

## **P10: Signalling DNR status in the hospitals: stakeholder perspectives**

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**BACKGROUND:** On admission to the hospital, patients and their families answer questions as to code status. Code status lets hospital staff know what interventions the patient wishes in the setting of a cardiovascular event. Possible options include: Full code which indicates all possible interventions and DNR/DNI indicating that the patient wishes interventions aimed at comfort care but not chest compressions, intubation or other invasive measures. Patients who have identified their code status as DNR/DNI can be wrongly coded in the hospital setting. One of the main root causes of the systems based problem contributing to this error at our hospital was that the code status of our patient was not readily identifiable to ALL nursing staff on the floor without logging into a computer. Nursing staff not immediately responsible for the patient's care had to log in to the hospital's electronic health record in order to find the patient's code status, which resulted in inappropriate care. This either delayed proper care or resulted in care which was not desired by the patient. On the other hand, too obvious signaling, such as a large sign over the patient's bed, can make patients, visitors and family members uncomfortable, as well as may violate HIPAA. We were interested how indication of code status of the patient was represented in the literature as well as at our other community hospitals. The literature was very limited and each hospital had a different way on indicating code status in the inpatient setting. In order to prevent events similar to this from happening in the future, this project will explore if alternative methods for identifying patient wishes in a timely manner.

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### **SETTING/PARTICIPANTS:**

**METHODS:** We survey patients and nurses about awareness of options for signalling code status and their views about different options. We present them with different options to document the patient's DNR status in a feasible, efficient and appropriate manner and ask them to rank them along different metrics.

**RESULTS:** Pending.

**CONCLUSION:** We will complete the data collection in the next 2 weeks. As this is an area of significant differences in practice even in the same community, we expect that the input from patients and direct care nurses will contribute to the discussion about this very important step in patient care.

**RELEVANCE STATEMENT:** Codes status is an important decision for the patient and their families. This project looks to improve how to indicate code status in the inpatient setting for both clinical efficiency and patient appropriateness.

## **P11: Delivering Addiction Treatment for the Whole Person in Community**

*Thao Nguyen; Melanie Scharrer, MD; Philip W. Robinson, LCSW*

**BACKGROUND:** For the past decade, Adams and Marquette, neighboring rural counties in Wisconsin, consistently have the highest concentration of alcohol and opioid problems in the state. To improve access to opioid and other addiction treatment in these communities, Family Health La Clinica (FHLC) in Adams Friendship WI is developing a care model which shifts from disjointed, episodic services, to use of integrated and cost-effective services that promote continuity and engagement of natural and community supports.

**SETTING/PARTICIPANTS:** Residents of Adams, Juneau, and Marquette counties who are in need of treatments for mental health and substance use disorders, primarily opioid and methamphetamine addiction.

**METHODS:** This model utilizes the Hub and Spoke model to connect participants with resources spanning three counties, as well as connecting with private health systems throughout those counties. Its workflow adapts several integrated models already in use in Wisconsin: Coordinated Services Teams and Comprehensive Community Services and places them within the structure of a Federally Qualified Healthcare Center. The treatment teams also bear some similarities to the Assertive Community Treatment model for severe and persistent mental illness. The focus is exclusively on addiction treatment, but recognizes that physical and psychological health are key components to relapse prevention- and coordinates within and beyond the clinic itself to help clients meet those needs. Referrals come from primary care, word of mouth, and other addiction and mental health specialty clinics. They also can come from area agencies, such as child protection, criminal justice, and county health departments. Participation is voluntary and informed consent is at the core of treatment. Care teams include community recovery specialists, a registered nurse, medical assistant, mental health and addiction counselors, social workers, an addiction psychiatrist, primary care providers with addiction training, and a benefits specialist. Treatment is provided in group and individual settings. The care team meets regularly to discuss cases and plan treatment.

**RESULTS:** The study plans to collect the following outcomes: epidemiological data of area, time it takes for participant to access care, participant's demographic data, participant engagement with primary services and group therapy, participant's criminal justice data before and after treatment, participant's gain and/or maintenance of employment, number of emergency interventions, and number of pokes cultivated and maintained.

**CONCLUSION:** Next steps: Assess participant and community partner engagement on an ongoing basis. Review strengths and weaknesses in the implementation process after its first year. Develop community and academic partnerships to facilitate and improve involvement of medical students and residents in mental health and addiction treatment in Adams Friendship rural community. Move towards financial independence, shifting funding away from grants and towards sustainable funding sources.

## **P12: Characteristics of chiropractors using the Webster Technique in the care of pregnant patients: results from a PBRN**

*Joel Alcantara, DC, PhD(c); Jeanne Ohm, DC*

**BACKGROUND:** Those seeking chiropractic care are more likely to be female (i.e., prior to, during pregnancy and the post-partum period) with a median age of 43.4 years and presenting commonly with chronic low back pain. To further the characterize chiropractors caring for pregnant women, we describe our findings from chiropractors participating in a PBRN study on the chiropractic care of pregnant women.

**SETTING/PARTICIPANTS:** Chiropractors participating in a PBRN

**METHODS:** A convenience sample of chiropractors participating in a study examining the chiropractic care of pregnant women is described. Data from the practitioner survey examined socio-demographic information (i.e., sex, age), clinical experience, post-graduate education/training, chiropractic technique and adjunctive therapies, and professional collaboration with other healthcare providers is described.

**RESULTS:** A convenience sample of 98 chiropractors (76 females and 23 males) participated in this study. Their average age was 33.29 years (SD=6.10) with mean clinical experience of 6.28 years (Range: 1-22 years; SD=5.12). Eighty-one percent (N=80) indicated as currently enrolled in a post-graduate program in the care of pregnant women with 98% indicating current or former training with the International Chiropractic Pediatric Association. All were trained in the Webster Technique, a common protocol for pregnancy care. The three most common spinal manipulative techniques utilized in the care of pregnant women were (in order of popularity) : Diversified Technique (N=58), Thompson Technique (N=39) and Activator Technique (N=26). The most popular adjunctive therapies provided was soft-tissue manipulation (N=30; 30%). The most common clinical presentation was low back pain (N=63; 64%) followed by wellness care (N=14; 14%). The most established professional relationship was with a Doctor of Naturopathy followed by a nurse practitioner, a physiotherapist, nurse-midwife, an MD/DO, a midwife, acupuncturist, homeopath, and massage therapist. Referrals were made by the responders in the past 3 months to massage therapists with a mean of 8.84 referrals followed by acupuncturists (mean=3.59), MD/DO (mean = 3.82), physiotherapists (mean=2.89) and midwives (mean=1.78). Referrals received in the past 3 months from various healthcare professionals were commonly from massage therapists with a mean referral received of 3.76 followed from an MD/DO (mean = 2.36), midwives (mean = 2.16) and acupuncturists (mean = 1.01). The most common reason for the referral for chiropractic care was to address pregnancy-related low back pain (i.e., N=66; 67%) followed by neck pain (N=7; 7%).

**CONCLUSION:** Conclusion: Chiropractors caring for pregnant patients utilize commonly used chiropractic techniques to address pregnancy-related low back pain along with soft-tissue manipulation. Established professional relationships exists with referrals to and from other healthcare professionals such as naturopaths and massage therapists.

**RELEVANCE STATEMENT:** Of the practitioner-based alternative therapies, chiropractic is highly utilized, particularly by pregnant women. This provides socio-demographic and practice characteristics of chiropractors in the care of such patients.

### **P13: Atopic Dermatitis: Recognizing a Phobia to Topical Corticosteroid**

*Kimberly Fulda, DrPH; Andrew Crim, MEd; Anna Espinoza, MD*

**BACKGROUND:** Atopic Dermatitis (AD) is a chronic inflammatory disease affecting up to one in every five children worldwide. It is characterized by a defect in the skin barrier, allowing penetration by allergens, causing a relapsing inflammatory response. Generally, people with atopic dermatitis suffer from dry, sensitive skin with a characteristic intense itch. AD is commonly treated with topical corticosteroids; however, pediatric patients/caregivers fear using topical corticosteroids due to the perceived potential for side effects. Researchers from the North Texas Primary Care Practice-Based Research Network (NorTex), in collaboration with INCEDO, UNT Health Science Center's professional and continuing education center, conducted a survey among primary care providers throughout Texas to collect information concerning primary care provider's acknowledgement and recognition of topical corticosteroid (TCS) phobia.

**SETTING/PARTICIPANTS:** Primary Care providers (physicians, physician assistants, and nurse practitioners) members of NorTex were invited to take the survey. Providers were primarily located in North Central Texas.

**METHODS:** NorTex collaborated with INCEDO to conduct a self-report survey of primary care clinicians in NorTex. The survey was distributed electronically with two reminders. The survey included questions about providers' practice patterns when prescribing TCS for pediatric patients with AD, their beliefs about the perceived effects of TCSs, and their perception of the patients'/caregivers' beliefs of the perceived effects of TCSs. A descriptive analysis of their responses was conducted.

**RESULTS:** A total of 84 providers (12 nurse practitioners, 4 physician assistants, and 65 physicians) completed the survey. Thirty-one percent reported they often/always prescribe TCS for pediatric patients with AD, and 66% reported they were confident/very confident when prescribing TCS for pediatric patients with AD. Fifty-one percent responded that they ask their patients /caregivers if they have concerns when prescribing TCS for AD in pediatric patients, and 33% reported that their pediatric patients/caregivers sometimes or always/often express concerns about using TCS for AD. Over 40% of providers reported they felt that their patients/caregivers were concerned about skin thinning (40.5%), skin bleaching (47.6%), and damaging their skin (59.5%) when prescribing TCS for AD.

**CONCLUSION:** Our research demonstrates that about half of primary care clinician participants ask their patients if they have concerns when prescribing TCS. Parents receive misinformation about AD from the internet, other media, family, and friends. Receiving incomplete information from a physician, NP or PA compounds that effect by leaving gaps filled with bad advice, and can exacerbate flare-ups, increasing the magnitude of AD's effects. Understanding patients'/caregivers' fears is critical for healthcare providers to deliver optimal care.

**RELEVANCE STATEMENT:** Patients/caregivers often have concerns when topical corticosteroids are prescribed for atopic dermatitis, especially for pediatric patients. It is important for primary care clinicians to be aware of their concerns so they can address them. If their concerns are not addressed, patients may not be compliant with the medication or use it correctly.

**P14: Effects of continuous positive airway pressure ventilation in premature newborns at University Hospital of Mirebalais, Haiti, February 2016-March 2018**

*Ornella Sainterant, MD; Michaela Nadjee Delva, MD; Michel Angel Hilaire, MD*

**BACKGROUND:** Prematurity, because of its complications, is the leading cause of death in children under 5 years old worldwide. In several countries, continuous positive airway pressure ventilation (CPAP) is used in premature newborns to treat their main complication, respiratory distress syndrome. In Kenya, this tool has contributed to improve their survival rate. In Haiti, at University Hospital of Mirebalais (HUM), a quality improvement project had potentiated its early utilization on premature newborns. This study sought to evaluate the effects of CPAP on respiratory distress and specific mortality in premature newborns at HUM.

**SETTING/PARTICIPANTS:** This study took place at HUM, one of the largest teaching hospital in Haiti. It included newborns of 34 weeks of amenorrhea or less, weighing at least 500 grams, admitted to the neonatal intensive care unit from February 2016 to March 2018. Newborns with congenital malformations were excluded.

**METHODS:** In this retrospective cohort study, depending on the availability of the CPAP devices two groups were naturally created: one having benefited from CPAP and the other not. The primary outcome was improvement of respiratory distress using Silverman Anderson score, the secondary outcome was specific mortality by respiratory distress. Data analysis was done with relative risk (RR), Chi Square test and logistic regression on Epi info 7.

**RESULTS:** During this period 280 premature newborn were included. 49.64% of them were placed on CPAP, 51.42% were male, 56.78% aged between 32 and 34 weeks of amenorrhea, 56.07% weighted between 1000 and 1500 grams and 53.92% had a Silverman-Anderson score between 4 and 6 at admission. In the CPAP group more premature newborns had a significant improvement of respiratory distress compared to the other group (81.29% vs 12.77%, RR=6.36,  $p < 0.0001$ ). They also had a lower specific mortality by respiratory distress (8.63% vs 47.52%, RR=0.18,  $p < 0.0001$ ). Logistic regression confirmed the independent beneficial effect of CPAP on respiratory distress and specific mortality.

**CONCLUSION:** The premature newborns that had benefited from CPAP had a better improvement of respiratory distress and a better survival. The use of CPAP in prematurity should be encouraged in the Haitian medical sector for an improvement of the management of premature newborns.

**RELEVANCE STATEMENT:** This study demonstrates that continuous positive airway pressure ventilation is an effective tool that can improve the respiratory distress and survival of premature newborns in Haiti a low income country.

## **P15: A Preliminary Evaluation of Barriers and Facilitators in Recruitment and Enrollment Strategies for the COPD Assessment in Primary Care to Identify Undiagnosed Respiratory Disease and Exacerbation Risk (CAPTURE) Study.**

*Christy Flynn, CCRC; Andrea Price; Laura Staton*

### **BACKGROUND:**

Chronic Obstructive Pulmonary Disease (COPD) is a major cause of morbidity and mortality worldwide. It is thought to be underdiagnosed and, as with most chronic illnesses, patient outcomes are generally better when detected and diagnosed earlier. Although most primary care practices in the U.S. now have access to basic respiratory tests such as spirometry, lack of a clear pathway or tool to quickly identify those most at-risk often delays diagnosis. Through the CAPTURE Study, a unique COPD case finding tool with five questions and peak expiratory flow is being validated in primary care settings in order to develop a simple, pragmatic approach to screen patient populations and identify patients with undiagnosed COPD who may benefit from further evaluation and treatment. Five PBRNs across the U.S. are each recruiting 1,000 primary care patients for participation. After all PBRNs had enrollment kick-offs with at least one clinical practice, coordinators' challenges and facilitators were gathered to improve recruitment technique.

**SETTING/PARTICIPANTS:** As a representative cross-section of each PBRN, 20 primary care practices are recruited (including urban, suburban, and rural areas). Patients are considered eligible if they are between the age of 45-80, do not have a COPD diagnosis and have not had any of the following issues in the last 30 days: antibiotics or steroids for any respiratory conditions, stroke, myocardial infarction, or surgery on their abdomen, chest, or eyes.

**METHODS:** All participating practice providers are introduced to the CAPTURE research team, trained on the purpose of the study, and provided with COPD medical education at site kickoff. In addition, the PBRN teams ensure the practice support staff are cognizant of our purpose and recruitment methods in order to coordinate our efforts with their clinic flow and improve recruitment reception. Research coordinators review the EMR for potentially eligible patients who are to be seen by one of the clinic's study trained providers. In a process that varies between PBRNs, the study is introduced to the patient and if interested, the patient completes screening and enrollment. Study procedures consist of nine questionnaires, peak flow testing, and spirometry. Research coordinators from each PBRN were surveyed to determine the two main challenges and facilitators in their region.

### **RESULTS:**

Recruitment commenced in October 2018 and is expected to conclude in 2021. As of mid-March, 2019, the five study PBRNs have enrolled at 13 primary care practices with an efficient recruitment response. Each primary care site has had unique challenges to recruitment efforts and strategies are customized to fit the cultural and socioeconomic needs of the patients at each practice. Top factors hindering patient participation are provider engagement, transportation issues and patient interest. Enrollment is enhanced by the fact that study participation is limited to a one-time, 45-minute visit conducted at the provider's site and patients receive immediate compensation.

### **CONCLUSION:**

Through adaptation of recruitment strategies to the patient population needs and the clinical workflow of each practice, we successfully enrolled participants and achieved recruitment timeline goals of the CAPTURE Study.

### **RELEVANCE STATEMENT:**

Chronic Obstructive Pulmonary Disease (COPD) is a major cause of morbidity and mortality worldwide that is underdiagnosed, making validation of a simple screening process to facilitate clinical recognition of individuals at high risk of undiagnosed COPD important. Surveying study coordinators to name the top two challenges and solutions for recruiting patients to participate in the CAPTURE COPD screening study, we found that provider and clinic staff engagement increased patient's willingness to participate, and that tailored recruitment methods made it easier for patients and practices to fit a one-time study visit into the workflow.

## **P16: Building community partnerships to promote the human papillomavirus vaccine**

*Sarah Brewer, MPA; Kelli Curl, MPH; Myra Shanks, MPH*

**BACKGROUND:** Disparity in HPV vaccination rates in Larimer County, Colorado. Despite the benefits of vaccination, vaccination rates remain low. Disparities are more likely to be geographic than within a particular socio-demographic group. Healthy People 2020 states a goal coverage level of 80% for all vaccines routinely recommended for adolescents; however, the HPV vaccine still lags. In Larimer County, specifically, HPV vaccine series completion rates are only 29% of females and 22% of males by age 17 in 2018.

**SETTING/PARTICIPANTS:** This project took place in Larimer County, Colorado and was led by a partnership between the University of Colorado Anschutz Medical Campus and Larimer County Department of Health & Environment (LCDHE). Larimer County has lower HPV vaccination rates than the state average and has some characteristics that make it unique, including a combination of rural, mountain and suburban communities that vary widely in socio-demographic characteristics. Focus groups included 28 participants - 6 parents, 4 providers, 9 young adults and 9 school health professionals. The CAC is comprised of 12 members: 2 young adults, 1 school nurse, 1 public health nurse, 1 parent, 1 physician, 1 community member, 2 LCDHE staff and 2 researchers.

**METHODS:** This project used a community-engaged partnership and had three key goals: (1) understand current perceptions, knowledge, and barriers around HPV vaccine uptake in Larimer County, (2) form a community advisory council (CAC) to develop specific research questions to translate the HPV vaccination into Larimer County communities, (3) develop a grant proposal to address the community-generated research questions. To understand perceptions of HPV, we conducted focus groups with key stakeholder groups involved in HPV vaccination; one focus group was conducted each with parents, providers, young adults, and school-health professionals. Focus groups were analyzed for themes. Community advisory council members were recruited from among focus group and other community members interested in addressing HPV vaccination. CAC members were presented information about HPV and evidence-based strategies for increasing vaccine uptake, as well as findings from focus groups. The CAC then discussed potential strategies for increasing HPV vaccine uptake locally and developed research questions and designs for future grant proposals.

**RESULTS:** Focus groups revealed that while each stakeholder group had differing perspectives of HPV and the HPV vaccine, there were some common patterns in terms of the barriers to HPV vaccination. Barriers included a lack of convenience to receiving the HPV vaccine, lack of knowledge about the importance of the vaccine and the recommended dosing schedule, vaccination hesitancy and stigma around the HPV vaccine, and safety concerns including pain. Another barrier is that there is confusion about school requirements compared to recommendations. Specifically, the HPV vaccine is not required for school attendance, and this sends the message to parents and young adults that it is less important. In addition, stakeholders identified numerous strategies for addressing HPV vaccination uptake in the local context. The CAC process resulted in four advisory meetings with an average of 10 attendees each. The CAC identified key target audiences for future interventions, strategies for interventions, and outcome metrics of relevance to the local community. In addition, the CAC identified the key community partners they will engage to act on their proposed strategy.

**CONCLUSION:** Community partnerships can be developed to better understand local disparities in HPV vaccine uptake and to generate relevant research questions and proposals to address these disparities. Next steps include pursuing funding to implement and evaluate the community-engaged research plan addressing the identified barriers and continuing to engage relevant local stakeholders in implementing and evaluating HPV vaccine uptake interventions.

**RELEVANCE STATEMENT:** Community-engaged research partnerships can effectively assess local context. Early-stage engagement can involve community members and stakeholders in identifying barriers to HPV vaccination and strategies to address barriers. In addition, engaged stakeholders can participate as partners the development of locally-relevant research proposals to address HPV vaccination uptake.

## **P17: The College of Family Physicians of Canada's Section of Researchers Blueprint 2 (2018-2023)**

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**BACKGROUND:** The College of Family Physicians of Canada (CFPC)'s Section of Researchers (SOR) Blueprint 2 (2018-2023) is a five-year plan that builds on the successes of the first Blueprint (2012-2017) to advance family medicine and primary care research across Canada.

**SETTING/PARTICIPANTS:** : Pan-Canadian, led by the SOR Council. Input was received from over 40 stakeholders from around Canada to review and reflect on the evaluation of the first Blueprint (2012-2017) and to set the direction for Blueprint 2. Eight members were identified by the SOR Council to constitute a Blueprint writing Group. The writing process engaged the stakeholders and it was iterative over 18 months, which included 10 teleconferences and many discussions

**METHODS:** Participatory processes, evaluation, and transformative action research

**RESULTS:** The resulting Blueprint 2 encompasses four strategic priorities: Membership, Capacity Building, Advocacy, and Partnerships. One of the foci of Capacity Building priority area of the Blueprint is to promote the value of practice-based research and advance the growth and sustainability of practice-based research networks. Metrics are being developed alongside the implementation of Blueprint 2 to track its outcome and to ensure alignment with current and future opportunities

**CONCLUSION:** The CFPC's SOR Blueprint 2 will guide the development of the SOR's Action Plan. These outcomes will continue to contribute to the integration of the Scholar Role in all aspects of our work as researchers. The implementation of the objectives is intended to promote research and QI and build a culture of curiosity

**RELEVANCE STATEMENT:** Blueprint 2 particularly emphasizes research and quality improvement (QI) that emanates from the realities of everyday practise and is rooted in everyday work. This includes the questions faced by family physicians and their primary care colleagues at the front lines of care and research and QI conducted in the front lines. Patient- and community-oriented approaches are at the core, while contributing to attaining the Quadruple Aim (continually improve care, the patient experience, efficiencies, and the work experience of health care providers). This involves improving the patient experience, improving the quality and safety of care, and improving the efficiency of the services we provide, while also ensuring a positive work experience for the health care providers and bringing joy to our work.

## **P18: Implementing in the context of walk-in clinics an adaptation of a web-based tool designed to help patients prepare their medical visit.**

*Marie-Therese Lussier, MD, MSc, FCFP; Claude Richard, PhD; Marie-Eve Lavoie, RD, PhD*

**BACKGROUND:** Engaged and informed patients participate more actively in discussions with their healthcare providers (HCP), enhancing the effectiveness of medical consultations. Our group developed Discutons Santé, a French web-based tool, designed to help patients prepare their medical visits. We previously showed that DS is well received by patients who visit their HCP for routine primary care (PC) appointments and that they found it useful. However, use of this e-tool for walk-in consultations in PC clinics proved challenging and adaptations were required. Together with members of the PC team and patient partners, a pre-consultation sheet (PCS) was created and pre-tested. While the implementation of the PCS is part of an ongoing PC implementation project, here we specifically report on the extent to which the PCS is completed by walk-in patient.

**SETTING/PARTICIPANTS:** Setting: One Family Medicine Clinic (FMC) in Laval, Canada, member of our PBRN. Participants: All patients visiting the walk-in clinic of the FMC during January and February 2019. Participants: All patients visiting the walk-in clinic of the FMC during January and February 2019.

**METHODS:** Prospective, descriptive study. Intervention: On arrival at the clinic, all patients are provided with the PCS by the receptionist. They are invited to complete the form before seeing the HCP and instructed to share it with the HCP. Instrument: The PCS form presents 11 multiple-choice questions and 6 open-ended questions. The questions are short and simple, and their readability is equivalent to a primary school level. The PCS captures both the biomedical aspects of the presenting problem as well as the patient's experience: the reason for the visit, whether the patient is worried, his/her expectations, nature of symptoms and their duration, level of discomfort and what was tried for relief, whether daily functioning is affected (e.g. sleep, eat, walk, work), and if this is the first time they seek care for this problem. Patients, on a voluntary basis, gave the research team access to their PCS. Outcome variables: 1) response rate for each question, 2) relative distribution of answers to both biomedical and patient perspective questions of the PCS.

**RESULTS:** Of the PCS distributed over the study period, 400 were available for analysis. The response rate reached 90% or over for ten out of the 17 questions, including the reason for the visit, patient worry, expectations, level of discomfort and relief strategies and if this was the first visit for this problem. All of these items appeared on the front page of the PCS. Of the 384 patients who answered the question about their worry, 71% (n=273) indicated the problem worried them. The majority of respondents had one (n=182, 46%) or two (n=138, 34%) expectations related to their visit. The most frequently selected expectations were "I want to understand what these symptoms are" (n=233) and "I want to get relief" (n=224), followed by "I need a prescription" (n=107). In terms of reported intensity of discomfort on the scale from 0 to 10, the distribution followed a normal curve with 183 participants (48%) indicating a level of 4 or less. A large number of patients (n=320, 80%) had tried something to relieve their discomfort before consulting. Over-the-counter medications were used most of the time (n=237, 70%), followed by non-pharmaceutical treatments such as ice, rest and hydration (n=79, 20%), and prescribed medications (n=52, 13%). Of the respondents, 166 (41%) reported they had previously consulted another physician for the same problem, most of the time at the same FMC (n=118, 71%). For the remaining questions, mostly found on the back of the PCS, the response rate varied from 64% (question about daily functioning limitations) to 75% (nature of the symptoms). Regarding impact on daily functioning, patients reported sleep disturbances the most frequently (n=166, 42%), followed by work incapacity (n=70, 17%). Only 29% (n=116) of the respondents provided an answer to the question "What other important question(s) would you like to ask to the doctor?. Informal feedback from walk-in physicians indicates they appreciate the use of the PCS.

**CONCLUSION:** The PCS was generally well completed by patients visiting the walk-in clinic of a PC practice. The order in which the questions are presented in the PCS seems to play a role in the nature and extent of the information provided by patients. Semi-structured individual interviews are planned with the PC providers and patients to explore their appreciation of the PCS, their perceptions about its impact on the consultation, and the facilitators and barriers to its implementation in the walk-in clinic of the PC practice.

**RELEVANCE STATEMENT:** Patients visiting a walk-in clinic are willing to fill a pre-consultation sheet that captures information on their symptoms and their experience of illness. Such a sheet is an interesting alternative to the web-based tool such as Discutons Santé and may improve the communication of all relevant information between HCP and patient during the unscheduled encounters.

**P20: The Quebec Practice-Based Research Network (Q-PBRN): A brief history of a network through the comparison of the nature and number of service required from 2015 to 2018.**

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**BACKGROUND:** The Q-PBRN is dedicated to strengthening research and knowledge transfer in primary care. Through this network, clinicians, patients and researchers work together to answer research questions generated in clinical settings. We aim to address the priority issues of the health care system by building strong collaboration and research capacity for all primary health care actors to improve practice, patient and community health through offering various services.

**SETTING/PARTICIPANTS:**

**METHODS:** Researchers can access 5 urban and 7 semi-rural and rural setting Family medicine group (FMG) and one community clinic associate's member. To ensure the success of this network, there is 4 different committees: 1) Governing committee, 2) Executive committee, 3) Research manager committee, and 4) FMG Directors Committee. In order to analyze the pursuit of our goal, application accounting tools have been created. Thus, every researcher who asks for the network's services must complete a form that details: project's objectives, methods, funding sources, start and end dates, nature of services requested (e.g. resources, healthcare professionals, patients), and advantages for the practice settings. The Executive committee, which is in charge of the day-to-day activities, assesses the eligibility of the request and works with the applicant to ensure the best services are provided by Q-PBRN.

**RESULTS:** All requests for services submitted to the PBRN between January 1, 2015 and December 31, 2018, were examined.

The PBRN received 18 (2015), 26 (2016), 36 (2017), and 28 (2018) service requests from 17 (2015), 22 (2016), 29 (2017) and 26 (2018) researchers. Most of the researchers were from Université Laval 70.6 % in 2015, 68.2 % in 2016, 62.1 % in 2017 and 61.5 % in 2018. Other requests came from other institutions in Quebec (29.4 % in 2015, 27.3 in 2016, 31.1 % in 2017 and 30.9 % in 2018) other provinces (6.8 % in 2017, 3.8 % in 2018) or the United States (4.5 % in 2016 and 3.8 % in 2018).

The two major requests were a letter of support from the PBRN in preparation for a grant proposal (55.6 % in 2010, 30.8 % in 2016, 52.8 % in 2017, 48.3 % in 2018) and recruiting study subjects (44.4 % in 2015, 57.7 % in 2016, 30.6 % in 2017, 34.5 % in 2018). Other requests include dissemination of a survey (7.7 % in 2016, 2.8 % in 2017, 3.4 % in 2018), posting publicity (3.8 % in 2016, 13.9 % in 2017), specific expertise (10,3 % in 2018) and letters of support from the PBRN in preparation for a grant proposal (3.4 % in 2018).

**CONCLUSION:** Requests from researchers to Q-PBRN are diversified and have increased by 61.1 % between 2015 and 2018.

Efforts should be continued to maintain the quality of services offered by Q-PBRN to researchers and clinicians. Ultimately the Q-PBRN intends to increase its services capacity.

## **P21: Cardiometabolic profile and risk factors of heart failure among patients with hypertension attending a tertiary hospital**

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**BACKGROUND:** Hypertension is the leading cause of heart failure (HF) in sub-Saharan Africa. Preventive public health approach to reduce the scourge of HF must seek to understand the cardiometabolic profile and risk factors of heart failure in at risk populations. This will improve cardiovascular preventive care.

The aim of this study was to characterize the cardiometabolic profile and risk factors of HF among patients with hypertension attending a specialist cardiology clinic.

**SETTING/PARTICIPANTS:** The study was conducted within the cardiology clinic of the University College Hospital, Ibadan. The hospital is the largest tertiary hospital in Nigeria. The study population were adults 18 years old or more with a clinical diagnosis of hypertensive heart failure (cases) and hypertension (controls). All participants gave informed consent to participate in the study

**METHODS:** This was a case control study. The cases were subjects with HF secondary to hypertension while the controls were age and sex-matched subjects with hypertension without HF. The subjects were interviewed following which they were examined and evaluated clinically for cardiometabolic and life style risk factors. Medication adherence was assessed using the Medication Adherence Questionnaire. Associations between variables were tested with McNemar's chi square test and paired sample t test as appropriate. Conditional logistic regression modelling was used to determine the risk factors of HF in the study population. A two-sided p value of <0.05 was considered statistically significant.

**RESULTS:** One hundred and one (101) case-control matched pairs were recruited. The mean age of the cases was  $62.5 \pm 14.3$  years while that of the controls was  $60.1 \pm 13.0$  years. There were 50 males (49.5%) and 51 females (50.5%) in each group. Prevalence of alcohol consumption was 46.5% and 23.8% among cases and controls respectively ( $p < 0.001$ ), medication adherence was significantly lower among subjects who developed HF compared to the controls (low/moderate adherence 80.2% in the HF group vs 39.6% in hypertension without HF;  $p < 0.001$ ). Systolic and diastolic blood pressure were lower among cases than controls (SBP:  $126.8 \pm 23.6$  vs.  $145.7 \pm 20.1$  mmHg,  $p < 0.001$ ; DBP:  $79.4 \pm 18.3$  vs.  $86.0 \pm 19.0$  mmHg,  $p = 0.005$ ). Subjects with HF had lower eGFR than controls ( $72.9 \pm 23.9$  vs.  $90.3 \pm 32.7$  ml/min/1.73m<sup>2</sup>;  $p < 0.001$ ). Significant proteinuria was detected in 45 (44.5%) HF cases and 12 (11.9%) controls ( $p < 0.001$ ). Subjects with HF were more likely to have sinus tachycardia ( $p < 0.001$ ), arrhythmias ( $p < 0.001$ ), conduction abnormalities ( $p < 0.001$ ) and LVH ( $p = 0.003$ ). The independent risk factors of heart failure among hypertensive patients in this study in decreasing order of effect size were low/moderate drug adherence (OR: 6.59, 95% CI: 2.27-19.17), proteinuria (OR: 5.21, 95% CI: 1.76-15.44), electrocardiographic conduction abnormalities (OR: 3.97, 95% CI: 1.26-12.55), alcohol consumption (OR: 3.51; 95% CI: 1.07-11.51) and electrocardiographic left ventricular hypertrophy (OR: 3.25; 95% CI: 1.20-8.83).

**CONCLUSION:** The risk factors for heart failure in hypertensive patients are largely modifiable. Public health interventions and preventive cardiovascular care to improve drug adherence, reduce alcohol consumption and factors that cause cardiomyopathy among patients with hypertension are recommended.

**RELEVANCE STATEMENT:** Alcohol consumption and suboptimal medication adherence are very common among patients with hypertension attending specialist clinics. These adverse behavioural lifestyle drives the progression to heart failure and should be the focus of public health prevention strategies. Low-cost tests like urinalysis for proteinuria and electrocardiography are important for early detection of markers and risk factors of cardiac dysfunction among these patients.

## **P22: Changes in Primary Care PrEP prescribing in a Large Healthcare System after the Implementation of an HIV Screening Alert and Educational Intervention**

*Thomas Ludden, PhD; Jeremy Thomas, MSW; Hazel Tapp, PhD*

**BACKGROUND:** Providers that prescribe HIV pre-exposure prophylaxis (PrEP) remains low. Primary care providers (PCPs) are less knowledgeable than HIV providers (HIVPs) with regards to PrEP: fewer PCPs had heard of PrEP (76% vs 98%), knew about prescribing PrEP (28% vs. 76%), or ever had prescribed it (17% vs. 64%). PCPs were also less likely to discuss sexual activities (75% vs. 94%) or test for acute HIV (83% vs. 98%) when compared to HIVPs. PCPs limited knowledge about PrEP and questions about insurance coverage were identified as barriers to prescribing PrEP. Additional information on changes in prescribing PrEP in primary care within a large healthcare system is limited.

**SETTING/PARTICIPANTS:** Atrium Health is a large, non-profit, vertically integrated healthcare system with approximately 12 million patient encounters per year across the Southeast US. Twelve primary care practices, including four safety-net practices serving predominantly Medicaid and uninsured patients, with over 67,000 patients between the ages of 18 and 64 participated.

**METHODS:** 12 practices were part of a systemwide implementation of an HIV screening Electronic Medical Record (EMR) alert in October 2017 for patients ages 18-64. The 12 primary care practices were also included as part of an educational intervention regarding HIV prevention presented to practices in the first quarter of 2018. As part of the educational intervention, information on prescribing PrEP was included along with resources for linkage-to-care and insurance coverage. The number of PrEP prescriptions were summarized for all 12 practices one year prior to the EMR alert and one year post-EMR alert. Paired T-test statistics were used to test the number of patients prescribed PrEP by each practice pre- and post-EMR alert. The same analysis was conducted one year pre- and post- the educational intervention.

**RESULTS:** Across the 12 practices, 62 PrEP prescriptions were written one year prior to the implementation of the EMR alert ( $M=5.2$ ,  $SD=7.3$ ) and 88 post-EMR alert ( $M=7.3$ ,  $SD=6.4$ ), a 42% increase ( $p=0.02$ ). There were no differences in PrEP prescriptions one year pre- and post- the educational intervention ( $n=69$ ).

**CONCLUSION:** While the number of PrEP prescriptions written showed significant increase after the implementation of the EMR alert, the overall number of prescriptions in primary care are still relatively low. While there has been national attention to increase PrEP prescribing through initiatives with local health departments, efforts to increase PrEP uptake require additional interventions above and beyond education interventions to increase the knowledge, comfort, and skills of providers to prescribe PrEP.

**RELEVANCE STATEMENT:** HIV is a high impact chronic illness that affects millions of Americans, many of whom are not aware of their diagnosis. Prescribing PrEP in primary care is one method to reduce the transmission rates of this chronic disease.

## **P23: A systems engineering approach for disseminating and implementing shared decision making around breast and lung cancer screening using on-line decision aids embedded in electronic health records**

*Mary F. Henningfield, PhD; Sarina B. Schrager, MD; Toby C. Campbell, MD*

**BACKGROUND:** In shared decision-making (SDM), patients are invited to participate in informed discussions about "grey zone" medical interventions. SDM discussions should include a balanced explanation of risks and benefits, taking into account patient values and preferences. SDM is particularly appropriate and important when offering clinical preventive services to well patients who are often unaware of the risks and benefits associated with screening for disease. Performing valid SDM is increasingly recognized as an aspirational goal. However, uptake of SDM has been suboptimal, in part due to lack of specific training in the SDM process and a limited number of condition-specific decision aids (DAs) embedded in electronic health records (EHR) to facilitate SDM at the point of care. Using DAs for breast and lung cancer screening, this pilot project aims to create a modular SDM training program, within a single academic health system, which can then be scaled and generalized to other health care settings. The health system itself funded this project, indicating this health system was willing to invest in SDM as part of its business model.

**SETTING/PARTICIPANTS:** Four adult primary care clinics (one urban and one rural FM, one urban and one rural GIM) are pilot sites for SDM training and workflow implementation. Thereafter, implementation across the entire health system involving all adult primary care clinicians is planned.

**METHODS:** The project involves a multi-disciplinary team consisting of an educator, system engineer, DA developer, six generalist physician practitioners of SDM, a clinic operations representative, and two clinical oncologists. This team collaborated to: (1) perform a needs assessment among adult primary care faculty [family medicine (FM) and general internal medicine (GIM)]; (2) create a comprehensive SDM training module, based on Glyn Elwyn's COD model (Choice Talk, Option Talk, Decision Talk), including live and recorded presentations, videos of example patient-clinician conversations, and an interactive role-playing exercise; and (3) implement a systems engineering workflow approach to increase SDM use in primary care clinics. The DAs for breast and lung cancer screening were already integrated into the health system EHR and served as an integral part of the training modules ([www.healthdecision.org](http://www.healthdecision.org)). A baseline survey was obtained to assess clinician knowledge, attitudes, and perceived competence in performing SDM. A comparable post-intervention survey is planned to assess for changes as a result of SDM training. Changes in frequency of use of the online patient DAs will be assessed as markers of potential SDM use during patient visits.

**RESULTS:** Of 272 primary care clinicians invited, 72 (26.5%) responded to the baseline survey. A total of 57 respondents (79%) agreed or strongly agreed that using SDM would improve their ability to do critical aspects of their job; 69 (95%) agreed or strongly agreed that using SDM would enhance the quality of care they provided; and 63 (87%) agreed or strongly agreed that DAs are a useful tool for facilitating SDM. Only 22 (31%) agreed that they worried patients would interpret SDM inappropriately, and 9 (13%) agreed they worry that their patients would not want to be exposed to SDM. Notably, 63 (87%) agreed or strongly agreed that they already utilized SDM when discussing lung/breast cancer screening. However, only 8% of survey respondents reported using the online DA consistently with patients eligible for screening. Regarding feasibility of SDM implementation, 50 (70%) agreed or strongly agreed learning to use SDM would be easy; 44 (61%) agreed or strongly agreed they would find SDM easy to use; and 46 (64%) agreed or strongly agreed it would be easy to become skillful in SDM. Notably, 48 (67%) agreed or strongly agreed that they worry that SDM will increase the amount of time spent with patients; yet fewer 24 (34%) agreed or strongly agreed they worried that SDM would increase patient demands on them.

The SDM training materials, including videos of sample patient-clinician conversations, are available at [www.fammed.wisc.edu/sdm-cancer-screening](http://www.fammed.wisc.edu/sdm-cancer-screening). The training and role playing modules were piloted at the 2017 Wisconsin Research and Education Network (WREN) conference, presented to GIM, FM, and advanced practice provider grand rounds, and are being rolled out to four pilot sites. Other data, including frequency of use of DAs, are being collected.

**CONCLUSION:** Clinicians strongly endorsed the principles of SDM, and were receptive to further training in SDM and the use of DAs. The high reported rate of current utilization of SDM may reflect over-reporting and varying knowledge of the SDM process. Extra time to engage in SDM was the major concern. Further results will be presented at the PBRN conference.

**RELEVANCE STATEMENT:** Shared decision making (SDM) helps patients talk to their doctors about their values and preferences regarding their care. Through better understanding of doctor's attitudes and behaviors towards SDM, we aim to train doctors and provide tools, such as decision aids in electronic health records, to improve SDM in primary care clinics.

## **P24: Birth Control Decision Making and Perceptions of Long-Acting Reversible Contraception: Analysis of Survey Responses**

*Leyan deBorja, MPH; Chyongchiou Jeng Lin, PhD; Jeannette South-Paul, MD*

**BACKGROUND:** Long-acting reversible contraception (LARC) has been found to be highly effective in reducing the incidence of unintended pregnancy. However, usage of LARC remains low compared to other contraceptive methods. In order to understand reasoning behind low uptake of LARC, study seeks to assess cultural and socio-cultural factors that influence beliefs and perceptions of LARC among women. The project team defined LARCs as Implants (Nexplanon), IUDs, and Depo Provera (injection).

**SETTING/PARTICIPANTS:** Participants were recruited from the greater Pittsburgh area and additional sites in Altoona and Williamsport, PA. Eligibility requirements included women between the ages of 18 and 45 and currently not pregnant. The main focus of recruitment was on patient populations at designated UPMC Family Health Centers (FHC). In addition to recruitment at the FHC study sites, the project team utilized Pitt+Me, a participant registry, which allowed the study to include women outside of the FHCs.

**METHODS:** A fifty-item survey tool was developed from knowledge gained from seven focus groups conducted between January and May of 2017 at seven different UPMC affiliated FHCs. The main survey instrument collected demographic information, basic birth control knowledge, experience with contraception, as well as attitudes and perceptions of LARC. The developed survey tool was administered to participants through the Qualtrics Survey online platform.

**RESULTS:** The research team anticipates different attitudes and perceptions of LARC and LARC usage according to the varied participant characteristics or socio-cultural backgrounds. This analysis will focus on participant demographic characteristics (age, race, ethnicity, academic status, religious status, etc.), basic birth control knowledge, and opinions on the usage of LARC methods (Implant, IUDs, Depo Provera). The analysis should reveal correlations between different participant characteristics and acceptance of LARC methods.

**CONCLUSION:** Data from the surveys will help inform strategies for discussing contraceptive options and providing more culturally appropriate approaches to helping patients make an informed decision regarding using LARC. Results may indicate the need for development of tailored methods information dissemination pertaining to LARC methods.

**RELEVANCE STATEMENT:** Prevention of unintended pregnancies is a fundamental aspect of women's health. Understanding aspects of contraceptive decision-making can assist health care providers in their approach to family planning and the topic of birth control with their patients. In addition, it is important to understand patient perceptions of effective contraceptive methods, namely long-acting reversible contraception.

## **P25: How interested in research are PBRN-associated clinics and how ready are they to participate in research projects?**

*Shandi Miller, MSc.; Marie Authier, PhD; Marie-Claude Beaulieu, MD, CCMF, FCMF*

**BACKGROUND:** A Research Readiness Tool was initially commissioned by the Department of Health and developed in conjunction with the UK Clinical Research Network (UKCRN) and the Royal College of General Practitioner's Primary Care Research Team Assessment (PCRTA) Group. It was subsequently adapted by UTOPIAN (the University of Toronto Primary Care PBRN) and used to gauge research interest and research readiness throughout UTOPIAN affiliated practices in Ontario. In 2016, R1Q and PBRN directors further adapted this tool, for the Quebec context, and for clinics that are likely new to research, with the objective to facilitate future contact by each of the PBRNs with their clinics.

**SETTING/PARTICIPANTS:** Réseau-1 Québec is a network of four practice-based research networks established in 2013, in Quebec, Canada. These PBRNs bring together principally university-associated Family Medicine teaching units as well as a few emergency units and private clinics (n=55). The research readiness tool was completed in most cases by PBRN staff, during an in-person meeting with the person responsible for research at each clinic. As of March 2018, PBRNs had met with 63% (33 out of 53) of their associated clinics.

**METHODS:** Between 2016 and 2018, each of the four PBRNs associated with R1Q met with their associated clinics, to assess their degree of interest in research and readiness to participate in research activities. They endeavored to meet in person with the person responsible for research in as many of their associated clinics as possible. Wherever possible the tool was filled out during these meetings, and when distance, weather or schedules did not permit, the tool was filled out by email or telephone. In 2018, each PBRN submitted their aggregate results to R1Q, and a subsequent analysis was conducted in order to compare and contrast results between PBRNs and provide a profile and understanding of results across all participating clinics. In 2018-2019, PBRNs continued to meet with remaining clinics.

**RESULTS:** Results confirm that participating clinics have experience with and a strong interest in participating in research activities. For instance, more than half of the clinics (61%) are actively involved in research, and 30% wish to become so in the near future. Furthermore, the vast majority (85%) have already led research projects.

Most clinics already have the basic infrastructure in place required to conduct research. The majority (70%) have access to a room for recruiting and enrolling patients. Most (79%) have a room large enough to accommodate meetings between clinic staff and research teams. And one-third (30%) of participating clinics have a formal process that external researchers must follow in order to request the clinic's participation in a research project.

Nearly all participating clinics (91%) use EMRs (electronic medical records). Most participating clinics (79%) are able to provide EMR access to external research staff for the purpose of research.

Regarding areas of interest (for research activities) cited by respondents, there is common interest in researching the patient experience, as well as in all topics that are relevant to clinical practice and that benefit patients. The most frequently cited areas of interest are:

- The patient experience
- Prescription of medication
- Continuity of care
- Women's health
- Mental health and addictions
- Diabetes
- EMRs
- Pediatrics
- Social inequalities

**CONCLUSION:** Results confirm that participating clinics are not only interested in research, but have experience in research, as well as having in place the basic infrastructure required by research activities. These meetings were greatly appreciated by participants in clinical sites, many of whom requested an annual meeting. PBRNs also appreciated the value of increasing their understanding of each of the clinical settings and their degree of readiness, which is likely to enable them to better target research facilitation services and projects in the future. Informal feedback from participants acknowledges that PBRNs play an important role in facilitating research and developing research capabilities in PBRN-associated clinics. However, while the basic infrastructure exists, the resources to participate, initiate and support research projects are lacking. Although most of these PBRN clinics now use EMRs (up from 45% in a 2015 survey), the diversity of EMR platforms and the lack of platform interoperability present significant challenges with relation to the kind of multisite projects in which many clinics would like to participate. The R1Q and its affiliated PBRNs are working in partnership with the Quebec Strategy for Patient-Oriented Research SUPPORT Unit to increase the PBRNs' ability to facilitate research with participating clinics.

**RELEVANCE STATEMENT:** A tool (list of questions) was used to facilitate meetings with clinic members of four practice-based research networks in Quebec, Canada. The goal of using this tool was to assess clinics' degree of interest in research and readiness to participate in research activities. Results confirm that participating clinics are not only interested in research, but have experience in research, as well as having in place the basic infrastructure required by research activities.



## **P26: Enhancing Women's Recruitment in VA Clinical Trials: Multisite Evaluation of a Novel Strategy**

*Alyssa Pomernacki, MPH; Diane Carney, MA; Susan Frayne, MD, MPH*

**BACKGROUND:** Women are historically underrepresented in Veterans Health Administration (VA) research; however, the rapid growth of this population necessitates a stronger evidence base to guide gender-sensitive interventions and care delivery. To overcome barriers related to women's minority status, the VA Women's Health Practice-Based Research Network (WH-PBRN) piloted a Women's Enhanced Recruitment Process (WERP) as part of a national multisite clinical trial and included a formal program evaluation to understand what efforts are working well or not working well to recruit women into VA research.

**SETTING/PARTICIPANTS:** Ten study sites opted to implement the VFFs, which were provided to both female and male study participants.

We conducted 42 semi-structured telephone interviews from January-May 2018. Those invited to participate in the qualitative interview were identified by group consensus and recruited by email invitation. Participants included staff from 15 of the sites, including Local Site Investigators (24%), WH-PBRN Site Leads (21%), Local WERP Site Coordinators (14%), NODES staff (17%), Local Study Coordinators (14%), and National Study Staff (10%).

**METHODS:** Activities to enhance recruitment of women were implemented at 6 of 17 national study sites of the VA Cooperative Studies Program Study #591: Comparative Effectiveness Research in Veterans with PTSD (CSP #591). These 6 sites were selected because they were part of both CSP's Network of Dedicated Enrollment Sites (NODES) and the WH-PBRN, which provided the infrastructure to conduct enhanced recruitment activities.

Veteran Feedback Forms (VFFs) were included in clinical trial study assessment forms at pre-randomization (VFF Baseline) and at 6-month post-treatment (VFF Follow-up). VFFs included closed- and open-ended questions; VFF Baseline provided study participants the opportunity to explain why they participated in the study, and VFF Follow-up obtained feedback about being a research participant, and reasons for having completed the entire study.

Research staff semi-structured interviews elicited experiences around recruitment of women veterans in clinical research. Participants were asked about strategies applied at their site to increase women veteran participation, including what worked and what did not. We conducted a rapid analysis of interview transcripts, summarized in a matrix using domains from the interview guide. Coding was done through consensus; a primary coder created the initial matrix, which was reviewed and edited by a secondary coder. Discrepancies were resolved through group discussion.

**RESULTS:** Veterans were overwhelmingly referred by providers, particularly from mental health. However, 73% of women vs. 90% of men were referred by any provider, and 23% of women vs. 8% of men heard about the study from other veterans or flyers. When asked why they took part in the study, women and men predominantly stated that they wanted to help other veterans, and/or find out more about their PTSD. For 15% of women vs. 29% of men, their provider encouraged them to participate. 100% of women vs. 88% of men were satisfied/very satisfied with how they were approached for the study.

Staff described various strategies, challenges, and suggestions for recruiting women veterans in clinical research. Recruitment strategies included finding champions to promote recruitment, nurturing relationships to facilitate buy-in, ensuring the study finds ways to integrate into clinic flow, and capitalizing on the sense of duty to help other women veterans. Recruitment challenges included multiple studies recruiting from a small pool of women, the many competing demands women have (ex: caregiving), and local cultural barriers to recruiting women at their facility. It was common to hear of an unwelcoming setting for women veterans (in a VA historically designed to serve men), and how studies may not be able to accommodate participants' preference for female providers. Some sites found it difficult to identify where women receive care, with some noting they didn't "see" women at their VA or didn't know where to access them. Multiple respondents wanted to see more flexibility to recruit, using approaches beyond flyers, mailings, and phone calls. Recruitment suggestions included increasing awareness about women veterans, and addressing participant's logistical barriers (ex: caregiving, travel, and appealing to aspects of a study that benefit a participant).

**CONCLUSION:** Veteran and staff data inform future multisite research approaches to improving women veterans' recruitment, such as: integrating procedures to target women into study protocols, including considerations on how and where women are approached; training and education measures to increase study staff awareness around women's health; and engagement with women's health clinicians.

**RELEVANCE STATEMENT:** The growing number of women veterans necessitates that we understand barriers associated with their participation in research, so they can be equitably included in the future.

## **P27: The Plight of Underinsurance for Children with Fair to Poor Health**

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

**BACKGROUND:** Health insurance plays a major role in children's health and children with fair to poor health require more health care services than children with better health. Underinsurance in adults is well documented but underinsurance in children has received less attention.

**SETTING/PARTICIPANTS:** All study practices are members of the Southwestern Ohio Ambulatory Research Network. Inclusion criterion was index children between 6 months and 18 years of age. The response rate was about 90% (N=5027) between 2009 and 2016. The parents of 171 children described their child's health as "fair to poor".

**METHODS:** The Medical Expenses for Children Survey was employed. It was adapted for children based on Voorhees' earlier study of underinsurance in adults. Underinsurance in this study was defined as parents' inability to follow their child's pediatrician's recommendation at least once in the past 12 months due to their inability to pay for that recommendation. Study parents were recruited from their child's pediatrician's office.

**RESULTS:** Children with fair to poor health had an Underinsurance rate of 38%, compared to children with better health, 15.5% ( $p<0.001$ ). 56.8% of index children had public insurance, study children's mean age was 7.0 (5.1) years, 93% (N=159) of respondents were the index child's mother, 67.3% had annual household income less than \$50,000, 59.6% were married, 74.3% were white. 18.6% had delayed seeking medical care for their child, 14.7% had difficulty seeing their child's specialist, 19.3% had problems filling a prescription. All Underinsurance behaviors were due to inability to pay. All reported Underinsurance behaviors were LESS likely to occur if the index child had better health ( $p<0.001$ ). 20.6% of parents reported that their child's health had suffered due to their inability to pay, and about one third of parents thought medical care had become more difficult to access over the past three years. Parents of children with better health were LESS likely to report that their child's health had suffered or that access to health care had become more difficult ( $p<0.001$ ).

**CONCLUSION:** Over one third of children with fair to poor health experienced Underinsurance in this sample of children from southwestern Ohio. The health of children with fair to poor health was also more likely to suffer due to their parents' inability to pay for services or medication, compared to children with better health.

**RELEVANCE STATEMENT:** Owning health insurance obviously does not completely eliminate the suffering associated with childhood chronic health conditions, especially for children with fair to poor health.

## **P28: Addressing the Root Causes of Asthma Disparities: Tailoring Social Determinants of Health Screening and Support**

*Holly Ozgun, BSPH; Brisa Hernandez, BUS; Hazel Tapp, PhD*

**BACKGROUND:** Social determinants of health—the conditions in which we are born, grow, live, work, and age—determine about 80% of a person's health and contribute to health disparities. Specific social determinants have been shown to affect individuals differently based on their chronic health conditions or life stage; research suggests housing conditions, educational attainment, and neighborhood safety are prominent social determinants of asthma severity. Significant racial and ethnic disparities exist in asthma morbidity and mortality, according to the National Heart Lung and Blood Institute, and may be explained by underlying disparities in social determinants of health. This study sought to understand the prevalence and effects of various social determinants of health among pediatric asthma patients. A secondary objective was to evaluate the potential of a community partnership in decreasing asthma disparities.

**SETTING/PARTICIPANTS:** Participants were caregivers of pediatric patients with an asthma diagnosis at outpatient pediatric primary care clinics at two large health systems in a southern urban setting. Patients were predominantly racial and ethnic minorities (69% Black, 31% Hispanic) and ranged from 3 to 13 years of age. Most patients used public insurance.

**METHODS:** 50 caregivers of asthma patients were given a 15-item survey of social determinants of health and a 14-item survey of housing conditions. Surveyed caregivers were offered an optional referral to a municipal free home repair program to improve indoor air quality. Caregiver interviews were conducted, recorded, and transcribed to understand caregivers' experiences of social determinants of health and observations of their impact on their child's health.

**RESULTS:** 50 surveys were completed. The most prevalent social issues found in this population were financial strain (29%), food insecurity (20%) and social isolation (17%). Poor housing conditions were prevalent, including a high heating or cooling bill (37%), difficulty maintaining temperature (30%), and gaps in doors or windows (20%). Thematic analysis of the interviews showed that parents view difficulty accessing medical care and poor housing conditions as detrimental to their child's health and have strong motivation to address these factors in order to improve their child's health. Out of 16 referrals to the home inspection and repair program, only 4 caregivers (25%) followed through to receive free services.

**CONCLUSION:** The prevalence and impact of social determinants of health are unique for pediatric asthma patients. Screening and navigation assistance to appropriate community resources should be adjusted to reflect the needs of asthma patients, as well as patients with other chronic conditions. Poor housing conditions were a significant issue, but lack of trust in a free governmental program designed to address these issues contributed to low follow-up.

**RELEVANCE STATEMENT:** Understanding the social issues prevalent among pediatric asthma patients, as well as ensuring that resources are available to address these issues, can help decrease health disparities.

## **P29: Primary health care research at scale: A cross US-Canada trial Assessing Models of ACP Implementation in Primary Care**

*Lise Poisblaud, MA; Danielle Caron, PhD; Kirsten Wentlandt, PhD, MHSci, MD, CCFP*

**BACKGROUND:** Large trials in community based primary health care (CBPHC) are needed to improve adoption of best practices and innovative care models. We are conducting a PCORI-funded trial comparing two models of advance care planning (ACP) for patients with serious illnesses.

### **SETTING/PARTICIPANTS:**

**METHODS:** To provide research at scale, we are leveraging an international consortium of seven primary care Practice Based Research Network (PBRN) in the US and Canada known as Meta-LARC.

**RESULTS:** Grounded in a long-term relationship across multiple CBPHCs, Meta-LARC uses participatory research methods integrated with knowledge translation (iKT). For this project, Meta-LARC facilitated identification of the concerns primary care practices had related to APC by leveraging the PBRNs to quickly assess interest, develop options, assess feasibility, refine ideas and obtain buy-in from researchers, clinicians, and patient and family representatives. Now that the project is funded, Meta-LARC provides the infrastructure for the conduct of the trial. Specifically, 42 primary care practices from seven PBRNs in 5 US states and 2 Canadian provinces are part of this cRT. Each country and each PBRNs have different structures and unique strengths and challenges. This presentation will describe and analyze these, making comparisons across countries and PBRNs. Examples of strengths include: 1) strong support the in the community based on the commitment to research that advances primary care (all members); 2) the ability to provide resources (e.g., research space and equipment [QBRN], practice facilitation [ORPRNs], increased access to expert support [all]); 3) the opportunities for co-development and the sharing of experience (e.g., experience with human subjects protection [UTOPIAN and ORPRN] and experience with patient engagement [WREN, and SNOCAP]; and 4) sharing staff members' knowledge and expertise across multiple studies (all). The challenges experienced to date include: 1) staff shortages in certain environments; 2) the over-reliance on geographically close practices [QBRN] or practices with prior experience [ORPRN] when networks are large or extend over a large territory); and 3) the need to translate material into multiple languages and adapt them to different regional and local needs and norms as well as legal and medical practice protocols related to ACP.

**CONCLUSION:** The Meta-LARC PBRN consortium was essential to scaling up research across its member networks and made developing this multisite, multi PBRN trial feasible. The consortium will provide enhanced statistical power, increase generalizability, and formal consideration of the potential for spread across different systems. Differences in processes and procedures could be significant barriers to US-Canada research. We demonstrated that variation could be addressed, that knowledge-sharing strengthened the project protocol, and future collaborations are possible. Collaborative PBRN networks provide an important infrastructure that can facilitate design of large complex studies with the potential to establish a foundation for future large scale implementation trials in CBPHC.

### **P30: Using primary care data for QI and research at DFCM: UTOPIAN example**

*Michelle Greiver, , MD. MSc, CCFP, FCFP; Michelle Greiver, , MD. MSc, CCFP, FCFP; Ivanka Pribramska*

**BACKGROUND:** The University of Toronto Practice-Based Research Network (UTOPIAN) brings together:

- Department of Family and Community Medicine (DFCM)
- PBRNs from across the globe
- Researchers (including industry)
- Primary care clinicians and practices

We answer important healthcare questions and translate findings into practice.

Practice-Based Research Networks (PBRN) engage clinicians in research, quality improvement and an evidence-based culture to improve health.

The mission of UTOPIAN is "to improve the health of our patients and communities by collaboratively addressing primary healthcare questions and translating research findings into practice."

**SETTING/PARTICIPANTS:** Since 2012, UTOPIAN has been involved in more than 25 primary care research projects spread over 14 family medicine teaching sites and 1400 faculty members. Many family physicians are keen to participate in research but find it difficult to make time to undertake searches, distribute surveys and to meet other demands researchers make. UTOPIAN has currently two Practice Coordinators (PC) available to enable busy clinicians to engage with research work in their practices.

**METHODS:** The UTOPIAN Data Safe Haven extracts de-identified EMR data to create an aggregated health data repository. Health data are extracted from participating family practice EMRs and transferred to the UTOPIAN regional server where it is cleaned, coded and standardized. UTOPIAN collaborates and contributes to additional datasets (Canadian Primary Care Surveillance Network, Institute for Clinical Evaluative Sciences, Diabetes Action Canada) for longitudinal disease surveillance and to further increase research capacity and capability across Canada.

**RESULTS:** From the Data Safe Haven to Practice Coordinators (PC), UTOPIAN offers a resource hub for researchers and clinicians to produce meaningful research results and improve the health of patients. Since 2014, UTOPIAN has supported more than 35 research projects lead by DFCM faculty and taking place across all teaching sites.

**CONCLUSION:** Targeted project support together with other capacity building activities enable DFCM faculty to actively engage in primary care research. The transition to Electronic Medical Records (EMRs) has led to the realization that electronic health care data collected as part of routine primary care practice could be used for disease surveillance, for research and for quality improvement activities.

If collated, the data that is currently stored across many practices has the potential to be the single largest, richest and most consistently recorded source of electronic clinical data at the individual patient level anywhere. The UTOPIAN Data Safe Haven (DSH) provides just that.

**RELEVANCE STATEMENT:** Many family physicians are happy to take part in research but struggle to find sufficient time to do this, as primary care research can be very time consuming. Through the Data Safe Haven project in UTOPIAN, our aim is to answer important healthcare questions and translate findings into practice by identifying factors that enables practice participation in research.

### **P31: Applying Lean Principles to Eliminate Movement Waste**

*Haley Tolbert, MHA Candidate 2020; Karim Hanna, MD; Anum Ahmed, MD*

**BACKGROUND:** The application of lean methodology is well known for its ability to eliminate waste through savings in time and cost. This allows for high productivity and quality care instead of spending time performing non-value added tasks. Streamlining duties and operating in an efficient environment are both necessary for the health care workforce as the prevalence of burnout among primary care clinicians and staff is consistently high. The objective of this study is to increase patient flow in the USF Health Family Medicine Department by identifying movement waste and non-value added activities

**SETTING/PARTICIPANTS:** For the use of a pedometer study, nurse steps in the Family Medicine Department, who do not operate in rooms stocked with printers and blood pressure machines, will be compared to nurse steps in the General Internal Medicine Department who are provided printers and blood pressure machines in every room

**METHODS:** Lean-Kaizen tools such as the fishbone diagram, spaghetti map, and the Value-Added (VA) versus Non Value Added (NVA) Analysis will be utilized, along with a pedometer study to determine the underlying causes of inefficiencies.

**RESULTS:** Results of the case control pedometer study are anticipated to show a significantly higher amount of steps per nurse per day.

**CONCLUSION:** The results of this movement study will allow USF Family Medicine and other family medicine practices to understand the implications of operating under procedures and environments that do not promote lean practices.

**RELEVANCE STATEMENT:** Understanding ways to decrease movement waste will allow financial savings, as well as a more satisfying experience for patients and clinicians.

### **P33: Close hospital follow-up and 30 day readmission rates in a primary care practice**

*Evan Fitzgerald, MD; Jay Orr, DO;*

**BACKGROUND:** 30 Day hospital readmissions represent a major cost burden and in many cases worse outcomes for patients. The AHRQ cited that in 2011, nationwide there were 3.3 million 30 day readmissions with an estimated cost of \$41.3 billion.

**SETTING/PARTICIPANTS:** patients admitted to the VCU-FFP residency service at Inova Fairfax or Inova Fair Oaks Hospitals from 2/1/2018 to 4/30/2018

**METHODS:** A report was generated in the Epic EMR for Inova hospital system to return all H+Ps written under the FFP residency service from 2/1/2018 through 4/30/2018. Each admission was accessed in Epic and admission date, discharge date, discharge diagnosis and disposition were recorded in secure spreadsheet without patient identifiers. Concurrently, outpatient Athena chart was accessed and follow-up date was recorded. Epic system was then searched and any re-admission within 30 days of discharge was recorded.

**RESULTS:** Patients who had PCP follow-up within 7 days of discharge were compared against patients who did not follow-up within 7 days. Readmissions for the follow-group were 10/162 (6.2%) vs 22/181 (12.2%) in the non-follow-up group. Using chi-square test with p-value of 0.05, we failed to demonstrate statistical significance. However, significance was found when comparing patients who had follow-up within 14 days (11/202, 5.4%) vs not (21/141, 14.9%) with a p-value of 0.003.

**CONCLUSION:** We suspect that with greater power, this study would have demonstrated a difference in the 7 day follow-up group similar to the 14 day group. It is also possible that patients scheduled for more acute follow-up tend to be more severely ill, and therefore more likely to be readmitted, than patients encourage to schedule follow-up within 14 days

**RELEVANCE STATEMENT:** Preventing hospital readmissions remains an important goal for keeping down healthcare costs and improving patient outcomes. We demonstrated that follow-up within 14 days of discharge is correlated with significantly fewer 30 day readmissions in our large primary care practice. Further research is needed to identify barriers to follow-up and to stratify patients by diagnosis and severity to determine which patients need to be followed more closely after discharge.

### **P34: Achieving Blood Pressure Control(AchieveBP): Prospective Design for an International Randomized Controlled Trial**

*Julie Gleason-Comstock, PhD, MCHES; Vijaya Arun Kumar, MD, MPH; Phillip Levy, MD, MPH, FACEP, FAHA, FACC*

**BACKGROUND:** Elevated blood pressure is a major cardiovascular disease risk factor in the neighboring countries of the United States and Canada. Two cardiovascular/behavioral health randomized controlled trial (RCT) studies were conducted by the Investigators in the United States with patients in an urban environment and at high risk for heart disease. The first was with patients in a public health primary care clinic and a second with patients discharged from an emergency department. Follow-up results from both studies showed overall patient satisfaction with electronic health education modules as well as increased patient short-term blood pressure control.

**SETTING/PARTICIPANTS:** In this proposed study design, patients discharged with uncontrolled blood pressure will be recruited from urban emergency departments in the United States and Canada with a common province/State border. Inclusion criteria will be age 21 - 80 years, with a prior diagnosis of hypertension, according to that patients' national guidelines for hypertension. After recruitment and randomization, the intervention will be conducted at 30, 90 and 180 days, with follow-up at 360 days.

**METHODS:** Power analysis was performed to project RCT expansion from a single urban site in the United States to a comparable site in Canada. The RCT will compare standard emergency department discharge for persons with uncontrolled blood pressure (control group) with an experimental group receiving monthly nurse communication/consultation and home blood pressure monitors. We hypothesize the mean of systolic blood pressure will have greater reduction for the experimental group compared with the control group, with a significant difference between the two groups of 3~4 mm Hg. Referencing our previous studies with similar populations, we assume the standard deviation for the systolic at 25 mm Hg. The difference will be detected with 80% power and a two-tailed test at the 5% significance level. Based on a sample size of 615 for each group, the significant difference between the two groups is projected to be 4 mm Hg.

**RESULTS:** NA

**CONCLUSION:** NA

**RELEVANCE STATEMENT:** In order to conduct this international research, researchers will need to address a number of challenges. Hypertension guidelines may vary between countries, e.g., the United States and Canada. Additionally, receiving International Human Subjects/IRB Research protocol approval can be complex and time-consuming. However, the research remains critical because of increasing global prevalence of cardiovascular disease and the importance of uncontrolled blood pressure as a major risk factor.

**P35: The COPD Assessment in Primary Care to Identify Undiagnosed Respiratory Disease and Exacerbation Risk (CAPTURE) Study: a partnership with practice-based research networks to identify unrecognized COPD patients in primary care**

*Linda Zittleman, MSPH; Nancy C. Elder, MD MSPH; Rowena Dolor, MD MHS*

**BACKGROUND:** Chronic Obstructive Pulmonary Disease (COPD) is the fourth leading cause of death in the U.S. However, COPD is an underdiagnosed and undertreated disease, especially within primary care. The CAPTURE Tool consists of a 5-item self-administered questionnaire and peak expiratory flow (PEF) measurement, developed to help identify undiagnosed patients with COPD that may be appropriate for currently available treatments. Although results from controlled settings are promising, the CAPTURE Tool has not been tested in diverse, real-world practices.

**SETTING/PARTICIPANTS:** 5000 primary care patients, age 45-80 years old without a prior diagnosis of COPD will be enrolled from 100 clinics within PBRNs located in rural Oregon; Los Angeles, California; rural eastern Colorado; and two in North Carolina covering rural and urban areas.

**METHODS:** The CAPTURE COPD study is a practice-based, cluster randomized controlled clinical trial. The study will 1) test the ability of CAPTURE to accurately identify people with undiagnosed, clinically significant COPD, 2) explore primary care practice implementation approaches to and acceptance of CAPTURE case finding for clinically significant COPD, and 3) explore the impact of CAPTURE information provided to clinicians in identifying and managing patients with respiratory symptoms (CAPTURE+). Practices are randomized to receive or not receive CAPTURE results. Participating patients complete the CAPTURE questionnaire, PEF, spirometry, and respiratory questionnaires. Local PBRN study coordinators perform the study procedures and record information into an electronic data capture (EDC) system. At 12 months, medical record review and patient surveys for participants with abnormal CAPTURE results, abnormal post-bronchodilator spirometry, and a 5% sample of those with normal CAPTURE results will occur to assess practice behavior and patient's health outcomes. Pulmonary and primary care experts in COPD in partnership with five practice-based research networks (PBRNs) developed the study implementation to ensure applicability and effectiveness of protocols and materials in primary care practice settings.

**RESULTS:** Input from PBRN investigators and coordinators refined protocols, practice and patient recruitment, implementation of study interventions, and case report form/database development. Modifications addressed issues pertaining to practice and patient cultural needs, literacy, language, and geography across the PBRNs. PBRN involvement in study committees (Operations, Executive, Publication) ensures pragmatic implementation of the trial. To date, 12 practices and 459 patients have participated. Active recruitment will continue through October 2020. Practice characteristics and participant demographics will be reported.

**CONCLUSION:** A partnership between COPD experts and multiple, diverse PBRNs across the nation enhanced study procedures and is resulting in the successful recruitment of diverse practices and patient participants.

**RELEVANCE STATEMENT:** For the CAPTURE study, PBRNs provide a diverse, real-world environment in which to test an innovative tool supporting COPD diagnosis. If proved successful, noninvasive CAPTURE screening questions could increase recognition of COPD and improve health outcomes within primary care, the site where most of these individuals receive their care.

## **P36: A New Comprehensive Measure of High-Value Aspects of Primary Care**

*Rebecca S. Etz, PhD; Stephen J. Zyzanski, PhD; Martha M. Gonzalez, BS*

**BACKGROUND:** Exemplary primary care involves being a force for integration in a fragmented system. It involves personalizing care within an often-impersonal system and prioritizing that care based on knowing the particulars of the person. Our team used an extensive engagement process with patients, clinicians, health care payers, and policy makers to develop a new primary care measure appropriate and supportive of this mission.

**SETTING/PARTICIPANTS:** The 11-item measure was fielded anonymously online among a highly diverse sample of 2,229 individuals, and 4 times at point-of-care (n= 323 patients) at a community health center, independent and hospital-owned private family practices, and a pediatric hospital-owned practice.

**METHODS:** Our work included 3 stages. First, we crowd-sourced samples of 412 patients, 525 primary care clinicians and 85 payers to describe what provides value in primary care. Second, we presented their 18 quality areas to 70 primary care and health services experts during a 2\_ day international conference (Starfield Summit III). A multidisciplinary team conducted a qualitative analysis of conference and survey data to develop 11 patient-reported items. The resulting Person-Centered Primary Care Measure (PCPCM) represents the broad scope of primary care, with 11 domains each represented by a single item: Accessibility, Comprehensiveness, Continuity, Integration, Coordination, Relationship, Advocacy, Family Context, Community Context, Health Promotion, and Goal-Oriented Care. Third, we evaluated item performance using factor analysis, Rasch Modeling, and association analyses among two online samples and four clinical samples.

**RESULTS:** Principal axes factor analysis identified a single factor. Factor loadings and corrected item-total correlations were >0.6 in online samples and >0.5 in clinical samples. Factor scores were fairly normally distributed in online patient samples, and skewed toward higher ratings in point-of-care patient samples. Rasch models showed a broad spread of person and item scores, acceptable item fit statistics, and little item redundancy. Preliminary concurrent validity analyses supported hypothesized associations.

**CONCLUSION:** The parsimonious 11-item PCPCM has excellent psychometric properties and factor analyzes into a single factor. This statistically shows the coherence of the diverse domains and broad scope of integrated primary care practice. The PCPCM is parsimonious and can be used to reduce the current large measurement burden.

**RELEVANCE STATEMENT:** The Person-Centered Primary Care Measure reliably, comprehensively, and briefly assesses aspects of care thought by patients, clinicians, and payers to represent high-value primary care. It sheds light on the mechanisms by which primary care affects outcomes, and can focus attention and resource allocation in efforts to improve practice and health care system organization.

### **P37: Building a proof of concept National Diabetes Repository**

*Michelle Greiver, MD, MSc, CCFP, FCFP; Neil Drummond, PhD; Conrad Pow, GDipBUS*

**BACKGROUND:** Diabetes Action Canada (DAC) is a Strategic Patient-Oriented Research (SPOR) Network in Diabetes and its Related Complications. DAC's mission is to transform the health outcomes of people living with diabetes and its related complications by facilitating important and meaningful connections between patients, their primary healthcare providers, and specialists to improve health outcomes, prevent complications while providing significant cost savings for the health system. It is projected that 4.2 million Canadians will have a diagnosis of diabetes by 2020. To prevent complications and to truly transform the health outcomes of persons living with diabetes, we must identify who needs preventative interventions.

**SETTING/PARTICIPANTS:** DAC has delivered a National Diabetes Repository, which presents a unique and important opportunity to assess healthcare use and outcomes for Canadians living with diabetes, to forecast future needs and to plan for the preventative measures.

The Repository contains Electronic Medical Record data from primary care repositories in five Canadian provinces. We continue developing synergistic partnerships with organizations who have mutual interests in using data to understand diabetes and its burden on the health care system.

**METHODS:** Data are stored in a secure environment where it can be analyzed. Designed with ISO 27002 security standards, implemented safeguards to prevent unauthorized access to data and identification of patients. Access to de-identified research data in the secure environment is overseen by DAC through a robust Research Governing Committee, which is comprised of 50% Patient Partners (Patient Partners are defined by CIHR as persons with a diagnosis of a particular condition or those family or health professionals who directly care for persons with the condition).

**RESULTS:** The repository currently consists of de-identified individual level Electronic Medical Record (EMR) data for over 100,000 patients with diabetes and spans five provinces, and growing. We will invoke reciprocity with data partners and foster a true learning and collaborative partnership to create an expanded data resource. The expanded data aims to bring together Patient Reported Experience Measures and Patient Reported Outcome Measures, and health administrative data that allows the repository to become a virtual platform, consisting of multiple datasets of information about patients with diabetes in Canada.

**CONCLUSION:** The Proof of Concept repository will be used for a variety of studies. Primary care EMRs can provide the data enabling a national repository for the study of diabetes in Canada. The linkage to administrative data can provide the answers to a variety of health questions that benefit the delivery of patient care, impact of policies, system planning and evaluation. Once linked, this valuable resource can be used to identify patterns and potential risk factors, so novel treatment options can be personalized, ensuring patients receive the care they need when they need it. We will have the ability to create predictive models to identify those with complex care needs - who are considered the most vulnerable in the community.

**RELEVANCE STATEMENT:** 1) Preventing diabetes-related complications and transforming lives of those living with diabetes.  
2) Learning from the patient experience to build a healthcare system that is sustainable, accessible, inclusive and equitable.

## **P38: Assessing patient feedback on a new screening tool for Chronic Obstructive Pulmonary Disease: the Chronic Obstructive Pulmonary Disease Assessment in Primary Care to Identify Undiagnosed Respiratory Disease and Exacerbation Risk study**

*Nancy C. Elder, MD, MSPH; Rowena J. Dolor, MD, MHS; Janani Muthaiya, MPH*

**BACKGROUND:** Dissemination and implementation (D&I) of screening strategies in primary care is primarily based on practice-level feedback from clinicians and, to a lesser extent, clinic staff. Opinions of patients who undergo the screening are often lacking. As part of the CAPTURE (Chronic Obstructive Pulmonary Disease (COPD) Assessment in Primary Care to Identify Undiagnosed Respiratory Disease and Exacerbation Risk) study: Validating a unique COPD case finding tool in primary care, funded by the National Heart, Lung, and Blood Institute (NHLBI), patient opinion surveys are conducted as part of a multi-method assessment designed to inform strategies for future D&I of the CAPTURE tool to screen patients for COPD after study completion.

**SETTING/PARTICIPANTS:** A subset of 200 primary care patients, age 45-80 years old without a prior diagnosis of COPD who enrolled in the CAPTURE study from PBRNs located in Oregon, California, Colorado, and two in North Carolina (40 patients from each PBRN).

**METHODS:** The CAPTURE study is enrolling participants at 5 United States-based practice-based research networks (PBRN). The CAPTURE tool consists of a 5-item self-administered questionnaire and peak expiratory flow (PEF) measurement. It was developed to identify undiagnosed patients with COPD in primary care. After completing baseline study procedures, participants are invited to complete a 10-minute written opinion survey. The opinion survey asks (1) whether the CAPTURE survey instructions and questions are easy to read and understand (5-item Likert scale); (2) whether seeing the point scoring ("0" for "No" and "1" for "Yes") affects their answers (Yes/No); (3) who should calculate the CAPTURE total score (patient, provider or it doesn't matter); (4) if the CAPTURE tool questions should be asked by an assistant at the doctor's office or can be self-administered, (5) how they would answer a question about exposure to smoke or polluted air; (6) how easy it is to perform the peak flow breathing test; (7) their preference on when to complete the CAPTURE survey (before physician visit, during check in, while waiting in room, or after visit); and (8) their preference for when they would like the health team to discuss the results (before/during/after the visit, or by phone).

**RESULTS:** To date, 131 participants have submitted a patient opinion survey. Preliminary results reveal 90% of the participants found the CAPTURE instructions and questions easy to read and understand. 48% of participants believe the doctor's office and not the patient should either probably or definitely calculate the CAPTURE Total Score. An equal number of patients preferred to answer the CAPTURE questions in a self-administered fashion versus having questions asked by an office health assistant. Most respondents (72%) believed that people who smoke and have no other exposures would respond "yes" to the question "Have you ever lived or worked in a place with dirty or polluted air, smoke, second-hand smoke or dust?" About three-quarters (73%) of participants found the peak flow breathing test easy or very easy to take.

**CONCLUSION:** Adding patient feedback to a multi-method clinical trial of COPD screening has the potential to improve patient understanding and ease data collection. This, in turn, will assist the creation of subsequent dissemination and implementation plans. We encourage developers of new screening tools to consider this shared-recommendation making approach

**RELEVANCE STATEMENT:** The CAPTURE study includes an evaluation of participants' feedback on the CAPTURE 5-item survey, peak flow testing, survey administration methods and reporting of the screening results. This information will inform how to disseminate and implement a screening test for chronic obstructive pulmonary disease when the main study is completed

### **P39: Quality measures and the provider patient relationship**

*William Lewis MD; Gretchen Sprouse MD; Seth Lilly, PharmD*

**BACKGROUND:** The business of medicine is currently undergoing a transformation from a fee-for-service model to a quality-based reimbursement. The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) has accelerated this process, with upwards of 9% of Medicare payments being tied to performance measures. Many practices are preparing for this transformation by tracking of quality-based performance measures and tying a percentage of provider salary to performance. Anecdotal reports suggest an unintended consequence of providers discharging patients who fail to meet quality markers in order to have a more favorable panel and thus lead to a higher reimbursement rate. Objectives: To conduct a survey of primary care clinics across West Virginia to determine if patients are being discharged from practices over failure to meet quality metrics and to assess the views on this practice. Additionally, to look at the prevalence of quality-based reimbursement for practices and providers.

**SETTING/PARTICIPANTS:** The West Virginia Practice-Based Research Network (WVPBRN) conducts an annual survey platform known as the Collective Outreach and Research Engagement (CORE) Survey. The CORE survey is a compilation of questions relevant to primary care in West Virginia. The survey is delivered through the WVPBRN List serve to primary care providers and administrators across the state using RedCap. The membership is comprised of Federally Qualified Health Centers (FQHC's), rural health clinics and academic clinics. The survey is then distributed in a chain referral format to other providers.

**METHODS:** ent in April of 2018 and was open for a month.

**RESULTS:** There were 43 total responses to the survey. 30% of respondents reported caring for patients who had been dismissed from previous practices for failure meet quality metrics. 97% tracked quality metrics in their clinic, with 79% receiving information on which patients are not meeting quality measures. 41% had a portion of their salary tied to performance quality measures.

**CONCLUSION:** Tying reimbursement to patient behavior may cause shifts in provider-patient relationships. This survey is a start towards documenting that patients are truly being discharged from practices, and this is not simply anecdotal. A broader survey of both providers and patients would help better define the scope of this practice. Further study is needed because having more patient discharges has the potential to cause higher clinical load and worsening payment to FQHCs and academic medical centers, while disrupting continuity of care and ultimately worsening gaps in the care of patients.

**RELEVANCE STATEMENT:** The up coming changes to physician reimbursement will alter the provider patient relationship, patients are being released from practices because of their not meeting quality metrics.

## **P40: Madison Addiction Recovery Initiative (MARI)**

*Thao Nguyen; Joseph Balles; Aleksandra Zgierska, MD, PhD*

**BACKGROUND:** Epidemic of opioid addiction, related crime and overdoses, despite existing efforts, prompt community and professional groups to look for alternative approaches. Madison Addiction Recovery Initiative (MARI) is a law enforcement, public health and university led pre-arrest program in Madison, WI that aims to divert eligible offenders from criminal justice to addiction care, with the goal to improve health and reduce crime. This study examines the MARI program's initial 18 months.

**SETTING/PARTICIPANTS:** City of Madison. Adults who committed a drug-related, non-violent, minor eligible offense, including overdose, and who are not on parole/probation.

**METHODS:** Approach: Eligible offenders are referred by Madison Police Department (MPD) officers to a treatment program for peer support and a referral to appropriate level of addiction care, using existing treatment resources. If the offender is engaged in treatment and does not re-offend during a 6-month follow-up, the initial charges are voided. Measures: Madison Police Department crime data and treatment program engagement data for the MARI participants. A question survey, including one open-ended question, of MPD officers to examine MARI's implementation process. The survey consisted of 3 questions (including one open-ended) was sent out to 230 MPD officers between May 14 and June 1, 2018, via survey monkey platform.

**RESULTS:** From September 2017 to February 2019, MPD officers made 174 MARI referrals; 124 offenders were deemed eligible. Among them, 38 were unreachable, 7 made an initial phone contact but did not start a treatment process, and 79 completed the assessment and initiated treatment. Among 79 MARI participants, 71 were Caucasian, 51 were male, with mean age of 35±SD 10 years old. To date, of the 79 participants, 32 completed the program and had their initial charges voided, 24 are currently participating, and 23 were discharged due to treatment or program non-compliance (N=16 or re-offense (N=7)). Links to anonymous survey were emailed to 230 "street" patrolling officers; surveys were completed by 100 officers. Seventy-six of the respondents (76%) stated that they routinely took steps to determine if someone is eligible for MARI. Forty-one officers offered comments about barriers to MARI referrals: disagreement with the MARI's approach (N=20), offenders being ineligible (N=23), and lack of clarity about when/how to complete the referral (N=18). Fifty-eight officers offered suggestions on how to help increase MARI referrals, primarily by broadening the MARI eligibility criteria, simplifying the referral process, and offering refresher training to officers on the MARI program.

**CONCLUSION:** MARI program shows promises. To improve enrollment, MARI is utilizing mobile response teams as a trial of reaching out to those who did not make contact. The MPD officers survey results suggest positive response to MARI's implementation process and underscores the need to continue the education of MPD officers, streamline the referral process and expand eligibility criteria to increase reach of the program.

## **P42: Forming a Virtual Parent Panel within a Pediatric PBRN**

*Stacey Engster, MD, MS; Carrie Fascetti, LSW; Alexandra Mykita, MA*

**BACKGROUND:** Practice-Based Research Networks (PBRNs) aim to collaborate with key stakeholders, including patients and families, to enhance clinical practice and patient health. Pediatric PBRN collaborations with key stakeholders are unique given the nature of parental involvement in children's health. Models describing strategies of effective parental engagement within pediatric PBRNs are still needed. Our objective was to create a virtual Parent Panel associated with our pediatric PBRN to engage parents and seek their input on various topics of children's health.

**SETTING/PARTICIPANTS:** Parents were recruited from email listings in our pediatric practice group affiliated with our PBRN, and our Clinical and Translational Science Institute Research Registry. Eligible participants were 18 years and older and had accompanied their child to a pediatric primary care office to receive routine vaccinations.

**METHODS:** We assessed parent interest in joining a virtual Parent Panel at the end of a cross-sectional online survey regarding parent perceptions of and preferences for pain management of routine pediatric vaccinations. We described our Parent Panel as a group of active parents willing to provide valuable input on child health programs and initiatives. Participating parents would complete surveys and answer questions via email no more than 1-2 times a month on a variety of children's physical and behavioral health topics. Participation on our Parent Panel was strictly a volunteer opportunity with no compensation and no required in-person meetings. From October 2018 through March 2019, 249 participants completed our initial vaccine survey, and of those 133 indicated interest in our virtual Parent Panel. Upon follow-up email to confirm interest, 75 parents were willing to participate. These 75 parents were sent an online questionnaire to obtain demographic information, and 58 parents completed it. In March 2019, these 58 parents plus an additional 10 interested parents (based on ongoing enrollment) were sent the first monthly survey to obtain feedback for our PBRN website, and 37 completed it.

**RESULTS:** From the 58 parents that completed our demographic survey for our virtual Parent Panel, all were female, most were White (81%), married (88%), had graduated college (25%) or obtained graduate degrees (59%). Most women were age 31-40 years (67%), from 37 different zip codes, and 27 different primary care offices within our pediatric PBRN. Parents had a mean of 2 children (SD 1.12), with most children having private health insurance (90%), and/or medical assistance (17%). Of the 37 parents who provided feedback regarding our pediatric PBRN website, 24% had heard of the website previously, most commonly from our PBRN research staff (44%), followed by emails (22%) and brochures (22%). All parents found family information on the website helpful and 95% found it easy to understand, yet 14% had questions about our pediatric PBRN and 35% wanted to see additional medical and research topics on our website. Most parents (59%) would likely access our website in the future to look for potential research studies, while 83% would access our website again in general. About 26% of parents reported they would be more likely to access the website again if they received email reminders every 1-2 months. In addition to our website, many parents want to learn information about our pediatric PBRN and current research study opportunities by: email/text (57%), research staff in pediatric offices (54%), Clinical and Translational Science Institute Research Registry (46%), social media (35%), TV screens in pediatric office waiting rooms (32%), exam room computer screens (32%), pediatric practice websites (27%), and brochures (27%). Next steps in forming our virtual Parent Panel include strategizing ways to enhance engagement with parents to include a diverse sample, sending monthly items for parent feedback on various topics, collaborating with investigators at various stages of the research process, and forming a smaller Parent Advisory Board likely with in-person involvement.

**CONCLUSION:** One model for effective parental engagement in pediatric PBRNs is a virtual Parent Panel. We utilized an online survey to gauge interest in a virtual Parent Panel associated with our pediatric PBRN. Many parents are willing to provide valuable feedback on various topics related to children's health research via a virtual Parent Panel, and many parents want to learn more about pediatric PBRNs in a variety of ways.

**RELEVANCE STATEMENT:** Many parents are interested in forming a virtual Parent Panel to provide feedback and improve children's health through research. PBRNs can utilize parent input and enhance engagement in research via a virtual Parent Panel.