surveyed members of Kaiser Permanente (KP) Member Voice, a representative online panel of KP members. Questions focused on communication with the cancer care team overall and during specific phases (e.g., diagnosis, chemotherapy). Respondents indicating less than excellent communication were asked to describe how communication fell short. We asked all respondents what aspects of communication were most important during cancer care. **Results:** A total of 375 members diagnosed with cancer completed the questionnaire. Respondents represented all KP regions; 57% (212/375) were female; 62% (233/375) had at least a college degree. Overall communication ratings varied by phase of care; the percentage of respondents rating “excellent” was lowest for Diagnosis (62%; 225/365); corresponding percentages for other phases included Decision-Making 71% (248/352); Surgery 73% (212/290); Radiation 65% (68/105); Drug Therapy 76% (82/108); Completing Treatment 70% (237/340). Only 55% (189/342) of respondents “strongly agreed” they were told their diagnosis in a sensitive, caring way. Asked where communication fell short, patients cited problems in providers’ manner, as well as the amount, timing and clarity of information. Initial analysis of what was most important revealed themes related to being treated like a person, conveying caring and optimism and providing clear, complete and timely information. **Conclusions:** Patients are willing to provide feedback on their cancer care experiences and to identify problematic aspects of communication and when they occurred. These items can be used to assess patients’ experiences and to prioritize quality improvement efforts. **Keywords:** Cancer; Communication

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C2-3:

Cancer Prognostic Resources: A Systematic Review and Central Repository of Web-based Cancer Prognostic Calculators

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Background/Aims: Cancer prognosis is one of the leading topics of interest for cancer patients, their caregivers and providers. Literature suggests that nomograms that use prognostic algorithms integrating several predictors improve prognostic accuracy. There has been increasing interest in the availability and use of web-based tools by both health care providers and patients for obtaining information about health promotion and disease management. Our study aimed to review the available online cancer prognostic tools, to provide input on the implications for their use in clinical settings, and to create a centralized repository for providers to access.

Methods: Using a systematic approach, we searched the Internet, Medline, and consulted with experts to identify existing online prognostic tools. To be eligible, tools had to have an English version, focus on cancer, have an interactive component, and provide at least one of the following output measures: cancer or non-cancer specific mortality/overall survival; disease free survival (DFS)/recurrence; clinical response to treatment; progression free survival (PFS)/spread; cancer therapy induced side effects. Each tool was reviewed for content and format. **Results:** Twenty-two prognostic tools addressing 89 different cancers (min: 1, max: 84) were identified. We classified unique cancer sites under 13 main categories. Tools focused on prostate (n = 11), colorectal (n = 10), breast (n = 8), and melanoma (n = 6), though at least one tool was identified for most malignancies. The input variables for the tools included cancer characteristics (n = 22), with fewer having inputs for patient characteristics (n = 18) or comorbidities (n = 9). Effect of therapy on prognosis was included in 19 tools. The most common predicted outcome was cancer specific survival/mortality (n = 17) followed by disease free survival (DFS)/recurrence (n = 14). While all of the tools were available online, only four suggested usability by patients. **Conclusions:** The process of identifying available tools was time consuming as there was no one location where all existing cancer prognostic tools were easily accessible and compared. Using a systematic review, we identified and compiled a comprehensive repository of 22 currently existing online prognostic tools. A website was created for these tools: www.cancercalculators.org. Cancer prognostic tools hold great promise in facilitating patient-

centered communication and decision-making and helping patients prepare for life post treatment.

Keywords: Prognosis; Prediction

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C2-4:

Implementing an Evidence-based Breast Cancer Support Tool for Newly Diagnosed Breast Cancer Patients as Standard Care at Two Institutions

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Background/Aims: While many women turn to the Internet to obtain information, it is unlikely that unstructured internet use provides optimal benefit to women newly diagnosed with breast cancer, due to uneven quality, conflicting claims, redundancy, and search engine idiosyncrasies which may make finding desired information more difficult. To answer the need for information and support, an Interactive Cancer Communication System (“CHESS”) was developed, validated in several randomized trials, and is now being implemented to provide access to integrated information for decision-making, behavior change, and emotional support. We implemented a program to offer CHESS to all newly-diagnosed breast cancer patients as part of standard care (not as part of a research study) at two Denver healthcare systems: Kaiser Permanente Colorado (KPCO), and Exempla Health Care (EHC), which serves a larger proportion of minorities and those without insurance. **Methods:** All women who receive a breast cancer diagnosis at KPCO and EHC are to be offered access to CHESS during or very shortly after notification of their diagnosis and throughout the treatment process, thus making CHESS a part of standard care for hundreds of breast cancer patients. By qualitatively tracking the contextual factors related to CHESS implementation by date and occurrence, and through patient and provider interviews and surveys, this study is evaluating the real-world feasibility of CHESS integration into standard care. **Results:** We will report on the process of real-world implementation of CHESS at KPCO and EHC, the barriers to and facilitators of integrating the CHESS resource into standard care, and the expected and final process of how CHESS was finally integrated into standard care at each institution as a case-study example. We will also report on the initial impact of CHESS integration on the breast cancer care process and on providers at each institution. **Conclusions:** This case-study example demonstrates how CHESS implementation is informing dissemination to other KP regions and organizations and how the evaluation and tracking process provides guidance for implementation of other programs in large organizations.

Keywords: Breast cancer; Implementation

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PS1-48:

A Patient-centered Electronic Education Tool for Establishing Weight Loss Expectations after Bariatric Surgery

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Background/Aims: Bariatric surgery candidates often struggle when deciding between intensive lifestyle therapy, pharmacological therapy, and/or bariatric surgery for achieving their long-term weight loss (WL) goals. Moreover, they often have unrealistic WL expectations prior to surgery. Despite huge individual variation in surgically induced WL, patient education is currently based on average WL results derived from program experience or published literature. Improved patient education tools are needed to provide realistic individual expectations for surgical WL. The purpose of this study was to develop an electronic application for patient education that can aid in surgical decisions, establishing realistic WL goals, and monitoring WL success. **Methods:** Post-operative weight measurements from 2608 Roux-en-Y gastric bypass patients at Geisinger Clinic were collected over an eight

year period. While accounting for surgical BMI and age, quantile regression was used to create expected WL curves (10th, 25th, 50th, 75th, and 90th %tile) for the 36 month post-operative period. **Results:** A mobile application (Get-2-Goal) was designed to provide a simple, personalized interface that allows patients to track their WL and compare their WL results to their expected WL curves. Get-2-Goal was made publicly available at no cost on a popular Apps store and is compatible with current smartphone and tablet technology (>1000 downloads to date). Get-2-Goal allows patients to input their personal profile (e.g. age, BMI), review their expected WL, and track their WL post-operatively. Patients have the option of saving a graphic containing their personalized WL curves and e-mailing a tabular form of their WL results to family, friends, and/or care providers. **Conclusions:** Get-2-Goal is a simple tool that may be used by Bariatric Surgery Programs to facilitate electronic patient education. This tool may assist patients in deciding to proceed to WL surgery, and will facilitate early identification of patients who are struggling with WL or weight maintenance. Future modifications of this methodology can be used to personalize other comorbidity outcomes such as diabetes resolution.

Keywords: Patient-centered; Bariatric surgery

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Embedded Research

A3-1:

The Just Do It Playbook for Implementation Science

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Background/Aims: There are over 60 published implementation science frameworks, and despite the advantages of each, none were designed to help clinicians and administrators to standardize and prioritize initiatives, implement programs efficiently, and evaluate with sufficient rigor. **Methods:** In order to address these limitations, the Care Improvement Research Team (CIRT) at Kaiser Permanente Southern California blended implementation and behavior change frameworks into a structured process to help clinicians, operations leaders and researchers to standardize their approach and accomplish collaborative goals. To develop the “Just Do It Playbook,” we performed a pragmatic literature review, compared and synthesized published frameworks, and iteratively refined a set of steps for identifying, diagnosing and correcting gaps in care. **Results:** The Just Do It Playbook can be simplified into four distinct steps: 1) describe the topic that needs improvement, 2) identify what or who needs to change, 3) develop an implementation strategy to facilitate change, and 4) evaluate the effectiveness of the strategy. The first step helps to prioritize the topic of interest and identifies whether there is a gap between current and best practices. Second, describing what or who needs to improve will enable identification of barriers or facilitators to change. The third step identifies strategies to promote best practices by using established behavior change theories as well as clearly defined and measurable outcomes. The final step evaluates the outcomes, costs and sustainability of the strategy, as well as the need to discontinue efforts, modify and re-evaluate, or disseminate to other settings. **Conclusions:** In a learning health care system, there are many potential targets for improvement, and many strategies for implementation and evaluation. One way to simplify the complexities that inherently exist in health system improvement is to adopt a standardized approach. As clinicians, administrators and researchers forge meaningful collaborations, a standard process can improve the understanding of competing priorities, define roles and responsibilities, and integrate established scientific frameworks in a way that is efficient and sustainable. The Just Do It Playbook will need to be tested and adapted to individual projects, but will provide a platform to build embedded research into a functional operational standard.

Keywords: Research-operations partnership; Implementation science

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A3-2:

Mindful Inquiry: From an Observer to a Gentle Change Agent in the Prevailing Culture of Do and Tell

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Background/Aims: In a culture of do and tell, researchers can use massive amount of EHR data, find statistically significant results, and publish them, often without the need to interact with the people who generated those data through their daily work or their use of health care services. Such observational inquiry can be informative one hand, as identifying areas for improvement requires the identification of gaps in quality of care or other shortcomings in the system. Mindful inquiry, i.e., asking questions in the moment, the here-and-now, on the other hand, has the potential to become a change agent that can facilitate the creation of new knowledge and the dissemination and implementation of best practices. **Methods:** Appreciative inquiry. **Results:** Task oriented culture of research values doing more than relating, telling more than asking, thereby leaving room for improvement in our capacity and desire to form and keep relationships with our research subjects or the organization where we do research. The practice of fly-by-night researcher who swoops down, collects data, publishes papers that expose dark sides of the subjects’ lived world has caused permanent harm to communities. Embedded researchers need to be mindful about the questions they raise, the methods they employ, and how they disseminate the results. **Conclusions:** Embedded research is a series of complex, interdependent tasks which requires building positive, trusting relationships with research team and delivery system partners to facilitate good communication. We must be better at asking and do less at telling. Transform our mindset from the researcher knows a lot to the practitioners know a lot. We must be open to adaptive learning, be curious and courageous enough to ask questions to which we do not already know the answer. Good communication is key to building a trusting relationship which requires mindful inquiry, done with humility to build positive relationships with the delivery organization and guided by the wish to be of service to the greater good.

Keywords: Embedded research; Change agent

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A3-4:

Implementing a Pragmatic Clinical Trial: Lessons Learned about Embedded Research

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Background/Aims: Pragmatic trials are fostering a paradigm shift to increasingly embed research into healthcare settings. Pragmatic trials test interventions in real world settings representative of those targeted for dissemination to promote robust, sustainable changes within the health care system. Kaiser Permanente’s Center for Health Research, is conducting a pragmatic trial to test the effectiveness of teaching pain self-management skills using interdisciplinary teams within primary care in three Kaiser regions. Implementation requires a pragmatic approach to create a working relationship between health system leaders and the research team. We present lessons learned during our preparatory year in which we partnered with health systems to build an embedded research infrastructure for the study. **Methods:** In accordance with a pragmatic approach, we used the Rapid Assessment Process (RAP) whereby the fieldwork team gathers and analyzes information quickly in the form of journal entries and detailed meeting minutes following stakeholder encounters and regular team meetings to document the emerging collective understanding of stakeholders’ expressed concerns and informational needs. This approach allows for iterative feedback from operational stakeholders and accommodates quick trial modifications. **Results:** Using RAP to systematically identify lessons learned, several guiding principles surfaced for successfully embedding research into a healthcare system. The study foundation must come from a need identified by the health system, not the research team. Study outcomes must have obvious utility to operational leaders and practicing providers.