP, Debra Hrouda, Ph.D., Maureen Riley-Behringer, Ph.D, MSSA, LISW-S, Rachel Martukovich, MA, James J. Werner, Ph.D., MSSA

SETTING & PARTICIPANTS:

Community Psychiatry program within a university academic Department of Psychiatry

NEEDS & OBJECTIVES:

1. Identify reasons that a PBRN is particularly well suited to practitioners in Community Psychiatry settings 2. Outline the process, timeline and resources involved in establishing a community psychiatry PBRN 3. Describe possible research methodologies that can be implemented in the PBRN, which are conducive to real-life clinical community psychiatry practice

DESCRIPTION:

This presentation will describe the rationale, methods, and enabling factors in development of a PBRN in a Community Psychiatry program within a university based academic Department of Psychiatry, and in the implementation of its initial multi-site card study.

EVALUATION:

At University Hospitals Case Medical Center, the PBRN known as BRAIN (Behavioral Research and Innovation network) was built upon a robust Community Psychiatry program within an academic Department of Psychiatry. An evaluation of the process indicates that numerous factors supported the development of BRAIN and the successful implementation of its initial multi-site card study. These include engaging a Department Chairman who is a Community psychiatrist, having a long-standing collaborative relationship between University Hospitals Case Medical Center and the Alcohol Drug and Mental Health Services Board, and accessing research expertise and assistance from the PBRN Shared Resource at CWRU.

DISCUSSION/REFLECTION/LESSONS LEARNED:

Community psychiatry practices and clinicians readily engaged in the development of a new community psychiatry practice PBRN and in the development and implementation of its initial card study. The PBRN model appears to be a good fit for community psychiatry practice, and the card study method was concordant with the workflow of community psychiatrists. Facilitating factors were the consistent participation of community psychiatry faculty with strong linkages to community psychiatry practices, enlistment of the Department Chair's support and buy-in to the PBRN concept, supportive institutional relationships, maintaining the network's momentum through weekly meetings, and obtaining assistance and guidance from experienced PBRN investigators.

P45: The Ohio Automated Rx Reporting System (OARRS) Card Study

Andrew Hunt, MD, MHA; Kathleen Clegg, MD; Maureen Riley-Behringer, PhD, MSSA; Christina Delos Reyes, MD; Deborah Hrouda, MSSA, LISW; Rachel Martukovich, MA; James Werner, PhD, MSSA

BACKGROUND:

Prescription drug abuse is the leading cause of accidental death in the United States (U.S.) with drug overdose continuing to grow at epidemic proportions. Ways in which local, state and federal agencies have attempted to fight this issue have been through policies and programs like prescriber education, drug take-back programs, and Statewide Pharmacy Monitoring Programs (PMPs). PMPs have also been categorized as a way to improve patient care like serving to aid the provider in more readily identifying patients' needs for mental health and addiction service referral, confirming whether patients are being prescribed unsafe medication dosages, or whether they are at risk for deadly drug combinations. Ohio recently implemented law to mandate the use of a PMP, called OARRS, which has been available but not mandated for 5 years. The use of OARRS is correlated with significant changes in prescription drug "doctor shopping", by recent statewide report data. Study Hypotheses: Outpatient psychiatrists/APNs at CMHC Outpatient mental health practice psychiatrists/APNs are: less likely to prescribe controlled substances for a patient/client for whom they have run an OARRS report. Less likely to increase an existing controlled substance prescription for a patient/client for whom they have run an OARRS report. Less likely to prescribe a controlled prescription when a patient's/client's OARRS report denotes the presence of "red-flag" information.

SETTING & PARTICIPANTS:

Psychiatric Prescribers at Five Community Mental Health Centers (CMHCs), in the Greater Cleveland Area

METHODS:

All participants completed a pre-study survey of attitudes toward OARRS. After consent, each prescriber completed up to 8 data collection cards with de-identified data immediately after eligible patient visits as part of their routine charting. Psychiatrists and ANPs were asked to record the number of patients seen during the period of data collection. The cards were completed at 5 Cleveland Area CMHCs.

RESULTS:

Results are pending completion of the data collection phase in May 2016. Preliminary results will be presented at the conference. Survey Variables recorded include: Provider Demographics (Age, Gender, Prescriber type, Experience, Race/Ethnicity), and Attitudes toward mandated PMP use (Ease of Access, Burdensomeness, Ease of Interpretation, Helpfulness, Confidence in Accuracy, Overall Satisfaction). Card Data Variables included: Patient Demographics (Gender, Age, Race/Ethnicity, Duration of Treatment), Relevant Diagnoses, Adherence to Treatment, Characteristics of OARRS Report Practice (Reason for Checking, Red Flags, Sharing Data with Patient, Impact on Decision-making, Preference of Timing of checks, Final Prescribing Decision). Data analysis will involve testing for possible associations between provider attitudes, patient characteristics, OARRS practice characteristics, and prescribing outcomes.

CONCLUSION:

These findings will inform psychiatric prescribers as to ways that their attitudes towards the OARRS system and their review of OARRS reports may benefit/hinder the treatment they provide patients. Additionally, this information will educate the Ohio Board of Pharmacy, the governing body responsible for OARRS report management and oversight as to whether prescribers are following OARRS-related policy mandates by the State of Ohio. This will be the first study of a mandated PMP environment, which other states may be able to extrapolate predictively to other medical providers.

P46: The quality of life of children under chiropractic care in a practice-based research network: the use of the PROMIS-25

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

BACKGROUND:

Traditional outcome measures such x-rays and laboratory tests arguably have minimal impact and relevance in the day-to-day experience of patients while patient reported outcomes provide personal and social context in the everyday life of individuals. Chiropractic is a popular and highly utilized alternative therapy for children. Despite chiropractic's advocacy for a wellness approach to patient care, demonstrable effectiveness in increasing the quality of life of patients requires further investigation. To address this deficit, we examined the quality of life of children under chiropractic care in a practice-based research network (PBRN).

SETTING & PARTICIPANTS:

Parents and their children (i.e., 8-17 years old) under chiropractic in a PBRN.

METHODS:

This study was approved by the Institutional Review Board of Life University (Marietta, GA, USA). In addition to socio-demographic information and clinical correlates from the history and physical examination, the PROMIS-25 were completed by the children (i.e., age 8-17 years) to measure the domains of physical functioning mobility, anxiety, depressive symptoms, fatigue, peer relationships, pain interference and pain intensity. The survey instruments were pilot tested and implemented as an online questionnaire without difficulty. The socio-demographic and clinical correlates information was analyzed using descriptive statistics. The PROMIS-25 data was analyzed using the PROMIS Assessment Center, a free, online data collection tool. T score metric is provided for each domain, 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.

RESULTS:

Parent responders numbered 881 parents (747 females; 150 males) with an average age of 42.03 years and highly educated. Eighty six percent had some college or higher level of education. Eighty percent (N=702) of parents were concurrently under chiropractic care with their child. Wellness care and to relieve symptoms (N=601) followed by wellness care (N=157) and to relieve symptoms (N=133) were indicated motivations for care. The majority of parents (N=511) indicated that their MD was not aware of the chiropractic care their child received, 353 were aware while 17 were aware and referred the child for chiropractic. The majority of children (N=939) did not require visit(s) to the ER in the past 3 months for their presenting complaint. The children ranged in age from 8-17 years (N=881; 467 females; 414 males) with a mean age=12.49 years.. With respect to their quality of life, statistically significant changes in mean T score were found (see Table 1) such that mobility and peer-relationship scoring increased while anxiety, depression, fatigue and pain interference decreased with chiropractic care. The mean pain intensity rating from baseline to comparative decreased from 2.97 to 2.27. A paired t test found this decrease to be statistically significant ($t=5.905; df=871; p<0.0001$). The mean number of chiropractic visits at baseline PROMIS measurement was 20.53 (median=1; mode=1; SD=58.16) and at comparative was 23.52 (median=6; mode=2; SD=58.31).

CONCLUSION:

The PROMIS-25 questionnaire for children was successfully implemented within a chiropractic PBRN. Following a trial of care, their quality of life improved.

P47: The Quebec Practice-Based Research Network: a portrait of service users and their requests

Lilianne Bordeleau, M.A.; Isabelle Samson, MD; Vanessa Serrano, MD; France Legare, MD

SETTING & PARTICIPANTS:

The Quebec Practice-Based Research Network (QPBRN) is dedicated to strengthening primary care research and knowledge transfer. The network brings together patients, clinicians and researchers with the goal of answering clinical questions generated in practice settings. All researchers requesting use of the network's services complete a form that gives a description of their project's objectives, methods, funding, start and end dates, need for resources in clinical settings, healthcare professionals targeted, and proposed advantages for the practice settings. Researchers describe what they need from the PBRN and send all relevant documentation to the network. All requests for services submitted to the PBRN by researchers between January 1 and December 31, 2015, were examined. The data was collected in a structured table. A descriptive analysis of completed forms was performed.

NEEDS & OBJECTIVES:

One of the Network's objectives is to attract more researchers and new projects so that it can offer a wider variety of services and promote further research activities in practice settings. We therefore sought to identify the institutional affiliations and evaluate the needs and expectations of researchers requiring services from the PBRN.

DESCRIPTION:

The following variables sought by the form were examined: university affiliation of researcher, research project methodology, available funding, what the researcher needed from the PBRN, needs in terms of resources in clinical settings, number of clinics required, nature of support required and the type of healthcare professional involved.

EVALUATION:

The PBRN received 13 service requests from 12 researchers (one researcher made two requests). Most of the researchers were from Université Laval (83.3%). Most requests were made with a view to obtaining a letter of support from the PBRN in preparation for a grant proposal (92.3%). In terms of the needs regarding clinical settings, researchers needed team participation in data collection for their projects (100%). All requests for material resources (23% of researchers) were for access to premises. Mixed methods were most common (53.8%). Once they had been awarded grants, researchers were looking for clinics whose teams were interested in participating in their project (46.2%), while others sought urban clinics only (30.8%). The healthcare professional targeted in most cases was the family physician (92.3%).

DISCUSSION/REFLECTION/LESSONS LEARNED:

Service requests are mostly made when researchers are preparing grant applications, with the aim of obtaining a letter of support and facilitating contact with practice settings. Once a grant is awarded, researchers seem less interested in being accompanied by the PBRN in their projects. Efforts should be made to attract new researchers to the network, especially by promoting the services the PBRN offers to researchers, especially before they make their grant applications. Efforts should also be made to identify the needs of primary care researchers and expand the PBRN services to meet their needs and possibly to improve the knowledge transfer in practice settings.

P48: The Reach of Practice-based Research Networks: ORPRN's "Four Pillars Model"

Lyle J. Fagnan, MD; Anne King, MBA; Caitlin Dickinson; Maureen Sweeney, NP, Debra Hrouda, Ph.D., Maureen Riley-Behringer, Ph.D, MSSA, LISW-S, Rachel Martukovich, MA, James J. Werner, Ph.D., MSSA

SETTING & PARTICIPANTS:

Has the past due date occurred for practice-based research networks (PBRNs) as primarily research organizations? Over the past year, ORPRN has transformed from "a research network into more of a multi-purpose network." Founded in 2002, ORPRN's goals and objectives are to conduct research that fosters an understanding of health care values, dynamics, structure, and the contributions of rural clinical practices; and improves primary care by sharing and generating evidence-based knowledge. ORPRN, like other relationship-based organizations, bases its success on its ability to recruit, engage, and retain primary care clinicians and their practices. However, in recent years ORPRN faced three main challenges. First, physician-owned, independent practices in Oregon declined from 80% to 40%, with health systems and local hospital districts now employing many ORPRN clinicians. Second is the paucity of funding for clinical studies in primary care settings. Finally, since many practices prioritize health care reform, meeting medical home standards and the requisite reporting of quality metrics alters practice workflow and staffing needs. Given the limited physician bandwidth for engaging in activities outside of delivering direct clinical services, some practices choose to participate in learning collaboratives that will enhance their ability to meet medical home and quality of care standards instead of clinical research projects.

NEEDS & OBJECTIVES:

In order to remain relevant to our practices and community stakeholders, ORPRN evolved from a research network into a multi-purpose resource network.

DESCRIPTION:

ORPRN has responded to health care and clinical practice environmental changes by creating the "Four Pillars Model" to clarify its organizational framework to include community engagement, practice transformation, research, and education. The "Four Pillars Model" demonstrates ORPRN's wide range of activities including developing community capacity for research, providing technical assistance and quality improvement resources to aid practice redesign, delivering education and skills training for practices to become medical homes, disseminating best practices to practices and communities, and linking health professional schools to practices.

EVALUATION:

Community Engagement - ORPRN has moved beyond individual clinical practices to become a community-based network. ORPRN is currently working on five community engagement projects. Practice Transformation - Health care reform occupies the limited discretionary time and energy that primary care practices have available for PBRN research studies. In an effort to facilitate future clinical research projects and maintain practice relationships, ORPRN developed the PERC model into a robust program for quality improvement and technical assistance in practice redesign. ORPRN currently has twelve practice transformation projects. Research - For the past 13 years, clinical research questions have been the foundation of ORPRN. Fifteen of ORPRN's current studies are research-based. Education - PBRNs are involved in education at the practice, community, and institutional levels. Many of our studies focus on dissemination and implementation of "best practices" and over half of ORPRN's practices teach students. ORPRN is currently working on seven education initiatives.

DISCUSSION/REFLECTION/LESSONS LEARNED:

The "Four Pillars Model" is ORPRN's approach to making sense of the work we do. The pillars are interconnected, and are deemed critical for ORPRN's success. ORPRN's approach to current clinical practice and the health care environment represents its ability to demonstrate the key attributes of a successful PBRN: agile, relevant, and responsive.

P49: Use of Appreciative Inquiry to Identify Themes in Success Stories of Practice Transformation

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

BACKGROUND:

While an increasing number of primary care practices are undergoing practice transformation efforts toward the patient centered medical home (PCMH) model, which can support the quadruple aim of improved patient care, improved population health, reduced costs, and provider resilience, many practices are hesitant to engage in practice transformation or unsure of what success requires and means for their practice. Appreciative Inquiry (AI) is an approach that explores what works in an organization or process and identifies specific elements of successful solutions, rather than focusing on challenges or areas of deficiency. Boot Camp Translation (BCT) takes health information or guidelines and translates these into concepts and tools that patients and community members hold for medical conditions. This study tests the combined use of AI with BCT to help identify patterns of success in the practice transformation process and develop messages and materials for dissemination to support other practices interested in undergoing transformation.

SETTING & PARTICIPANTS:

Researchers at the University of Colorado Department of Family Medicine recruited providers and staff from primary care practices in the Denver, Colorado metropolitan area with NCQA PCMH Recognition to participate in AI interviews.

METHODS:

The study team developed a semi-structured interview guide using the AI framework to elicit success stories related to practice transformation. Interviews were designed to focus on a specific successful narrative or "aha moment" related to transformation as identified by the informant. Teams of two interviewers probed for details regarding elements of success, such as the steps leading up to the success, team members involved, support or resources available to facilitate the success, and staff and provider reactions to changes; all focusing on the positive aspects of the transformation process and results. Interviews were conducted at practices and lasted 20 - 30 minutes. New interviews continued until subject and theme saturation was reached. Interviews were audio recorded, transcribed for analysis, and supplemented by detailed notes. Transcripts were loaded into ATLAS.ti Qualitative Data Analysis & Research Software and analyzed by a team of researchers utilizing a grounded hermeneutic editing approach.

RESULTS:

19 interviews representing 6 primary care practices in the Denver, Colorado metropolitan area were conducted, with representation from Family Medicine and Internal Medicine, system- and privately-owned practices, and residency practices. Informants included medical practitioners, medical assistants (MA), behavioral health providers, and administrative staff. Notable themes that arose from success stories of practice transformation were the significance of the MA role, key practice- and individual-level characteristics including trust, openness to change, or leadership with a vision for transformation; the use of direct communication between the practice (MA, nurses, staff, etc.) and patients, implementation of consistent workflows, the importance of the physical design of space in the practice to communication and workflows, and shifting attitudes through turnover, intentional recruitment, and the passage of time.

CONCLUSION:

AI elicited meaningful themes about successes in the practice transformation process. A partnership of study team members and practice staff from non-PCMH practices will partner in a BCT, using these AI data and themes to help guide other practices that wish to move toward the PCMH model.

P50: Using Consolidated-Clinical Document Architecture (C-CDA) for PBRN Quality Reporting

Cara Litvin, MD MS; Mark Daniels, PMP, FHIMSS; Vanessa Congdon, MSPH; Ruth G. Jenkins PhD, Steven M. Ornstein MD,

SETTING & PARTICIPANTS:

PPRNet, administratively housed at the Medical University of South Carolina (MUSC) with member practices nationwide

NEEDS & OBJECTIVES:

PPRNet is a national primary care practice based research network among practices using electronic health records (EHRs). EHR data are extracted from participating practices and maintained in a longitudinal database, which is employed both for clinical quality measure (CQM) reporting and for assessing the impact of research projects. Historically, participating practices used a common EHR and data were obtained using a customized extract program. However, after Stage 2 Meaningful Use regulations required EHR vendors to implement consolidated-clinical document architecture (C-CDA) to facilitate health information exchange, we sought to develop a process for maintaining our longitudinal database through C-CDA documents generated by participating practices which would enable us to expand our network to practices using different EHRs.

DESCRIPTION:

Our goal was to develop a process to enable the collection of data from any practice using an EHR capable of batch exporting Summary of Care documents in C-CDA format as prescribed by Stage 2 Meaningful Use regulations. We developed three functional modules. The first module, an "upload utility" resides on each practice's workstation or server and securely transmits a batch of C-CDA documents generated by the practice to PPRNet. The second module, a "ripper," then parses the documents using C-CDA specifications and stores the data in associated database tables. Finally, an "aggregator" then extracts, transforms and loads the data into user accessible tables within a data warehouse. The data, which include both coded data in standard vocabularies including SNOMED CT®, RxNorm, LOINC, CPT®, and ICD-9 and 10 and un-coded (i.e. freetext) data, are then used to create CQM reports and for research purposes.

EVALUATION:

We have implemented this process among users of five different commercially available EHR systems. Although C-CDA are promoted as standards to allow seamless health information exchange, we have encountered several limitations using this approach to accommodate multiple EHR systems. First, C-CDA batch processing capabilities, if available, vary among EHRs. Second, although EHR vendors "technically" adhere to standards, the interpretation of C-CDAs standards varies among EHRs and even among users of the same EHR, requiring the development of custom vendor specific extensions to achieve data consistency. For example, discrete data are often stored in narrative sections, or the implementation of data hierarchies may be different between various C-CDAs. In addition, there is often a considerable amount of un-coded data contained in C-CDAs, requiring cross reference mapping to coded data elements. Finally, no single reference source includes all codes for the wide variety of data elements required for calculation of primary care CQMs, necessitating the manual development of robust value sets.

DISCUSSION/REFLECTION/LESSONS LEARNED:

Although custom programming is required to overcome many challenges, using C-CDA documents to maintain a longitudinal database is feasible and can be used to expand a practice-based research network.

P51: Using the Consolidated Framework for Implementation Research to Assess PBRN Practice Pragmatic Trial Readiness;

Kim S. Kimminau, PhD; Jennifer Brull, MD; Robert Kraft, MD; Edward F. Ellerbeck, MD, MPH; K. Allen Greiner, MD, MPH; Christie Befort, PhD

BACKGROUND:

Practice-based implementation studies are essential to translational research. The use of the consolidated framework for implementation research (CFIR) is ideal for formative evaluation. Evaluation research conducted during pragmatic trials can illuminate variability in protocol, workflow or guideline adoption to inform the practical aspect of translation. The extent that variation is systematic or unique informs the likelihood of trial success and subsequent.

SETTING & PARTICIPANTS:

The Rural Engagement in Primary care for Optimizing Weight Reduction (RE-POWER) study is a 36 site pragmatic trial comparing three models to treat obesity in rural primary care settings. The three models are operationalized as fee-for-service (modeled after CMS Intensive Behavior Therapy for Obesity), patient-centered medical home (enhanced access with group visits and care coordination), and disease management (centralized phone-based care). Randomization to the three arms occurred at the practice level. Sites include practices in Kansas, Iowa, Nebraska and Wisconsin. Participants in this initial CFIR evaluation include the lead physician and the site liaison responsible for the conduct of the study at each of the first cohort of sites (n=11 practices).

METHODS:

Using semi-structured questions, each of the participants was interviewed by telephone. The evaluator did not provide guidance in advance. Questions were constructed to follow the five major domains of CFIR (intervention, inner setting, outer setting, individuals involved, implementation process). Probes and follow-up questions reflected the various components of each CFIR domain topic. Immersion-crystallization produced key themes and variants.

RESULTS:

As early adopters, these practices were excited about participation and recognized their input was valued by the investigators for making modifications to study operating procedures related to practice workflow. Each site was satisfied with their randomization assignment; no sites dropped due to randomization. Site liaisons reported less knowledge about and ventured fewer opinions regarding anticipated success or failure of patient weight loss. Physicians were more likely to admit they had not yet reviewed the detailed information provided by the RE-POWER team compared to the site liaisons. Responses were characterized by three major themes: 1) high expectations in the upcoming training in obesity treatment guidelines and study protocols, 2) value in the establishment of a learning collaborative among participating practices, and 3) personal commitment to finding ways to improve support for weight loss among patients. Early indications of variability and challenges include that less than half of the practices had developed a workflow to enable communications between the study clinician and the patient's primary care physician. Sites also had not addressed how they would ensure that study data would be included routinely into the participants' EHR.

CONCLUSION:

The CFIR and early activation of study evaluation revealed challenges that once solved, will contribute to trial efficiencies as well as provide insights into more rapid dissemination and uptake upon completion. The research team can mitigate practice-level barriers with training and by encouraging peer-to-peer learning.

ONLINE RESOURCE:

<http://www.kumc.edu/school-of-medicine/preventive-medicine-and-public-health/repower/about-re-power.html>

P52: Visit Complexity and Medical Errors in Family Medicine Clinics: An RRNeT Study

Sandra K. Burge, Ph.D.; RRNeT Investigators, representing 11 different family medicine residency programs across Texas.

BACKGROUND:

Family Medicine is complex. In 2010, Katerndahl and colleagues used National Ambulatory Medical Care Survey (NAMCS) visit data to calculate complexity scores for family medicine as a discipline, combining information about reasons for visit, diagnoses, screening services, exams, medicines, procedures, nonmedical treatments, referrals, and patient demographics. Comparing these scores to Cardiology and Psychiatry, he found that Family Medicine dealt with more complexity, especially when considering family medicine's shorter visits. Why is complexity significant? One consideration may be its effect on patient safety and medical errors. The purpose of this study was to provide a comprehensive assessment of the complexity of patient visits to family medicine clinics and compare measures of visit complexity to the risk for medical errors.

SETTING & PARTICIPANTS:

Subjects and Setting: This study was conducted in 10 outpatient practices in the Residency Research Network of Texas, a network of 11 family medicine training programs. Investigators trained medical student researchers to observe visits and complete Visit Surveys on 100 consecutive patient visits, shadowing different doctors during each session. All visits with family physicians were eligible for the study, pending the patient's consent to be observed. Study patients included people of all ages, ranging from infancy to age 98. This study received IRB approval from the University of Texas Health Science Center at San Antonio and nine RRNeT hospital IRBs.

METHODS:

Study Design: This is a cross-sectional direct observation study of family medicine visits. **Outcome Measures:** Investigators used NAMCS methodology to record events during each visit. Visit Surveys documented visit duration, reason for visit, issues addressed, screening services, exams, medicines, procedures, nonmedical treatments, and referrals. For this analysis, complexity was assessed by number of reasons for visit, number of issues addressed, number of medications addressed, and duration of the visit. Student researchers also recorded medical errors using a lexicon for medical errors in outpatient visits (Elder et al 2004). Errors were recorded if they occurred during the visit (such as broken equipment) or 'discovered' during the visit (such as missing information).

RESULTS:

Students observed and recorded 982 family medicine visits. Of the patients, 61% were female, 54% were Hispanic, and 17% were African American. The median age was 51, with 16% under age 21, and 21% age 65 and older. Physicians spent an average of 17.7 minutes of face time with patients, and had an additional 14.7 minutes of administrative time per visit. On average, patients had 5.4 reasons for visit, and physicians addressed 3.7 of those issues, and reviewed/prescribed 4.8 medicines per visit. Immunizations were administered during 7% visits, and referrals made after 21% of visits. Five patients were admitted to a hospital. Student researchers recorded medical errors in 231 visits (23.5%); these were related to errors in diagnosis (13 visits), testing (32 visits), medications (51), treatments (12), charting (73), administrative problems (43) and communication problems (100). Errors were associated with more reasons for visit, more issues addressed, more medications, and more visit time ($p < .05$). Some patients experienced adverse effects: minor effects, requiring no treatment (38); moderate effects, requiring treatment (16), and serious effects, with permanent adverse effects (1). Students observed physician hassles related to medical errors, requiring more time to explain the issue to the patient (58 visits), needing to re-order or re-schedule tests (32), correcting the medication list (45 visits), and communicating with other entities (31 visits).

CONCLUSION:

Family Medicine is complex. Patients bring and family physicians address multiple concerns during a clinic visit. The strong association between visit complexity and medical errors is likely a two-way street. Managing complex patients can create a higher risk for errors. In addition, discovering medical errors can create more work for the physicians and increase the complexity of the visit.