

factors, including culture/climate and available resources. RESULTS/ANTICIPATED RESULTS: Of 325 respondents, most were staff (61%), female (87%), and non-Hispanic White (83%). Respondents who perceived higher HPV vaccination coverage compared to peer clinics perceived lower clinic-level TFC (adjusted OR [aOR] = 0.98; 95% CI, 0.97-0.99). When stratifying by job role, this negative association was observed among providers (aOR = 0.95; 95% CI, 0.92-0.98), but not among staff (aOR = 1.00; 95% CI, 0.98-1.03). DISCUSSION/SIGNIFICANCE OF IMPACT: Providers who perceived higher HPV vaccination coverage compared to peer clinics perceived lower need for support to improve vaccination outcomes. Our results suggest that QI efforts targeting pediatric clinics may find it useful to assess providers' perceptions of their clinic's performance, which could affect motivation to engage in QI efforts and successfully improve outcomes.

### 3211

#### Place, Poverty, and Prevention: A Mixed Methods Study

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OBJECTIVES/SPECIFIC AIMS: Understand the association between ADI and completion of preventative cancer screening and high risk behaviors -Identify how to operationalize ADI in clinical settings to assist care teams and improve overall care delivery. METHODS/STUDY POPULATION: Aim 1: Panned Mayo Clinic patients living in MN, IA, or WI Aim 2: BRFSS survey respondents from MN, IA, or WI Aim. 3: Community health officials and Mayo Clinic care teams. RESULTS/ANTICIPATED RESULTS: We anticipate that areas with greater composite deprivation will have lower completion rates of cancer screening and higher risk behaviors. DISCUSSION/SIGNIFICANCE OF IMPACT: No single body of work has illustrated how ADI relates to completion of preventative cancer screening and high-risk behaviors. Due to the limited research focused on area deprivation and behavioral health, our work will identify some of the first national hot spots with high deprivation and high-risk behaviors. Additionally, this is one of the first studies describing spatial variation in health outcomes for Mayo Clinic patients. Understanding the association between ADI and patient adherence to preventative screening will allow us to support care teams in providing personalized and sustainable care for patients living in areas of high deprivation. The strength and novelty of this project is in the utility of the mixed methods design, which provides a more complete understanding of geographic disparities and a unique perspective to patient care, a perspective that is not portrayed in existing literature.

### 3274

#### Postoperative Opioid Use and Prescription Utilization in Adolescents

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OBJECTIVES/SPECIFIC AIMS: This is a prospective, longitudinal cohort study correlating postoperative opioid use, prescription availability at discharge and patient use at home using survey methodology and longitudinal cohort data. The primary objectives of this project are

twofold. First, we will determine whether the number of opioid pills prescribed after surgery increases the risk of abuse, diversion and conversion to chronic use. Next, we will determine whether patient and parent characteristics, behavioral factors and medical comorbidities increase the risk of opioid abuse, diversion and conversion to chronic use after surgery. METHODS/STUDY POPULATION: A mixed-methods approach will be employed utilizing retrospective and prospective medical record review, survey methodology, and longitudinal cohort matching with California's Controlled Substance Utilization Review and Evaluation System (CURES) reports of opioid usage. Surveys will be administered before and after surgery and will capture both parent and patient level factors that may influence longitudinal opioid use. Adolescents and young adults 13-20 years old discharged from Children's Hospital Los Angeles undergoing one of seven procedures most commonly associated with an opioid prescription at time of discharge (spinal fusion, arthroscopy, bowel resection for inflammatory bowel disease, pectus excavatum repair, tonsillectomy, pilonidal excision and hip reconstruction) will be enrolled. RESULTS/ANTICIPATED RESULTS: Inpatient and outpatient opioid usage will predict incidence of diversion, abuse and conversion to chronic usage. Furthermore, socioeconomic factors and behavioral comorbidities such as anxiety and depression will be identified as predictors of diversion, abuse and conversion to chronic opioid use. DISCUSSION/SIGNIFICANCE OF IMPACT: This study will be one of the first to identify opioid prescribing variation in children who require surgery and will identify multiple provider, patient and family level factors influencing use. Furthermore, it will identify factors predictive of possible diversion, abuse and conversion to chronic use. The results of this exploratory analysis will lay the foundation for future studies utilizing physician decision support tools, aid in crafting "best practice" patterns and clinical benchmarks for opioid prescribing, and serve to inform policy makers on the most impactful ways to optimize opioid prescribing practices for adolescents who require surgery.

### 3288

#### Prenatal maternal exposure to disaster-related stress and effortful control in early childhood

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OBJECTIVES/SPECIFIC AIMS: Our overall objectives are to determine (i) whether natural disaster-related prenatal maternal stress (PNMS) alters infants' effortful control (EC) at two years of age, and (ii) if the timing of exposure moderates its effects on toddlers EC. METHODS/STUDY POPULATION: We propose a longitudinal study with 50 mother-toddler dyads. Natural disaster-related PNMS would be measured at 12-15 and 18-24 months of age and will include: objective exposure and maternal distress. EC will be measured with a questionnaire and a Laboratory Temperament Assessment Battery at two years of age. RESULTS/ANTICIPATED RESULTS: We anticipate that children exposed to Hurricane-related PNMS would present low EC levels compared to those with low prenatal exposure. DISCUSSION/SIGNIFICANCE OF IMPACT: These results are expected to provide evidence for further promoting early intervention and ameliorating negative effects of PNMS on child outcomes.