association of medical complexity factors with self-reported medication confidence and adherence was analyzed using logistic regression analysis controlling for age, gender, ethnicity, education, and number of health conditions. RESULTS/ANTICIPATED RESULTS: The survey had a 60% response rate. The mean age of respondents was 72, and 42% were male. We found no significant association between number of visits and either confidence about usage (OR = 1.07, 95% CI 0.95–1.20) or medication adherence (OR = 1.01, 95% CI 0.90–1.13). We similarly found no significant association between number of providers and either confidence about usage (OR = 1.03, 95% CI 0.90–1.18) or medication adherence (OR = 1.05, 95% CI 0.93–1.20). Lower confidence about medication use was less likely among males (OR = 0.60, 95% CI 0.44–0.80), those with more education (OR = 0.29, 95% CI 0.20–0.42) or more comorbidities (OR = 0.89, 95% CI 0.82–0.96) and more likely with increasing age (OR = 1.06, 95% CI 1.04–1.08). Nonadherence was more likely among Indians (OR = 1.62, 95% CI 1.06–2.48) and those with more comorbidities (OR = 1.10, 95% CI 1.02–1.18). DISCUSSION/SIGNIFICANCE OF IMPACT: Having more healthcare visits or providers were not independent correlates of lower medication confidence or adherence. Seniors with less education may benefit from interventions to improve confidence about medication use. Participants with more comorbidities expressed greater confidence but admitted to lower adherence. The role of other potential contributors to nonadherence in complex patients (eg, cost and access, patient preference, competing demands) should be evaluated next.

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Adipose tissue measurements of computed tomography scan studies as a possible predictor of cancer recurrence after radical prostatectomy

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OBJECTIVES/SPECIFIC AIMS: The goal of this pilot study is to provide a reliable anatomical algorithm for the measurement of adipose tissue within the pelvic cavity as a predictor of prostate cancer aggressiveness and recurrence after radical prostatectomy. METHODS/STUDY POPULATION: We will conduct a retrospective analysis of men treated with radical prostatectomy between 2012 and 2016 at the VA Caribbean Health Care System. Clinical variables, pathology reports, and computed tomography will be reviewed. Pelvic and periprosthetic fat (PF) will be measured to determine association between PF and cancer aggressiveness and recurrence. RESULTS/ANTICIPATED RESULTS: We expect a positive association between PF and cancer aggressiveness and recurrence among patients who underwent radical prostatectomy. DISCUSSION/SIGNIFICANCE OF IMPACT: Measurement of subcutaneous and PF within the pelvic cavity can provide a reliable anatomical measure which can be used as a proxy measure to identify those with higher risk of recurrence and develop better prevention and treatment strategies, especially in Hispanic men.

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The impact of Clostridium difficile infection on disease severity in patients with inflammatory bowel disease

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OBJECTIVES/SPECIFIC AIMS: Inflammatory bowel disease (IBD) patients are at an increased risk of Clostridium difficile infection (CDI) but the impact of CDI on disease severity is unclear. The aim of this study was to determine the effect of CDI on long-term disease outcome in a cohort of IBD patients. METHODS/STUDY POPULATION: We analyzed patients enrolled in a prospective IBD natural history registry. Patients who tested positive at least once formed the CDI positive group. We generated a 2:1 propensity matched control cohort based on key risk factors of CDI in the year before infection. Healthcare utilization data (emergency department use, subsequent hospitalizations, telephone encounters), medications, labs, disease activity, and quality of life metrics were temporally organized. RESULTS/ANTICIPATED RESULTS: A total of 198 patients (66 CDI, 132 matched controls) were included [56.6% female; 60.1% Crohn’s disease (CD), 39.9% ulcerative colitis (UC)]. Groups were not significantly different in the year before infection in all metrics but in the year of infection, having CDI was significantly associated with more steroid and antibiotic exposure, elevated C-reactive protein or erythrocyte sedimentation rate, and low vitamin D (all p < 0.01). Infection was associated with increased disease activity metrics (UC: p = 0.036; CD: p = 0.003), worse disease-related quality of life (p = 0.003), and increased healthcare utilization (p < 0.001). In the next year after infection those with prior CDI continued to have increased exposure to vancomycin or fidaxomicin (p < 0.001) and all other antibiotics (p = 0.01). They also continued to have more clinic visits (p = 0.006), telephone encounters (p = 0.001), and worse disease-related quality of life (p = 0.03), but disease activity and biomarkers of severity were not significantly different between groups. DISCUSSION/SIGNIFICANCE OF IMPACT: CDI infection in IBD is significantly associated with various surrogate markers of disease severity, increased healthcare utilization and poor quality of life during the year of infection. CDI patients continue to experience poor quality of life after infection with increased clinic visits and antibiotic exposure while disease activity is no longer significantly increased. These findings suggest that CDI infection may have a lasting effect on healthcare utilization beyond the acute treatment period.

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Patient preferences and attitudes regarding next-generation sequencing results: scoping review of the literature

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OBJECTIVES/SPECIFIC AIMS: Although the clinical utility of whole genome sequencing (WGS) is increasing, a gap exists between what WGS can deliver in quantity of genomic information and what results can be interpreted and that patients and families would find meaningful. Given the potential for incidental findings and variants of uncertain significance, an emphasis should be placed on understanding patient preferences towards receiving WGS results. To identify the current knowledge base on WGS preferences, we performed a scoping review. METHODS/STUDY POPULATION: A search on PubMed using terms “WES,” “WGS,” “genome sequencing,” “attitudes,” and “preferences” identified survey research between 2012 and 2016. Summaries of population, sample, variables, and results were tabulated. RESULTS/ANTICIPATED RESULTS: Of 13 studies identified, 6 surveyed community members, 6 included medical professionals, and 2 surveyed cohorts with a specific medical condition. Only 1 study used a nationally representative sample and no study focused on a medically underserved population. Patients were most interested in receiving medically actionable results, yet preferred to have access to all available data if desired. Genetics professionals are more conservative with the return of incidental and uncertain findings. DISCUSSION/SIGNIFICANCE OF IMPACT: Existing surveys have limited representation of the US public. Future studies focused on medically underserved populations would provide a deeper understanding of attitudes and preferences toward WGS.

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Evaluating the association among biological, social, and nutritional status on adolescent pregnancy rates, physiology and birth outcomes using electronic health records data

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OBJECTIVES/SPECIFIC AIMS: To build a multisite deidentified database of female adolescents, aged 12–21 years (January 2011–December 2012), and their subsequent offspring through 24 months of age from electronic health records (EHRs) provided by participating Community Health. METHODS/STUDY POPULATION: We created a community-academic partnership that included all female adolescents (n = 49,292) and a subset of pregnant adolescents with offspring data available (n = 2917). Patients were mostly from the Bronx; 43% of all adolescent females were overweight (22%) or obese.
COMMUNITY-BASED PARTNERS ALIKE.

Results have strong face validity: more mature partnerships reported stronger involvement. Still, results indicated a general trend toward achieving greater clarity and CBPR. An example: a great deal of variability was found in how formally and informally sensitive enough to document the iterative nature of partnership development.

GROUP PROCESSES THAT FACILITATE THE RESPECTFUL SHARING OF DIVERSE (OFTEN)

POPULATIONS. (3) Projects enhance trust in the research process by developing structures to support dissemination of information and interventions.


DISCUSSION/SIGNIFICANCE OF IMPACT: OUR PROPOSED SDM LEARNING LOOP MODEL SUGGESTS THAT INCREASING THE SHARED NATURE OF DECISION MAKING IS NOT ONLY LIKELY TO IMPROVE CARE PLANNING, BUT CREATES “BUY-IN” THAT CAN BOTH REINFORCE THE IMPACT OF POSITIVE OUTCOMES, AND MODERATE THE NEGATIVE IMPACT ON OUTCOMES WHEN THE OUTCOME IS OTHER THAN DESIRED. WE HYPOTHESIZE THAT THIS MODEL CAN GUIDE CARE PLANNING AND SHAPE RESEARCH TO THE BENEFIT OF BOTH CLINICAL OUTCOMES AND CLINICIAN-FAMILY RELATIONSHIPS. FUTURE WORK SHOULD FOCUS ON THE DEVELOPMENT AND VALIDATION OF MEASURES TO ACCOUNT FOR THE EXPERIENTIAL AND EMOTIONAL CONTEXTS IN WHICH SUCH DECISIONS ARE MADE, AND THE OUTCOMES OF CARE IN THIS POPULATION.

COLLECTIVE CAPACITY BUILDING TOOL (CCBT): A UNIQUE INSTRUMENT AND PROCESS SUPPORTING COMMUNITY-CAMPUS PARTNERSHIPS FOR TRANSLATION

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OBJECTIVES/SPECIFIC AIMS: (1) PROVIDE AN INNOVATIVE TOOL USED TO ACCELERATE AND EVALUATE T3-T4 RESEARCH; (2) DESCRIPE THE COLLECTIVE CAPACITY BUILDING TOOL (CCBT) METHODOLOGY—BOTH PROGRAMMATIC AND EVALUATIVE APPLICATIONS; AND (3) SHARE INSIGHTS ABOUT THE PROCESS AND OUTCOMES OF COMMUNITY-ENGAGED RESEARCH.

METHODS/STUDY POPULATION: ACADEMIC AND COMMUNITY-BASED PARTNERS COMPLETE THE ASSESSMENT TOGETHER AT THE BEGINNING AND CONCLUSION OF THEIR COMMUNITY ENGAGEMENT PILOT PROJECTS. FURTHER, THEY ARE ENCOURAGED TO USE THE TOOL AND THE ASSOCIATED INSIGHTS/PRIORITIES THAT EMERGE AS THE BASIS FOR DATA-DRIVEN COACHING WITH COMMUNITY RESEARCH LIASONSHIPS THROUGHOUT THE 12-MONTH GRANT CYCLE.

RESULTS/ANTICIPATED RESULTS: PRE/POST RESULTS WITH 4 COHORTS OF PILOT GRANTEES CONSISTENTLY DEMONSTRATED THE MOST POSITIVE CHANGE IN RELATION TO 1 ITEM: OVERTAKING PREVIOUSLY IDENTIFIED BARRIERS TO COMMUNITY ENGAGEMENT (E.G., LANGUAGE, MISCONCEPTIONS, SCHEDULING CONFLICTS). OTHER KEY FINDINGS: (1) NETWORKS OF RECIPROCAL TIES EXPAND, PROVIDING STRUCTURES TO SUPPORT DISSEMINATION OF INFORMATION AND INTERVENTIONS. (2) PARTNERS LEVERAGE EXPANDED NETWORKS TO PURSUE FOLLOW-UP FUNDING AND EXTEND THE SCOPE/REACH OF THEIR EFFORTS GEOGRAPHICALLY AND WITH NEW POPULATIONS. (3) PROJECTS ENHANCE TRUST IN THE RESEARCH PROCESSES BY DEVELOPING GROUP PROCESSES THAT FACILITATE THE RESPECTFUL SHARING OF DIVERSE (OFTEN ALTERNATIVE) VIEWS AND THROUGH CULTURALLY-RESPONSIVE PROJECT IMPLEMENTATION.

DISCUSSION/SIGNIFICANCE OF IMPACT: THE CCBT CAN BE USED AT MULTIPLE POINTS IN TIME TO HELP PROJECT PARTNERS ACHIEVE THE DELIBERATE INTEGRATION OF CBPR PRINCIPLES IN PRACTICE AND ADVANCE COMMUNITY-ENGAGED TRANSLATIONAL RESEARCH FOR SUSTAINABLE IMPACT. THE CCBT IS SENSITIVE ENOUGH TO DOCUMENT THE ITERATIVE NATURE OF PARTNERSHIP DEVELOPMENT AND CBPR. AN EXAMPLE: A GREAT DEAL OF VARIABILITY WAS FOUND IN HOW FORMALLY PARTNERS DEFINED ROLES. FURTHER, PARTNER ROLES OFTEN CHANGED AS PROJECTS EVOLVED. STILL, RESULTS INDICATED A GENERAL TREND TOWARD ACHIEVING GREATER CLARITY IN PARTNER ROLES OVER TIME. FURTHER, THE TOOL CAPTURED CHECKPOINTS DUE TO TURN-OVER IN PARTNERSHIPS REGARDING MOMENTUM AFTER NEW STAFF CAME ONBOARD. RESULTS HAVE STRONG FACE VALIDITY: MORE MATURE PARTNERSHIPS REPORTED STRONGER COMMUNITY CONNECTIONS AND PREVIOUS SERVICES TO BUILD UPON. PERHAPS MOST IMPORTANTLY: THE TOOL AND ASSOCIATED PROCESS WAS WELL-RECEIVED BY ACADEMIC AND COMMUNITY-BASED PARTNERS ALIKE.

THE SDM LEARNING LOOP MODEL

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OBJECTIVES/SPECIFIC AIMS: (1) TO PROPOSE AN ITERATIVE DECISION-MAKING MODEL OF CARE PLANNING FOR CSHCN. (2) TO IDENTIFY TARGETS WARRANTING MEASUREMENT IN FUTURE STUDIES OF SDM IN CARE PLANNING FOR CSHCN.

METHODS/STUDY POPULATION: CONCEPTUAL MODEL DEVELOPED BY A MULTI-DISCIPLINARY TEAM ITERATIVELY CONSIDERING THE COMPLEX RELATIONSHIPS AMONG VARIOUS FACTORS AFFECTING CARE PLANNING FOR CSHCN, INFORMED BY CLINICAL AND IMPERSONAL SCIENCE EXPERIENCE AND A SCOPING LITERATURE REVIEW OF MEDICAL AND COGNITIVE SCIENCES LITERATURE ADDRESSING INTERPERSONAL DECISION-MAKING,