

OP1: Baseline Data for the TRANSLATE CKD Study

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BACKGROUND:

Chronic kidney disease (CKD) is steadily increasing in prevalence in the United States. Stage 3 CKD is associated with a five-year all-cause mortality rate of 24.3% and a five-year need for renal replacement of 1.3%, while Stage 4 is associated with a five-year 45.7% mortality rate and a five-year 19.9% requirement for renal replacement. This study will apply lessons learned from an ongoing pragmatic clinical trial, TRANSLATE CKD (NIDDK R01DK090407), which implemented point-of-care computerized structured decision supports (CDS) for primary care physicians to delay CKD progression and reduce mortality. It is a pragmatic cluster randomized trial that compares computer decision support alone versus a virtual facilitation program that includes practice facilitation, academic detailing and mentoring, audit and feedback, and collaborative learning opportunities.

SETTING & PARTICIPANTS:

Chronic kidney disease (CKD) is steadily increasing in prevalence in the United States. Stage 3 CKD is associated with a five-year all-cause mortality rate of 24.3% and a five-year need for renal replacement of 1.3%, while Stage 4 is associated with a five-year 45.7% mortality rate and a five-year 19.9% requirement for renal replacement. This study will apply lessons learned from an ongoing pragmatic clinical trial, TRANSLATE CKD (NIDDK R01DK090407), which implemented point-of-care computerized structured decision supports (CDS) for primary care physicians to delay CKD progression and reduce mortality. It is a pragmatic cluster randomized trial that compares computer decision support alone versus a virtual facilitation program that includes practice facilitation, academic detailing and mentoring, audit and feedback, and collaborative learning opportunities.

METHODS:

It is a pragmatic cluster randomized trial that compares computer decision support alone versus a virtual facilitation program that includes practice facilitation, academic detailing and mentoring, audit and feedback, and collaborative learning opportunities. Randomization was done at the practice level and outcomes would be determined at the patient level. This pragmatic trial has 2 cohorts: arm 1 - Sites randomized to the intervention arm with facilitation; arm 2 - external comparator sites that have CDS only. The outcome measures were the evidence based changes that would delay the progression of CKD. They are: BP < 140/90; HbA1C < 7.0; LDL < 100; smoking cessation; use of ACE/ARB; avoidance of NSAIDs; and referral to Nephrology for eGFR < 30. Statistical analysis. Descriptive statistics (means, SD, proportions, frequency distributions) were generated for patient socio-demographic measures, clinical measures, and process of care. Generalized linear mixed effects models (GLMMs), adjusting for patient-level covariates and clustering of patients within clinical sites of care, were used to examine associations with being in stage 4 (vs stage 3) CKD. Unadjusted associations were estimated using GLMMs with a random effect for clinical site of care and a single variable of interest. Covariates in all multivariable models included age, gender, and race/ethnicity. Analyses were performed using SAS v 9.4

RESULTS:

A cohort of 16784 primary care patients from 42 care sites (21 organizations) were identified. These practices used seven different EMR and were located in different States. In unadjusted analyses (i.e. no covariates), older patients, female patients, Hispanic and black patients (vs white or unknown/other) were more likely to have stage 4 CKD. Patients with a diabetes and with LDL < 100 were also more likely to have stage 4 CKD. Patients who were currently prescribed an ACE/ARB, currently taking NSAIDs, and whose BP and HgA1c were at goal were less likely to have stage 4 CKD.

CONCLUSION:

It is possible to collect clinical data from diverse EMR from practices across the country. This is an unobtrusive way to get longitudinal clinical data. Consistent with the literature, CKD is worse in African American and Hispanics. The study was completed Jan 2016 and data is currently being analyzed.

ONLINE RESOURCE:

<http://dartnet.info>

OP2: Genetic variation associated with blood pressure change among a cohort of African American adults in the Heart Healthy Lenoir trial

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Additional Authors: Wayne F Homan

BACKGROUND:

Lenoir County, North Carolina, is among the poorest in the state with elevated rates of heart disease, stroke, and obesity relative to state and national levels. We developed the Heart Healthy Lenoir project, funded by the National Heart Lung and Blood Institute, to create long-term approaches to reducing cardiovascular disease risk and racial disparities in these risks among populations of citizens from Eastern, NC. Complementing our clinical interventions we genotyped 347 study participants utilizing genome-wide technologies to identify genetic-based factors that may contribute to increased cardiovascular disease (CVD) risk, with a particular focus on hypertension.

METHODS:

To identify potential single nucleotide polymorphisms (SNPs) associated with a change in systolic blood pressure (Δ SBP) one year post-intervention, an initial workflow was established to assess and improve overall sample quality, followed by subsequent optimization of genotyping calls based on the Cohorts for Heart and Aging Research in Genomic Epidemiology (CHARGE) Consortium that resulted in 585,865 quality SNPs used for our analyses. We then developed a multi-variable linear model accounting for Δ SBP-associated covariates, including age, gender, BMI, smoking status, and age-interaction terms, to identify significant SNP associations in the African American (AA) cohort.

RESULTS:

Among the 193 AA study participants, we observed a $4.52 \text{ mmHg} \pm 1.16$ (SE) reduction in SBP at one year. Our modeling identified 46 potential SNPs (with $p < 1e-4$ for both the homozygous SNP term and the SNP- age interaction term) associated with a change in SBP, of which seven mapped to 3 separate loci linked to 6 candidate genes (CELF2, SFTA1P, CHST9, AQP4, CPVL, and CHN2). Moreover, we have identified the genotypes associated with SBP improvement within different age groups of our AA participant population.

CONCLUSION:

The identification of SNPs associated with the success of a hypertension intervention suggests that genetic factors in combination with age may contribute to an individual's success in lowering SBP. Further investigation is required to determine the role of these SNPs in the ability of individuals to respond to the HHL intervention in regards to lowering SBP, such that more precise treatment recommendations may be made in the future as part of personalized care delivery. Likewise, SNPs associated with either a lack of, or increase in SBP may signal clinicians to advise alternative treatments for such patients.

OP3: The Community Research Outreach Program: Integrating Research Engagement into Operations

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Additional Authors: Joan Nelson, MPH, PA-C, Christine Nelson, PhD, RN, Aryicka Frison, BA, Jessica Irvine, MS, Vance Bauer, MA

SETTING & PARTICIPANTS:

OCHIN, Inc. is a non-profit healthcare innovation center created in 2000 to provide centralized support for the implementation and maintenance of electronic health records in care settings that serve vulnerable patients. OCHIN works with 95 health systems (FQHCs, community health centers, critical access and rural hospitals) in 17 states; these organizations served almost 900,000 patients in 2015. OCHIN leads the Accelerating Data Value Across a National Community Health Center Network (ADVANCE) Clinical Data Research Network (CDRN), which is funded by the Patient-Centered Outcomes Research Institute as part of a national research network. The robust engagement of patients, clinicians, health systems, and researchers is central to ADVANCE, and includes integrating key stakeholders into the ADVANCE Advisory Council and all workgroups. Additionally, OCHIN is part of the Community Health Applied Research Networks (CHARN), which was designed to build research capacity and infrastructure in community health centers. Both networks focus on comparative effectiveness research that will lead to improved patient care and outcomes.

NEEDS & OBJECTIVES:

Strategies to meaningfully engage health systems leaders, clinicians and patients are increasingly valuable to the conduct of research and clinical care. Network infrastructure funding allowed OCHIN to build the Community Research Outreach Program (CROP) as part of its operations model in order to support and extend its engagement work with stakeholders. This operations model could be used within other research networks in order to streamline network and project engagement activities.

DESCRIPTION:

The CROP was established in fall 2015 as part of a larger central operations model to provide structure for and to align strategies across an expanding OCHIN research team. The CROP is tasked with: coordinating OCHIN stakeholder engagement workgroups; developing tools to support member participation in research projects; collecting data on member organizations' research priorities and involvement; and internally disseminating research activities. The CROP is staffed from a variety of OCHIN departments and roles, including an Engagement Coordinator, a Site Principal Investigator, a Practice Facilitator, a Research Associate and an Account Manager. Team members work together in order to facilitate communication, ensure adequate representation and to maximize efficiencies across departments. Furthermore, the CROP works closely alongside other research operations teams (e.g., Research Dissemination, Front Door) and OCHIN departments (e.g., Marketing and Communications) in conducting its activities.

EVALUATION:

Through an iterative process with CROP members and OCHIN research leadership, the CROP established its charter and decided upon a number of process and Board-reported measures to evaluate its progress. These measures include: the number of OCHIN member organizations actively involved in research projects, the involvement of stakeholder workgroups in research activities (e.g., the number of proposals and projects reviewed in partnership with stakeholder groups, the number of clinician and patient investigators named on research proposals and projects), and the centralization of tools and protocols for clinic and patient recruitment. Additionally, the CROP is responsible for reaching the engagement-related milestones for the ADVANCE and CHARN networks.

DISCUSSION/REFLECTION/LESSONS LEARNED:

Funds to support infrastructure development have been critical in supporting the creation of the CROP as a resourced operations team within the OCHIN research department. CROP has a specific and important function - to integrate and align project-specific work and network-specific engagement work across teams within OCHIN and amongst its partners. The CROP, its stakeholder partners, and research leadership are thinking creatively about ways to sustain this structure after network funding has ended.

OP4: The Effect of Quality Improvement Orientation and Organizational Change on Cardiovascular Care in Oklahoma Primary Care Practices: A First Look

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Additional Authors: Zsolt Nagykaladi, PhD; James Mold, MD; Steven Crawford, MD; Daniel Duffy, MD

BACKGROUND:

Cardiovascular disease (CVD) remains the leading cause of death in the US, despite evidence-based preventive measures. With the goal to prevent 1 million cardiovascular events in the next 5 years, the Million Hearts Campaign (MHC) aims to improve CVD care by promoting guidelines of aspirin use, blood pressure (BP) control, and smoking cessation counseling. Aligning with MHC recommendations, Healthy Hearts for Oklahoma (H2O) is facilitating implementation of evidence-based interventions in primary care practices across Oklahoma and evaluating their effects. The objective of this study is to assess the cross-sectional association between baseline characteristics of medical practices and achieving MHC targets.

SETTING & PARTICIPANTS:

Primary care practices with fewer than 10 providers were eligible for study inclusion. The database is comprised of (1) practice characteristics data on 99 practices enrolled to date; and (2) patient data from electronic health records.

METHODS:

Patient-level data were aggregated at the practice level where performance was evaluated by estimating the proportion of eligible patients who met risk-based intervention targets: recommended aspirin therapy, BP control, and receipt of smoking cessation counseling. Practices where 70% of eligible patients met the intervention target were coded as meeting the MHC target. Log binomial regression models were used to estimate the proportion achieving each MHC target as a function of practice characteristics describing quality improvement orientation, practice structure, and magnitude of organizational change. Associations are summarized using prevalence proportion ratios (PPR).

RESULTS:

The study sample included 34 (34%) solo practices, 46 (47%) have patient-centered medical home designation, 34 (34%) participate in an accountable organizations (ACO), 59 (60%) use registries, 55 (56%) receive performance incentives, and on average the practices had undergone 1.1 major changes in the past year. Forty-two (42%), 15 (15%), and 41 (41%) practices met MHC targets for aspirin therapy, BP control, and smoking cessation counseling, respectively. Participating in an ACO (PPR=0.38, 95% CI: 0.17-0.84) and experiencing increased practice changes (PPR=0.71, 95% CI: 0.53-0.95) were inversely associated with meeting the aspirin therapy target. On the other hand, being in an ACO was positively associated with meeting the smoking cessation counseling target (PPR=1.75, 95% CI: 1.03-2.97). No differences were observed for BP control.

CONCLUSION:

These findings provide a preliminary "picture" describing the relationship between an emphasis on quality and meeting MCH targets. Not surprisingly, as practices undergo organizational change, the resulting uncertainty impedes their ability to meet intervention targets. The mixed results of the ACO membership are consistent with current literature on ACOs. They demonstrate that ACO may influence certain outcomes by emphasizing those over others, based on the reward payment system. Smoking cessation counseling is a part of a measure set to prevent stroke and manage CVD, which in turn is often tied to incentives/compensation. In comparison, there is less emphasis on aspirin therapy. None of the organizational factors were significantly associated with BP control. This may be because in addition to routine BP checks, adequate BP control requires accurate prescription, patient access to continuous medication, and compliance. Collectively, these findings demonstrate the importance of understanding organizational factors and the nature of the intervention targets. As different factors would have differential impact on CVD treatment and prevention, understanding these associations may inform the development of appropriate strategies and allocation of investments/resources.

OP5: Clinical Trials Redesigned: A novel approach to PBRN integration

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SETTING & PARTICIPANTS:

Carolinas HealthCare System (CHS) is one of the nation's largest organizations, connecting comprehensive care for over 11.5 million encounters across over 900 locations. The CHS Department of Family Medicine Clinical Trials Division is part of the Mecklenburg Area Partnership for Primary Care Research (MAPPR) practice-based research network (PBRN), in Charlotte, NC. It is physically collocated within a family medicine residency training program whose facility offers convenient access to providers and patients with ample space to conduct the studies as well as being adjacent to an emergency room and hospital should the need arise. This main site is in a network of 6 ambulatory primary care practices and one of three sites from which the clinical trials team regularly recruits. Altogether there are 30 faculty physicians, 69 resident physicians, and 5 advanced care practitioners, caring for 22,000 patients. A unified electronic medical record provides seamless communication amongst the research team and referring providers.

NEEDS & OBJECTIVES:

Clinical trials are an important area of research intended to augment medical knowledge. They explore the safety and efficacy of novel strategies, treatments or devices, following strict protocols. These types of studies actively engage participants in their health care and often times expose them to innovative new options that may improve their condition and help others in the future. PBRNs are ideal settings to successfully run clinical trials. Effective programs work to select studies that have the opportunity to both positively impact the health of the patients within their community and provide a mixed-funder environment leading to stability to their department.

DESCRIPTION:

The clinical trials team has grown from modest beginnings. Initially one physician principal investigator and a single research coordinator, it is now is comprised of a multidisciplinary team including a research director, manager, lead physician principle investigator, 3 faculty physician investigators, research fellows, a physician assistant sub-investigator, 3 coordinators, 2 analysts, a staff assistant, interns and students. Partnerships with the healthcare system's advanced analytics and research finance departments have improved screening and fiscal efforts respectively. The team is integrated in the residency program and maintains good rapport with the entire network of primary care practices for referrals and recruitment. This location is advantageous to the department, assisting the clinical trials team to provide excellent care to the participants. Being embedded within a family medicine residency program and adjacent to a hospital improves continuity of care, a tremendous benefit for the participants' health and wellbeing. The clinical trials team prides itself on being able to spend extra time with the participants, sometimes catching concerns that need to be brought to the primary care providers' attention. While it's hoped that emergencies are few and far between, the clinical trials team takes full advantage of the resources offered which in turn positively impacts the participants' ability to receive collaborative care.

EVALUATION:

Over the past 7 years, the research team has brought on 10 clinical trials and enrolled 560 participants which has generated over 1.5 million dollars in revenue for the department. Additionally, the team has maintained high rates of retention as a result of exceptional participant and teammate satisfaction. The majority of studies have been phase 4 clinical trials. Funders include federal agencies and pharmaceutical companies. Diseases of interest include diabetes, hypertension, dementia, and chest pain.

DISCUSSION/REFLECTION/LESSONS LEARNED:

Running a successful clinical trials program has facilitated the CHS Department of Family Medicine Clinical Trials Division to become a leading research group within the healthcare system. Having a varied funding source has allowed for low turn-over of team members, which maintains continuity for the participants, and has enabled growth within the department overtime. Learning new skills, both directly related to clinical trials and also assisting in developing independent ideas and projects within the PBRN, has enabled opportunities for pre-funded investigator-lead projects to be developed. Modeling other clinical trials division after this one may in turn yield success.

OP6: Development of a PBRN Action Group for Canada

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Additional Authors: Randi Holden-Stanley; Chantal Valiquette

SETTING & PARTICIPANTS:

Setting: PBRN Action Group at the College of Family Physicians of Canada (CFPC) Participants: PBRN Action Group Steering Committee at the CFPC

NEEDS & OBJECTIVES:

Needs: to develop plans and methods for increasing the number, size and scope of Canadian PBRNs and their research Objectives: To gather information on the current state of PBRNs in Canada. To support the growth and development of PBRNs in Canada by to developing plans and methods for achieving this.

DESCRIPTION:

Following the approval of its Blueprint in 2013, the CFPC Section of Researchers (SoRSOR) established a PBRN Action Group. This followed the Blueprint mandate to build research capacity and capability in the family medicine community through a strategic objective to support the development and growth of primary care PBRNs. A chair of the Action Group was appointed in 2015. The initial activity was to gather data on existing PBRNs, including name, funding, location, organizational structure, areas of focus, membership, and data holdings. This was completed during the summer of 2015. 14 PBRNs were identified outside of Quebec. Quebec had four PBRNs collaborating as a single network (Reseau 1). 11 PBRNs contributed data to CPCSSN. The size of PBRNs was highly variable; many several had had wide large areas of interest; many had no data manager and reported no annual infrastructure budget. Most did not provide information on report on data storage and/or management for the PBRN or about data standardization activities. Following this, a Steering committee was recruited and met in February 2016. The meeting objectives were: to develop working groups to address major issues; to plan the terms, members and priority goals for PBRN working group(s); to develop strategies to implement goals. Steering committee members included the CFPC Department of Research; Leads of PBRNs in Canada, US and Ireland; Chair, CPCSSN; Directors of primary care Research; a representative from the Ontario Medical Association; informatics experts. Documentation on planning and business strategies for a large PBRN, UTOPIAN, had been provided ahead of time.

EVALUATION:

Major issues identified were: Business planning for infrastructure and funding, IT infrastructure, scaling up. The CFPC Executive Director, Corporate Services presented information on the 10 high level elements of a business plan including budget forecasting, resource and infrastructure planning, followed by a discussion. Aspects of IT infrastructure, including data management and relationships with Physicians, Governments and EMR Vendors were considered. In terms of Human Resources, hiring and retaining Research assistants, Practice Facilitators, Data managers and analysts was considered, as well as operational requirements including recruitment and retention of practices/patients, conducting multiple studies. As an example of infrastructure management, a document on Research Ready was distributed.

DISCUSSION/REFLECTION/LESSONS LEARNED:

Three Working groups (WGs) were devised: 1. Relationships WG - would include patient groups, vendor groups, the College, regulators, privacy officers. 2. Health Information Technology WG. 3. Infrastructure and Operations WG. WGs were tasked with identifying a Lead and developing priorities. A report will be provided to the SOR yearly, at a minimum of yearly. The chair of the PBRN Action Group will be a member of each Working Group.

ONLINE RESOURCE:

http://www.cfpc.ca/uploadedFiles/Directories/_PDFs/CFPC_Blueprint-Report.pdf

OP7: Impact on Practice-Based Research Networks of Partnerships with Clinical and Translational Science Awards - Results from the CERA PBRN Directors Survey

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BACKGROUND:

Practice-based Research Networks (PBRNs) bring together academic investigators and community-based practices, creating a critical infrastructure for supporting community-engaged clinical and translational research. Though rates of study participation in PBRNs have been reported, little is known about the degree to which PBRNs may be achieving success by other measures, such as receipt of extramural funding, scientific publications or integration within larger academic research settings. Clinical and Translational Science Awards (CTSA) programs, aim to accelerate the process of translating laboratory discoveries into improved population health and include engaging communities in clinical research efforts. Collaboration with PBRNs is a commonly used strategy for CTSA programs' community engagement activities. The objective of this study is use data from a national survey of PBRN directors, to examine research productivity outcomes of PBRNs and explore the association between Clinical and Translational Science Awards (CTSA) program affiliation and PBRN outcomes.

SETTING & PARTICIPANTS:

This study is an analysis of a survey conducted as part of the Council of Academic Family Medicine Educational Research Alliance (CERA). CERA is a joint initiative of four major US academic family medicine organizations (Society of Teachers of Family Medicine [STFM], North American Primary Care Research Group [NAPCRG], Association of Departments of Family Medicine [ADFM], and Association of Family Medicine Residency Directors [AFMRD]). The survey was designed as an omnibus survey incorporating several distinct subprojects focusing on different topic areas. The sampling frame was designated directors of Practice Based Research Networks (PBRN) according to the Agency for Healthcare Research and Quality's registry of PBRNs. Within the registry the networks have a designated network type. We selected Family Medicine networks (i.e., at least 75% of network members are Family Medicine Clinicians) and Mixed Networks, which included family medicine clinicians for participation. This survey was limited to US and Canada based members. The study was approved by the American Academy of Family Physicians Institutional Review Board.

METHODS:

We used descriptive and bivariate analysis to describe the characteristics of respondent PBRNs and determine the associations between CTSA program affiliation and PBRN outcomes.

RESULTS:

A total of 54 (56%) PBRN directors responded to the survey. About half of respondent PBRNs (51%) reported affiliation with a CTSA program. PBRNs reported the affiliated CTSA programs provided support in the form of administrative support (52%), financial support (70%), and scientific guidance (56%). Compared to PBRNs without CTSA program affiliations, PBRNs with affiliation to a CTSA program were more likely to report completion of quality improvement research (88.5% vs 65.4%, $p = 0.048$) and participation in multiple PBRN collaboration research projects (80.8% vs. 50.0%, $p = 0.02$). PBRNs affiliated with a CTSA programs were much less likely to report maintaining funding as a significant barrier to successful research (7.7% vs. 52.0%, $p = .0005$).

CONCLUSION:

CTSA program investment in PBRNs is associated with PBRNs conducting quality improvement research with community-based practices at the local level as well as participation in large-scale collaborations across multiple diverse PBRN settings. CTSA affiliation represents an important resource in practice-based research.

OP8: Knowledge to action or action to knowledge? - The application of the KTA framework to knowledge and research use in primary care

Tina Wulff

BACKGROUND:

Healthcare systems worldwide face the challenge to provide efficient, evidence-based and safe treatments. Despite the growing interest in implementation science, many healthcare interventions which found to be effective in studies, fail to translate into meaningful patient care outcomes, and yet there are gaps in literature providing a detailed understanding of how knowledge and research evidence are used and mobilised by general practitioners (GPs). This study examines the sources and processes of knowledge and evidence use in primary care by addressing the research question of 'How do GPs mobilise knowledge and research evidence in routine practice, in cases of uncertainty and after patient safety events'.

SETTING & PARTICIPANTS:

The study was conducted in the primary care setting in the English NHS. The sample comprised GPs working in NHS surgeries. Participants were recruited using snowball sampling.

METHODS:

In total, 29 GPs participated in semi-structured interviews. Thematic analysis of the transcripts was undertaken using a hybrid approach of inductive and deductive coding applying the Knowledge-to-Action (KTA) framework for categorisation and interpretation.

RESULTS:

The study elaborates sources and processes of knowledge and research use in practice, examining three different situations: routine practice, uncertainty and after patient safety events. Focussing on these three instances highlighted that different information needs and behaviour occurred according to the situation. It became apparent that the implementation of evidence does not necessarily follow the phases of the KTA framework, particularly not in routine practice or cases of uncertainty. The patient is often a key trigger for knowledge mobilisation, although this has not been emphasised in existing literature. GPs use a wide range of evidence in their routine practice; not only commonly available sources like clinical guidelines, the sample showed also a preference for online sources, applied in and after the consultation and particularly in cases of uncertainty. Furthermore, the use of local knowledge is essential, particularly while learning from patient safety events. These events are often the starting point for primary care and practice-specific knowledge creation and implementation processes.

CONCLUSION:

The study suggests that knowledge mobilisation is not an isolated process; it is rather complex, multidimensional and non-linear. It comprises a wide range of individual and organisational activities and multiple sources. Due to restricted time and managerial capacities of GPs, the implementation of research evidence into primary care practice does not necessarily follow suggested implementation frameworks. By examining how GPs use research evidence and mobilise knowledge outside of specific implementation projects, the study illuminates their information needs and behaviour in routine practice which contributes to the evidence base for the design of effective implementation strategies for primary care.

OP9: Developing Practice Facilitation Infrastructure for a Large Health Plan in California to Support Quality and Evidence Translation

Lyndee Knox, PhD; Ellen Rudy, PhD;

SETTING & PARTICIPANTS:

LA Net, a PBRN located in Los Angeles, partnered with a prominent health plan in California, Molina Healthcare California (MHC), and its affiliated medical group, Molina Medical Group (MMG), to assist them in designing the framework of a state-of-the-art PF program supporting its 19 medical practices as well as contracted practices in the community providing care for Molina members. MHC and MMG are also participating in the California Quality Collaborative Practice Transformation Initiative.

NEEDS & OBJECTIVES:

Health plans are under increasing pressure to impact the quality of care delivered to their members, and ultimately to improve health outcomes. Recently, some health plans have begun to invest in the development of robust quality improvement infrastructure including comprehensive practice facilitation (PF) programs linked to data systems that merge and analyze both clinical and claims data of their members. These investments have been stimulated, in part, by increased requirements from federal, state and local funders for health plans to demonstrate achievement of pre-specified levels of quality of care for their members. Work in this area is also supported by AHRQ and CMS who are looking to develop resources and infrastructure to support wide-scale practice improvement.

DESCRIPTION:

LA Net, LA Net's data partner, the Dartnet Institute, MMG leadership, and MHC leadership collaborated to design the initial framework of the program. Multiple site visits and cross-organizational meetings were conducted to identify and leverage existing QI resources within the health plan and MMG, build a shared vision and buy-in for practice facilitation, and develop the initial design for the facilitation program. Particular attention was paid to identifying and ensuring that the model supported the plan in addressing federal, state and marketplace quality requirements, while also being responsive to priorities at the practice level. Expertise among MMG leadership trained in Lean, resources from AHRQ on designing facilitation programs and training facilitators, and training and data resources available as part of the California Quality Collaborative's Practice Transformation Initiative were also used in to support program design and start-up. MHC and MMG's extant extensive resources in Clinical Informatics, Quality Interventions and Reporting, Provider Services, and Pay for Performance programs were also partners in the process. Initial activities included an environmental scan of MHC and MMG practice transformation resources, development of a design for a health plan and MMG based practice facilitation program, and the preliminary design of a performance data system that aligns with practice and health plan priorities.

EVALUATION:

Eight full-time practice facilitators from MHC have been hired, trained and nine practice facilitators from MMG have been trained. Facilitators receive weekly training and supervision. A robust performance reporting system that combines clinical, claims and patient reported outcomes (PROS) is being developed. The data system will provide monthly performance reports at the organization, practice and provider levels across all enrolled members. Facilitation has launched with three of the 19 MMG practices with plans to expand to other MMG clinics and contracted practices within the next 6 months. Outcome goals include improvement on 9 high priority HEDIS metrics for MHC, and enhancement of member experience both with the plan and in the practices.

DISCUSSION/REFLECTION/LESSONS LEARNED:

Numerous resources to support quality exist in the health plan environment, but are often not thought of as resources for quality improvement. Identifying these resources and engaging these as part of the program design is an important first step in design. Multi-disciplinary partnerships that include PBRNs, data experts, community clinicians and patients, along with health plan staff help ensure that the design is responsive to health plan, practice/clinician, and patient needs. Each group brings knowledge, resources, and needs that are important to incorporate in a comprehensive design.

OP10: Impact of a ground-up voluntary performance measurement initiative on the use of data for QI in primary care

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

SETTING & PARTICIPANTS:

Primary care teams who are members of AFHTO, which represents primary care providers for approximately 3 million patients or 25% of the population of Ontario, Canada.

NEEDS & OBJECTIVES:

Change conversations about performance in primary care. Possibly through conversations (or other mechanisms), change participation in other activities to increase use of data to improve quality.

DESCRIPTION:

Measurement is widely considered to be a prerequisite but not a substitute for quality improvement. Additional effort is needed to identify and implement changes based on the measurement to improve performance. Moving beyond measurement to improvement remains a challenge in primary care. This paper describes the introduction of an initiative intended to change conversations around using performance data for quality improvement. It frames the vital importance of measurement as a means to improving quality, not an end in itself. A voluntary performance measurement initiative was introduced. It was based directly on input from front line providers in terms of which indicators were to be presented and how. In line with that input, the initiative was intentionally kept very small (no more than a dozen indicators). The initiative followed through on its explicit plan to evolve, incorporating input from patients in the 2nd and 3rd iterations in the development of a composite quality indicator that reflects the patient-provider relationship. Direct feedback on performance was provided to all primary care teams so they could compare themselves to peers. Teams were supported in collecting data and refining indicators to better fit was possible for them to collect and also meaningful to their providers.

EVALUATION:

Participation in measurement activity was high, with nearly two thirds of members voluntarily contributing data to the D2D report. Other changes in measurement activity included increased standardization of data access (eg via patient surveys, EMR queries, enrolment in provincially available reports). Changes in QI activities included increased conversations (as hoped), particularly with physicians. Patterns of other QI activity are currently being explored through interviews and focus groups and will be shared at the presentation. While not the immediate priority of the initiative, it also had an impact on the primary care environment. Indicators from D2D were overtly referenced in the selection of accountability measures for a new contract between teams and the Ministry as well as in prioritization processes for performance measurement in primary care across the province and development of a provincial standard EMR dashboard. Finally, the introduction of the quality composite indicator was instrumental in demonstrating the relationship between higher quality comprehensive, team-based primary care and lower per capita healthcare system costs.

DISCUSSION/REFLECTION/LESSONS LEARNED:

It is clear that members were willing and able to participate in measurement. It is less clear why that was and how that might change use of data to improve. Some possible explanatory factors include: actual and perceived control by front line providers, resonance of the approach to measuring quality of comprehensive care (ie according to what matters to patients instead of a "body part" focus), small number of indicators, availability of support to access data and/or comparability of measures, among other things. The presentation will invite input from participants regarding their impressions of the factors that might be contributing to participation in our initiative and, more importantly, might be useful to exploit in their own settings.

ONLINE RESOURCE:

<http://www.afhto.ca/highlights/evidence/d2d-3-0-progress-in-meaningful-measurement-for-primary-care/>

OP11: Implementing a remotely facilitated project - challenges and opportunities

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Additional Authors: Vanessa Nguyen, MPH

SETTING & PARTICIPANTS:

This may be of interest to practice-based researchers, clinicians, quality improvement professionals and organizations, and those involved in comparative-effectiveness research on practice improvement models.

NEEDS & OBJECTIVES:

Facilitation has been shown to improve practice uptake of new guidelines and procedures. While the data to this point is mostly anecdotal, onsite facilitation is generally considered to be more effective than remote or "virtual" facilitation. However use of onsite facilitation is currently limited by a lack of trained facilitators outside of areas with established training programs. Even in areas with available facilitators, travel time can limit the reach of a project. Remote facilitation promises to remove geographic barriers to recruiting even from highly remote regions, so holds promise for increasing inclusion of otherwise neglected populations. However, remotely facilitated projects face serious limitations and may not be the best choice for all PBRN projects. Successful remote teamwork has been studied in business, as it is now common practice in the globalized corporate world, but much of the information from that experience has yet to be incorporated into the domain of primary care research. We synthesize these findings, as well as those of primary care researchers in Canada, the UK and the US, including the Translate-CKD study, to offer guidance in planning and implementing projects that rely on remote facilitation.

DESCRIPTION:

Synthesizing our own and others' experience, we will present tools and processes found to work well in remote facilitation. A critical step in the project planning phase is a detailed assessment the project's suitability for, or adaptability to, a virtual facilitation model. We compiled a workbook for assisting in this assessment, based on the work of David Pauleen. Another important step in the planning phase is the determination of an effective practice-to-facilitator ratio, for purposes of budget planning and timeline development. As the first months of an intervention are the most time-intensive for facilitators, a design which incorporates phased-in recruitment helps to avoid overstressing facilitators and risking a loss of practice engagement. Recruitment materials should include clear, concrete objectives and an accurate estimate of the time demand for practice staff. The adaptable TRANSLATE tool (Targets, Registry, Administrative buy-in, Network information systems, Site coordinator, Lead clinician, Audit and feedback reporting, Team approach, Education) may be useful for project-practice team collaborative decision-making and tracking of the practice's progress. Maintaining momentum through the duration of a project is often the greatest challenge. Some successful means of tempering the inevitable "voltage drop" include: establishing and maintaining frequent (weekly to bi-weekly) meetings, providing regular, reliable feedback reports, maintaining a listserv for informal discussion and sharing of information, acknowledgement of practice successes, sending out a regular project newsletter highlighting key information, summarizing best practices and responding to issues arising from practice and listserv interactions, providing CME credit for study activities, and helping practices with challenges unrelated to the project.

EVALUATION:

Data on efficacy of facilitation in general is still sparse, and authors have suggested it as a subject ripe for comparative effectiveness studies. Evaluation of remote facilitation in the Translate-CKD is still in the analysis phase. Results to date suggest that additional focus in the planning and preparation phases can compensate for the lack of physical presence, reducing the performance gap between onsite and remotely-facilitated projects.

DISCUSSION/REFLECTION/LESSONS LEARNED:

Successful remote facilitation requires many of the same approaches as successful on-site facilitation: persistence and flexibility on the part of facilitators, individualization of the approach to each practice, integration of project elements into existing activities, and possibly most importantly, administrative buy-in. Important added considerations for remotely facilitated projects include: budgeting time for preparatory access to practice EMRs, designing and pre-testing training materials so that they are appropriate to the knowledge and skill of the expected practice staff, and getting administrative support for staff time obligations required for project tasks. The last critical component may be summarized as "do a proper, detailed informed consent prior to finalizing recruitment" of a practice.

ONLINE RESOURCE:

www.virtualfacilitation.wordpress.com

OP12: Practice-Based Research Networks Add Value to Evidence-Based Quality Improvement

Karen M. Goldstein MD MSPH; Dawne Vogt, PhD; Alison Hamilton, PhD

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SETTING & PARTICIPANTS:

PBRN Site teams and local VA employees from the four inaugural sites of the VA Women's Health PBRN; the four sites varied in number of women veterans served (range: 2,656 - 5,004), percentage rural population served (range: 9.7-53.0%), and racial/ethnic mix (range: 10.4-57.3% non-white).

NEEDS & OBJECTIVES:

Taking research findings from publication to the bedside can be a slow process. It is complicated by the tension between the need to adapt to real-world constraints in local care delivery, and the need to maintain the integrity of the proven intervention. Evidence-Based Quality Improvement (EBQI) is a systematic approach to fostering the multilevel research-clinical partnerships necessary for effective implementation, integrating evidence through existing structures and by tailoring evidence to local contexts. EBQI has not yet been tested in the context of Practice-Based Research Networks (PBRNs), which are designed to foster practice-based change. We evaluated EBQI implementation in a PBRN setting to determine the extent to which the PBRN infrastructure added value.

DESCRIPTION:

The Women's Health (WH) PBRN was created in 2010 to bolster women Veteran research and QI efforts and conducted three implementation evaluation projects to develop PBRN processes for multi-site study support. One of these early efforts was a multi-site, cluster randomized trial of an EBQI approach to tailoring an evidence-based gender awareness curriculum, Caring for Women Veterans, in the VA Women's Health PBRN. The EBQI approach used local interdisciplinary expert panels to define strategies for tailoring the training to fit local contexts (e.g., selected local implementation leaders and clinical settings, group vs. individual modalities). Ultimately, 442 employees were trained in 32 clinical workgroups across 4 sites.

EVALUATION:

After curriculum implementation, site teams identified impacts of the PBRN context on EBQI processes using qualitative methods, including a formal review of project call minutes, post-project debriefing calls, and structured site team input. PBRN site feedback was mapped to the four Replicating Effective Programs implementation phases: pre-condition, pre-implementation, implementation, and maintenance/evolution.

DISCUSSION/REFLECTION/LESSONS LEARNED:

We found that PBRN involvement strengthened EBQI activities across all phases of this multi-site implementation project. In general, the PBRN benefited EBQI activities by prompting existing researcher-clinician partnerships to facilitate implementation plan activities, and by building on the efficiencies of site commonalities for multi-site project tools and scalable communication strategies. Specifically, the pre-condition phase benefited from capitalization on common administrative and clinical structures across PBRN sites to streamline EBQI tools and strategies. During pre-implementation, differences across PBRN sites offered variations in local tailoring of EBQI elements. The PBRN Coordinating Center supported resolution of process complexities stemming from local resource differences and the sharing of mid-project adaptations during implementation. Local efforts were amplified in the maintenance phase by PBRN dissemination of findings. PBRNs contribute to the uptake of evidence into everyday practice, and may serve as an important component of the future implementation of evidence-based initiatives. Lessons learned from this experience could inform efforts to use EBQI in future PBRN-based implementation studies.

OP13: A Training and Support Curriculum for Engaging Patients as Partners Across Ambulatory Primary Care Practices

Aimee English MD; Maret Felzien MA; Don Nease MD

Additional Authors: Emilie Buscaj MPH, Linda Zittleman MPSH, Carolina Nkouaga, Christin Sutter, Jack Westfall MD, MPH, Matt Simpson MD, Alisha Herrick MPH, Danelle Callen MA, Krystal Bradford, Ilima Kane MA. (Note: Please move Don Nease from third to last author on the electronic submission.)

SETTING & PARTICIPANTS:

70 small to medium-sized primary care practices across CO and NM, 35 of which are randomized to an enhanced arm, receiving support in patient and community engagement.

NEEDS & OBJECTIVES:

Needs: Practice-based research networks have long played a role in facilitating learnings for practices. Following widespread recognition of the benefits of engaging patients and their caregivers in the self-management of their individual health, there has been a subsequent call to engage patients/caregivers in the process of improving healthcare practices and systems through advisory boards, quality improvement teams, patient safety boards, etc. Early studies have shown this to be effective in achieving better alignment between health professionals' and patients' goals as well as increasing patient satisfaction, but despite this, uptake remains slow with the minority of primary care practices engaging patients in a continuing way. Objectives: Describe a multi-faceted curriculum for engaging patients/caregivers in the ambulatory care setting, developed as part of the EvidenceNow Southwest project, an Agency for Healthcare Research and Quality funded regional program across Colorado and New Mexico aimed at increasing evidence-based cardiovascular care in primary care through practice transformation efforts. A key component of the program is the evaluation of patient engagement activities through a process of randomization to receive patient engagement support and training.

DESCRIPTION:

The curriculum includes: 1) training session materials specifically for practice facilitators/coaches and health IT support personnel (webinars, conference presentations) 2) training session materials for practice staff/providers/leadership (webinars, conference presentations), 3) print materials (referred to as the "toolkit"), and 4) an online web-based e-learning module. Materials address the following progressive, key content areas: a) creating a culture of patient engagement, b) practical tools to support initial patient engagement activities, and c) sustaining cultural change and troubleshooting issues in patient engagement.

EVALUATION:

Practices were randomized in county clusters to a standard vs. an enhanced arm that includes the patient engagement training. We will present preliminary results. Practices were surveyed at baseline and will be surveyed as they complete their participation to assess practice transformation activities, including methods of patient engagement. Curriculum develop and implementation process is being tracked through key personnel diaries. Session feedback is collected from participants at biannual collaborative learning sessions.

DISCUSSION/REFLECTION/LESSONS LEARNED:

Early data suggests that patient and caregiver engagement within ambulatory practices can improve practice transformation processes; however, uptake of practice-based patient engagement methods remains low. We propose this curriculum as a means of providing practices with the needed training and support for adoption of patient engagement methods in the ambulatory setting.

OP14: Implementing Training in a Practice Based Research Network: An Expert Panel "Makes the Medicine (Training) Go Down"

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SETTING & PARTICIPANTS:

Four geographically diverse sites in the VA's Women's Health Practice Based Research Network were involved in this project. This research network provides infrastructure support to conduct multi-site research and QI projects. Key multidisciplinary stakeholders from each site included facility, clinical and workgroup leaders, managers, and providers.

NEEDS & OBJECTIVES:

Employee training in health care organizations is an essential component of maintaining high quality standards, but the optimal way to implement such training is unclear. Employees may resent mandatory training or find it irrelevant. An Evidence-Based Quality Improvement (EBQI) approach that involved Expert Panels (EPs) was used to identify implementation strategies to engage VHA employee learners in a gender-sensitivity training program. EBQI implementation strategies emphasize organizational leadership buy-in and local members' input to adopt models and practices of care. EPs are an established method for consensus development and group decision-making among key stakeholders and can enable local adaptation of evidence-based practices. The study objectives were (1) to evaluate whether EPs with key stakeholders could identify local site priorities that would inform gender sensitivity training and (2) to assess whether local implementation training design elements identified by an EP could be successfully implemented at multiple sites.

DESCRIPTION:

Methods: In this study, local investigators and clinical leaders at each site identified key stakeholders to participate in an EP. Invited participants were sent a Program Design Preference Questionnaire prior to the EP meeting, which was used to rate the importance and feasibility of various strategies to advance VA gender sensitivity and to implement the training in their facility. Summary ratings were presented at EPs to arrive at a group consensus for deciding how to design and implement the training. Design elements included identification of local training strategies, responsible entities, supplemental organizational resources, prioritization of target clinical workgroups (departments, target clinics and providers), and identification of local barriers.

EVALUATION:

Results: Survey completion rates ranged from 52-64%, and Expert Panel stakeholder attendance ranged from 40-79% (8-14 panelists). Different implementation approaches were identified across sites. Action plans were embraced at one site but rated as unhelpful at another. One site chose to rely on a single "go to" leader while another tapped an existing group to "own" the program, and decided to generate a leadership "public service announcement" DVD to precede the training. Integration of local Women Veterans "voices" was noted as key in one site, resulting in facility conduct of its own focus groups regarding their experiences, while another site expressed a preference to incorporate training in ongoing initiatives (e.g., Patient Aligned Care Teams). Perceived barriers to training implementation included: time, availability to participate in meetings/calls; and competing PACT implementation. Each site identified six workgroups to receive training. The number of design elements planned (ie, group or individual training; mandatory training or not; actions plans, use of supplemental posters, brochures, flyers) ranged from 3-6. Overall, there was a 100% implementation of the 3-6 design elements identified by sites. Training was implemented at all of the six workgroups at each site, though participation likely varied across these workgroups.

DISCUSSION/REFLECTION/LESSONS LEARNED:

Involving stakeholders in implementation design identified strategies that accounted for local organizational culture, prioritized leadership engagement to facilitate the training intervention, integrated organizational support for

implementation/monitoring, and proactively ameliorated potential barriers and competing demands. Local design elements were successfully implemented.

OP15: Teaching Motivational Interviewing Skills to Primary Care Physicians & Staff: Lessons Learned

Walter L. Calmbach MD MPH; Mary Marden Velasquez PhD;

SETTING & PARTICIPANTS:

Setting: small- (1-4 clinicians) and medium-sized (5-10 clinicians) physician-owned primary care practices in South Texas. Participants: Physicians, midlevel providers (Physician Assistants and Nurse Practitioners) and other practice staff (both clerical and clinical staff).

NEEDS & OBJECTIVES:

Physician members of the South Texas Ambulatory Research Network (STARNet) reported problems managing overweight or obese patients, and asked STARNet to devise a project to help them manage this difficult and prevalent problem. "Academic Detailing" is a proven educational technique that is familiar to and acceptable to busy primary care physicians. "Motivational Interviewing" is a counseling style that enhances patient behavior change, including diet, activity, and weight management. We used an Academic Detailing approach to teach Motivational Interviewing skills to primary care physicians & staff, hypothesizing that this more collaborative counseling style would help patients adopt healthier lifestyles. The objectives of this educational intervention were to: 1) devise an evidence-based educational intervention designed to teach 4 key Motivational Interviewing skills to busy primary care physicians and staff; and 2) deliver and evaluate this educational intervention.

DESCRIPTION:

STARNet member physicians were asked to take part in this educational project. Those who agreed participated in a series of four monthly 1-hour training sessions, on four key Motivational Interviewing skills: 1) OARS (Open-ended questions, Affirmations, Reflective statements, Summaries); 2) Agenda Setting; 3) Assessing Importance & Confidence; and 4) Eliciting Change Talk. Training sessions included: 1) brief PowerPoint "lecture" (i.e., 10-12 slides, 10-12 minutes); 2) brief videos to illustrate key points (followed by debrief to solicit audience input); 3) brief practice session (again followed by debrief to discuss experience); and 4) assigned "to-do list" to practice each skill.

EVALUATION:

Participants evaluated each educational session using a 4-item survey assessing content, presentation skills, use of illustrative videos, and helpfulness of practice/roleplay. Participant uptake of key motivational skills will be assessed using a modified version of the Motivational Interviewing Knowledge and Attitudes Test (MIKAT).

DISCUSSION/REFLECTION/LESSONS LEARNED:

Lessons Learned. Although the study is still under way, key "Lessons Learned" to date include: 1) train physicians & staff together; 2) emulate the behavior you are trying to instill; 3) simplify language; 4) avoid Motivational Interviewing jargon; 5) solicit physician & staff input at each step; 6) get them to talk (again, emulate the behavior you are trying to instill); 7) plan for "1-hour" training sessions, but be prepared to start 10 min. late and end 10 min. early; 8) be alert to body language (physicians fidgeting, checking email, etc.); 9) avoid "hot-button" words (e.g., not "role-play", but "practice"; not "homework", but "tell us a story"); 10) sidestep physicians who block staff input; 11) focus on tips, skills, behaviors, "value-added" to busy practice. Limitations. This "Academic Detailing" technique has been well-received by busy primary care practices, but this approach is both time- & labor-intensive. Also, there is a limit to the number and duration of sessions busy practices will tolerate, which limits the extent of training. Conclusions. Motivational Interviewing is a skill that is highly valued by primary care physicians & staff, but any training approach must respect the many competing demands in a busy medical practice.

OP16: The Certificate Program in Practice-Based Research Methods: A Collaboration of PBRN Centers to Develop a New Generation of Investigators

James J. Werner, PhD; L.J. Fagnan, MD;

SETTING & PARTICIPANTS:

The Directors of the 8 AHRQ-funded Centers for Primary Care Practice-Based Research and Learning set out to develop a nationwide training program to develop a new generation of PBRN investigators. In September 2015, 17 faculty members from academic centers across the U.S. began participating as learners and 16 PBRN investigators served as their mentors.

NEEDS & OBJECTIVES:

Ongoing cuts in research budgets at federal agencies make it increasingly challenging for promising young scientists to develop academic research careers. The Certificate Program in PBRN Methods seeks to assure that potential PBRN investigators have the skills needed to compete for health services research funding. The objectives of the conference presentation are to: 1) describe the program's structure and participants; 2) define the program's learning objectives; 3) describe the range of projects conducted by learners; 4) outline evaluation methods and preliminary findings; and 5) describe future directions and opportunities.

DESCRIPTION:

The program trains aspiring PBRN investigators in concepts, skills, and methods for conducting practice-based research and building PBRNs. Fellows devote 4-6 hours/month to fellowship activities during the ten-month long program, and mentors spend 1-2 hours/month guiding fellows. Fellows develop a learning plan that is approved by mentors and the program's Steering Committee. Four primary learning modalities are used: 1) Participation in monthly training webinars led by national experts; 2) Ongoing mentoring by an experienced PBRN investigator; 3) Development and presentation of a research concept paper; and 4) Development and presentation of a refined Specific Aims section. Fellows present their concept papers and specific aims at a Convocation of fellows, mentors, and Steering Committee members held in conjunction with the NAPCRG PBRN Conference in Bethesda, MD.

EVALUATION:

The evaluation is designed to provide a multi-stakeholder, multidisciplinary evaluation of the training program. A logic model for the comprehensive evaluation of the program will be presented at the conference, along with specific evaluation activities. Ten assessment activities comprise the program evaluation; five are formative and five are summative assessments. Formative assessments will be conducted prior to the conference and findings will be presented.

DISCUSSION/REFLECTION/LESSONS LEARNED:

The presenters intend to engage the audience in a discussion by reflecting upon the following questions and inviting the audience's input. 1. Based on evaluation findings, what learning needs were not adequately addressed by the program, and how can the program adapt to meet these needs? 2. What makes the program of value for the fellows? For mentors? For PBRNs? 3. How do we grow AND sustain the program? 4. What is the ideal "home" for the program?

OP17: Effects of a Multi-Faceted Intervention to Improve Care Transitions Within a Pioneer Accountable Care Organization

Jeffrey L. Schnipper, MD, MPH, FHM

Additional Authors: Nyryan V. Nolido, MA; Anuj K. Dalal, MD; Cherlie Magny-Normilus, NP; Lipika Samal, MD, MPH, Asaf Bitton, MD, MPH; Ryan Thompson, MD; Stephanie Labonville, PharmD; Gwen Crevensten, MD

BACKGROUND:

Transitions from hospitals to the ambulatory setting are high risk periods for patients. The advent of the Patient-Centered Medical Home (PCMH) and Accountable Care Organizations (ACOs) provide an opportunity for true collaboration in which both inpatient and outpatient providers contribute to improving transitions in care. The goal of this study was to develop, implement, refine, and evaluate a multi-faceted, multi-disciplinary transitions intervention across two hospitals and 18 PCMHs within a Pioneer ACO.

METHODS:

We developed an intervention with the following components: inpatient pharmacist-led medication reconciliation and patient counseling; coordination of care and patient education from an inpatient Discharge Advocate and PCMH Responsible Outpatient Clinician; a structured visiting nurse intervention; structured post-discharge phone calls; timely follow-up visits; tools to improve communication among care team members; and home pharmacist visits for selected patients. The study used a "stepped wedge" design in which each PCMH practice started in the usual care arm and then at a randomly selected point in time changed to the intervention. Outcomes included 30-day hospital readmissions using medical records and telephone follow-up; and new or worsening symptoms in the 30 days after discharge based on telephone follow-up. The two outcomes were analyzed by multivariable logistic and Poisson regression, respectively, adjusted for study month, patient age and sex, and clustered by primary care practice.

RESULTS:

1678 patients were enrolled, including 758 assigned to usual care and 920 to the intervention. Receipt of different components of the intervention varied by component (Table 1) and in some cases by hospital, unit, and practice. 30-day readmission rates were 14.9% in the intervention arm and 14.4% in usual care ($p=0.70$; Table 2). The number of new or worsening symptoms was 0.67 per patient in the intervention arm and 0.76 per patient in usual care ($p=0.16$).

CONCLUSION:

Results showed no difference in 30-day readmission rates among patients in the two study arms, likely due to lower than expected intervention fidelity and the low proportion of readmissions that are truly preventable in this patient population. The intervention was associated with a non-significant trend towards reduced new or worsening symptoms in the post-discharge period, an outcome more sensitive to change than readmissions. As with readmissions, efficacy was likely limited by intervention fidelity. Further study is needed to further explore the causes and effects of low intervention fidelity, determine the most important components of the intervention, and determine patient subgroups most likely to benefit from these types of interventions.

OP18: Family Physician and Registered Dietitian Attitudes on use of Social Media for Guideline Dissemination

Rosa Hand, MS, RDN, LD, FAND; Deric Kenne, PhD; Taylor Wolfram, MS, RDN, LD

Additional Authors: Family Physician and Registered Dietitian Attitudes on use of Social Media for Guideline Dissemination

SETTING & PARTICIPANTS:

Interview participants (RDNs and physicians who cared for HF outpatients) were recruited via emails to the Academy's Dietetics Practice Based Research Network (n=1815), the American Academy of Family Physicians' (AAFP) Research Committee (n=10), AAFP Foundation grant reviewers (n=30), Commission on Health of the Public and Sciences (n=22). Sixteen individuals (6 physicians, 10 RDNs) participated.

NEEDS & OBJECTIVES:

The Academy of Nutrition and Dietetics (Academy) published an Evidence-Based Nutrition Practice Guideline (EBNPG) for Heart Failure (HF) in 2008. The use of the HF EBNPG has been low even relative to the use of other EBNPGs. The reason for low utilization is unclear, but it could be due to lack of awareness or small volume of HF patients being referred to the registered dietitian/ nutritionist (RDN). One proposed strategy for increasing referrals is raising physician, RDN, and patient awareness of the availability and recommendations of the HF EBNPG. Social media is one possible strategy to disseminate/diffuse these recommendations. Social media is interactive, user-generated content, with few barriers to content development. The Pew Research Center reports that 90% of all young adults and 35% of those 65 years and older use social media, suggesting value as a dissemination tool. The purpose of this study was to identify RDNs' and physicians' attitudes towards the use of social media to gather and disseminate information.

DESCRIPTION:

After obtaining verbal consent to participate in the study, participants were interviewed by trained interviewers via telephone using a semi-structured interview protocol. Interviews were recorded and transcribed. Transcripts were analyzed ethnographically using MaxQDA version 11 to identify themes in participants' responses.

EVALUATION:

Interview participants used social media and technologies to network with other professionals and stay current on new information, for example, following medical journals or prominent professionals to keep up with research. Interview participants were adamant about not using or not being permitted to use social media or certain other technologies to communicate with patients, citing legal and ethical considerations related to HIPAA and privacy. However, their institutions provided general medical information to patients through social media sites and/or technologies such as Facebook, Twitter and texting. This information was not specifically targeted to HF patients, but to a general patient population served by the health care system. Interview participants also noted that Facebook, Twitter and other technologies were often used to promote or advertise educational opportunities for patients. Interview participants were also concerned about the credibility of information posted on social media, including in some cases the credibility of information posted by their own institutions when the social media managers were not medical professionals. Interview participants from both professions believed that technology and social media could be effective means by which to communicate health information to HF patients, but were concerned about patient access to the internet and low use of social media. HF patients served by the RDN respondents tended to be older adults. Consequently, they believed these patients were unlikely to use technology or social media. To ensure that patient privacy is protected, social media can only be used to provide general health information. However, interview participants recognized that general information on social media might help to raise awareness of guidelines among patients but that this would not necessarily translate into action or behavior change, which probably required more personalized information.

DISCUSSION/REFLECTION/LESSONS LEARNED:

Overall, these health professionals were willing to use social media to gather professional information for themselves. However, they were wary of using social media as a method for communicating with patients, and in particular were restricted by institutional policies and concerns about privacy. The balance between useful personalized information that still protects patient privacy must be identified. Although data suggests that internet and social media use is widespread even in older patients, interviewees were skeptical about this. Assessing internet access and social media literacy in addition to health literacy may help identify patients who can benefit from education on identifying credible

information on social media and other internet sites. Health professionals agree that social media is useful for their own gathering of information but see many barriers to its use to disseminate information to patients.

Dissemination/Implementation

OP19: Ontario Data Support Starfield's Theory on Practice Quality and Cost

Carol Mulder, DVM, MSc, CUTL, DBA (cand); Rick Glazier, MD, MPH; Frank Sullivan, PhD, MB, MRCGP, FRCGP, MRCP, FRCP

Additional Authors: George Southey, MD

BACKGROUND:

The relationship between patients and primary care providers is the foundation of a sustainable healthcare system (Starfield, 2009) and therefore should be the focus of primary care measurement. We hypothesised that quality measured this way should be associated with lower costs.

SETTING & PARTICIPANTS:

137 out of 184 Association of Family Health Teams of Ontario (AFHTO) members invited to participate) voluntarily contributed practice characteristics and performance data, describing care for approximately 2 million patients (15% of Ontario's population).

METHODS:

Observational study of patient experience survey, EMR and administrative data contributed to Data to Decisions (D2D) a summary of primary care data that are currently available, comparable and meaningful to practices working to improve the quality of care for their patients. A composite quality measure according to importance of each component to patients in their relationship with their provider. We analyzed reliability and conducted multivariate regression of relationship between the composite quality measure and per capita cost. Primary outcome measure was relationship between primary care quality and per capita healthcare cost.

RESULTS:

The measure incorporated 14 indicators balancing patient priorities (eg patient involvement in decisions) with system priorities (e.g. ED visits, access to same/next day appointment) (Cronbach alpha = 0.516). Higher quality was associated with lower per capita healthcare costs, explaining approximately 50% of variation in costs, taking patient complexity and rurality into account. Patients in the study were less likely to be immigrants and have a large number of co-morbidities and more likely to be older and live in rural, higher-income settings compared to provincial means.

CONCLUSION:

It is possible for front-line providers to measure quality in a way that reflects providers' priorities, what matters to patients regarding the patient-doctor relationship AND contributes to healthcare system sustainability. The composite quality measure represents a feasible alternative for front-line providers disenchanted with "body part" measures. For policy-makers, it also represents a promising option for measurement and support of primary care performance that can lead to increased healthcare system sustainability.

OP20: Soliciting Clinician Input to Develop and refine the "Decision to Implement" Tool

Allison Cole, MD, MPH; Leah Tuzzio; Michael Parchman, MD, MPH

Additional Authors: Laura-Mae Baldwin, MD, MPH; Gina A. Keppel, MPH

SETTING & PARTICIPANTS:

We conducted this work in partnership with Group Health Research Institute (GHRI) and the WWAMI region Practice and Research Network (WPRN). The WPRN is a collaborative group of more than 55 primary care practices across five states (Washington, Wyoming, Alaska, Montana and Idaho). Each year, practice champions and academic researchers from the WPRN attend an in-person Annual Meeting to develop and refine research projects that will be proposed or conducted in the coming year.

NEEDS & OBJECTIVES:

Failure to adopt effective interventions in primary care practice reduces the potential impact of these interventions. Several theoretical frameworks explain the factors that promote or hinder adoption and implementation of effective health innovations, such as the Diffusions of Innovation Theory and the Consolidated Framework for Implementation Research. However, there is a paucity of theory-based tools that can easily be used both by clinicians to enhance implementation and by researchers to evaluate successful adoption and implementation of effective health care innovations. In this presentation, we report results of a collaborative process to engage primary care clinicians to guide development and refinement of the "Decision to Implement" tool, which addresses this critical gap in implementation science.

DESCRIPTION:

Researchers from GHRI and the University of Washington led two sessions, one at each WPRN Annual Meeting in 2015 and 2016. In preparation for the sessions, we conducted a theoretical review to identify conceptual domains that could help end-users such as clinicians evaluate research findings to determine whether they could be applied in their practices. Based on this review, we developed a draft Decision to Implement Worksheet that asks users to rate their level of agreement with statements describing the intervention characteristics and the level of practice resource needed to implement the intervention as well as estimate the likelihood of their practices implementing the intervention. We identified, from a list of GHRI-led publications, a convenience sample of four published interventions with potential relevance to challenges faced by primary care practices.

EVALUATION:

Practice champions felt that interventions that involved staff rather than physicians increased their simplicity, whereas interventions that required involvement of multiple types of clinic staff decreased their simplicity. Interventions better matched to current clinical resources also were perceived as more simple. Several champions noted that requiring changes to the electronic health record decreased the intervention's perceived simplicity. The ability to test an intervention on a small scale, without requiring approval or buy in from the entire clinic is an example of how practice champions characterized trialability. Other elements of trialability were the ability of clinics to test part of a complex innovation and to modify aspects of it to fit within the context and workflow of the clinic.

DISCUSSION/REFLECTION/LESSONS LEARNED:

Input from diverse practice champions improved our understanding of important concepts that predict likelihood of implementation of a clinical intervention. Rating potential health innovations with the Decision to Implement Worksheet can provide feedback to investigators seeking to test and disseminate health innovations across real-world primary care settings.

OP21: Obesity and Adolescent Pregnancy Project: Building a De-identified Electronic Clinical Database to Examine the Biological and Social Determinants of Nutritional Status, Pregnancy and Birth Outcomes

Jonathan N. Tobin, PhD; Caroline S. Jiang, MS; Mireille McLean, MPH

Additional Authors: Peter Holt, MD; Kimberly Vasquez, MPH; Rhonda Kost, MD; Jan Breslow, MD

BACKGROUND:

This proposed "Big Data" study addresses the disproportionate health burdens experienced by obese adolescents and their infants up to the age of 24 months. This community-academic partnership involves the creation of a multisite de-identified Electronic Health Records (EHR) database that will demonstrate the feasibility of using available clinical observations to explore associations and identify targets for future interventions that address adolescent nutrition and pregnancy outcomes.

METHODS:

Partners including New York City Health Centers (n= 4) and Hospitals (n= 4), The Rockefeller University, The Sackler Institute for Nutrition Science and Clinical Directors Network, Inc. (CDN) are building a de-identified database which extracted from EHR data from all female adolescents, aged 12-21 years and their offspring through 24 months, who received their primary care at these eight sites between 2011-2015. This time period covers all preconception, prenatal, postnatal and pediatric visits, and characteristics of cohorts: female adolescents, pregnant adolescents, and their offspring.

RESULTS:

We describe the nutritional and health status of female Adolescents, including those who become pregnant, and test the hypothesis that female adolescents who become pregnant exhibit poorer health and nutritional status than those who do not become pregnant. Offspring born to obese adolescents may exhibit poorer outcomes when compared to babies born to non-obese adolescents.

CONCLUSION:

Unintended adolescent pregnancy results in adverse consequences, including negative socioeconomic and psychological effects for both mothers and babies. Adolescents at high risk of becoming pregnant often exhibit inadequate nutritional status, and interventions which target this may improve the health outcomes for both mothers and their offspring.

ONLINE RESOURCE:

www.CDNetwork.org

OP22: Patient Centered Approach to Identifying Provider and Patient Level Barriers to Care for Sickle Cell Disease: A Qualitative Study

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SETTING & PARTICIPANTS:

Researchers from a comprehensive SCD program, a Practice Based Research Network and key patient, provider and community partners from a large healthcare system formed a Sickle Cell Community Advisory Board (CAB) that meets monthly with a goal to explore patient- provider- and community-stakeholder needs and barriers around care for SCD.

NEEDS & OBJECTIVES:

Sickle Cell Disease (SCD) is a common genetic disorder characterized by a spectrum of devastating complications that can reduce quality of life and lifespan. It afflicts over 90,000 persons in the United States, mostly African American. The impressive gains in survival for children born with SCD over the past four decades are unfortunately offset by the increased morbidity and mortality among adults. The transition period from pediatrics to adult medical care remaining a high-risk period for untimely death. Reports of poor patient and provider satisfaction with care and poor health outcomes following transition, led to a system wide effort to identify individual and system level needs and barriers to care for individuals living with SCD within a large vertically integrated healthcare system in order to improve overall quality of care across primary, specialty, acute and post-acute care.

DESCRIPTION:

Twenty interviews with providers and stakeholders and three focus groups with SCD patients informed this qualitative study.

EVALUATION:

Several themes emerged as the main findings of this study. Patients discussed the need for compassionate standardized care across settings while allowing for individualization, overcoming stereotyping as "drug seekers", social- and community- support for better communication with providers, increased provider knowledge about SCD, its complexity particularly around pain medication and patient coping mechanisms and patient education around self-advocacy training in survival skills. Providers discussed frustration with the variability in how often they see SCD patients which limits ability to develop expertise, need for increased provider support (decision support tools, support from hematology specialists) and education around managing the complicated SCD patient, high need for awareness of and accessibility to psychosocial services for patients, need for realistic care plans with strong out-patient ownership of the patient by PCP and /or Hematologist and the need for better appreciation for the manifold pressures they face regarding pain management. Interventions currently under development address barriers including improved accessibility to care plans in electronic medical records, clinical pathways as a decision support tool for management of acute complications, regular case based training (with or without CME's) in SCD and pain management offering regular reporting to stakeholders through the CAB to identify and prioritize new interventions, refine and improve existing interventions.

DISCUSSION/REFLECTION/LESSONS LEARNED:

Participatory engagement through a community advisory board and subsequent qualitative evaluation allowed major themes and subthemes to emerge guiding the process to improve integrated care for SCD within a large healthcare system. Clearly identifying barriers important to all stakeholders allows interventions to be relevant with high potential to improve clinical quality and outcomes, provider and patient satisfaction, and ultimately translate to decreased avoidable ED visits, hospitalizations and overall cost of care.

OP23: Relationship Between Mothers' Social Determinants of Health and Their Children's Use of Health Care Services

Gregory M. Eberhart MD; John M. Pascoe MD, MPH;

BACKGROUND:

The social determinants of health (SDOH) are the economic and social conditions - and their distribution among the population - that influence individual and group differences in health status. The World Health Organization says that "This unequal distribution of health-damaging experiences is not in any sense a 'natural' phenomenon but is the result of a toxic combination of poor social policies, unfair economic arrangements [where the already well-off and healthy become even richer and the poor who are already more likely to be ill become even poorer], and bad politics."

SETTING & PARTICIPANTS:

620 mothers and their children receiving care at 11 practices in SOARNet (Southwest Ohio Ambulatory Research Network).

METHODS:

Validated instruments were used to measure social determinants including maternal depression and social capital. Chi square, correlational, and regression analyses were used to identify the relationship among predisposing characteristics such as age and gender, situational influences such as social capital, and inhibiting characteristics such as maternal depression and maternal views of their own and their child's health. Five outcome variables included a child going to the pediatrician's office following an injury, going to the office for another reason, going to an urgent care setting, going to an emergency department, or spending nights in a hospital.

RESULTS:

Statistically significant predictive variables of any of the five child health care outcomes included mothers' perceptions of their own health and their child's mental health, two social support factors, school connection and informing/asking, and mothers' unemployment. Mothers' perceptions of their own health as poor (inhibiting) was the strongest predictor of taking their child to the doctor after injury, for routine care, and to spend nights in the hospital. Average beta weights, a measure of the relative strengths of variables on outcomes, was 0.155. Having weaker school connections (situational) predicted fewer trips to doctors' office or clinics, to urgent care, and to hospitals (average beta weights = 0.101). Only one predisposing characteristic, unemployment, had any effect on an outcome (beta = 0.087).

CONCLUSION:

The paths by which social determinants influence health outcomes are complex, usually the result of dynamic interaction between situational and inhibiting characteristics. Understanding the interaction of valid social determinants is an important precursor to developing interventions that may mitigate their negative effects on utilization of health care services for children.

OP24: Strategies for Complex Intervention Implementation in Primary Care: The Interactive Process Framework and the 5As Team Obesity Study

Thea Luig, PhD; Arya M Sharma, MD/PhD, DSc. (h.c.), FRCPC; Denise L Campbell-Scherer, MD, PhD, FCFP

BACKGROUND:

Research on knowledge transfer in complex practice settings has proven challenging. Despite the development of a number of theoretically informed frameworks for implementation and dissemination there is a lack of understanding of the complex processes and interactions that impact implementation and outcomes. The 5As Team Intervention (5AsT) aimed to improve weight management in an interdisciplinary Primary Care Network (PCN) team and made an explicit effort to understand the implementation process, interactions with context, and impacts on intervention outcomes. This presentation reports on the findings on the 5AsT implementation strategy as they further develop the Interactive Systems Framework (ISF), a framework for dissemination and implementation. The ISF conceptualizes implementation as consisting of multiple stakeholders' contributions to knowledge synthesis and transfer, general and innovation-specific capacity building and use. While these components reflect 5AsT findings, the interactions and processes between them are under-researched and not explained in the framework. 5AsT data contributes to filling this gap and illuminates the interactions, movement and knowledge, and processes in-between the framework's components.

SETTING & PARTICIPANTS:

The study was designed, conducted, and evaluated in partnership with a Primary Care Network (PCN) management and staff. The intervention was co-created with interdisciplinary clinician participants (n=29).

METHODS:

5AsT is a randomized control trial with convergent mixed-methods evaluation to improve weight management skills of interdisciplinary clinicians. Qualitative evaluation data included field notes, log books, interviews, focus group. Thematic analysis in NVIVO 10. Review of 61 models and frameworks for dissemination and implementation.

RESULTS:

Increase in interdisciplinary relationships, communication, and confidence emerged as both an intervention outcome and a facilitator of implementation success. The study's collaborative approach resulted in an intervention that was context-appropriate and meaningful for the diverse group of clinician participants. These findings support the focus on both general and innovation-specific capacity building as well as on multiple stakeholder perspectives proposed by the ISF. 5AsT process findings contribute to understanding interactions between intervention activities: 1) Facilitating team communication supports collective and individual sense-making of and identification with the innovation. 2) A dynamic design of iterative evaluation and flexible implementation strategy proved crucial for sustainable, context-appropriate intervention impact. 3) Continuous engagement of PCN management and clinician participants achieved both knowledge transfer that is valuable and practicable in the clinical context and the creation of a clinical context that is supportive to practice change.

CONCLUSION:

Results illuminate under-researched processes and interactions that impact implementation processes. Sustained engagement that respects tacit knowledge and contextual expertise, as well as dynamic evaluation and intervention design proved effective for multi-directional knowledge exchange and enabled the co-creation of contextually relevant knowledge-in-practice. Adaptiveness and responsiveness of the intervention to the collective sense-making of the innovation within the team emerged as a vital part of the intervention itself.

ONLINE RESOURCE:

http://www.obesitynetwork.ca/5As_Team

OP25: Engaging Patients and Clinicians in the Development of Instruments for Primary Care Practice Utilizing Boot Camp Translation

Matthew Simpson, MD, MPH; Linda Zittleman, MSPH; Donald Nease Jr, MD

Additional Authors: JOHN Westfall , MD, MPH

SETTING & PARTICIPANTS:

The boot camp translation method was adapted to create instruments specifically for implementation in primary care practices as part of two trials: Implementing Networks' Self-management Tools Through Engaging Patient and Practices (INSTTEPP) and EvidenceNOW Southwest (ENSW). Four boot camp translation's in four geographically distinct regions were conducted as part of each trial. Eight patients, four clinicians and four practice staff were recruited for participation in each of the four INSTTEPP BCT's. ENSW recruitment also sought to balance participation between patients, community members, clinicians and practice staff in their four BCTs. ENSW groups also included local public health organization representation. The materials generated by the boot camp translation groups were then implemented in the participating practices in each of the studies.

NEEDS & OBJECTIVES:

Tools to assist with chronic disease management and prevention in the primary care setting are often designed and implemented without input from the patients or clinicians in these settings. Boot camp translation is a process that engages community members in the translation of medical evidence into concepts and messages that are relevant to their community. Previously, the dissemination of the messages and materials generated by boot camp translation had not been primarily focused on the clinical setting.

DESCRIPTION:

The boot camp translation groups in the INSTTEPP trial followed an expedited timeline with one initial kick-off meeting followed by four conference calls over a period of 3-4 months. All groups received a similar expert presentation on self-management support and were presented with the same library of self-management support tools. In ENSW, each group convened in person 3-4 times with 4-6 conference calls over a period of 6-9 months. Each group received an expert presentation on cardiovascular disease prevention with the same content and slides.

EVALUATION:

Notes captured in both INSTTEPP and ENSW BCTs reveal the rich conversations between patients and practice clinicians and staff about processes of care and the language of care. Even though each of the four groups within each study received a similar expert presentation, each group created different products for the practices. Additionally, each study was designed to evaluate the effect of the materials created through the boot camp translation. For INSTTEPP, there was an improvement in the PACIC process of care and patient self-rated health ($P < 0.01$ and $P = 0.028$). The overall effects of the boot camp translation in the ENSW study are pending.

DISCUSSION/REFLECTION/LESSONS LEARNED:

Boot camp translation can be implemented to successfully engage patients and practice members from PBRN's in the creation of tools relevant for use in the primary care setting. The expedited timeline in INSTTEPP, while more economical, resulted in fewer materials from each group and precluded the use of a professional designer. The results from INSTTEPP suggest that the materials generated through the boot camp translation process can improve aspects of care. EvidenceNOW Southwest provides a unique opportunity to study in greater depth the effect of boot camp translation-generated materials in primary care practices.

OP26: Incorporating Patient and Community Voices into Primary Healthcare Research: A PCORI Methods Study

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Additional Authors: Laurene Tumiel Berhalter PhD

BACKGROUND:

The Patient-Directed Queries Network (PDQNet) Project was initiated because, as PCORI has often stated, the methodological rigor and sophistication of patient-centered outcomes research (PCOR) are paramount. Patients and clinicians, especially those who encounter the frontline of our nation's primary healthcare system, represent stakeholders with a vested interest in what type of research is conducted and how it is conducted. As a result, they must play a central role in assuring that research is focused on topics, conducted in ways, and accomplished with a purpose that serves the benefit of the same patient and healthcare constituents.

SETTING & PARTICIPANTS:

PDQNet is a PCORI-funded partnership of three national sites that include: Oklahoma; Buffalo, NY; and the Greater Los Angeles area. Each site incorporates three types of partners: 1) patient or community organizations; 2) Practice-Based Research Networks; and 3) primary healthcare researchers linked to academic institutions or community organizations. The partnership was tasked to help PCORI improve its methods to more effectively engage and incorporate patient and community voices into primary healthcare research and setting research priorities.

METHODS:

Our team has recently conducted a Horizon Scan study on the engagement of patients and community organizations in primary healthcare research. The Horizon Scan included an Organizational Inventory survey that collected information from 12 patient and community groups that engage with healthcare researchers, a scoping Literature Review of 58 articles (selected from over 300 based on a set of inclusion/exclusion criteria) on patient and community engagement activities, and Key Informant Interviews with 11 community stakeholders who represent patients and community groups actively engaged in primary healthcare research

RESULTS:

Analyses of Organizational Inventories, Key Informant Interviews, and the scoping Literature Review found that the majority of queried research-engaged organizations were in a relatively early stage of developing what we called a research-engagement interface. The Horizon Scan also suggested that in addition to such interfaces, patient and community organizations also need research-engagement capacity, which is a sum of all organizational abilities that may help build effective community-research partnerships. Research engagement capacity seems to be influenced by a variety of factors, including past experiences of research engagement, which can shape the organization's research-engagement trajectory. Through semi-structured interviews, PDQNet partners expressed a range of opinions about healthcare research and researchers. While some organizations articulated experiences with more academic-centered research and a correspondingly less favorable view of, and success with, researchers, others described community-connected researchers who are able to "listen to and learn from community wisdom". While researchers and communities have different "ways of knowing", when they are respectfully and competently integrated, mutually beneficial partnerships can be formed. Research-engagement capacity was linked to more skills, better processes, and specific infrastructure that facilitated research-engagement. PBRNs emerged as a special constituency for PCORI, since they have been successful in creating linkages between patient/community organizations and researchers, shifting their research-engagement trajectory. A future study may look more specifically at reciprocal traits of primary care researchers and how they can successfully engage with communities.

CONCLUSION:

A 1-year "Horizon Scan" study of research-engaged patient and community organizations helped us improve our understanding of the facilitators and barriers of integrating patient and community perspectives, values, priorities, and voices into healthcare research.

OP27: Patient-Practice-Public Health Partnerships for Primary Care Practice Improvement in Cardiovascular Health: results from four Boot Camp Translations for EvidenceNOW Southwest

Linda Zittleman, MSPH; John Westfall, MD, MPH; Donald Nease Jr, MD

Additional Authors: Isha Herrick, MPH, CHES; Danelle Callan, MA; Matthew Simpson, MD; Caroline Nkouaga; Perry Dickinson, MD; Arthur Kaufman, MD

BACKGROUND:

EvidenceNOW Southwest (ENSW) is a randomized control trial delivering practice improvement support to primary care practices in Colorado and New Mexico with a focus on cardiovascular disease (CVD) preventive care. One study aim is to examine the impact of patient engaged practice facilitation on CVD preventive care outcomes ("enhanced arm"), compared to CVD outcomes in practices that did not receive additional patient engagement support ("standard arm"). An engagement activity included in ENSW is Boot Camp Translation (BCT), which is a process that combines expertise from community members and academic researchers to translate medical jargon and guidelines into concepts and messages that are relevant to local communities. This study describes the resulting messages, materials, and implementation strategies around CVD from four CVD BCTs conducted for ENSW.

SETTING & PARTICIPANTS:

ENSW is set in Colorado and New Mexico. A total of four BCTs were conducted with participants from enhanced study regions including: 1) participants from the Denver metro area in Colorado, 2) participants from rural northeast Colorado, 3) primarily Hispanic participants from the Albuquerque South Valley, and 4) primarily African American participants from rural southeast New Mexico. Each BCT group included local community members and patients, providers and/or clinic staff, and public health professionals.

METHODS:

Each BCT began with a facilitated all-day kick-off meeting that included the same comprehensive, 3-hour presentation on CVD disease and prevention, including definitions, impact on health and economy, and guidelines on aspirin, blood pressure, cholesterol, and smoking. A facilitated discussion followed that asked the groups what patients/community members need to know and how to effectively deliver messages to patients and practices. Each BCT included 3 - 4 in person meetings and 4 - 5 conference calls. BCT activities occurred over a 6 - 8 month period.

RESULTS:

Prevention was a common theme that emerged from all four BCTs, and all groups wanted messages delivered at multiple points in time using different modes to increase reach. Yet each group created distinct messages and materials around CVD. The Colorado BCTs focused on enhancing patient-practice interactions in the practice setting and starting conversations about CVD much earlier in life. The urban Colorado BCT aims to help patients make clear linkages between and create action around the separate CVD risk factors. The rural Colorado BCT focuses on tracking health information over time and improving context for CVD risk scores. Both New Mexico BCT groups moved CVD message dissemination out to the community level, with intent to drive patients to care sites. CVD risk and health in the context of family emerged from the urban New Mexico BCT. The link between spiritual and physical health was key to the rural New Mexico BCT, along with tapping into the competitive sports culture in rural southwest New Mexico and a strong emphasis on one's ability to take positive action. Specific messages and materials will be presented.

CONCLUSION:

EvidenceNOW Southwest provides a unique opportunity to study the effect of BCT-generated CVD materials in PBRNs. With common themes woven among groups, the BCT process elicited unique important contextual frameworks for messages, materials, and dissemination strategies around CVD. ENSW will examine and report the overall effects of BCT on CVD outcomes.

OP28: Sharing and contextualizing the experiences of 6 practice and community based research advisory boards supporting research an academic medical center

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Carol E Breland, MPH, RRT, AC-E*

BACKGROUND:

Engaging stakeholders groups via community advisory board (CAB) structures carries the promise of enhancing the relevance of research questions, increasing the transparency of the research process, and accelerating the implementation of findings into practice. Increasingly there are calls in the literature and from the research community to better describe the context and functional aspects of CABS so that others can create and operationalize their own CABS. Using an iterative consensus process, we developed 7 CAB-specific domains and then use them to illuminate the experiences and contexts of 6 CABS affiliated with research endeavors at our academic institution.

SETTING & PARTICIPANTS:

N/A

METHODS:

The Co-directors of the North Carolina Network Consortium of practice based research networks, based upon prior AHRQ-supported work relevant to practice transformation, worked with ten other UNC CH investigators using an iterative process to identify seven contextual domains that best illustrate how these CABS were developed and implemented. These CAB specific contextual domains include: 1) key motivators/political climates, 2) resources/funding support, 3) operational roles, 4) meeting structure, 5) topics covered 6) key challenges and outcomes, and 7) group empowerment experiences. Authors were responsible for describing the CAB's using the agreed upon domains. Investigators and administrative staff members of the UNC CTSA's community engagement service provided additional insights.

RESULTS:

Four project/health condition specific CABS and 2 CABS that serve to support research infrastructure more broadly were included. Key factors that surfaced include 1) an existing political will within a community to address a previously defined need, where "community" is defined by shared experiences in health conditions, health care roles, health disparities, and/or geographic regions; 2) the influence of newer funding agencies, such as PCORI, to encourage or required research teams to partner with stakeholders in the research process; 3) the availability of financial and administrative resources to support meal time meetings and compensation for CAB members' time; 4) an inclusion of group objectives beyond a research mission; and 5) shared decision making authority among academic and community partners. Ongoing empowerment activities within CABS and the ability to efficiently problem solve are important to sustaining CABS.

CONCLUSION:

By contextualizing these seven domains, other research groups can anticipate challenges and more efficiently make decisions regarding how to move forward with their CAB planning.

OP29: Breaking Boundaries: Multi-Agency Collaborative Care for Primary Care, Mental Health and Addiction in an Underserved Rural Population

Nicole Gastala, MD; Barcey Levy, MD, PhD; Andrea Storjohann, RN

BACKGROUND:

Collaborative care is an increasingly popular method for delivering comprehensive care and improving outcomes of chronic conditions in complex patient populations. These interventions seek to optimize patient care through provider-patient interactions, multi-disciplinary care, care management and improved communication. With appropriate financial and institutional support, these programs can successfully provide team-based integrated comprehensive care. However with a fee-for-service payment model, funding is nearly non-existent. There are many barriers to initiating collaborative care. Our goal was to seek strategies to create a multi-agency collaborative care model for underserved patients in a rural community without additional funding.

METHODS:

This is a prospective mixed methods study. Phase 1 was designed to open the avenues of communication with the local substance abuse treatment center and psychiatry group. We created a discussion forum to identify barriers and strategize to improve care for our common patients. Phase 2 is a quality improvement study that will compare pre-intervention and post-intervention outcomes for patients following implementation of strategies identified in Phase 1.

RESULTS:

During the discussion forum, we identified 2 areas for improvement, communication and access to care. The first goal was to improve communication between the agencies. A large barrier was transferring information between organizations and in response we created a 2-way and 3-way patient release of information. We also chose to increase the frequency and timeliness of information requests such as clinical notes, medication changes, and drug screens due to the time sensitive nature of these changes. Lastly, we decided on bimonthly or monthly multi-agency provider meetings to discuss common difficult patient cases. The second goal identified was to improve access to care. The local substance abuse treatment agency requested a provider of MAT (medication assisted treatment) due to the rate of alcohol and opioid addiction in the community and lack of access an MAT provider within a 50 mile radius.

CONCLUSION:

Breaking the boundaries of multi-agency care is possible with a collaborative spirit and interest in improvement of patient care. By opening up communication, we have set multi-agency goals and started implementing those goals. We have successfully started Phase 2 of our study.

OP30: Improving Pain Care through Implementation of the Stepped Care Model at a Multisite Community Health Center

Daren Anderson, MD; Ianita Zlateva, MPH; Khushbu Khatri

Additional Authors: Terrence Tian MPH, Robert Kerns PhD

BACKGROUND:

Primary care providers (PCPs) receive limited training in pain management and express low knowledge and confidence in their ability to manage pain effectively. Opioid analgesics are heavily relied on, with a marked increase in their use and misuse over the past two decades. Models to improve the treatment of pain have been implemented and evaluated in other settings, but not in safety-net practices where pain is particularly common.

SETTING & PARTICIPANTS:

All primary care providers (64 pre- and 71 post-intervention) and patients with chronic pain (6,340 pre- and 8,533 post-intervention) cared for at Community Health Center, Inc. (CHCI) in Connecticut. CHCI is a multi-site Federally Qualified Health Center.

METHODS:

The PARIHS framework guided the implementation of a modified version of the Stepped Care Model for Pain Management (SCM-PM). Each individual component of the intervention carefully aligned with the needs of primary care providers and patients and also matched the steps of the SCM-PM. Interventions included provider education on pain care, new protocols for pain assessment and management, implementation of an opioid management dashboard, telehealth consultations, and enhanced on-site specialty resources for pain care. A pre/post evaluation design was used. Data were collected from the electronic health record and supplemented by chart reviews. Surveys were administered to PCPs to assess knowledge, attitudes, and confidence.

RESULTS:

Over four years of the project, providers' scores on a pain care knowledge assessment questionnaire increased an average of 11% from baseline. Self-rated confidence in ability to manage pain also increased. Use of opioid treatment agreements and urine drug screens increased by 27.3% and 22.6%, respectively. Referrals to behavioral health for patients with pain increased significantly by 6.0%. Among the 25 PCPs exposed to the whole intervention, there was a 4.1% reduction in prescribing opioids for pain, and an additional 2.7% reduction in the use of chronic opioid therapy for pain.

CONCLUSION:

Implementation of the SCM-PM resulted in measurable, clinically significant improvements in a range of process outcomes in a large, multi-site safety-net practice in Connecticut. Use of the PARIHS framework and a structured evaluation approach were critical elements of this project. These findings, if sustained, may translate into improved patient outcomes.

OP31: Promoting integration of behavioral health technology in primary care: Perspectives of primary care clinicians and staff

Sarah Lord, PhD; Deborah Johnson, MHA; Ardis Olson, MD

BACKGROUND:

Background: Integration of behavioral health care into primary care is a priority of health care reform. Yet, there is insufficient workforce to address behavioral health problems, especially in disadvantaged rural communities. Strong evidence supports effectiveness of technology-based approaches for substance use and mental health disorders across the care continuum.

SETTING & PARTICIPANTS:

In this mixed-methods study, we examined readiness to adopt technology-based behavioral health treatment approaches among primary care clinicians, staff, and patient stakeholders in a rural primary care research network.

METHODS:

85 primary care practices across Vermont and New Hampshire participated, representing federally qualified health centers, hospitals, and physician-owned practices. An online survey assessed current practices, attitudes about behavioral health care integration and intentions to use technology-based treatment approaches and was completed by primary care clinicians and behavioral health specialists, if applicable, at each practice (N=394). Qualitative interviews were conducted with primary care and behavioral health practitioners from practices that indicated high stakeholder consensus about intention to use technology-based treatment approaches (N=25). Interviews were conducted with 21 patients from these practice areas.

RESULTS:

Results: Most practices screened patients for substance use and mental health concerns; less than half used a standardized measure for substance use. A majority of practices had no typical approach to care for substance use and mental health issues. Providers were more likely to internally treat mild mental health issues and to refer patients with substance use issues to specialty providers. Participants reported a higher priority for mental health services than substance use services, and there was variability in perceptions regarding specific areas for improvement with regard to behavioral health services. Provider attitudes indicate a belief that substance use treatment is beyond the scope of their practice. A majority reported limited specialty provider referral options, and that referral and coordination takes too much time. A majority also reported that computers and tablets are an integral part of their workflow, and felt that technology could improve substance use and mental health care at their practice, and that there was leadership and staff support for adoption of these approaches. There were few substantive differences between stakeholders within practice settings. Patients indicated a variety of ways in which technology could be used to meet their behavioral health needs.

CONCLUSION:

Conclusions: In general, primary care practices across Vermont and New Hampshire are minimally addressing behavioral health care with patients. Although not routine, mental health services are more advanced than substance use. Efficient methods to address integrated behavioral health care are needed. Use of evidence-based technology-based approaches may be an innovative and cost-effective strategy to broaden reach of these services to primary care patients and reduce disparity in addiction treatment services. Results of the study provide a foundation for consideration of pre-implementation factors associated with adoption and implementation of technology-based approaches to substance use and mental health in primary care and strategies for engaging primary care clinicians and patients for implementation success.

OP32: What is useful in Usual Care? Provider and consumer perspectives on mental health services

Erin Kelly, PhD; John Brekke, PhD; Lisa Davis

BACKGROUND:

Community mental health centers (CMHCs) provide numerous services beyond the traditional services of psychotherapy and medication to individuals with serious mental health issues (SMI). CMHCs offer integrated physical health care, assistance with benefits and housing, substance use treatment, help build connections in the community, and offer social support. While most studies of usual care focus on the rates of treatment adherence, far fewer examine how useful consumers and providers perceive their services to be and which services are viewed as more useful than others. This is important when considering the addition of novel services, such as integrated physical health care, which may not be as highly valued as traditional mental health services. Understanding which services are valued differentially by consumers and providers may provide insights into how to improve usual care.

SETTING & PARTICIPANTS:

Four large mental health agencies created a practice-based research network in 2012 that is focused on integrated health care for individuals with SMI.

METHODS:

Based upon 4 focus groups with providers and consumers designed to identify common services, a 23-item measure of usual care services was developed. Services included providing social support, building of self-sufficiency, access to benefits, housing assistance, connections to physical health care, community connections, building of daily structure, substance use assistance, and mental health services. On a 5-point scale (1=very unhelpful to 5=very helpful), 351 consumers and 147 providers rated the usefulness of these services. A mean total score and nine subscales were calculated. Comparisons of ratings within and between consumers and providers were conducted with independent and paired t-tests. Demographic comparisons were also completed. Finally, participants selected the most useful of these services and provided basic demographic information.

RESULTS:

The top four most useful services selected by consumers included: 1) the creation of a welcoming environment, 2) staff listening and offering support, 3) psychiatric medications, and 4) individual therapy. Among providers, they were: 1) creating a welcoming environment, 2) building self-efficacy, 3) a sense of hope and healing, and 4) getting housing. Staff and consumers both ranked graduation from services and community integration as among the least useful services. Comparing the usefulness rating of each service, social support was rated highest by both providers and consumers according to paired t-tests. However, providers viewed social support ($p=.02$), self-sufficiency ($p=.01$), mental health services ($p=.003$), building connections to the community ($p=.01$), and building structure ($p=.02$) as more useful than consumers did (independent-test comparisons).

CONCLUSION:

Understanding how consumers and providers assess the usefulness of a range of mental health services provided in usual care is rarely examined. Consumers identified specific and traditional mental health services as being the most useful to them whereas providers were more likely to focus on nonspecific and longer-term services. A welcoming milieu appears important to both. The pattern of similarities and differences in consumer and provider perceptions of service usefulness is important to the design and evaluation of mental health services in usual care. These findings need to be understood in terms of how they could impact consumer engagement and outcomes from mental health services.

OP33: Advance care planning in primary care: An exploratory pilot study

Jalila Jbilou, MD, PhD

BACKGROUND:

The advance care planning (ACP) is increasingly recognized as an essential tool to ensure appropriate care for chronic disease patients, with a precarious prognosis or are of advanced age (Bernacki & Block, 2014; Singer, 1997; Waldrop & Meeker, 2012). ACP allows the patient to take clear decisions about how he / she would live her end-of-life transition. Beyond advance directives, it is a process that encourages open discussion and reflection between the patient, his relatives/ caregivers, and his GP in order to ensure that the wishes, interests and rights of the patient are respected in the event where he/she would not be able to take independent decisions. The ACP requires the establishment of a shared and informed discussion process. However, little is known about how general practitioners (GP) approach this issue with their patients and what are the strategies put in place to facilitate ACP with a patient who a priori do not need. Objectives: 1 - Understand prevailing practices of ACP among a group of family physicians; 2. Describe the perceived barriers and facilitators to the ACP; 3- Develop practical recommendations to support the ACP in a primary care clinical setting.

SETTING & PARTICIPANTS:

Family medicine Unit in Canada Participants: family doctors (General practitioners)

METHODS:

an exploratory pilot study based on a qualitative approach using semi-structured interviews with GPs

RESULTS:

In total 7 GPs were interviewed. ACP is rarely discussed with patients and their families. Barriers are at the organizational level (lack of time, lack of support, lack of educational material, and lack of structural support), professional level (lack of knowledge and skills, curative approach orientation and perceived responsibility/role) and the personal level (spirituality, discomfort, emotional aspects and type of patient-relationship).

CONCLUSION:

Recommendations: organizational tools for ACP, continuing medical education, interprofessional collaboration, ACP health communication, and raising population awareness about ACP.

OP34: Race-Specific Patterns of Treatment Intensification among Hypertensive Patients using Home BP Monitoring: Results from the Heart Healthy Lenoir Study

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Additional Authors: Alan Hinderliter, M.D., Katrina Donahue, M.D., MPH, Crystal Cene, M.D., MPH, Cassandra Miller, MPH, Beverly Garcia, MPH, Darren DeWalt, M.D., MPH

BACKGROUND:

Treatment intensification for uncontrolled hypertension is increasingly occurring in response to home BP monitoring by patients, but optimal methods for measuring treatment intensification remain inadequately defined. The Defined Daily Dose (DDD) was originally developed by the World Health Organization (WHO) as a measure to track the epidemiology of drug use at institutional, regional, or national levels. The authors explore the use of this metric to characterize anti-hypertensive prescribing at baseline in the Heart Healthy Lenoir Study and as a potential measure that might be used for monitoring treatment intensification for hypertension.

SETTING & PARTICIPANTS:

Primary Care practices in the rural southeastern U.S.; participants were adult African-American and white patients with hypertension.

METHODS:

The Heart Healthy Lenoir (HHL) Hypertension cohort study was designed to evaluate the effectiveness of practice- and community-based strategies in reducing disparities by race and literacy in hypertension care and outcomes in an impoverished rural community setting. The present study is a cross-sectional analysis using baseline data from a subsample of patients in the HHL Hypertension Study who were actively using home BP monitoring to assess hypertension control. All patients were being seen in a rural primary care practice setting, had a history of uncontrolled hypertension, defined as one or more office systolic BP readings ≥ 150 mmHg in the last 12 months, and had been asked to use home BP monitoring and to share the results with their local provider. A list of each patient's antihypertensive medications and dosages was compiled at a baseline interview with a research assistant that included review of all medication bottles. Using the WHO published DDD values, the individual DDD for each anti-hypertensive medication for each patient was computed and the total DDD for all of the patient's anti-hypertensive medications calculated as the sum of the values for individual drugs.

RESULTS:

Anti-hypertensive DDD values were computed for 232 patients [mean age 61.4 ± 10.2 yrs.; 66% female; 57% African-American; 25% < H.S. education] using home BP monitoring and examples will be presented. Average anti-hypertensive DDD values ranged from 0 to 12.40 and were significantly correlated with the average home-measured systolic BP values (PCC = 0.14; $p = 0.034$). African Americans had a significantly higher mean anti-hypertensive DDD value than did whites [3.1 ± 2.5 vs. 2.0 ± 2.2 ; $p = 0.001$].

CONCLUSION:

DDD values can be computed for anti-hypertensive medications and compared among subgroups of patients with hypertension. While some limitations exist in DDD computation, it can serve as a basis for tracking treatment intensification across time in relation to home BP monitoring.

OP35: The Fit4Duty Program: A Dissonance Based, Participant-Driven Approach to Weight Gain Prevention for Service Members

Douglas Maurer, DO; Dawn Bates, MA; Tracy Sbrocco, PhD

Additional Authors: Elena Spieker, PhD; Marissa Barmine, BS; Natasha Schvey, PhD; Eric Stice, PhD

BACKGROUND:

Despite fitness requirements for promotion and retention, combined rates of overweight and obesity among active duty personnel are estimated to have risen to more than 60%. Augmenting existing treatment measures with a weight gain prevention program offered through Family Medicine clinics may be critical to helping Soldiers maintain healthy weight and reduce the career-ending consequences and comorbidities associated with excess weight. Project Fit4Duty is a 6 hour obesity prevention program adapted for the military from Project Health, a civilian prevention program that reduced obesity onset by 50%. Fit4Duty utilizes solution focused, dissonance-based group counseling to address sedentary behavior and unhealthy eating habits through participant-driven change.

METHODS:

Active duty Army volunteers with a BMI ≤ 32 kg/m² who self-identified as at-risk for weight gain were randomized to either a Fit4Duty group (n=56) which met 1 hour per week for 6 weeks in small groups of 5-9 participants or to a control condition (n=45) that offered two, non-consecutive hours of nutrition education videos. Weight, percent body fat, and waist, hip and neck circumference were collected before and after treatment. Participants completed self-report measures of health habits, emotional and disordered eating, depressive symptoms, weight-related stigma, and desire for consistency and readiness for change before and after treatment. In addition, participants provided qualitative feedback post-treatment regarding group effectiveness. A preliminary examination of pre/post intervention body measurements was completed. Outcomes at post-intervention were examined with pre-intervention scores as a covariate. Grouped t-test was used to evaluate for any differences on pre-intervention measures.

RESULTS:

Control group participants gained an average of 1.31% body fat while Fit4Duty participants lost an average of 1.26% (an overall difference of 2.6% body fat) ($p=.001$). Percent body fat group differences corresponded to a large effect ($d = .71$). A significant decrease in waist circumference was found for Fit4Duty participants relative to nutrition education control participants (mean 1.67 vs. 0.67 in., $p < .001$). Group differences were associated with a large effect ($d = .80$). A trend level decrease in neck circumference and hip to waist ratio was found for Fit4Duty participants relative to nutrition education control participants. Group differences were associated with moderately small effects ($d = .21-.38$). Change in BMI, heart rate and blood pressure did not differ significantly between groups.

CONCLUSION:

Preliminary findings suggest that the Fit4Duty program was more effective than nutritional education for the treatment of overweight/obesity in active duty Soldiers. Maintenance of weight loss and the prevention of weight gain will be assessed by repeating measurements at 1 and 2 year follow-ups. Preliminary findings reinforce the need for early identification of personnel at risk for overweight/obesity and implementation of prevention strategies.

OP36: Understanding Patient Experiences of Care Coordination in Primary Care: Development and Testing of a Comprehensive Care Coordination Measure.

Susan K.R. Heil, PhD; San Keller, PhD; Janice Genevro, PhD

Additional Authors: Jason Brinkley, PhD; Tandra Hilliard, PhD; Manshu Yang, PhD; Christopher Pugliese, M.P.P.

BACKGROUND:

Care coordination is a key feature of many healthcare delivery and payment models, but measurement efforts have typically not been informed by the patient and family voice. Building on previous work by the Agency for Healthcare Research and Quality (AHRQ) to develop a conceptual framework of care coordination, and on new primary research with patients and families to refine that framework, a patient-experience of care survey was developed, cognitively tested, and piloted with patients from a diverse set of primary care practices to assess patient perceptions of the quality of their care coordination experiences. This presentation discusses the findings from the pilot test.

SETTING & PARTICIPANTS:

Thirteen primary care practices (PCPs) in ten states were successfully recruited from a pool of 67 eligible practices that both responded to outreach and completed a screener. PCP eligibility requirements included being able to identify a sample of adult patients (ages 18+), through a query of electronic medical records, within three mutually exclusive sampling strata. Recruited practices included a mix of ownership types (physician-owned vs. part of an integrated delivery system), specializations (primary care only vs. primary care plus other specialties), and practice structures (one site vs. multiple physical sites). Eligible adult patients in the sampling frame met one of three health status profiles (i.e., strata) approximating their healthcare complexity in the past year (chronic/complex health issues, acute health issues requiring episodic follow-up, and routine healthcare needs).

METHODS:

A cognitively-tested 98-item survey was sent by U.S. mail to ~375 patients per practice (4,873 total patients) in two overlapping administration waves, with follow-up by telephone interview with non-respondents. Data were cleaned and analyzed to establish the survey's psychometric properties. Confirmatory factor analysis (CFA) evaluated the fit of the data to the conceptual model underlying the survey's development. Exploratory factor analysis (EFA) was used to explore the structure of the data without imposition of a theoretical model. Items that failed to discriminate well among survey domains or among PCPs were assessed for exclusion to reduce cognitive burden of the survey. Validation testing was conducted through assessment of known-groups differences. Case mix adjustment was conducted to control for the influence of patient characteristics on composite scores and overall ratings.

RESULTS:

A total of 891 patients responded to the survey (response rate of 18.3%). CFA findings support a 9-factor model aligned with the survey's underlying conceptual framework. Eight of the nine resultant composites showed internal consistency reliability $\alpha > .85$; reliability of the ninth composite was also acceptable at $\alpha = .75$. EFA identified a 2-factor model, to which the 9-factor model was mapped, resulting in two summary composites ($\alpha = .92$ and $.96$): (1) an overarching "Communication and Information Sharing" domain, comprised of items related to patient-provider communication oriented toward establishing clear information about what to do, and ensuring that shared information is complete and understood; and (2) an overarching "Patient-centered Care" domain, comprised of items that assess aspects of shared decision-making and care planning, patient needs and goals (including those related to social support and self-management of care), and linkages to community-based services. Reliability and validity analyses supported the use of a final set of 43 items to assess the quality of care coordination in primary care settings, with 2 summary scores comprised of 3 and 6 sub-factors, respectively.

CONCLUSION:

The findings support the conceptual framework proposed to underlie a comprehensive definition of care coordination developed through literature review, and honed to the patient perspective through primary research with patients and caregivers. The results advance previous theoretical work on care coordination by suggesting the organization of 9 care coordination sub-factors within 2 global activities that are frequent targets of healthcare quality improvement efforts. Guidance for administering and scoring the psychometrically sound survey composites for the 9 subscales and 2 summary scores are made publicly available by AHRQ to support the advancement of research on care coordination, its linkages to health services delivery and health outcomes, and quality improvement efforts of PCPs.

OP37: An Innovative Community-Based Model for Improving Preventive Care in Rural Counties

Zsolt Nagykaladi, PhD; Dewey Scheid, MD; Daniel Zhao, PhD

Additional Authors: Tracy Greever-Rice, PhD; James Mold, MD, MPH

BACKGROUND:

Improvement of preventive care delivery in individual primary care practices has been studied extensively, however little is known about implementing a sustainable system for proactive patient outreach and care provision at the county level, with the participation of the entire healthcare community in rural settings.

SETTING & PARTICIPANTS:

Our primary care research team at the University of Oklahoma Health Sciences Center is in the second year of a 4-year, AHRQ-funded study to implement, evaluate, and disseminate a sustainable, rural community-based patient outreach model for preventive care that will reach about 70,000 individuals through 20 primary care practices in 3 rural counties in Oklahoma. Through this new system, wellness coordinators (WCs), working with primary care practices (PCPs), county health departments (CHDs), and local hospitals, help county residents receive evidence-based preventive services. The healthcare community is organized through the leadership of County Health Improvement Organizations (CHIOs - health extension entities) and connected via health information exchange (HIE).

METHODS:

The WCs, working at the county level from PCP-prioritized and tailored protocols, use a community wellness registry connected to regional healthcare facility electronic records through HIE. The registry flags patient-level preventive care gaps and tracks outreach efforts, delivery of preventive services, and changes in individuals' estimated life expectancies in response to addressed care gaps. The project also helps PCPs work with the community to address tobacco cessation and insufficient physical activity using evidence-based strategies and explores facilitators and barriers of practice and community-level interventions. In addition, costs and returns (ROI) of the intervention are estimated in participating organizations. At the end of the study, a guidebook will be developed for other communities to help them replicate the model.

RESULTS:

We will complete the first full year of the first intervention in Kingfisher County, Oklahoma in June, 2016 with two more counties to follow. Preliminary data analyses indicate a significant increase in the delivery of several practice-prioritized preventive services (e.g., diabetes follow-up visits, well-child checks, and smoking cessation interventions). Cursory ROI analyses also suggest that practices and other organizations may realize modest returns on their investments, however a thorough evaluation will provide more definitive evidence when sufficient data are available. Overall, we expect that the new model may increase the receipt of selected preventive services by 10-40% in these communities, increase average estimated population life expectancy by 3-6 months per year of participation, and produce a measurable financial return on investment at the community level.

CONCLUSION:

Although it is too early to tell, based on preliminary data, it may be feasible and effective to implement an innovative, county-level patient outreach system for improving preventive care in rural settings. Through extensive partnerships with local and regional organizations, we have been able to build an infrastructure that could accelerate the improvement of health and wellness in rural communities.

OP38: Creating a Learning Community to Reduce Cancer Screening Disparities in a Healthcare Network: One PBRNs' Experience

Brian Stello, MD; Melanie B. Johnson MPA; Ronald Myers, PhD

Additional Authors: From Lehigh Valley Health Network: Beth A. Careyva MD, Kyle Shaak RHIA, Alicia Rivera, Liselly Diaz; |From Thomas Jefferson University: Randa Sifri MD, Melissa DiCarlo MPH, Anna Quinn MPH, Amy Leader MPH DrPH Anett Petrich RN MSN; |From Fox Chase Cancer Center: Evelyn Gonzalez MA, Rosa Anderson-deOrtiz

SETTING & PARTICIPANTS:

A randomized-controlled trial using patient navigation and shared decision-making to reduce CRC screening disparities among Hispanic patients served by inner city clinic practices in Allentown, Pennsylvania, where baseline screening among Hispanics is traditionally less than 30 percent of patients eligible for screening.

NEEDS & OBJECTIVES:

: Integrating population-based, Patient-Centered Outcomes Research in a large healthcare network, involves not only engaging patients and community advocates, but also engaging network stakeholders and resources in an ongoing dialogue through all phases of the project. This presentation will explore one PBRN's experience of reconciling perspectives from grant development through dissemination. The objective is to develop a scalable "Patient-Centered Neighborhood" and Learning Community with patient navigation and shared decision-making that can reduce colorectal cancer (CRC) screening disparities and establish its effectiveness through a randomized-controlled trial.

DESCRIPTION:

Development of a population screening intervention by integrating community participatory care and healthcare network quality initiatives through all phases, beginning with initial grant development and study design, to intervention adaptation, implementation, and finally dissemination.

EVALUATION:

Enrollment and analysis of 400 patients of Hispanic background ages 50-75 years at average risk for colorectal cancer. Patients randomized 1:1 into Standard of Care vs. Decision-Support and Navigation for CRC screening via colonoscopy and iFOBT test (analysis pending). Qualitative analysis of program implementation and patient engagement.

DISCUSSION/REFLECTION/LESSONS LEARNED:

In addition to identifying community and cultural barriers, one of the challenges of reducing disparities in CRC screening among Hispanic patients requires managing the interface between patient needs and a large, complex healthcare organization. By providing a bridge between patients and network resources, our PBRN was able to identify barriers to care and opportunities to develop common ground solutions. In the grant development phase, network goals, structures, and patient pathways were elicited and shared with patients to uncover barriers to care, while the patients and community provided validation of need for the proposed intervention. In the intervention adaptation phase, patient feedback was integrated to improve the network's patient pathways and reinforce patient desires for shared decision-making and access to care. During the implementation phase, patient and network representatives meet quarterly to oversee the implementation and provide process improvement in a Patient and Stakeholder Advisory Committee (PASAC). In addition to overseeing the intervention, the PASAC is guiding intervention dissemination by advocating development of community education event and by providing additional feedback to the healthcare network on how to make the intervention scalable.

OP39: Engaging Scientists, Clinicians, Community Health Workers and Patients to Conduct a Comparative Effectiveness Study of Home-Based Interventions to Reduce CA-MRSA Recurrence and Household Transmission

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Additional Authors: Leinberger-Jabari A; Pastagia M; Evering T.H; Pardos de la Gandara M; Wershiner D; Matos S; Gisler T; Coffran C; Correa da Rosa J, Urban T; Barsanti F; de Lencastre H; Tomasz A; Collier B.S; Tobin, J.N

NEEDS & OBJECTIVES:

Community-Associated Methicillin-Resistant Staphylococcus aureus (CA-MRSA) skin and soft tissue infection (SSTI) recurrence ranges from 16% to 43% and presents significant challenges to clinicians, patients, and families. This comparative effectiveness research (CER) study aims to develop and evaluate a home-based intervention implemented by Community Health Workers (CHWs) or "promotoras" to prevent recurrence of CA-MRSA and transmission within their households for patients presenting to primary care with SSTI

DESCRIPTION:

In partnership with three NYC metropolitan area Community Health Centers and four community hospitals, this study will recruit patients (n=278) with confirmed MRSA SSTIs and their household members. Participants will be randomized (1:1) to receive either a CHW/Promotora-delivered decolonization-decontamination intervention or Usual Care. The stakeholder team finalized the intervention protocol, developed and implemented CHW and clinician trainings, and developed an online health portal application for data management and exchange ("MyOwnMed").

EVALUATION:

Clinicians (n=55) were trained to screen and enroll patients, conduct specimen collection and transport, and use the health portal. Eight CHWs completed a 49-hour training, consisting of epidemiology and MRSA 101, research ethics and human subjects protection, survey techniques, health portal training, quality control, treatment adherence promotion, and CHW-specific skills.

DISCUSSION/REFLECTION/LESSONS LEARNED:

This study aims to understand the patient- and environmental-level factors associated with SSTI recurrence and household transmission, and to examine the interactions between bacterial genotypic and clinical/phenotypic factors on decontamination, decolonization, SSTI recurrence and household transmission.

RELEVANCE STATEMENT:

Skin or soft tissue infections may be caused by Community-Acquired Methicillin-Resistant Staphylococcus aureus (CA-MRSA), a bacteria that cannot be cured with most antibiotic drugs. Most infections go away after taking antibiotics, however some infections keep coming back, and may be caused by patients coming into contact with the same bacteria in the home. This study aims to evaluate a home intervention delivered by promotoras for colonization and household cleaning to reduce the recurrence of skin infections in patients and transmission to household members

ONLINE RESOURCE:

www.CDNetwork.org

OP40: Neighborhood Safety and Obesity in Middle-aged and Older Community-dwelling Adults

Samuel N. Forjuoh, MD, MPH, DrPH; Marcia G. Ory, PhD, MPH; Jaewoong Won

Additional Authors: Samuel D. Towne Jr.; Suojin Wang; Chanam Lee

SETTING & PARTICIPANTS:

Community-dwelling middle-aged and older (≥ 50 years) adults residing in four central Texas cities, who were patients of family physicians in primary care clinics belonging to an integrated healthcare system associated with a 220,000-member HMO.

NEEDS & OBJECTIVES:

Although evidence suggests that the neighborhood environment may have direct impacts on physical activity (PA), its influence on obesity remains unclear. Neighborhood safety from traffic, crime, and falls in particular has been shown to be a major barrier to walking and PA, and therefore could lead to increased risk of becoming obese. This study assessed the relationship between living in perceived unsafe neighborhoods and being obese.

DESCRIPTION:

Surveys were administered to 394 community-dwelling middle-aged and older (≥ 50 years) adults residing in four central Texas cities, who were patients of family physicians in primary care clinics belonging to an integrated healthcare system. Logistic regression was used to examine whether living in perceived unsafe neighborhood is a significant predictor of being obese, while controlling for health and socio-environmental factors.

EVALUATION:

Almost a third (29.6%) were obese and 26.3% reported walking for ≥ 150 minutes for any purpose. The majority were female (55.6%), non-Hispanic white (83.0%), married (75.7%), reported an annual household income of $\geq \$50,000$ (67.0%), and reported good-to-excellent health (89.1%). Approximately half were ≥ 65 years (49.8%), employed (48.5%), or had at least a college degree (51.8%). Nearly 40% reported receiving a recommendation from a healthcare provider to be more physically active. Obese individuals were comparable to their non-obese counterparts on all demographic variables except reporting lower incomes. Compared to their non-obese counterparts, obese individuals were more likely to report difficulty walking a quarter-mile (35.4% vs. 13.6%; $P < 0.001$), report poor-to-fair health (20.9% vs. 7.0%; $P < 0.001$), and worry about falling when walking in their neighborhood (27.9% vs. 13.4%; $P = 0.001$). They were also more likely to agree that: there is drug dealing in their neighborhood (17.7% vs. 10.2%; $P = 0.044$); there are many drunk people in their neighborhood (13.4% vs. 6.7%; $P = 0.035$); the crime rate in their neighborhood makes it unsafe to go for walks during the day (12.3% vs. 7.0%; $P = 0.094$); and there is traffic that makes it difficult or unpleasant to walk in their neighborhood (26.1% vs. 18.0%; $P = 0.072$). They were also more like to disagree that neighbors could be counted on to help in case of need (22.6% vs. 11.6%; $P = 0.005$) and walkers/bikers on the neighborhood streets can be easily seen by people from their homes (39.6% vs. 30.9%; $P = 0.099$). In the adjusted analysis, neighborhood safety variables that maintained significant associations with the likelihood of being obese were disagreement that neighbors could be counted on to help in case of need (OR=4.14; 95% CI=1.28-12.45) and disagreement that walkers/bikers on the neighborhood streets can be easily seen by people from their homes (OR=3.18; 95% CI=1.04-9.77). Other significant variables included difficulty walking a quarter-mile (OR=3.99; 95% CI=1.28-12.45) and receipt of a recommendation from a healthcare provider to be more physically active (OR=4.15; 95% CI=1.60-10.78).

DISCUSSION/REFLECTION/LESSONS LEARNED:

Neighborhood environments that promote safety from crime, traffic, and injury risks may play a role in reducing the likelihood of obesity in individuals who are the target for PA recommendations by their healthcare providers. Increasing awareness among healthcare providers about the full range of barriers and facilitators of PA including those that may exist in one's neighborhood can help them offer more effective counseling to their patients who are currently obese or at risk for becoming obese.

ONLINE RESOURCE:

dorfam.sw.org

OP41: Developing a Road Map for Optimum Patient-Partnered Chronic Condition Management

Regina M. Vidaver, PhD; Amanda E. Hoffmann, MPH; David L. Hahn, MD, MS

SETTING & PARTICIPANTS:

Over 140 patients, advocates, nurses, clinicians, care managers, public health specialists and researchers attended the Wisconsin Research & Education Network's (WREN's) Convocation of Practices in Oshkosh, WI on Oct. 14-16, 2015. During the conference, didactic and panel presentations prepared attendees to participate in a World Café process of research question generation. Panels consisted of patients, clinicians and researchers providing perspectives on living with, managing and researching chronic conditions, respectively. The World Café results were then used by a diverse stakeholder Working Group to refine potential research questions, and develop a prospective research agenda for WREN and its collaborators.

NEEDS & OBJECTIVES:

Since inception in 1987, WREN has engaged in research projects initiated by member clinicians. However, most projects have historically originated from academic partners. In order to better capitalize on new funding opportunities, our objective was to broaden WREN's research agenda to incorporate patient and clinician voices, in addition to academicians. WREN was fortunate to receive an Engagement Award from the Patient Centered Outcomes Research Institute (PCORI) to hold a conference that would lay the groundwork for a diverse Working Group to develop WREN's prospective research agenda.

DESCRIPTION:

World Café is a participatory consultation process designed to promote networking and solution-building through a series of small group discussions around nested questions. The questions were: 1. What are the key questions we need to ask to truly improve chronic care management, treatment and cure? 2. What are the best and most daring ways to answer these questions? 3. What different types of partnerships might need to be created? Participants sat in small groups and brainstormed responses to the first question. All responses were collected and prioritized by the group. After 20 minutes, the composition of the groups was changed and participants went to new tables to address the next question. The process was repeated for the third question. At the conclusion of the brainstorming, results were prioritized and posted for a "gallery walk" in which everyone could see what other groups developed. Participants voted on the questions they thought were essential for future WREN research. Afterwards, the top votes were presented to all attendees. The World Café was the culmination of the Convocation. Following the conference, WREN staff performed a theme-based assessment of the research questions generated, and compiled a comprehensive report. Volunteers interested in collaborating to refine WREN's future research agenda were vetted. The Working Group originally included 5 patient advocates, 3 researchers, 3 clinicians in community practice, and 3 WREN staff members. The Working Group used the final report from the World Café to prioritize questions for further development. At the time of this writing, the Working Group is in the process of finalizing research questions and developing potential approaches to address them. A draft report is due to PCORI on June 30, 2016, and will be available at the time of the NAPCRG PBRN conference. The report is anticipated to serve as an outline for future grant applications for WREN and collaborating investigators and PBRNs.

EVALUATION:

Evaluation of the Convocation was conducted via Qualtrics online surveys to attendees at the conclusion of the conference. A 44% return rate was obtained. Overall, speakers and panels were highly rated, with mean scores ranging from 4.2-4.75 on a 1-5 Likert-based scale. Importantly, key statements such as "I have a better understanding of some of the issues patients face in managing their chronic conditions" received a mean score of 4.37 and "The issues raised by this conference are important for improving people's health" scored a 4.61, indicating that the conference appeared to meet its objective to be patient-centered. The Working Group has built consensus and continues to be patient-centered, even with the attrition of several members. We are confident our approach will result in critical, patient-centered research questions being developed into full-scale, fundable research projects. Our ultimate goal is that these research projects improve the management, treatment and cure of people with chronic conditions.

DISCUSSION/REFLECTION/LESSONS LEARNED:

With a genuine commitment to patient-centeredness and engaged participants, WREN is in the midst of setting a prospective research agenda that has the potential to bring about real change for patients with chronic conditions. We anticipate sharing the agenda with our PBRN colleagues to develop fundable research proposals that significantly move the needle for chronic condition management, treatment and cure. Lessons learned include: the need to remind clinicians and researchers how patients experience care; and to allow sufficient time for research question development, including literature reviews, collaboration-building, and consensus-based deliberations.

ONLINE RESOURCE:

<http://www.fammed.wisc.edu/wren/news/events/2015-convocation/>

OP42: Patient's and provider's perception of asthma care from a statewide RCT for an asthma shared decision making dissemination intervention

Thomas Ludden, PhD; Madelyn Welch; Hazel Tapp, PhD

Additional Authors: Chandler Gates, Sherry Bargoil, Kathleen Mottus

BACKGROUND:

ADAPT-NC is a PCORI-funded, state-wide multi-PBRN project examining methods of disseminating an asthma shared decision making (SDM) intervention. The 30 participating practices were randomized into three different arms based on dissemination strategy: control, traditional lunch-and-learn, and a facilitator-led, participatory (FLOW) approach. Qualitative data was collected and analyzed from clinics representing all three arms across the state of North Carolina.

METHODS:

Focus groups for the first part of the study were conducted for one FLOW site, one traditional site and a one control site within each PBRN, for a total of four FLOW, four traditional, and four control focus groups. Staff from the participating practices recruited their asthma patients and providers. Each focus group had up to 10 participants with at least 1-2 providers in each group. A mix of both patients and providers discussed current asthma care practices. The one-hour discussion was recorded, transcribed removing identifiers, and analyzed for recurring themes. The questions covered goals, planning ahead for asthma attacks, and provider interaction.

RESULTS:

Focus groups from practice sites in all three arms discussed communication, goal setting, education, planning, self-management, and shared decision making. The FLOW sites had more extensive discussion around shared decision making than the control and traditional arms. In addition, the FLOW sites discussed broad themes related to access to care and cost, whereas these were only discussed in the traditional and control practices in the context of barriers. Providers in the control and traditional practices were less likely to mention including patients in discussions around medication options and goal setting, as opposed to the FLOW Practices.

CONCLUSION:

Perceptions of asthma care by patients and providers varies by extent of adoption of a shared decision making approach to care. The FLOW approach to dissemination was associated with greater awareness of shared decision making between patient and provider when forming treatment plans than traditional lunch and learn and usual care approaches.

OP43: Raising Awareness ... Starting the Conversation, Using Shared Decision Making to Treat Vulvovaginal Atrophy

Rowena Dolor, MD; Paul Smith, MD; Kristine Schmit, MD

Additional Authors: Anne Ford, MD,

BACKGROUND:

Two primary care practice-based research networks (PBRNs), Wisconsin Research and Education Network (WREN), and Duke Primary Care Research Consortium (PCRC) together with partners: Interstate Postgraduate Medical Association (IPMA) a medical education association, Emmi Solutions a patient engagement and communications company, and A Woman's Touch a sexuality resource center, designed an initiative targeting increased awareness, improved diagnosis, Shared Decision Making (SDM) and improved Quality of Life for the treatment of symptomatic vulvovaginal atrophy (VVA) in women ages 50-80. Our multi-year project took place in family practice and ob/gyn WREN and PCRC clinics in Wisconsin and North Carolina. Funded through an independent grant for learning and change from Pfizer, project began in January 2014 with final outcomes and evaluation due September 2016.

SETTING & PARTICIPANTS:

The Wisconsin Research and Education Network and the Duke Primary Care Consortium recruited primary care and gynecology practices to participate in this study. Fourteen clinic sites were assigned to three different research waves through a stepped wedge design. Practices participated in multiple education and improvement strategies. All learners first had to participate in two Spaced Education modules prior to Academic Detailing and Practice Facilitation. Physicians recruited patients to participate in the study and incorporated shared decision making in the treatment of the patients.

METHODS:

Raising Awareness - Starting the Conversation, developed an internet-based VVA SDM decision aid and educational interventions to teach SDM methods to clinicians to change clinician behavior to result in an increase in appropriate management of symptomatic VVA. We then evaluated methods to increase recognition and management of symptomatic VVA in family medicine and OB/GYN clinics by raising awareness of patients, clinicians and office staff about the impact symptomatic VVA has on patient quality of life. • Our primary goal was to change clinician behavior to increase appropriate management of symptomatic VVA that results in improved quality of life for women ages 50-80. Measure #1: Increase in the frequency of the diagnosis of VVA found through chart review. Measure #2: Documentation in chart (measured pre vs post) of evaluation and treatment for VVA in patients with diagnosis. • Our secondary outcome was to measure how did systems change as a result of this project measuring what practices said they would do differently and what they actually did. Measured pre and post intervention with survey instruments.

RESULTS:

We recently completed enrollment and are in the final stages of followup with patient participants. To date, 126 patients have completed the study. The participant ages ranged from 42 to 76. The average age was 58. Seventy-seven % of patients completed the study. 78% of patients recommend using the internet VVA program from Emmi Solutions and 82% recommend this shared decision making process. Results also indicate that participants found improvement in vaginal dryness, vaginal itching or burning, pain during intercourse and involuntary urination while coughing or laughing. Educational results indicate that the majority of learners of those completing the evaluation for the VVA spaced education activity found the content (69%) and usefulness (71%) excellent or very good. Forty-eight percent of learners anticipated making changes as a result of the activity. Learners completing the Shared Decision Making Activity found the content (60%) and usefulness (55%) very good or excellent. Fifty-five percent of learners anticipated making changes as a result of the activity.

CONCLUSION:

Our methods of education and facilitating practice change were successful in a variety of practice sites in 2 states, in 2 regions of the country, in multiple health systems suggesting our results can be generalized and reproduced elsewhere. Our takeaways: •Patients liked the shared decision making patient tool and would recommend it to others. •Patients showed a significant reduction in vulvular dryness, pain with intercourse, and vulvularitching or burning. •Preliminary results show we have changed clinician behavior, our #1 goal. •A multimodal educational strategy supports change in physician behavior.

OP44: Strategies for dissemination of a state-wide PBRN project: dissemination of asthma shared decision making by the North Carolina Network Consortium (NCNC)

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BACKGROUND:

Understanding which strategies are most effective for research evidence dissemination is vital to improve real-world clinical adoption. A dissemination strategy that uses multiple approaches to target the desired audience will be more successful in ensuring the future utilization of the research findings. The ADAPT-NC study compares a facilitated, participatory approach to implementing an asthma shared decision making toolkit in clinical primary care practices across North Carolina with more traditional methods. The research team developed a three-pronged approach to disseminate information and results about the study.

METHODS:

The three approaches to dissemination focused on the target audiences of researchers, primary care practices, and patients. Using community based participatory research framework, the core research team collaborated with partnering PBRNs, researchers, providers, and patients to tailor the dissemination plan. Patient advisors suggested new ideas and evaluated strategies for their impact and effectiveness. All dissemination strategies, including the identification of the targeted audiences, were tracked in a shared document, delegated to appropriate team members, and discussed at weekly meetings.

RESULTS:

Three target audience groups were identified: researchers, primary care practices, and patients. A marketing plan and budget were created and monitored on a weekly basis. In addition to traditional emphasis on dissemination through research meetings and national and international peer reviewed journals, researchers were engaged through social media. The research team created a website www.adaptnc.org with study information and results. Information for researchers will be distributed during an annual forum of researchers from the four participating PBRNs (NCNC, comprised of MAPPR, NCnet, PCRC, and E-CARE). At the practice level, the project's practice facilitators will present study results at provider meetings and informational brochures and posters will be distributed at practice meetings and in break rooms. Information will be circulated on internal news channels within participating healthcare systems and PBRNs (NCnet and MAPPR practices). At the patient level, posters and brochures will be available in waiting rooms and at local events involving patients. For example, booths at local asthma-related events such as 5K runs and fundraising walks will be sponsored or supported. Efforts are being made to partner with local health-centric bloggers. To reach all audiences, a Facebook page (www.facebook.com/adaptnc) is updated with weekly topic postings about the toolkit and other project related materials. A short informational video is being filmed for release with the final study results.

CONCLUSION:

Ultimately, the impact of a research study is difficult to measure outside of the evaluation methods described in the original research plan. However, with careful planning, engagement of patients and providers, and tailoring the dissemination efforts to a multi-pronged approach, the results of research studies can be spread to ever-increasing numbers of people. Next steps will be to evaluate the impact of these efforts.

ONLINE RESOURCE:

www.facebook.com/adaptnc

OP45: Can CVD Risk Score Be Generated From Electronic Health Records?

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BACKGROUND:

We assessed the feasibility of obtaining atherosclerotic cardiovascular disease (ASCVD) risk factors to estimate statin eligibility data electronically extracted from different electronic health records (EHRs) at three Federally Qualified Health Centers (FQHCs) participating in a blood pressure control research project.

METHODS:

Participating sites submitted de-identified limited data sets relevant to patients with diagnoses of hypertension for 12 months of patient data. Data included patient age, sex, race, ethnicity, medications, smoking status, BMI, blood pressure, laboratory data and ICD-9/10 diagnostic codes. Data were cleaned and mapped to the Observational Medical Outcomes Partnership (OMOP) Common Data Model to determine if the patient had received a prescription for a statin.

RESULTS:

CVD prevalence was low (3%), with only 15% of patients receiving a statin. Patients receiving a statin were older, male, and more often had diabetes and ASCVD. A diagnosis of hyperlipidemia was present among 39% of patients receiving a statin. Availability of lipid values varied markedly by site from more than 50% to less than 10%. With the exception of smoking and lipids, data were missing for fewer than 1% of these data elements.

CONCLUSION:

Most elements needed to generate ASCVD risk factors can be extracted from EHR data. However, steps are needed to improve missing data for smoking and lipids and probable under-coding of CVD. Whether point of care prompts could improve data entry requires further research.

RELEVANCE STATEMENT:

This quality improvement project aims to improve blood pressure control and overall cardiovascular risk in patients with uncontrolled hypertension by implementing the national guidelines for monthly visits. Study data are taken from the electronic health records, and include information on patient demographics, visits, blood pressure, diagnostic codes, medications, and labs.

ONLINE RESOURCE:

www.CDNetwork.org/BPVisit

OP46: Diabetic Retinopathy Detection in Rural Primary Care: Addressing Community Access Needs Using Advanced Technology in the West Virginia PBRN

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SETTING & PARTICIPANTS:

The study was conducted in outpatient primary care practices in the West Virginia Practice-Based Research Network (WVPBRN) that partnered with the West Virginia University Eye Institute. Adult patients with known diabetes and without known retinopathy, totaling 9097 across all three sites, and who agreed to diabetic retinopathy testing in the office are eligible for this service yearly.

NEEDS & OBJECTIVES:

Despite universal consensus supporting yearly eye evaluations in patients with diabetes, nearly half have not received a dilated eye exam in the past year. In the early stages of retinopathy, visual impact often goes unnoticed by the patient. Once the disease progresses and damage occurs, the patient's vision worsens and therapy is less effective. Many patients that have had an exam are diagnosed too late for successful treatment. As a result, diabetic retinopathy is the leading cause of blindness among working aged patients (18-64). The high prevalence of diabetes in West Virginia (15.9%) combined with limited access to diabetic eye care resources in rural settings demonstrates the need to address these challenges at the local level. The objective of this study was to determine the rate of diabetic retinopathy in rural West Virginia practices using advanced telemedicine technology. A secondary objective was to determine ease of use and feasibility of the new technology in the rural clinical setting.

DESCRIPTION:

Telemedicine screening and detection in primary care has the potential to reach many more patients with a sight-saving nonmydriatic telemedicine exam. Clinical staff use a retinal camera to capture images. Using a secure cloud-based system, retinal specialists grade with the interpretation available to the health system noting results and referral information for clinic staff.

EVALUATION:

A total of 1333 patients were screened in the first two years at five Appalachian practices in the WVPBRN. A total of 146 (10.9%) of the images were non-gradable and could not be interpreted. Of the gradable scans, 244 (20.5%) had diabetic retinopathy pathology; 410 (34.5%) of patients with other ophthalmic pathology and also needed referred to specialist care. The ease of device usage and system reporting were rated very high by patients and practitioners. Preliminary project data has impacted West Virginia Medicaid policies to now cover this service and continues to inform other insurers of the necessity to cover the service.

DISCUSSION/REFLECTION/LESSONS LEARNED:

This project demonstrates that this advanced technology in rural areas increases eye care access, sight-saving detection, and treatment of diabetic retinopathy. Our collaborative partnership of primary care providers, clinical staff, ophthalmologists, industry specialists, information technology specialists, insurance providers, and public health agencies impacts clinical patient quality measures, better distributes ophthalmic resources, and creates transformative practice-level and policy-level change.

OP47: Implementing Permanent Data Collection Infrastructure for PBRN Research in Practice Settings: A Case Example in Los Angeles

Lyndee Knox, PhD

SETTING & PARTICIPANTS:

The study took place at Florence Western Medical Practice in South LA. Florence Western cares for approximately 8000 low-income patients a year. 80% of patients are African American 20% are Latino. LA Net, a practice based research network partnered with Florence Western on the project.

NEEDS & OBJECTIVES:

PBRNs would benefit from having a permanent data collection infrastructure in place in their practices. This would enable cost-effective, rapid cycle studies to be conducted without disrupting practices. Practices caring for low-literacy and non-english speaking patients need an efficient method for collecting surveys and PROS from their patients that is immediately actionable. The objective of this project was to implement a free-standing PROS collection system that collected information for use in clinical care as well as research, and conduct a proof of concept evaluation collecting Medicare health risk assessments for use both in clinical care and research.

DESCRIPTION:

Florence Western implemented a PROS collection station in their waiting room consisting of 14 tablets/kiosks. A new position, "patient greeter" was created who welcomed patients to the practice when they entered the wait room, and then oriented them to use of the tablets for providing patient information and completing surveys and screeners. The practice used the system to collect Family PACT forms, collect information on family history, gather information from patients on their goals for the health care visit that day, complete pain assessments, administer depression screening, COPD screening, social determinate screening, the Ages and Stages Developmental questionnaire and a Health Risk Assessment for Medicare patients. LA Net used the data to assess the impact of social determinates on the health of low-income seniors in the practice and inform quality improvement work at the practice.

EVALUATION:

More than 400 Health Risk Assessments were collected at the practice over 4 months, a 600% increase from the previous 4 months. Data were available to clinicians at point of care through transmission to the practice EHR, and a redacted version of the dataset were also instantly available to the LA Net research team. The cost of survey collection for LA Net dropped from \$60 a survey to \$12 a survey during the project. Patients had a positive response to the system, with 95% reporting being satisfied or highly satisfied with their use of the tablets. An unexpected outcome was that patient expectations that clinicians and practice staff would respond to non-medical needs (inadequate medical equipment, lack of housing, food insecurity) they reported on the PROS system also increased, creating new pressure for the practice to enhance care team functioning.

DISCUSSION/REFLECTION/LESSONS LEARNED:

Patient-facing PROS collection systems are the next wave of IT to be implemented in practices. If designed to address both clinical and research needs, they present an excellent opportunity for PBRNs to develop a permanent data collection infrastructure that is cost effective, rapid and has value for both research and clinical care.

OP48: Integrating Public Health Data and Clinical Data to Inform Primary Care Physicians

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SETTING & PARTICIPANTS:

133,886 patients from 12 Northern Virginia primary care practices that are members of the Virginia Ambulatory Care Outcomes Research Network.

NEEDS & OBJECTIVES:

Social determinants play a significantly larger role on health than medical care but efforts to integrate public health into primary care have met with limited success. Our study piloted the integration of population health metrics into primary care practices within our practice-based research network by identifying resource poor communities served by practices based on public health variables.

DESCRIPTION:

Patients' addresses for each practice were geocoded to the census tract level. Four public health variables, education, poverty, life expectancy and access to health foods, were mapped to practices at the census tract level; resource-poor regions or "cold spots" for each practice were then identified. Analyses were performed to determine whether living in a cold spot was associated with worse clinical quality metrics.

EVALUATION:

Using a community-oriented primary care framework, three stakeholder groups consisting of practice clinicians, care coordinators, office managers, patient advisory board members and patients living in "cold spots" were convened. These groups will be meeting over the course of a year to discuss how identifying resource poor communities can inform clinicians in patient care and population health management. Patients from participating practices will also be asked to participate in surveys assessing social needs and clinicians will participate in surveys to discuss their experiences with having information about resource poor communities in patient care.

DISCUSSION/REFLECTION/LESSONS LEARNED:

While community level data has great potential to inform care, it is unclear how primary care clinicians and patients will use this information at this time. This study brings together clinicians, patients, and care coordinators together to explore the role that knowing census tract-level metrics for patients can play.