P34 Evaluation of a Care Coordination Toolkit for Primary Care Providers who Care for Co-managed Veterans in a the Meta-LARC PBRN Center

NEEDS & OBJECTIVES:
The majority of veterans enrolled in VA, particularly those in rural areas, also see local non-VA providers. However, there have been few studies regarding facilitation of care coordination across systems. A collaborative effort was undertaken between the Veterans Rural Health Resource Center—Central Region and the Iowa Research Network (IRENE), a practice based research network (PBRN) of mostly rural primary care physicians (PCPs) across Iowa. This project explored perspectives of non-VA primary care providers that care for co-managed veterans around issues of care coordination. A toolkit was designed to address common communication and care coordination issues encountered by non-VA PCPs who care for veterans. The toolkit was evaluated within the IRENE network and refined. The number of co-managed veterans is on the rise and there was interest to disseminate the toolkit nationally, but more evaluation was needed. We set out to evaluate the content and utility of the toolkit in the Meta-network Learning and Research Center (Meta-LARC). As PBRN Centers have been recently developed, the process involved in administering such an evaluation to multiple PBRNs within a PBRN Center is discussed here.

SETTING & PARTICIPANTS
Meta-LARC is a PBRN Center funded in 2012 by the Agency for Healthcare Research and Quality made up 6 PBRNs with 533 primary care practices. PBRNs with a large proportion of physicians in rural practice were invited to participate.

DESCRIPTIONS:
Recruitment of PBRNs from Meta-LARC to participate in this project is underway. PBRN leaders were initially approached via the monthly conference call and invited to participate in the toolkit evaluation and survey. Through this forum, the Meta-LARC members gave feedback about the survey length and content as well as the importance of incentivizing members to participate based on their understanding of the project goals. The individual PBRNs were subsequently contacted and collaboration procedures were unique for each PBRN. Participating PBRNs were offered an administrative fee for participating in the study. A web-based survey has been built and will be sent to PBRN members according to individual PBRN guidelines. PBRN members will review a toolkit tailored to their geographic region.

EVALUATION:
Descriptive statistics will be calculated based on responses from each PBRN. We will compare participation across PBRNs with respect to differences in survey administration, geography, and incentive payment. Based on the results of the toolkit evaluation, the co-management toolkit will be refined; the goal is for the vetted toolkit to be disseminated on a national level.

DISCUSSION/REFLECTION/LESSONS LEARNED:
This was the first project of this kind presented to the center, and several lessons have been learned thus far. Future center-wide surveys might benefit from earlier collaboration with PBRN leadership. PBRNs might develop future internal guidelines about administrative fees. PBRN centers offer a convenient mechanism to glean the perspectives of a diverse group of primary care physicians.

PRESENTERS:
Anne Gaglioti, MD
Mary Charlton, PhD
Leigh Zisko, MPH
Ashley Cozad, MPH

P35 Evaluating Virtual Practice Facilitation and Practice Transformation in a Multi-site Trial to Improve Primary Care Providers' Recognition and Treatment of Chronic Kidney Disease (TRANSLATE CKD)

NEEDS & OBJECTIVES:
The TRANSLATE CKD study is an ongoing randomized-control trial that compares the effectiveness of computer-decision support (CDS) alone vs. CDS plus practice facilitation in implementing evidence-based care and improving patient outcomes for Stage 3 and 4 CKD patients in primary care practices. Mixed-methods process evaluation is being conducted to assess the impact of the virtual facilitation, the success of practice transformation, and identify barriers and facilitators to improving CKD care in primary care practices.

SETTING & PARTICIPANTS
44 primary care practices across the United States.

DESCRIPTIONS:
The process evaluation combines qualitative and quantitative data from multiple sources including site visits, local clinician champion interviews, TRANSLATE rubric scoring, and textual data. However, assessing virtual facilitation and academic mentoring presents a methodological challenge. These intervention elements are being evaluated by examination of all communication between the facilitators, academic mentors, and the practices, which include: database logs of all emails, phone calls and conferences with the practice and notes from all meetings. Evaluators code the database logs and use descriptive statistics to characterize the frequency of interactions and content of communications with the practices. Qualitative content is analyzed using immersion-crystallization to identify themes and trends. Analysis takes place on a quarterly basis, to better manage the large amounts of qualitative data, and to characterize shifts in the data over the course of the intervention period.

EVALUATION:
Preliminary data analysis has allowed for exploration of various methods of comparing these diverse data sources and has yielded some interesting findings. Some practices are more frequent users of facilitation and academic mentoring than others. The volume of contact appears to be highest around the times when project-generated data reports are available. There is significant content overlap between the various data sources. However, email communications focus mainly on logistical issues, such as scheduling (80% of code-able incidences), whereas the meeting notes contain more details about the progress and concerns of the practices. This underscores the importance of using data from multiple sources and adjusting the analytic approach for different data types to best understand the full scope of the facilitation.

DISCUSSION/REFLECTION/LESSONS LEARNED:
This data appears to adequately capture the virtual facilitation process and provides a rich picture of the ongoing process to improve CKD care in primary care offices. Process evaluation data will be compared to patient clinical data to characterize practices with better clinical outcomes. The following research questions will be considered: 1) were better performing practices higher users of facilitation and/or academic detailing? 2) were their interactions focused differently in terms of content? This will allow for an overall characterization, not only of the success of the intervention, but of the key factors that may have played a critical role in that success.

ONLINE RESOURCE URL (optional):

PRESENTERS:
Bonnie M. Vest, PhD
Blake Talbot, MPH
Linda S. Kahn, PhD
Charlotte Cipparone, BA
Chester H. Fox, MD

P36 PBRN Networks Conduct the Full Spectrum of Translational Research Studies of CA-MRSA Treatment and Recurrence in Community Health Centers

NEEDS & OBJECTIVES:
Methicillin-resistant Staphylococcus aureus (MRSA) skin and soft tissue infection (SSTI) in persons without previous healthcare exposure (CA-MRSA) is an emerging infectious disease. This project has built a community-engaged research and learning collaborative among Community Health Centers (CHCs), The Rockefeller University Center for Clinical and Translational Science (RU-CCTS), Clinical Directors Network (CDN), a practice-based research network (PBRN), and PBRN partners. We have developed infrastructure to conduct comparative effectiveness research (CER) and patient-centered outcomes research (PCOR) with embedded mechanistic studies of treatment, prevention, and molecular epidemiology.

SETTING & PARTICIPANTS
RU-CCTS, 2 PBRNs (CDN, STARNet), 9 CHCs (7 NYC-area and 2 in San Antonio TX) have followed 153 patients with SSTIs. Clinicians, clinical staff, laboratory and clinical investigators, as well as other stakeholders, held monthly meetings to discuss study design, implementation, present case studies, review current literature and interim results, plan study dissemination, and follow-up grant-writing activities.

DESCRIPTIONS:
Our team developed and implemented CDC guidelines training for clinicians and designed procedures for identification, consent, recruitment, specimen collection and transport, digital imaging acquisition, transmission, coding, and storage, conducted culture/sensitivity and molecular analyses, focus groups and transdisciplinary analyses of treatment by outcomes, and reviewed strategies to prevent recurrence. The REDCap data infrastructure included: clinical, imaging, treatment, microbiological, molecular epidemiology and clinical outcomes. As results showed 20% of SSTI wounds were located on areas (scalp, face, neck, hand/finger) visible to estheticians (barbers, beauticians, nail technicians, tattoo artists), the collaborative process was expanded to include public health outreach and education to estheticians working in the communities surrounding CHCs.

EVALUATION:
Of wound (40% MRSA+, 18% Methicillin-susceptible S. aureus) and nasal (16% MRSA+, 23% MSSA+) specimens, 12% had MRSA in both wound and nasal samples. Common MRSA clones were USA300 (85%), USA1100 (6%), NY/Clone V (ST8-SCCmecIVg) (4%), NY/Japan (ST5-SCCmecII) (4%). Patients received antibiotics and incision/drainage (I&D) (59%), antibiotics (25%), I&D (6%), or observation (3%); 3-month recurrence was 31% overall; by treatment, 7%, 39%, 0%, 67%, respectively. Of the nine barbershops/beauty salons (n=43 estheticians) that participated in the outreach and education pilot, we observed statistically significant increases in knowledge about infection prevention (8.6%, $p=0.0135$) and CA-MRSA risks (26.4%, $p<0.0001$), demonstrating the importance of extending public health education beyond healthcare settings. Ongoing stakeholder discussions have produced a convergence of interests in designing and conducting a CER/PCOR study to test interventions to reduce CA-MRSA re-infection. Responses from patient focus groups indicated that patients often agreed to participate in order to contribute to knowledge about CA-MRSA treatment, transmission and recurrence.

DISCUSSION/REFLECTION/LESSONS LEARNED:
This collaborative study demonstrates the feasibility of integrating the full spectrum of translational research, from the genetic determinants of antimicrobial resistance to treatment and patient-centered and clinical outcomes. This mixed methods study shows that CA-MRSA recurrence is both a patient concern and a microbiological, clinical and public health challenge. The predominance of recurrence among patients not receiving I&D confirms CDC guidelines, and the importance of reinforcing them among clinicians. Using this model of practicing clinicians, clinical, public health and molecular laboratory investigators, we have built the infrastructure to conduct rigorous, high quality experimental and observational research in clinical and community-based settings to study human pathogenic microbiota and the evolution of bacterial resistance to antibiotics, as well as studying clinician treatment behavior, patient antibiotic adherence and the home environment. This approach can accelerate the generation and implementation of new clinical knowledge and improve quality, patient safety and effectiveness of care. Based on this project, we have begun to apply the model to Hepatitis C research, providing public health outreach and education. Future studies will focus on whether: (1) interventions routinely applied in the hospital intensive care unit (ICU) setting to prevent the transmission of MRSA can be successfully applied in the home environment, (2) molecular analyses can predict future recurrence, and (3) this model for collaborative translational research applies to the prevention and treatment of viral diseases, as well as to resistant bacterial diseases.

ONLINE RESOURCE URL (optional):
www.CDNetwork.org/Rockefeller

PRESENTERS:
Jonathan N. Tobin, PhD
Rhonda G. Kost, MD
Alexander Tomasz, PhD
Nancy Jenks, NP
Christopher R. Frei, PharmD, MSc, BCPS

ADDITIONAL AUTHORS:
Shirish Balachandra, MD; Chamanara Khalida, MD, MPH; Brianna D'Orazio, BA; Tracie Urban, RN; Scott Salvato, PA; Claude Parola, MD; Rhonda Burgess, RN, BSN; Carmen Chinea, MD; Cameron Coffran, MS; Nonkulie Dladla, MD, MS; Rishika Budhrani, NP; Andrea Leinberger-Jabari, MPH; Mina Pastagia, MD; Teresa Evering, MD, MS; Maria Pardos de la Gandara, MD, PhD; Herminia de Lencastre, PhD, Barry S. Coller, MD; Liem C. Du, MD; Lucina B. Treviño, MD; Sylvia B. Treviño, PA-C

P37 Toolkit for Developing and Conducting Multi-site Clinical Trials in Practice Based Research Networks

NEEDS & OBJECTIVES:
Interest in pragmatic, multi-center clinical trials to answer questions in real world, community settings is growing. Primary care PBRNs are ideal settings for these pragmatic clinical trials (PCTs). The objective of this toolkit is to support an increase in the pool of academic investigators who understand PBRN infrastructure and who are comfortable working alongside primary care PBRNs to speed the adoption of the PCT as a research method.

SETTING & PARTICIPANTS
Collaborators from DARTNet Institute (DI) and the Clinical Translational Science Award (CTSA) PBRN Workgroup planned the development of this toolkit of resources for academic-PBRN collaborations, and held a workshop at the June 2013 NAPCRG PBRN meeting that solicited feedback from attendees on best practices for these collaborations.

DESCRIPTIONS:
DI and CTSA collaborators defined toolkit content, developed the toolkit components, and incorporated feedback received from colleagues in the PBRN and CTSA communities. By June 2014, the toolkit will be live on the DI website. The "Toolkit for Developing and Conducting Multi-site Clinical Trials in Practice Based Research Networks" includes a suite of Frequently Asked Question (FAQ) documents on 1)) Recruiting, Engaging, and Maintaining Practice Sites, 2) Communications, 3) Project Management, and 4) Budgeting. Other toolkit features include sample templates of materials useful to collaborations between academic teams and PBRNs, a glossary of terms describing PBRN research project teams, references, and links to other resources for working with PBRNs.

EVALUATION:

DISCUSSION/REFLECTION/LESSONS LEARNED:
The Toolkit for Developing and Conducting Multi-site Clinical Trials in PBRNs provides resources to guide academic investigators seeking to conduct PCTs in a PBRN setting, and to support PBRN directors and their teams in communicating their PBRN's project-specific needs with investigators.

ONLINE RESOURCE URL (optional):

PRESENTERS:
Laura-Mae Baldwin
Debbie Graham
Kristine Schmit
Rowena Dolor
Chet Fox

ADDITIONAL AUTHORS:
Wilson Pace wilson.pace@ucdenver.edu

P38 A Community-Based Participatory Approach to Connecting a Vulnerable Population to Primary Care and Social Services

BACKGROUND:
Traditional health service delivery models have had little effect ameliorating health disparities and improving access to care for vulnerable populations, particularly Hispanic immigrants. We partnered with stakeholders from a high-risk neighborhood to develop and host 5 Community Wellness Fairs (CWFs), which were staffed by volunteers, community organization representatives, and primary care providers who offered basic screening, lifestyle counseling, and education regarding availability of medical and social services. Our two aims were to: (1) characterize the health status of a predominantly immigrant Hispanic population with limited healthcare access; and (2) leverage on-site primary care screening and counseling to appropriately connect individuals with mental and physical health needs to primary care (PC) and social services (SS). To test the effectiveness of the second aim, we hypothesized that a greater percentage of participants with chronic disease would successfully connect with PC or SS as compared to those without chronic disease.

METHOD
Retrospective cohort study. Data were generated for analysis from an ongoing, NIH funded, prospective study. We used principles of Community-Based Participatory Research (CBPR) to engage stakeholders from within 2 high-risk census tracts and design the series of CWFs. 171 Hispanic participants were enrolled from the 5 CWF's and then followed prospectively for 1 year. We created a composite dichotomized variable (Chronic Illness Present vs Not Present). Presence of chronic illness was defined by any of the following: self-reported chronic illness; screening Systolic Blood Pressure (SBP) > 140; screening non-fasting Blood Glucose measurements (BG) > 125; or SF-12 mental health scores below the general population mean. The primary outcome (connecting with PC or SS) was examined by participant follow-up surveys, which included self-report of PC and SS utilization. Student t-tests were used to compare chronic illness status between participants who obtained PC or SS versus no services.

RESULTS
Of the 171 participants, 66% were female; the average age was 36 years; and the majority had an annual household income less than $20,000. 95% reported no health insurance and 84% did not have a primary care provider. 68 (39.8%) participants had chronic illness versus 103 (60.2%) with no chronic illness. In total, 127 (74.3%) participants connected with PC or SS after attending a CWF. Of the 68 patients with chronic illness, 52 (76.5%) obtained PC or SS. While in the group of 103 with no chronic illness, 75 (72.8%) obtained PC or SS. The difference in obtaining services between groups (chronic illness or no chronic illness) was not significant p=0.59.

CONCLUSION
Community Wellness Fairs are an effective mechanism for recruiting vulnerable participants from a high-risk neighborhood and connecting them with medical and social services. After attending the CWFs in this study, almost three quarters of participants were connected to such services. We expected a priori that those who were sicker would be more likely to connect with needed services; however, our results do not demonstrate a statistically significant difference between those with and without chronic disease and the rate of obtaining PC and SS. Indeed, we were unable to connect almost 25% of those we identified as having chronic disease with PC and SS, suggesting that additional barriers to access may be present. The next step in our research is to work with participants to better define these barriers and then use this knowledge to refine subsequent CWFs.

PRESENTERS:
Andrew McWilliams
Yhenneko Taylor
Claire Schuch
Brisa Urquieta de Hernandez
Heather Smith
Janni Sorensen

ADDITIONAL AUTHORS:
Maren Coffman, Laura Simmons, Owen J. Furuseth, Hazel Tapp, Thomas Ludden, Miriam Espaillat, Patricia Sanchez, Michael Dulin

P39 Understanding Parent-Pediatrician partnerships: The Factor Structure of the Parent Pediatrician Partnership Scale

BACKGROUND:
This study was conducted as the second phase in the development of the Parent Pediatrician Partnership Scale. Our objective was to identify the latent factor structure among thirty-eight items relating to partnership between parents and pediatricians and identify the parent/child characteristics that were associated with each factor.

METHOD
Thirty-eight items relating to partnership were administered to three-hundred and twenty five parents. The sample population was predominantly White (70.4%), had a family income of over $35,000 (50.6%), had at least some college education (70.4%), the child was brought to the index appointment by a guardian living in a married relationship (64.5%), and the index child was male (61.3%). About one-half of the parents were interviewed in a community practice (n=157; 48.3%) and the remainder in sub-specialty clinics located in a children's hospital (n=168; 51.7%). Six items were eliminated from the 38 item pool based on parents' uncertainty about what the items meant. The remaining 32 items were entered in a factor analysis that produced five clearly defined factors.

RESULTS
The factors included Parental Involvement (PI, 4 items), Pediatrician Sensitivity (PS, 7 items), Communication (Co, 4 items), Access (Ac, 2 items) and a broad Comprehensive factor (BC, 13 items). Examples from each of the factors are as follows: Parental Involvement - My pediatrician includes my recommendations about what should be included in a treatment plan; Pediatrician Sensitivity - My pediatrician treats my child and me with dignity; Communication - My pediatrician clearly explains what the treatment is; Access - I have easy access to my pediatrician's office and Comprehensive - My pediatrician makes sure that I really understand the problem/treatment. Using Chi-Square and T-tests, parent/child characteristics and their use of the practice or clinic were examined for their bivariate relationship with each factor. Chronic health problem, type of insurance, number of children, child having an IEP at school, child ethnicity, parental age, frequency of attendance and setting (community practice or sub-specialty clinic) were all associated with at least one factor.

CONCLUSION
Partnership between parents and their children's pediatrician involves several elements, including a pediatrician's willingness to provide a parent with the opportunity to be involved and a parent who follows-through on that opportunity. From parents' perspective the affective presentation of the pediatrician must go beyond just being friendly, and include their having a non-judgmental attitude, treating parent and child with dignity, and being sensitive to a parent's moods. Communication, access, and a somewhat undifferentiated group of qualities complete the view of partnership.

PRESENTERS:
Michael Dressing, B.S.
Greg Eberhart, M.D.
John Pascoe, M.D.
Richard C. Rapp, Ph.D.

P40 Back to the Future, With a Twist: Utilizing a PBRN for Real-Time Influenza Surveillance

BACKGROUND:
A core function of the first primary care practice-based research network in the US (The Ambulatory Sentinel Practice Network, or ASPN) was to perform disease surveillance in clinic settings. ASPN was created and functioned prior to the era of computing. Traditional influenza reporting methods are inherently delayed, as they require active submission of results. This can be a multi-step process in which lag-time is magnified, often delaying influenza trends by as much as 3 weeks. Given primary care practice-based research networks' (PBRNs) long history of disease surveillance, PBRNs are uniquely qualified to test a novel, real-time approach to influenza surveillance. This study sought to describe the feasibility of implementing and maintaining rapid influenza detection test (RIDT) analyzers connected to wireless routers in typical primary care settings. The wireless routers instantly transmitted RIDT results to a cloud-based server that was accessible to a state public health agency.

METHOD
Wisconsin Research and Education Network (WREN) staff installed rapid influenza detection test (RIDT) analyzers in clinics affiliated with WREN. Clinic providers and staff were briefly trained to identify eligible patients, and to collect and process anterior nasal samples using the RIDT analyzers. Patients of any age presenting with an acute (within 4 days of visit) respiratory infection with at least two of the following symptoms were eligible: fever, cough, sore throat, nasal congestion, and runny nose. RIDT results were automatically pushed to surveillance staff on a daily basis and analyzed weekly to identify trends at the clinic level, public health region, and for the entire state of Wisconsin. Aggregate results were also disseminated back to clinics on a weekly basis.

RESULTS
At least 2 clinics from each of the 5 public health regions in Wisconsin participated in the study, with a total of 16 WREN clinics installing an analyzer (one clinic dropped out as a result of staff turnover and time constraints). A median of 9 clinic members (range 3-38) per site were trained on the study protocol. Clinic demographics were quite varied, with differences noted in size, personnel, Institutional Review Board (IRB) status, laboratory infrastructure, and level of integration into health systems. These differences required tailoring of implementation strategies to each clinic and often required extended follow-up from study team members. To date, the median number of samples collected per clinic is 21 (range 1-175). Clinic participation in this study resulted in extremely early identification of the 2013-2014 influenza outbreak in Wisconsin. The time trend of the outbreak based on this system closely matched the patterns derived from other well-established surveillance systems in Wisconsin.

CONCLUSION
Despite the diversity and implementation challenges faced in participating clinic environments, real-time RIDT successfully allowed early detection of the 2013-2014 seasonal influenza outbreak. This project has implications for public health departments interested in detecting real-time trends. The diverse clinic environments seen in this project also highlights to manufacturers the importance of real-life testing (equivalent to effectiveness) in addition to analytic validity (equivalent to efficacy).

PRESENTERS:
Erin K. Leege
Amy L. Irwin
Kate Judge
Melody Bockenfeld
David L. Hahn
Jonathan L. Temte

ADDITIONAL AUTHORS:
Shari Barlow, Amber Schemmel, Emily Temte, Tom Haupt, Erik Reisdorf, Mary Wedig, Peter Shult, David Booker, and John Tamerius

P41 Drug sample use and management in eight academic family medicine teaching units affiliated to the University of Sherbrooke

BACKGROUND:
Drug sample (DS) use is associated with several issues in regard to optimal patient care and safety. No clear policy exists to define or regulate their management and their use in academic family medicine teaching units (FMTU). This study aimed to provide an overview of practices related to 1) the clinical use of DS and its impact on prescribing behavior and patterns, 2) the management of DS and 3) the existence of local policies regarding DS management practices in the FMTU affiliated to the University of Sherbrooke.

METHOD
This descriptive cross-sectional study was carried out in all 8 FMTU affiliated to the University of Sherbrooke. A first self-administered questionnaire (Q1) was completed by the DS manager of each FMTU and a second (Q2) was completed by the DS users. A DS user was defined as a healthcare provider (physician, FM resident, nurse or pharmacist) working in a FMTU that keeps DS. The DS manager was the person responsible for DS management or the FMTU director when the FMTU did not have a DS.

RESULTS
Eight DS managers filled the Q1 and 93 DS users filled the Q2. Among DS user respondents, 82 % were using DS. The main reason to prescribe a DS was to help patients facing economic difficulties and who cannot afford their required medications. 65 % of DS users documented the distribution of the DS in the medical record but only 21% documented the reason why the DS was given. Thirty-two percent of DS users provided written information to the patient concerning the DS and 26 % referred the patient to the community pharmacist. Only 41 % of DS users found their first intention drug among the available DS and 59 % provided the DS to the patient even though it was not their first choice. Seventy percent of DS users occasionally kept DS for their personal use. This percentage reaches 100% among nurses (7/7). Of the 4 FMTUs with DS, none had written policies regarding the management of DS. Two nurses, one pharmacy technician and one member of the support staff without any medical background assumed the DS manager's role. DS are mainly kept in shared storage spaces. Only half (2/4) of the FMTU limited or controlled access. Pharmaceutical representatives had access to half (2/4) of the cabinets and one FMTU described the pharmaceutical representative as "a person responsible for ensuring DS availability".

CONCLUSION
Despite the best intentions of healthcare providers, DS use in FMTU affiliated to the University of Sherbrooke seems to be associated with sub-optimal care of patients regarding safety issues and optimal treatment choice. Lack of central and local policies regarding the optimal management of DS in FMTU needs to be addressed. Further research is needed to document patient outcomes associated with DS prescribing patterns.

PRESENTERS:
Andréa Lessard MD MSc
Tarek Bouhali MSc
Marie-Michèle Normandin BSc
André Côté B.Ps
Marie-Claude Beaulieu MD

P42 A systematic process for recruiting physician-patient dyads in practice-based research networks

BACKGROUND:
One of the most important challenges in clinical practice-based research is the recruitment and retention of enough study participants. Low participation rates reduce statistical power, compromise validity of results, and can lead to an extended project timeline and, in the worst case scenario, to trial suspension, which can discourage researchers and recruits from getting involved in further trials. We designed a systematic process for recruiting physician-patient dyads in practice-based research networks and tested it in EXACKTE2, a large cross-sectional dyadic study.

METHOD
Based on known barriers and the recommendations and suggestions made by clinicians and patients during prior research projects, we designed a systematic process for recruiting dyads of family physicians and their patients. We used it in family practice teaching units (FPTUs) in two large primary care practice-based research networks, one in Ontario, Canada and one in Quebec, Canada to recruit hundreds of unique dyads (i.e. each member is represented only once in the data) of family physicians and their patients. Both members of each dyad were recruited simultaneously to explore their mutual influence during consultations. The recruitment process consisted of nine steps: 1) eligible practices identified; 2) FPTU managers contacted; 3) meetings with FPTU clinical staff and presentation of project; 4) clinical staff agree to participate; 5) research assistant assigned; 6) meeting with individual health professionals and consent given; 7) meeting with one patient per participating physician and consent given; 8) clinical encounter; and 9) follow-up to the encounter.

RESULTS
The EXACKTE2 study lasted nine months in the Western Ontario network and 11 months in the Université Laval network. While recruitment in the Ontario sites was considered as a single phase, recruitment in the six Quebec sites lasted from three to nine months (Figure 2). A total of 405 physicians were available on the lists provided by each FPTU. Of these, 23 (5.7%) were ineligible. Of the 382 (94.3%) eligible physicians, 274 agreed to participate, 55 (14.4%) were not reachable and 51 (13.4%) refused to participate. A total of 430 of their patients were approached to participate. Of these, only nine (2%) were ineligible to participate, 142 (33%) refused and three (0.7%) withdrew from the study. Refusal reasons were very similar in Ontario and Quebec and were mainly time constraints (51%), lack of interest (20%), 'don't want to be recorded' (7%), 'do not feel well' (6%), 'don't want to share personal details' (5%) and language difficulties (3%). Thus, 276 (72%) physicians and 276 (64.6%) patients agreed to participate in the EXACKTE2 study, 270 physician-patient dyads met for consultation, and 265 patients (96% of participating patients) completed the questionnaire two weeks after the encounter. By the end, 259 unique complete dyads were available for analysis.

CONCLUSION
We have established a systematic process for conducting successful dyadic recruitment of physicians and patients in practice-based research networks. This recruitment strategy addresses most of the barriers to clinician and patient participation. Our systematic process for recruiting participants for dyadic research should also help guide the design of other successful recruitment processes.

PRESENTERS:
France Légaré
Hubert Robitaille
France Légaré
Ghislaine Tre

P43 Rates and Types of Errors in Electronic Health Record Problem Lists

BACKGROUND:
Electronic health records (EHRs) can provide researchers with a wealth of data. However, the quality of this data has been a concern. Problem list data is often used to identify patient subgroups. However, the types and rates of errors found within EHR problem lists have not been published.

METHOD
With input from clinicians and researchers, we created a taxonomy of error types and used it to estimate error rates found within the problem lists in the outpatient EHR used at one academic medical center. We then reviewed 560 patient records and abstracted information from the 140 records of adults seen at least once by a clinician to estimate overall error rates and rates of specific types of errors of both commission and omission.

RESULTS
Over 90% of patient records had at least one problem list error, with an overall error rate of 3.8 errors per patient. Most (60.1%) were errors of commission, with "failure to update" errors accounting for just under half of all errors (46.8%). Some error types were impossible to identify using record abstraction alone.

CONCLUSION
Patient records within the EHR contain a multitude of errors, which could significantly impact some types of EHR-based research.

PRESENTERS:
Frank M. Wu, PhD, MS4
James W. Mold, MD, MPH

P44 Patient-Centered Engagement across the Continuum: Asthma Shared Decision Making-Inpatient Pilot

BACKGROUND:
Asthma is a high impact chronic disease that requires integrated care coordination across multiple providers and settings, such as acute care facilities, ambulatory clinics, and schools. In its current state, the US health care system struggles with how to achieve this level of coordination and disparities in asthma outcomes persist. Shared Decision Making (SDM) is one approach shown to improve asthma outcomes in ambulatory settings; however, the effectiveness of SDM in acute care and its potential to bridge care coordination gaps remains understudies. The Mecklenburg Area Primary Care Research group (MAPPR) was funded by AHRQ to develop and implement a SDM Asthma Toolkit across 6 ambulatory safety-net clinics. Exposure to the SDM Asthma Toolkit resulted in significantly decreased asthma exacerbations (defined by emergency room visits, hospitalizations, and oral steroid use). Utilizing the same patient engagement tools and essential educational materials across the continuum of care, is likely to increase understanding and adherence to the treatment plan by the patient. This pilot study tested the feasibility of implementing the SDM Asthma Toolkit in an inpatient setting for patients hospitalized with asthma exacerbations.

METHOD
Researchers collaborated with the Family Medicine Residency inpatient team to identify patients who were admitted for asthma exacerbations and willing to participate in the study. On the day of expected hospital discharge, a research team member utilized the SDM Asthma Toolkit with each patient. Results of the SDM process including medication decision were then communicated back to the primary physicians. Readmissions and follow-up data were extracted from the electronic medical record.

RESULTS
To date, 4 patients have experienced the SDM Asthma Toolkit in an inpatient setting. None of these patients were readmitted within 30 days. Case study: 8 year old male was admitted to the hospital after presenting to the ED with an acute exacerbation. He had a diagnosis of asthma, with a history of admission to the ED and was not currently on a controller medication. He identified his treatment goal to be able to participate in sports. His mother's goal was to have him sleep through the night. They shared in the treatment decision and were both able to "teach back" the plan. On follow up, he reported control of his asthma symptoms, adherence to his treatment plan and did not return to the ED or hospitalized.

CONCLUSION
The research team identified an opportunity and need for integrating proven methods of patient engagement in the inpatient setting. This pilot suggested that use of the Toolkit in the inpatient setting was feasible with opportunity for improved outcomes. Ultimately, full implementation of SDM across inpatient, outpatient, home and school settings has the potential to improved outcomes, particularly in vulnerable populations. Future development of an innovative virtual SDM coach is planned to facilitate patient engagement across the continuum of care.

PRESENTERS:
Kelly Reeves, BSN, RN
Hazel Tapp, PhD
Andy McWilliams, MD, MPH
Lindsay E. Kuhn, MHS, PA-C

ADDITIONAL AUTHORS:
Yhenneko Taylor, PhD; Thamara Alkhazraji, MSPH;Pete Lallone, BS, RRT Crystal Hawkins RRT, RCP;Stephanie Goldberg BA, RN;Laurie Beasley, RN, MSN;Cheryl D. Courtlandt M.D; Michael Dulin, MD, PhD

P45 Analyzing the key elements of medical home transformation in small primary care practices in Southeastern PA.

BACKGROUND:

Non-academic primary care practices make policy and practice changes as the result of seeking recognition as patient centered medical homes (PCMH) that produce lasting changes in the infrastructure, operations, and approach of the clinical practice. Identification of these changes will help generate insight into the aspects of clinical family practices that are most likely to evolve as part of the effort to achieve medical home recognition. This will provide the knowledge base for more effective communication with other such practices regarding the benefits and challenges of transformation. The state of Pennsylvania (PA) offered a Chronic Care Initiative program in 2008 to primary care practices in Southeast PA, to foster and facilitate their transformation to medical homes. These practices serve as the study population for this project. This collaborative offered three learning sessions per year in which practices shared their experiences and planned new ways to structure and operationalize patient centered care.

METHOD

A survey was designed by the lead authors, based on the NCQA recognition categories (2011) and is intended to capture the array of changes that practices may have made to fulfill, and document that they fulfilled the NCQA criteria. The survey was pilot tested with experts in this area, and was further revised for the study. The study was approved by the IRB as an exempt study. Primary care practices (n=34) which participated in the PA Chronic Care Initiative (CCI) were approached for this study. In addition 2 primary care practices within our University medical center that achieved NCQA PCMH recognition were also included. 9 of the 34 practices and 2 University-based practices agreed to participate. The practice administrators of these 11 practices were sent the survey instrument through secure email, and responses were collected through the same secure method. All the responses were then analyzed using an excel database.

RESULTS

Our 3 page survey of a lead respondent (medical director/ practice manager) from each of the 11 practices resulted in the following findings. All practices were NCQA PCMH recognized. 3/11 practices are nurse led primary care health centers. 8 of the 11 practices reported that their practice expanded patient access, scheduling, and continuity. Access was expanded by adding night and weekend hours by 2 practices, by adding a patient portal in another 3 practices, and by improving the functioning of their open access scheduling. Continuity with the same provider or provider team was addressed in most practices as a matter of policy change and technical capabilities, i.e. policy clarifying this objective made possible because of improved ability to identify the provider or team through the electronic medical record. All practice respondents reported improved communications, either within the practice team or with patients. With regard to communication with patients, 2 practices either added a health coach or enhanced team function by expanding the role of the medical assistant to address patient care concerns like cancer screening, smoking cessation, medication reconciliation and to do training on use of inhalers, glucometers, and administration of insulin. 10 practices reported enhanced transitions of care coordination. 6 practices have new part-time or full-time care managers who make timely contact with patients discharged from emergency rooms or hospitals to assure all health needs are met. All 11 practices implemented or advanced EMR's during the transformation process, leading to better identification of patients with chronic conditions and gaps in preventive services. 10 of 11 practices reported amplified patient engagement: 4 practices have added a health coaching function performed by their medical assistants or nurse care managers, 3 practices are distributing more self care and self management tools and some have increased referrals to local smoking cessation, diabetes education programs or are using "Health Wise" tools as part of their EMR or "know your numbers" approaches. Quality measurement intensified for 9 practices: 6 are sharing their practice data internally and externally, 2 are posting individual physician performance data internally and 1 is using this data for payment bonuses. 9 of 11 believe that the practice culture has changed to a more patient centric environment.

CONCLUSION

Patient centered medical home model is a long term continuous quality improvement effort in primary care. It has shown to strengthen the primary healthcare system, and improve the health outcomes and patient centered care outcomes. Understanding the specifics of practice transformation will help other similar practices get a clearer understanding of how patient centered care evolves in a medical home environment. This understanding may also offer a role model for other practices, medical neighborhoods and accountable care organizations.

PRESENTERS:

Manisha Verma, MD, MPH
Mona Sarfaty, MD, MPH

P46 Drug Samples Management and Utilization in Academic Family Medicine Teaching Units of the Québec-1 PBRN: Lessons Learned.

BACKGROUND:
Drug samples may present potential benefits for patients, but they can also pose health risks to them, influence health care providers' (HCP) judgment and prescribing behaviour and may contribute to an increase in healthcare system costs by promoting the prescription of more expensive newly patented drugs. This project was first carried out in the 16 FMTUs of the Université de Montréal's PBRN. The results were presented at the 2013 PBRN-NAPCRG conference. Since then funding was secured allowing the same project to be replicated in 26 additional FMTUs of the other three university PBRNs. Together these four PBRNs make up the Réseau-1 Québec, a newly created provincial-wide PBRN "network of networks". A series of four related presentations are being submitted for the 2014 PBRN-NAPCRG conference. The study's aim is to describe the use and management of drug samples in FMTUs in Québec. Here we report on the lessons learned from this research collaborative of Réseau-1 Québec.

METHOD
This descriptive cross-sectional study was carried out in 42 FMTUs. All HCPs either managing or handing out drug samples were eligible. Two self-administered surveys were completed by the drug sample managers (n=49) and the drug sample dispensers (n=859), respectively. Lessons learned result from the observation of the processes that needed to be put in place to successfully carry out this project involving all four university PBRNs constituting Réseau-1 Québec.

RESULTS
The questionnaire data provides an overview of the management and use of drug samples in 42 FMTUs of Réseau-1 Québec. The similarities and variations in these practices within and between the four participating PBRNs will be highlighted at the time of the conference. Lessons learned relate to funding, communication and organisation issues.

CONCLUSION
This study is the first involving the four university PBRNs in Québec. Despite existing written policies, drug sample management and use appears to be suboptimal in FMTU in Québec. Thus the potential for influencing the prescribing behaviours of all FM graduates in Québec is significant. These results will inform a province-wide knowledge transfer activity through the collaboration of our group with the Collège des médecins du Québec. The next step involves producing provincial practice guidelines for the optimal management and use of drug samples in community clinics. The lessons learned are numerous. First, we needed to secure funds to carry out this province-wide survey. The 25 000$ grant covered only part of the costs and significant in-kind contributions from each network had to be added to complete the study. This is a testimony of the engagement of all involved and of the importance attributed to this project for our newly created network of networks. Second, no formal communication channels had been previously established between the researchers of the four FM departments. With the support of Réseau-1 Québec, we managed to coordinate the fieldwork, data entry and analysis through teleconferences and one face-to-face meeting thus containing costs. Third, this first successful collaborative involving researchers, HCPs and FM residents from four university networks was made possible by the building of trust and relationships between the 4 previously independent PBRNs. This study provides the ground work necessary for carrying out future Réseau-1 Québec projects.

PRESENTERS:
Marie-Thérèse Lussier, MD, MSc
Michel Labrecque
Andrea Lessard, MD, MSc
Pierre Pluye, MD, PhD
Roland Grad, MD, MSc
Caroline Rhéaume, MD, MSc

ADDITIONAL AUTHORS:
Fatoumata Binta Diallo, PhD Tarek Bouhali, PhD, Justin Gagnon, MA (Presenter) Edith Omon, MD

P47 A Mixed Methods Investigation of Leadership in Practice-based Research Networks

BACKGROUND:
The Agency for Healthcare Research and Quality (AHRQ) has provided guidance in PBRN infrastructure. They have mandated that each PBRN have a director that provides leadership in fulfilling their PBRN's mission. The tremendous complexity and diversity in PBRNs in terms of geographic dispersion, practitioner mix, research foci, and community contexts make evaluation of PBRN leadership effects difficult. Furthermore, limited guidance and evidence exist in what leadership behaviors, structures, and actions that PBRN leaders exhibit. One framework, the loose-tight leadership, acknowledges the need for flexibility and participation in making leadership decisions may be of use in evaluating PBRN leadership structures. This study examined the diversity of perceptions of leadership within PBRN networks and evaluated the directive and participative behaviors of PBRN directors.

METHOD
Phase I consisted of interviews with PBRN directors and non-director participants (i.e., network coordinators, PBRN support staff, and clinician members). A semi structured interview guide which included questions identifying leadership behaviors or styles of PBRN directors, the dynamic nature of that leadership style, and decision-making practices within their PBRN was pilot tested, modified, and delivered. PBRNs recognized by AHRQ were stratified by geographic distribution (e.g., nation-wide) and sampled to allow representation from each strata. Qualitative analysis was performed with two independent coders who developed an initial coding list, iteratively coded data using the original list along with new codes grounded in data, and formed consensus definitions on emergent themes. Representative quotes were identified to convey emergent themes. Phase II consisted of a multi-stage sampling approach recruiting PBRN directors and clinician members within their PBRNs. PBRN directors completed surveys focused on PBRN and personal demographics, organizational outcomes, decision-making processes, and clinician member performance. Clinician member surveys focused on personal demographics and leadership styles from their PBRN directors. Sampling was done using the AHRQ-recognized PBRN list. Descriptive and inferential analyses were conducted.

RESULTS
Thirty-two interviews were conducted with 16 PBRN directors and 16 non-director participants from 16 PBRNs were included in Phase I. Ninety-four director-clinician member pairs from 14 PBRNs were included in Phase II. Collaborative leadership was the predominately reported style that PBRN directors and others exhibited within PBRNs. Collaboration reportedly increased research quality and quantity through motivational and communication channels. However, interviewees also reported that collaborative leadership requires trade-offs with time. Finally, collaboration reportedly increased PBRN director and non-director participants' satisfaction and motivation. Directive and participative leadership behaviors of PBRN directors were highly reported by non-director participants with items measuring these attributes ranging from 52.2% to 80.5% agree and strongly agree level of agreement.

CONCLUSION
PBRN directors and others create and communicate collaborative processes within their PBRN networks. Balancing of participative and directive leadership behaviors is commonly perceived by certain PBRN members. More research on relationships of leadership behaviors and performance or PBRN outcomes is desirable to help provide guidance to all participants and stakeholders in practice-based research. Additionally, further exploring strategies to encourage collaborative leadership development is warranted.

PRESENTERS:
Brandon J. Patterson, PharmD, PhD
Barcey T. Levy, MD, PhD
Barry L. Carter, PharmD
Shanrae'l M. Stoner
William R, Doucette, PhD
Julie M. Urmie, PhD

ADDITIONAL AUTHORS:
Mary C. Shroeder, PhD mary-schroeder@uiowa.edu

P48 The Impact of Implementing a Home-Based Primary Care Program for Clinically Complex Patients

BACKGROUND:
Persons with disability and chronic illness have been shown to be very high utilizers of health care services compared with age-matched controls. The disabled face well-documented barriers to primary care access, including lack of or limited transportation, difficulty contacting providers and scheduling timely visits for acute problems, incomplete information sharing between providers and inadequate time with the provider. We hypothesized that providing home-based primary care to this population would improve health-related quality of life and reduce unplanned admissions to the hospital.

METHOD
In September of 2012, a home visiting program began through the Division of General Internal Medicine at the Ohio State University Wexner Medical Center (OSUMC). We recruited patients through referral from physicians, hospital discharge planners, and home health agencies. Criteria for acceptance into the program were: disability impeding regular access to office-based primary care and more than two chronic medical conditions. Initial staffing consisted of one physician dedicating 0.4 FTE. Staffing increased to include a full time nurse-practitioner, a nurse-manager and two medical assistants. Pharmacist visits to recently discharged patients were added. Financial support for the program was provided by the OSUMC. Data about hospital admissions, emergency room (ER) visits, and house call visits were obtained from the electronic health records of patients who had been enrolled in the House Call Program for at least 6 months (n=38). The total number of hospital admissions and ER visits 6 months prior to patients' first house call visit was compared with the total number of visits for the following 6 months Program expenses and revenue were assessed using payroll and OSUMC billing data.

RESULTS
Currently, 182 patients are enrolled in the program. They are 66% female; 52% Caucasian, 40% African American and 8% other. The age range was wider than expected, with a mean age of 62.3. Seventy six percent of patients had more than 6 different diagnoses. Eighty percent of patients were taking ten or more medications. In the subset of patients for whom 6 months of data were available, we observed a decrease of 48.5% in the total number of hospital admissions and ER visits in the 6 months after enrollment into the house call program. For the first 8 months of program operation, total costs were $218,293, of which 35% was covered by revenue from patient care.

CONCLUSION
Patients enrolled in the house call program have high disease acuity and complexity. Preliminary data suggest a marked improvement in ER and hospital utilization among these patients enrolled in the program for 6 months. Costs exceeded revenues in the first 8 months of operation. However, financial savings and risk reduction from marked decrease in hospitalization may compensate for program costs. Ongoing research describing changes in health-related quality of life among house call program patients will provide additional information about potential non-financial benefits of the program. Additional research estimating cost reduction from ER visit and hospitalization reduction will allow better understanding of sustainability and utility of the house call program in care of complex chronically ill patients.

PRESENTERS:
Matthew Kretovics
Andrew Schamess, MD
Randi Foraker, PhD, MA, FAHA
Seuli Brill, MD
Angela Hoff, MSN, NP-C
Matthew Kretovics, MPH
Neeraj Tayal, MD, FACP

P49 "How useful are [Remote Monitoring Technologies, RMTs] going to be versus [a] pain… to implement?" A Qualitative Study of Rural Primary Care Clinician Views on RMTs

BACKGROUND:
Remote monitoring technologies (RMTs) may improve quality of care, reduce access barriers, and help control medical costs. Despite the role of primary care clinicians as potential key users of RMTs, few studies explore their views. This study explores rural primary care clinician interest and the resources necessary to incorporate RMTs into routine practice.

METHOD
We conducted 15 in-depth interviews with rural primary care clinician members of the Oregon Rural Practice-based Research Network (ORPRN) from November 2011 to April 2012. Our multidisciplinary team used thematic analysis to identify emergent themes and a cross-case comparative analysis to explore variation by participant and practice characteristics.

RESULTS
Clinicians expressed interest in RMTs most relevant to their clinical practice, such as supporting chronic disease management; noting benefits to patients of all ages. They expressed concern about the quantity of data, patient motivation to utilize equipment, and potential changes to the patient-clinician encounter. Direct data transfer into the clinic's electronic health record (EHR), availability in multiple formats, and review by ancillary staff could facilitate implementation. Although participants acknowledged the potential system-level benefits of using RMTs, adoption would be difficult without payment reform.

CONCLUSION
Adoption of RMTs by rural primary care clinicians may be influenced by equipment purpose and functionality, implementation resources, and payment. Clinician and staff engagement will be critical to actualize RMT use in routine primary care.

PRESENTERS:
Melinda Davis, PhD
Jillian M Currey
Sonya Howk, MPA:HA
Molly R. DeSordi
Linda Boise, PhD
Lyle J. Fagnan, MD
Nancy Vuckovic, PhD

P50 Developing a Typology of the Patient Instructions Section of After Visit Summaries

BACKGROUND:

Background: Proposed Stage 3 Meaningful Use (MU) criteria for electronic health records (EHR) technology call for patients to receive a visit-specific clinical summary that is more than just an abstract of the medical record. The new criteria also call for use of EHR technology to provide patient education materials in languages other than English. In order to comment on the feasibility and effectiveness of these criteria for achieving patient engagement goals, we propose to analyze the content of the patient instructions sections of an existing sample of 272 after visit summaries (AVS) generated by the Epicare EHR system in four primary care clinics as part of a study of associations between AVS content and patient reported outcomes. The patient instructions section is not automatically populated by standardized information generated during the clinic visit; rather, the clinician must input text or other material that he/she wishes to include in the AVS. We report here on the development of a codebook, the first step in extracting and summarizing the content of the patient instructions sections of our sample of AVSs.

METHOD

Methods: 6 clinicians and 4 non-clinician researchers (including 2 experienced qualitative researchers) reviewed and coded a sample of 10 AVS instructions sections. Through iterative discussions, the researchers used a grounded theory approach to develop codes and subcodes that address the content contained in the instructions sections. The codebook will be applied to the full sample of AVSs to develop a typology of the AVS patient instructions section content. This typology will subsequently be associated with self-reported patient satisfaction, recall, and ability to follow provider recommendations.

RESULTS

Results: Based on the codes and subcodes developed by the research team, the patient instructions section typology includes the following: 1) referrals (to screening services, specialty consultation, counseling, etc.), 2) information (e.g., patient education web sites, telephone numbers, definition of terms, but without a directive to seek out or otherwise use the information), 3) treatment/prevention recommendations (e.g., engage in physical activity, follow recommended diet, take drugs as directed, monitor glucose or blood pressure), 4) instructions (step by step instructions on how to perform a behavior (e.g., ear wax removal, when and how to take a prescribed medication); 5) standardized documentation of information given or procedures performed at discharge (e.g., performance of medication reconciliation, ensuring patient understood information given, the names and telephone numbers of the physician and nurse who had seen the patient). A code was identified to capture missing or out-of-place text that might be confusing to the patient, and another code was established to capture whether there was evidence of patient-centeredness (e.g. highly individualized instructions or recommendations, and positive reinforcement or encouragement). Finally, the instructions sections will be coded as to whether a non-English language was used for some or all of the text, and whether the section was left blank.

CONCLUSION

Conclusions: In this sample, he patient instructions sections reflected a wide range of clinician behavior in choosing what to include and the degree of tailoring to the individual patient. Once complete, the analysis will indicate the extent to which clinicians currently use the AVS capabilities in a manner consistent with Stage 3 MU criteria. It will also indicate whether the content of the patient instructions sections is associated with differences in patient reported outcomes. Updated results on the entire sample will be presented at the meeting.

PRESENTERS:

Valory Pavlik, Ph.D.
Kimberly Campbell-Voytal, Ph.D.
Susan G. Nash, Ph.D.
Larry Laufman, Ed.D.
Victoria Neale, Ph.D.

P51 Application of the PRECIS criteria to characterize and refine a PBRN study

BACKGROUND:
The Pragmatic-Explanatory Continuum Indicator Summary (PRECIS) model provides a framework for evaluating the extent to which a research methodology is generalizable and clinically applicable. Application of the PRECIS model to a study protocol produces scores across 10 research dimensions: flexibility of comparison condition; flexibility of experimental intervention; practitioner expertise—in both experimental and comparison conditions; eligibility criteria; primary analysis; practitioner adherence; participant compliance; follow-up intensity; and outcomes. A wheel chart is used to depict the scores, allowing visual comparison across studies. For a study previously presented at this conference (2013), we present PRECIS results provided by a sample of researchers on an investigation of clinical massage therapy (MT) and progressive muscle relaxation (PMR) for chronic low back pain (CLBP). We show the usefulness of the PRECIS model for evaluating practical application of this research in a primary care, practice-based research setting. Future research directions on PMR and MT interventions generated by the model are also discussed.

METHOD
Fourteen attendees of a departmental research luncheon accepted audience response clickers and provided their rating of the research study, which was presented on power point slides and verbally discussed prior to each PRECIS-generated response question. Of the respondents, 6 self-rated their "research experience" as 4-5 (5 point scale) and were included in the analysis. The study that was presented was an investigation of MT and PMR that found positive health related outcomes for MT at 12 weeks, based on significant clinical improvements on the Oswestry Disability Index and SF36v2. Within the presentation, we offered compare/contrast points of our study methodologies with those of randomized controlled trials.

RESULTS
The study received an overall Summary Score of 17.84 (0-48, lower score indicates more pragmatic approach). This indicates that the study achieved approximately 63% of its potential "pragmatic-ness" according to our respondents. The obtained PRECIS wheel depicting scores for each research dimension were generated. This analysis drew our attention to aspects of our study design that may limit its applicability to how PMR and MT interventions might function in routine practice.

CONCLUSION
The study presented for validation by the PRECIS model was not as pragmatic as expected. Using the results to refine the study methodology may benefit its expansion, improve comparisons and increase generalizability. The model is easily replicable, and may be used to provide clarity and transparency for proposed or existing studies.

PRESENTERS:
William G. Elder
Niki Munk
Roberto Cardarelli
Karen L. Roper

P52 The Learning Collaborative as a Preliminary Step to PBRN Development

BACKGROUND:
Effectively engaging community stakeholders and clinicians following the establishment of a PBRN may prove difficult. This is particularly relevant when working with marginalized populations generally suspicious of the health care system and health-related research. As an alternative, a more organic strategy that ensures community engagement in a nascent PBRN is to create critical group affiliation and cohesion by first establishing a Learning Collaborative.

METHOD
We describe the conceptual model and characteristics of learning collaboratives, then detail the development, organization, structure, and products resulting from a year-long learning collaborative which subsequently evolved to form a PBRN.

RESULTS
The Learning Collaborative in Developmental Medicine (LC-DM) was organized as a multi-stakeholder, community-based quality improvement initiative under the Medicine Institute of the Cleveland Clinic with the goal of improving the health care of adults with intellectual and other developmental disabilities (IDD) served by the Cleveland Clinic. LC-DM stakeholders included self-advocates with IDD, family members, residential service providers, advocacy agency representatives, disabilities professionals, nurses and primary care physicians. The LC-DM members met face-to-face every other month for 4 hours; each meeting focused on improving the health care of a specific sub-population, e.g., adults with Down syndrome, cerebral palsy, and autism spectrum disorder. With support of the Shared Resource in PBRN of the Case Western Reserve Univesity-Clinical and Translational Science Collaborative, the LC-DM membership agreed to form a PBRN. We describe that transition process and our initial work of educating and acculturating the membership to a practice-based research focus.

CONCLUSION
Clinicians, researchers, and other stakeholders seeking to improve health care of specific target populations may consider learning collaboratives as a logical first step prior to establishing a PBRN.

PRESENTERS:
Carl Tyler MD, MSc
Anindita Biswas, MA, MPH
Linda Council RN, BSN
Cindy Norwood
James Werner PhD, MSSA

ADDITIONAL AUTHORS:
Learning Collaborative in Developmental Disabilities Executive Council, Developmental Disabilities- PBRN

P53 Professional over-the-phone interpretation to improve the quality of primary care for migrants: a feasibility study

BACKGROUND:
According to a 2011 Canadian census, one fifth of the population (nearly 6.63 million people) speaks a language other than French or English at home, approximately one third of these individuals having no knowledge of either official language. Health disparities exist between limited language proficient (LLP) and English/French proficient patients, principally in quality and access to care. The provision of professional interpreters (PIs) during medical encounters, however, has been shown to improve the quality of care and health outcomes for LLP patients. Despite the growing number of LLP patients, and evidence of the costs of care inequities, PIs are rarely engaged in primary care settings. So far, the literature has focused on the importance of and barriers to language access in medical settings and the consequences of not providing these services. Little work has been done to shed light on practical implementation strategies. Over-the-phone interpretation (OPI) might provide a feasible solution to overcoming the challenges faced by family medicine physicians in serving LLP patients. OPI services provide fast, convenient and affordable access to trained PIs in many languages, and have been shown to contribute towards improved LLP patient-physician communication and satisfaction, more efficient resource utilization and a reduction in overall healthcare costs. OPI services have become the standard of care in many Canadian hospitals, but not in primary care clinics. To better understand if and how OPI services can be integrated into primary care practices, the value and ease of use of this service will be evaluated from the family physicians' perspective. Primary objectives: 1) To investigate the feasibility of over-the-phone interpretation services as a solution for overcoming communication barriers in Montreal primary care settings. 2) To obtain a precise estimate of the need for and use of interpretation services in three large Montreal primary care clinics.

METHOD
Over-the-phone interpretation (OPI) services will be piloted in three Montreal primary care clinics for three months to evaluate its feasibility as a tool for overcoming language barriers in this context. The study will be conducted in two phases. Phase 1: training of care providers in the proper use of professional interpreters (PIs). Family medicine physicians will receive training in how, why and when to access OPI services, as well as training in best practices for working with PIs in clinical settings. Nurses and front-line staff will also be invited to an OPI training session and be given access to OPI services during the three-month pilot phase. However, their evaluation and use of the service will not be measured for the purposes of this study. Phase 2: three-month pilot OPI integration & data collection (May-July, 2014). Self-administered surveys will be distributed to family medicine physicians at each of the three primary care clinics, both before and after the three-month pilot phase. Surveys will be used to assess the value they attributed to this service, as well as perceived enablers of and barriers to its use. [Survey questions will be based on those used by Language Service Toronto. Since 2012, this program has integrated OPI services in over 40 organizations across seven regional health authorities in Ontario]. To obtain objective measures of the need for and use of interpretation services, family physicians will record the number of limited language proficient patient encounters, and the OPI service provider (LanguageLine Solutions) will track usage information, including language, wait time and duration of each call.

RESULTS
This will be the first trial and evaluation of over-the-phone interpretation (OPI) in Quebec family medicine outpatient settings. A full assessment of the success of OPI service integration (including cost reports) could provide useful guidance for the adoption of language support services in other primary care clinics in Montreal and across Canada. Data on the need for interpreters, and the gap between demand and use will also be valuable information for health service planners and administrators in regional health authorities and family medicine clinics. Finally, after experiencing the benefits of using OPI services, family medicine physicians are likely to advocate for access to language support for their patients.

CONCLUSION
Communication barriers (including low health literacy) are "the most frequent cause of serious adverse events" in medical settings. In a culturally and linguistically diverse population, it is imperative that we explore solutions to overcoming these barriers. The vital role of primary care in maintaining a sustainable healthcare system and keeping our populations healthy makes language access at this level of care all the more important.

PRESENTERS:
Emily Parkinson
Dr. Ellen Rosenberg

P54 The Development of a Mental Health Practice Based Research Network

BACKGROUND:
Practice-based research networks (PBRNs) are an important vehicle for translational research within healthcare. A PBRN is composed of a group of community-based healthcare providers who collaborate with experienced researchers to identify study questions directly impacting their practice and to improve their quality of services. Surprisingly, only seven research networks include mental health providers (McMillen et. al., 2009). The Recovery Oriented Care Collaborative (ROCC), a PBRN focused on integration of health and mental health services for Seriously and Persistently Mentally Ill consumers being served by safety net providers, was developed to fill in that gap. In this presentation we will describe how the ROCC project launched, lessons learned, results of the first research study, and next steps.

METHOD
Three phases comprised the project including: establishing the PBRN, identifying a research topic, and building awareness and sustainability of the PBRN. The ROCC generated, refined, selected, and implemented a research topic generated by community practitioners, conducted a card study within four participating agencies, and began work on developing future projects and securing additional funding. Each of the four clinics provided integrated services in the forms of a mobile clinic, peer health navigators, co-located care, or collaborative care with specific medical clinics. The final sample consisted of 237 participants from 4 clinics: Didi Hirsch (n = 52), Exodus (n = 99), Mental Health America (n = 48), and Pacific Clinics (n= 38). The majority of the sample had been receiving services for at least 6 months (79%). The sample was highly diverse and reflective of the population of Los Angeles: 27% Caucasian, 21% Hispanic, 20% Armenian, 20% African American, 4% Native American, 6% Mixed Race, and 4% Missing.

RESULTS
The PBRN collected data about the impact of the first 18 months of integrated health care services receipt. Respondents reported substantial improvements in health (56%), fewer emergency room visits (70%), improved health care access (68%), and healthier lifestyles (72%) since beginning integrated services.

CONCLUSION
This PBRN's initial study demonstrated that mental health providers were able to successfully implement integrated services for their consumers in ways that had significant impacts on their physical and mental health. A mental health based PBRN was successfully established and is preparing to further address issues of concern to mental health stakeholders interested in integrated healthcare services.

PRESENTERS:
John Brekke, PhD
Erin Kelly, PhD
Rebecca Gaba, PhD
Helen Kiger, MS
David Pilon, PhD
Laura Pancake, MA

ADDITIONAL AUTHORS:
Lezlie Murch, MA

P55 Upping the Ante: The Benefits of Transitioning to an Interdisciplinary PBRN

BACKGROUND:
The Appalachian Research Network (AppNET) was established in the Department of Family Medicine at East Tennessee State University (ETSU) as a network of community primary care preceptors focused on Quality Improvement (QI) in rural Appalachia. As the network has moved forward, following our established aims and priorities to improve the quality of healthcare in rural Appalachia, the importance of transitioning to an interdisciplinary network has emerged.

METHOD
AppNET QI projects related to medication reconciliation and prescription drug monitoring led to the development of an AAFP Foundation grant focused on prescription drug abuse/misuse (PDA/M). AppNET approached two ETSU pharmacy faculty experienced in PDA/M research to join the team. Soon after, we were invited to collaborate on an NIH NIDA R-24 submission with the ETSU Bill Gatton College of Pharmacy (GCOP) and the ETSU College of Public Health: Diversity-promoting Institutional Drug Abuse Research Program (DIDARP). This collaboration has contributed to a variety of AppNET interdisciplinary partnerships resulting in an expanding scope.

RESULTS
AppNET's interdisciplinary partnerships have resulted in several funded projects. In June 2013, we received funding from the AAFP Foundation to assess family physician knowledge, attitudes, and methods for effective and responsible prescribing of pain medication. The ETSU DIDARP grant was awarded in September 2013 with AppNET's Network Director serving as Co-Investigator on one of three funded projects as well as an AppNET PEA joining the DIDARP team. AppNET is serving as the laboratory for the project, which requires input from providers and pharmacists, leading to the recruitment of pharmacists to the PBRN. In April 2014, through an interdisciplinary partnership of AppNET and GCOP, ETSU was awarded a contract from the Tennessee Department of Health to help combat the Neonatal Abstinence Syndrome (NAS) epidemic in the State. AppNET's Research Director and a Pharmacy faculty member are leading a project to study the knowledge, attitudes, beliefs, and behaviors of prescribers and dispensers specific to substance use in pregnancy and NAS and evaluate the impact of a NAS primary prevention academic detailing intervention.

CONCLUSION
Research in the major health issues facing rural Appalachia, such as PDA/M and NAS, has required an expansion of the research team to include other key professions such as pharmacy and public health. AppNET evolving into an interdisciplinary network has expanded our research scope, our success with obtaining funding, and increased the potential for future funding.

PRESENTERS:
Ivy Click, EdD
Jeri Ann Basden, MS
Nicholas Hagemeier, PharmD, PhD
Fred Tudiver, MD
Robert Pack, PhD
Heather Anderson, MPH

ADDITIONAL AUTHORS:
Joy Michael, BS

P56 Experiences shared by site coordinators in a community pharmacy practice-based research network (PBRN): A study from Medication Safety Research Network of Indiana (Rx-SafeNet)

BACKGROUND:
In 2010, Indiana's first community pharmacy practice-based research network (PBRN), the Medication Safety Research Network of Indiana (Rx-SafeNet) was launched by the Purdue University College of Pharmacy. Since then, 128 community pharmacies representing various types of practices such as retail chain, independent, and hospital/health-system outpatient locations have joined. Limited published literature exists on pharmacy PBRNs, therefore the objective of this study was to describe the early experiences, attitudes and opinions of Rx-SafeNet site coordinators who serve as the point of contact for Network leadership at the College.

METHOD
Rx-SafeNet leadership developed a brief survey consisting of items examining experiences shared by site coordinators pertaining to various facets of PBRN participation. Specifically, items explored barriers and facilitators to participation in available projects and potential benefits of participation such as new knowledge, professional development and relationships. In addition, site coordinators' confidence participating in research projects and satisfaction with overall network communication was examined. Demographic data including pharmacy education and training, and previous research experience were also collected. The targeted sample was all 26 current site coordinators, some of whom were responsible for overseeing more than one participating Rx-SafeNet pharmacy. In March 2014, the survey was administered by telephone by a student pharmacist not formally affiliated with Rx-SafeNet. Upon completion of the survey, participants received a $10 gift card.

RESULTS
Twenty-two site coordinators participated, resulting in an 85% response rate. On average, site coordinators were approximately 45 years old and licensed as a pharmacist for approximately 20 years. Most (72.2%) of the respondents received a PharmD as their pharmacy degree, and 13.6% had post-graduate year one residency training. The highest reported benefits of membership were enhanced professional development (80% agreed or strongly agreed) and an enhanced relationship with the College of Pharmacy (81% agreed or strongly agreed.) Time constraints were the greatest barrier to participation, reported by 62% of respondents. In regard to respondents' research experience prior to Network involvement, the majority (59%) identified no prior experience. Furthermore, confidence in performing research increased substantially after respondents became members; 43% of respondents reported a lack of confidence in engaging in research before joining the Network. However, 90% of respondents reported confidence in engaging in research after membership. At the time of the survey, over half of respondents (64%) reported they had participated in at least one Network project.

CONCLUSION
In general, members of Rx-SafeNet increased their confidence in engaging in research since joining the PBRN. Benefits to participation were identified, however time constraints remained an important barrier that prevented members from participating in available studies. These findings will assist Network leadership in identifying opportunities to further enhance member experiences.

PRESENTERS:
Puja Patel, PharmD Candidate, 2014
Heather Hemmeger, PharmD Candidate, 2014
Mary Ann Kozak, DrPH
Stephanie Kleyman, PharmD
Margie Snyder, PharmD, MPH

P57 Adopting Participatory Research with Organizations (PRO) to run a PBRN: What can we learn from a Systematic Mixed Studies Review on PRO?

BACKGROUND:
Launched in 2013, the PBRN of McGill University has adopted a Participatory Research with Organizations (PRO) approach for its development. From the beginning, the McGill PBRN has chosen to enable and stimulate active participation of 12 multidisciplinary practitioners and clinician-researchers from four university-affiliated Family Medicine Units. The PRO approach blends research and action to produce relevant knowledge that can improve organizational practices. PRO is conducted with organization members who act as decision makers, together with university researchers, throughout the research process (active participation) or who are consulted throughout a study by the researchers (passive participation). PRO is popular in health organizations, but the differences in the processes and outcomes of active and passive participation are unknown, as are the processes associated with negative PRO outcomes. Such knowledge is warranted for PBRN members interested in adopting a PRO approach for running their network, or planning and conducting research projects. The purpose of our review is to (i) identify key processes associated with PRO outcomes; (ii) measure the association between unanticipated positive outcomes and active participation; and (iii) explain processes associated with negative outcomes of active participation.

METHOD
Design: Systematic mixed studies review. Setting/Participants: We included PRO primary studies (qualitative, quantitative and mixed methods) involving health organizations (published in English or French). Intervention/instrument: We analysed article excerpts indicating processes contributing to outcomes; transformed excerpts into variables to analyse the statistical likelihood and significance of the association between active participation and unanticipated positive outcomes; synthesized the subsample of studies reporting active participation and negative outcomes into case stories, and compared stories.

RESULTS
8652 citations were retrieved through a comprehensive search of multiple sources (including the grey literature). Two independent reviewers identified 968 potentially relevant full text publications. The reviewers screened these papers and selected 122 studies to include in the synthesis. We will present findings regarding key PRO processes and the outcomes to which they contribute as well as the association between unanticipated positive outcomes of PRO and type of participation (active vs. passive). We will also present preliminary findings regarding negative outcomes of PRO and how to avoid or mitigate them.

CONCLUSION
Our results will suggest PRO best practices, and provide insight into the PRO process to help PBRNs that may wish to adopt this approach. From the McGill PBRN experience, this approach was successful in identifying, and working together to answer, a community-based health care question on problems and possible solutions related to patients with complex care needs. Having multidisciplinary practitioners involved in all stages of the research activities of our PBRN, can facilitate the co-construction of practice-based evidence, which may in turn improve practice and patient health.

PRESENTERS:
Pierre Pluye, MD, PhD
Paula L. Bush, PhD
Christine Loignon, PhD
Vera Granikov, MLIS
Sharon Parry, BSc
Carol Repchinsky, BSP

ADDITIONAL AUTHORS:
Jeannie Haggerty, PhD; Gillian Bartlett, PhD; Michael Wright, PhD, LICSW, MS; Jean-François Pelletier, PhD; Lucie Opatrny, MD; Ann Macaulay, CM MD FCFP.

P58 Identifying Relevant Evidence for Practice Change in a Regional PBRN

BACKGROUND:

Background: Over the past decade, primary care has been going through a transformation which has focused on the application of team-based care to address the needs of communities. As we move through this transformative era, the ability to rapidly and effectively identify new evidence relevant to practice will become increasingly important. Additionally, it is critical for this relevant evidence to be informed and influenced by clinicians, who are often best positioned to understand the practice and community needs and are ultimately responsible for implementation of practice change. The Mayo Clinic Health System Practice-Based Research Network Performance Sub-Network (PSN) is a local learning collaborative (LLC) used to rapidly and rigorously collect data representing the opinions and practices of academic- and community-based primary care clinicians. PSN membership is comprised of a convenience sample of 30 primary care providers identified from among the members of the MCHS PBRN as those able to serve as local role models. Members agree to complete a minimum of 80% of surveys offered , to provide clinician/practice demographics, and are encouraged to generate survey topics or questions. The PSN has become a forum through which members can pose and answer questions regarding the relevance of evidence generation in various topics across multiple practices.

METHOD

Methods: Survey topics are generated by PSN members, the PSN leadership group and outside stakeholders, and are based on observations in clinical practice, peer-reviewed research, and institutional resources. The PSN leadership selects survey topics based on their perceived value in introducing new, relevant evidence into members' practices with a preference given to members' submissions. Web-based surveys, no more than 5 questions long, are developed from these topics and distributed via REDCap® at a rate no greater than 2 surveys per month. Survey results are compiled by the PSN leadership team and the survey investigator and are disseminated in a timely manner to PSN members via an easy-to-follow report that follows a consistent template. Links to additional relevant information such a nationally recognized guidelines or institutional resources are generally included in the survey, the results report, or both.

RESULTS

Results: To date, 13 surveys have been completed with topics generally divided into two categories: clinical topics (9) and topics related to PSN operation (4). Mean participation has been 85% (79-93%) with an interest level of 7.4/10 (5.4-8.4). In addition to quantitative results, member comments have provided a rich narrative and feedback of equal value; the following are some examples: Vitamin D: "The struggle is managing multiple sources of information... we can't keep adding things to our plate as we're getting full: What can we take off or how can we learn differently?" Breast Cancer Prevention: "I will review the USPSTF info and very likely this will change my practice and how I influence the design of documentation tools in development currently. " E-Prescribing Errors: "I'd be very interested to learn about prescribing errors related to a lack of resources to translate medication instructions for persons with English as a second language, particularly with medication reconciliation." Essential Information: "It is challenging because there are so many venues; we do not have enough time or an efficient way to learn and apply new information after we come across it." Maintenance of Certification: "It would be great to have a means of communication among Mayo Midwest region colleagues to do QI projects together that involve different sites."

CONCLUSION

Conclusions: A web-based LLC provides busy clinicians a mechanism to effectively receive and provide feedback relevant to their practice. Appropriate topic selection, survey brevity, imbedded references, and timely feedback appear to provide sufficient value to keep members engaged. In addition to quantitative survey results, qualitative feedback in the form of open ended comments provides a valuable narrative for directing PBRN and health system leadership. With network members, there is a defined need to identify relevant information and willingness for inter-site collaboration to guide one another through practice transformation that leads to high-value health care and improved clinician satisfaction.

PRESENTERS:

Rodney Erickson, MD
Lisa Schrader, MT, MBA
Jordan Coffee
Targonski, Paul, MD, PhD

P59 Novel Methodologies for Measuring Implementation of Evidence Based Practice Guidelines

NEEDS & OBJECTIVES

The Academy of Nutrition and Dietetics develops Evidence Based Nutrition Practice Guidelines (EBNPG) for Registered Dietitian Nutritionists (RDNs) to implement in a variety of disease states. Survey data suggest implementation is relatively low, and self-reported implementation data may lead to an over-estimation of the implementation. Surveys do not allow tracking when the decision not to implement an EBNPG may be appropriate. This abstract describes two novel methodologies put in place by the Dietetics Practice Based Research Network (DPBRN) for comparison between care plans recorded or executed by RDNs and guideline recommendations. The goals are to better measure implementation, barriers to implementation, reasons practitioners may choose not to implement guidelines, and similarity of practitioners' perceptions of their guideline use with actual practice patterns. Eventually these methodologies can be applied to test the efficacy of EBNPG.

SETTING & PARTICIPANTS

Both methodologies focus on RDNs. The first will involve EBNPG for Preventing Diabetes, and RDNs will be recruited through the DPBRN. In the second, RDNs will practice in a variety of specialties and settings but all will be RDN preceptors for supervised practice internships at participating facilities/programs (identified through the DPBRN).

DESCRIPTION

Methodology 1: In our study on implementation of EBNPG for Preventing Diabetes, practitioners will record their own practice patterns using the Nutrition Care Process (NCP) and its terminology (NCPT). The NCP guides the RDN in relevant nutrition assessments, determining a diagnosis and generating a plan for intervention, and monitoring, and evaluation, and the NCPT provides standardized language for each. Patterns of care can be described by linking each step of the NCP in a "chain," and the Web-based Academy of Nutrition and Dietetics Health Informatics Infrastructure (ANDHII) has been developed to facilitate the collection of practice pattern and patient outcome data using the NCP and NCPT. RDNs in this study will track their patterns of care in ANDHII, which allows de-identified data to be submitted to research study staff. An expert panel will be convened to define NCP chains a priori to represent practice expectations according to each element of the EBNPG for Preventing Diabetes. By comparing the chains developed by the committee and those inputted in ANDHII by practitioners, we can determine the extent to which guidelines have been implemented. In addition, participants in this study will complete an online survey regarding their knowledge of the EBNPG and their implementation thereof. This self-reported implementation data can be compared to the objective data to determine the relationship between practitioner perceptions of their implementation and actual success. Methodology 2: In the second project, we will engage students in our research network to directly observe the implementation of various EBNPG by RDN preceptors in their program. During supervised practice experiences, students frequently spend time observing preceptors prior to engaging in practice themselves. This methodology will take advantage of that time and provide a benefit to students as an experience in research. Students will select a disease or condition of interest for which an EBNPG exists and will be provided with a data collection checklist to record whether or not each section of the guideline was implemented by the preceptor during a visit with a relevant patient. After the patient visit is complete, the student will debrief with the preceptor to learn whether the preceptor thought they implemented a guideline, and if not, why they did not implement one. During the first observation by each student the preceptor will not know what disease the student is observing and therefore will not know they are under observation. After the first debrief, this incomplete information will not be possible, increasing the possibility of the Hawthorne effect.

EVALUATION

Evaluation of these methodologies will revolve around both feasibility and data quality. We anticipate both projects will begin in fall of 2014. Through the PBRN structure we will obtain unstructured comments on the methodologies from the participating practitioners. Data quality and usability will be determined in the analysis for each study's primary aims.

DISCUSSION/REFLECTION/LESSONS LEARNED

Evidence-based practice guidelines are only as good as the science on which they are based. In the ever-changing world of nutrition research, this poses a major threat to the validity of guidelines. EBNPG must undergo rigorous efficacy testing; however, methodologies to accurately determine when a guideline has been implemented must first be developed. We believe that testing of the EBNPG is a logical collaboration for DPBRN and these new methodologies are an important step on the path to guideline testing.

PRESENTERS:

Rosa Hand, MS, RDN, LD
William Murphy, MS, RDN, LDN
Taylor Wolfram, MS, RDN, LDN
Alison Steiber, PhD, RDN

P60 Developing the Practice-Based McGill Primary Health Care Research Network using Participatory Research with Organizations

NEEDS & OBJECTIVES
The mission of the McGill Primary Health Care Research Network, is to promote innovation by producing and applying research knowledge from and for clinical practice in partnership with primary health care practitioners. Using a Participatory Research with Organizations (PRO) approach, the network strives to build the research capacity of its members, and to increase the quality of research outcomes thereby producing new knowledge that will improve practice.

SETTING & PARTICIPANTS
The McGill network was developed by the Research Division of the McGill Department of Family Medicine, and launched in 2013. This network is one of four practice-based research networks, which make up the Quebec Knowledge Network funded by the 'Fonds de recherche du Québec - Santé' (FRQS). In accordance with the multi-disciplinary nature of primary care, this network includes nurse practitioners, nurse managers, a clinical pharmacist, family physicians, and psychologists from 5 university-affiliated Family Medicine Units. Based on the priorities and interests of practitioners, the network chose as its starter project the study of 'patients with complex care needs'.

DESCRIPTION
In the starter project, 12 practitioners and researchers participate in decision-making and knowledge co-creation at all research stages. There are many problems associated with patients with complex care needs in primary health care, but little is known about them. Our research questions are: what are the (i) types of patients with complex care needs, (ii) related health care problems, and (iii) potential solutions? By performing a scoping literature review and capturing the views of community-based primary health care practitioners, the network seeks to better understand patients with complex care needs and to identify potential solutions. By engaging knowledge users of this research in the entire process, we hope to increase the relevance and implementation of findings in clinical practice.

EVALUATION
Under our supervision, one medical student will assess network processes and outcomes and compare them against 'best practices' suggested by a systematic literature review of PRO studies. The student project will adopt an exploratory single case study research design (qualitative description). With the case being the Network, the student will read network correspondence, meet with members, and attend meetings to collect additional qualitative data. Results will be synthesized to make recommendations for improving participatory processes, preventing negative outcomes, and increasing positive outcomes.

DISCUSSION/REFLECTION/LESSONS LEARNED
Challenges include: balancing schedules and timelines to sustain engagement and interest; building an equitable partnership where satisfaction is independent of varying levels of participation; managing expectations while remaining patient as research findings emerge over a longer time frame.

ONLINE RESOURCE
http://www.netvibes.com/privatepage/1#Complex_Patients

PRESENTERS:
Vera Granikov, MLIS
Ellen Rosenberg, MDCM
Roland Grad, MD, CM, MSc, FCFP
Edith Omon, MD
Quynh Nguyen, MSc

ADDITIONAL AUTHORS:
Cristiano Martello Silvia Duong Bernardo Kremer Lynn R McLauchlin Alain Boulet Magali Bigras Guillaume Bessière Dounia Kayal Karène Brenner Colleen Beth Tower Marjorie Rabiau Soumya Bindiganavile Sridhar Jeannie Haggerty Pierre Pluye, MD, PhD

P61 Re-Engaging a PBRN's practices to facilitate relationships, collaboration, and communication

NEEDS & OBJECTIVES

Practice based research networks (PBRNs) are dependent on healthy relationships with their member practices and patients in order to conduct real world research that matters to primary care. Maintaining these relationships requires time, effort, and infrastructure support. Grants do not support these activities outside the scope of specific project tasks. Complicating this, busy clinical practices have limited time and personnel to engage in relationship building, so activities need to be practical and need to have perceived value. With new support from our university's CTSA, we are updating our practice engagement activities to re-invigorate, expand, and add value to our current PBRN relationships.

SETTING & PARTICIPANTS

The Virginia Ambulatory Care Outcomes Research Network (ACORN) was initially established with an Agency for Healthcare Research and Quality PBRN infrastructure grant in 1996. This grant supported traditional PBRN infrastructure building activities (e.g. site visits, practice inventories, needs assessments, newsletters, study design participation, etc). Upon grant conclusion, PBRN activities focused more on tasks related to specific studies. As a result, practices participating in these studies remained very engaged in network activities, while others became more peripherally involved.

DESCRIPTION

There has been a focus on four specific activities to re-engage practices: (1) hiring a dedicated Practice Advocate charged with understanding and supporting each member practice; (2) establishing an active ACORN Board to direct network infrastructure development and research study activities; (3) converting to an electronic newsletter that can track reader activity and allow us to develop a better understanding of member interests; and (4) fielding a bimonthly clinical question posed by network members and sharing member perspectives to not only create a community of learning but utilize the experience to gain greater direct access to clinicians. Prospectively monitoring of quantitative and qualitative outcomes for each activity to track its impact on practice engagement in network activities is ongoing.

EVALUATION

The practice advocate has conducted site observations with 23 practices. Tasks have included ensuring practice clinicians and staff understand the purpose and design of ACORN, and that we understand the needs, concerns, and interests of each practice. Practices have identified new regulations, unintended consequences of healthcare reform, hospital relationships, community integration, health information technology, patient-centered medical home redesign, and new challenges with wellness care receiving first dollar coverage as topics of concern and interest. ACORN board members have assumed a leadership role in identifying desirable network infrastructure, specifically requesting that we create a network patient advisory board to guide patient centered outcomes research in the state, plan an annual network meeting in conjunction with the state academy of family medicine meeting, and develop a public and private Facebook page to facilitate communication. Tracking reader activity has allowed us to identify and track the ACORN activities that most interest our members. ACORN member participation in the bimonthly clinical question is steadily increasing and clinicians have expressed that they value learning about the other clinicians' perspectives. However, to date, the clinical question has not increased direct access to clinicians and only a select few of engaged participants have helped to ask the clinical question.

DISCUSSION/REFLECTION/LESSONS LEARNED

The ACORN research team is dedicated to providing greater value to members, promoting practice leadership to direct research activities, building a sense of community for network members, and documenting the success of engagement activities. Practices and ACORN Board members have responded positively. Overall, the success of re-engagement will likely dependent on whether network activities matter to practices. Using methods to measure, track, and observe the behaviors and interests of member practices will be essential to guide our evolving practice re-engagement roadmap.

PRESENTERS:

Camille F. Washington
Alexander H. Krist
Rebecca S. Etz

P62 Multi-Site Card Study in a Practice-Based research Network: Best Practices and Influence on Future Research Participation

BACKGROUND:
Card studies are an important method for observational research in a practice-based research network (PBRN), and allow investigators to collect large volumes of data from patients or clinicians at the point of clinical care. Expert opinion suggests that when conducting a card study in a PBRN, it is important to develop a thorough implementation plan as well as provide adequate support for participating practices. The goals of this study were to 1) systematically identify best practices for implementing a multi-site card study in a PBRN, and 2) assess whether participation in the card study influenced clinics' plans for participating in future research projects.

METHOD
The WWAMI region Practice and Research Network (WPRN) recently completed a card study in 12 practice sites to assess patient preferences for weight loss treatment in primary care. We conducted individual, semi-structured interviews with practice champions from the WPRN sites that completed the card study. Questions assessed motivation to participate in the study, strategies for implementing and monitoring the study at practice sites, practice resources required for implementation, and impact on the practice's future research participation. All interviews were audio-recorded. Three investigators reviewed interview notes, supplemented by audio-recordings when needed for clarity. Investigators independently coded interview responses and identified key themes by consensus. Themes were organized by the constructs of the Consolidated Framework for Implementation Research (CFIR). The Consolidated Framework for Implementation Research has been widely used to guide implementation and evaluation of clinical interventions. We adapted the CFIR domains (Outer Setting, Inner Setting-Individuals, Intervention-Core Components, Intervention-Adaptable Periphery, and Implementation Process) to evaluate implementation of a multi-site card study in the WPRN.

RESULTS
9 of 12 practice champions at WPRN participating sites completed telephone interviews and 1 champion provided written feedback. Factors that facilitated implementation of the card study included importance of clinical topic to the clinics (Inner Setting) and communities (Outer Setting), buy-in from clinical and administrative leaders (Inner Setting, Individuals), feasible methodology (Intervention, Core Component), materials and personnel support from the WPRN Coordinating Center (Intervention, Adaptable Periphery), and champion desires to increase research activities at their sites (Inner Setting, Individuals). Strategies employed by champions for implementing the card study included engaging clinic leadership , training front desk staff, and daily check-ins during data collection. One practice champion provided daily updates about the number of surveys collected to date to participating staff and one practice champion provided a "kick off breakfast" as an incentive. The only consistently identified barrier to implementation of the card study was concern from front desk staff about burdening patients with additional paperwork (Inner Setting-Individuals, Implementation Process). Site resources required for implementation of the card study included champion time to gain approval for participation, provide staff training, and monitor the data collection. All site practice champions reported that they would consider participating in a future card study.

CONCLUSION
The Consolidated Framework for Implementation Research (CFIR), most often used to guide implementation of clinical interventions, provided a useful framework for describing facilitators and barriers to implementation of a research protocol in primary care practices. Facilitators representing CFIR's major domains were critical to successful implementation of this practice-based card study. The only consistent barriers identified were time constraints of front desk staff and perceived burden on patients to complete the questionnaires. Our findings confirm that card studies are feasible to implement across primary care practices and may increase practices' likelihood of participation in future research projects. Critical factors to success are choosing a topic of importance to practices and communities and obtaining buy-in from clinical and administrative leadership.

PRESENTERS:
Allison M. Cole, MD, MPH
Gina A. Keppel, MPH
Laura-Mae Baldwin, MD, MPH

P63 Measuring variation in the integration of primary care and public health: a multi-state PBRN study of local integration and health outcomes

BACKGROUND:
The Institute of Medicine makes a compelling case that increased collaboration between primary care and public health is crucial to population health, and the Accountable Care Act provides new incentives and expectations for such partnerships. Yet currently there is no consensus on terminology, definitions or measures of collaboration between these two largely separate systems of care. In the face of new incentives and pressures to increase quality, contain costs and improve outcomes, action is needed to advance a common understanding of primary care and public health collaboration among practitioners and researchers in both fields. The study objective is to examine the relationship between primary care and public health at the local level and to identify factors that facilitate or inhibit primary care-public health integration. Further, to understand how primary care and public health can leverage factors to increase integration.

METHOD
The study utilizes a mixed methods design that engages primary care and public health practice-based research networks across four states: Colorado, Minnesota, Washington and Wisconsin. In this qualitative phase, 40 executive-level primary care and public health key informants were interviewed from the four participating states, representing 20 paired "dyads." Key informants in each dyad represent a primary care and public health setting in a specific local jurisdiction.

RESULTS
Key themes will be examined that relate to a conceptual framework that includes core components related to successful partnerships. Previous work has identified several important components of partnerships, including: having a common goal; community engagement; leadership; sustainability; collaborative use of data and analysis; mutual trust and respect; organizational structure; shared goals and objectives; information resources; fiscal and economic resources; system boundaries/size; governance and decision-making; and workforce.

CONCLUSION
The relationship between the key findings and the existing conceptual framework will be presented, including a discussion of how this shapes the next quantitative phase of this mixed methods study. These findings are informing development of a quantitative survey instrument, which can advance the measurement of the full range of integration in order to detect changes in integration over time. In addition, this study contributes to stronger relationships between primary care and public health practice-based research networks, which paves the way for future collaborations.

PRESENTERS:
Kevin A. Peterson, MD MPH
Rebekah Pratt, PhD
Carol J. Lange, MPH
Laura Mae Baldwin, MD
David Hahn, MD
Donald Nease, MD

ADDITIONAL AUTHORS:
Beth Gylllstrom, PhDbeth.gyllstrom@state.mn.us Kim Gearin, PhD (kim.gearin@state.mn.us

P64 Comparing the knowledge level of providers and staff on Patient Centered Medical Home concepts

BACKGROUND:
As implementation continues of the Patient Centered Medical Home (PCMH) model throughout the UF Primary Care Network, it is important to determine the level of comfort and knowledge of the core principles and processes by both clinicians and office staff in order to develop the appropriate tools and training programs to fully embrace the model.

METHOD
An online survey tool was developed using the American Academy of Family Physicians Patient Centered Medical Home Checklist. The survey covered four main domains: quality care, patient centered care, health information technology, and practice organization. An email was sent by the Chair of the Department to all CHFM providers and staff at the clinical practices throughout the region. Three reminder emails were sent to maximize response rates.

RESULTS
A total of 158 responses were received of which 55 were from clinicians and 103 from office staff (includes medical assistants, customer service representatives, referral coordinators and office managers). There were significant differences in the responses between clinicians and office staff in several sub-domains. For the sub-domain addressing the use of risk-stratified care management principles, 3 of the 5 questions had a 20 point difference between the two study groups. For the sub-domain addressing coordinated care across the medical neighborhood, there was a 30 point difference in the item that addressed coordinating and monitoring exchanges of information with specialists and care facilities. The sub-domain addressing patient engagement had the biggest difference in responses among clinicians and office staff where all five items had a difference greater than 23 points. The sub-domain regarding providing patient self-management support also had large difference in the responses for 4 of the 5 items in this category and the sub-domain that addresses the culture of change within the practice had some significant differences in 3 of 5 items.

CONCLUSION
The knowledge level of the core principles and the perceptions of implementing these core principles into practice are quite different between clinicians and office staff in several of the sub-domains within the survey where the office staff seem to have less of an understanding than clinicians. This survey provides the opportunity to develop an educational program specifically for office staff regarding their role in the PCMH model.

PRESENTERS:
Christopher Scuderi, D.O.
Lori Bilello, PhD
Nipa Shah, MD
Kenyatta Lee, MD

P65 Drug Samples Policies, Management, and Utilisation in the Family Medicine Practice Based Research Network (PBRN) of Laval University.

BACKGROUND:
Use of drug samples can pose health risks to patients, influence healthcare providers' prescribing behaviour, and contribute to the increase of healthcare costs by promoting prescription of more expensive newly patented drugs. The objective of the study was to describe drug sample policies, management, and utilisation in family medicine teaching units (FMTUs).

METHODS:
This cross-sectional descriptive study was conducted in the 12 FMTUs of the Université Laval PBRN, Québec, Canada in September 2103. All health professionals (teachers, residents, pharmacists, nurses) using drug samples and those assigned responsibility for drug sample management in the FMTUs were invited to participate. A 26-question and 30-question self-administered surveys was completed by the drug sample managers and the drug sample users, respectively.

RESULTS:
All 12 FMTUs kept drug samples, with 11 providing a common storage space for them. Ten (10) FTMUs had appointed nurses or pharmacists to manage drug samples; 8 had a written local or regional policy on drug samples. Response rate to the users' questionnaire was 86% (368/430). Among respondents, 217 (59%) used drug samples and more than half did not know if a written policy on drug samples existed or not. The majority (80%) of users take samples for personal use. Half (54%) of users provide samples to patients even if it is not their first choice drug, at least occasionally. Only 44% of users always write a note in the patient's file when giving a sample and 12% always refer patients to a pharmacist to provide information about the drug. A total of 291 (80%) respondents were in favor of the Department of Family and Emergency Medicine (DFEM) implementing a written policy on drug samples.

CONCLUSION:
Despite written policies in the majority of FMTUs surveyed, drug sample use appears inappropriate. The DFEM should establish a common policy on drug sample use and FMTUs should revise their current management and practices accordingly.

PRESENTERS:
Ghislaine Tré
Caroline Rhéaume
Mari Lou Giard
Ulrich Ifoko
Lucie Morais
Steven Belanger

ADDITIONAL AUTHORS:
Pierre-André Leroux, Evelyne Mafeuda Nana, Sabrina Baril, Myriam Gosselin, Annie Levesque-Langelier, Kathleen Lemieux, Marie-Ève Blanchard, Esthel Rochefort, Julie Fortin, Frédérique Ducharme Bélanger, Mathieu Pelletier, Annie St Pierre, Éric Dubuc, Davi

P66 Building Research-Clinical Partnerships from the Ground Up: Frontline Perspectives of VA Providers

BACKGROUND:
The VA Women's Practice-Based Research Network (PBRN) was funded to facilitate inclusion of women Veterans in VA research and to provide an infrastructure for supporting multi-site research involving women. The PBRN adopted a hybrid top-down/bottom- up model where frontline clinicians/staff provide input on key research and quality improvement (QI) ideas. We interviewed clinicians/staff at the four original PBRN sites to compare and contrast their priorities and interests in relation to the published Women's Health research agenda, to better understand how to structure and accelerate future research partnered with frontline clinicians/staff.

METHOD
An outcome of the 2010 VA Women's Health Services Research Conference, the VA HSR&D Women's Health Research Agenda designated six Strategic Priority Areas (SPAs): Access to care/rural health; primary care/prevention; mental health; post-deployment health; complex chronic conditions/aging/long term care; and reproductive health. We conducted semi-structured interviews of 49 frontline clinicians and staff at the four original PBRN sites in 2011-12. Responses to the following question were summarized and categorized: "Have you noticed any specific problems (either patient care or operations) that you feel need to be addressed with research and/or quality improvement efforts?"

RESULTS
VA clinicians/staff were interested in supporting research and QI efforts, and while research interests varied, they mapped well to the VA Women's Health Research Agenda SPAs. Many providers mentioned research topics related to the delivery of evidence-based care across the SPAs and seemed to appreciate how research could inform day-to-day practice. Some respondents suggested topics outside the agenda, including inappropriate use of the emergency room instead of primary care and the long-term implications of service-connected disability status for treatment outcomes.

CONCLUSION
Overall, there was concordance between the published women's health research agenda and clinician/staff research and QI suggestions. Areas for potential growth that do not fit within the specific frame of the current agenda include suggestions for greater emphasis on operational needs related to improved efficiency and value, as well as unintended consequences of some VA policies and practices. Provider and staff input into research topics could help to facilitate uptake of evidence-based care.

PRESENTERS:
Ruth Klap, PhD
Alison Hamilton, PhD
Sabine Oishi, PhD
Diane Carne, MA
Elizabeth Yano, PhD
Susan Frayne, MD

P67 The impact of care coordination in community pharmacist-delivered comprehensive medication review: A study from the Medication Safety Research Network of Indiana (Rx-SafeNet).

BACKGROUND:
Insufficient information exchange is a major concern to the American healthcare system as sixty-six percent of all medication-related errors are attributed to poor care coordination. Consequently, standardized and effective mechanisms are being constructed to facilitate effective health information exchange (HIE). However, pharmacies are not included within HIE platforms, and do not routinely have access to health information aside from what is patient-reported. Incidentally, this absence of medical history may limit pharmacists' ability to deliver the highest level of care. This study seeks to determine if pharmacists who review the past six months of primary care medical records in preparation for a comprehensive medication review (CMR) identify more health related problems than pharmacists who do not. This study also seeks to describe parts of the health record used by pharmacists to identify and categorize health-related problems.

METHOD
This study is a prospective, non-blinded, randomized trial designed to measure the efficacy of care coordination in identifying health related problems among patients of community pharmacies enrolled in the Medication Safety Research Network of Indiana (Rx-SafeNet). The care coordination intervention will consist of intervention-group pharmacists reviewing 6 months of medical history from the patient's primary care provider prior to the CMR. Ninety patients will be sought for enrollment. Participating pharmacists will be stratified on number of CMRs performed in the past year and randomized to provide the intervention or usual care. Additionally, pharmacists will receive standardized training from researchers in how to identify health related problems based on current recommendations of the US Preventative Services Task Force and Centers for Disease Control and Prevention. Pharmacists who report limited experience delivering CMR's will undergo further CMR training with researchers to promote standardization of the intervention. Data will include type of problems discovered, extent of medical records received, types of records used to discover problems, as well as provider and patient demographics. The primary objective will be tested for significance using an analysis of variance of each pharmacist's mean number of health related problems discovered. A multiple regression model will be tested to relate study variables to number of health related problems discovered. Secondary objectives will be evaluated using descriptive statistics. We will also compute bivariate statistics to examine the study groups for any significant differences in patient demographics, prescriber demographics and types of records received.

RESULTS
The research protocol was approved by Purdue University's IRB, and recruitment and training of pharmacists has commenced. Currently, seven study sites have been identified and training has been scheduled for two pharmacists. Data collection will occur during the period April to June 2014. Preliminary results will be presented at the 2014 North American Primary Care Research Group PBRN Conference in Bethesda MD.

CONCLUSION
This study will determine if pharmacists who engage in care coordination during a CMR delivery discover more health related problems than pharmacists who do not. This study will provide evidence pertaining to the potential impact of including community pharmacies within multi-directional health information exchange platforms.

PRESENTERS:
Stephanie Kleyman, PharmD
Margie Snyder, PharmD, MPH