compiled on the social determinants of health revealed (n = 35): 1) 60.0% of patients had incomes below $30,000 per year, 60.0% of patients had not gone past high school for education, and 8.6% had full time employment, 2) the average BREIF score was 10.3 (range 3-15)(4-12 indicate limited literacy). The average REALM-R score was 5.5 (range 0-8) (<6 indicate at risk for poor literacy), 3) patients had strong instrumental (T score 61.4±7.1) and information social support (T score 64.6±4.7) (mean T scores calibrated to a general population mean of 50), 4) patients had poor mental (T score 43.7 ±6.5) and physical quality of life (T score 46.6 ±9.9), 5) 25.7% of patients reported alcohol use in the past 90 days 6) 80.0% of patients reported that their doctor had spoken to them about liver transplantation. DISCUSSION/SIGNIFICANCE OF IMPACT: This patient population was well linked to care with good social support. However their literacy, socioeconomic status, mental and global health was poor and substance use history complex. Continued follow up of this cohort is planned to determine how these factors might impact their ability to navigate through the care cascade as well as survival.

The Prevalence of Food Insecurity Among University of Utah Medical Students: Documenting the Need for Supportive Programs

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OBJECTIVES/GOALS: Undergraduates experience food insecurity at rates 21% higher than the general population. Because professional students have been omitted from these studies, the goal of this project is to determine the prevalence of food insecurity among medical students at one academic institution. METHODS/STUDY POPULATION: A cross-sectional research design was used to quantify the food insecurity status of medical students at the University of Utah. The USDA's validated 6-item Food Security Survey Module was distributed via email to all currently matriculated medical students. Student's responses were anonymous but questions about gender and age were included. Respondents (N = 200) were scored per the module as food secure, food insecure, or very low food security. RESULTS/ANTICIPATED RESULTS: Statistical analysis included frequencies and chi-square tests. Medical students (N = 166) showed 50.6% of respondents experienced food insecurity in the past 12 months, 16.3% experienced very low food security.While there were no significant relationships between food security status and gender or age, general trends did show divorced and separated students had higher food insecurity risk 82%. A similar study in 2014 surveyed undergraduates at the same location; 51% of respondents (N = 221) experienced food insecurity. While medical students experience food insecurity at rates much higher than the national average, prevalence is lower than undergraduates at the same institution. DISCUSSION/SIGNIFICANCE OF IMPACT: Burnout and suicide in medical training are at an all-time high; professional and academic pursuits are limited when physiological needs of food security are not being met. Study results suggest, 50% of respondents are food insecure. This should inform the development of supportive programs.

The relationship between family structure and quality of life among children with asthma

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OBJECTIVES/GOALS: Asthma is a life-long, chronic lung disease that inflames and narrows the airways. Its effects on quality of life in children can be exacerbated. The goal of this study was to investigate the link between asthma, family structure and demographics and how it impacts quality of life in children. METHODS/STUDY POPULATION: We analyzed data from a cross sectional study of the 2016-2017 National Survey of Children's Health, NSCH, to assess the relationship between determinants of health variables and the outcome variable of parent's report of child's perceived health status (quality of life). The study population was children under the age of 18. Data were analyzed using descriptive, bivariate analysis using Chi square, and multiple logistic regression of quality of life and family structure adjusting for confounding variables. RESULTS/ANTICIPATED RESULTS: The study included 5,687 children. Significant predictors of asthmatic children's quality of life were severity of asthma, self-perceived mental/physical health status of adults, neighborhood safety for children (p <0.05). The interaction between family structure and asthma severity was significant indicating that asthma severity was an effect modifier. Among children with mild asthma, predictors of quality of life were self-perceived mental/physical health status of adults in the household, neighborhood safety of children, physical activity status of children (p<0.05). Among children with severe asthma, predictors were family structure and physical/mental health of adults (p<0.05). DISCUSSION/SIGNIFICANCE OF IMPACT: This study suggests children with severe asthma who are born to single mothers with lower parental reporting of physical/mental health status had a lower quality of life. A longitudinal study could be implemented to target these three measures to improve quality of life among these children. Also, a culturally adapted intervention involving community, parents, and providers is needed to improve the quality of life of the children with asthma.

Using a human-centered design process to address challenges of engaging pregnant & parenting women with opioid use disorder

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OBJECTIVES/GOALS: Using a human-centered approach, IDEO, a nationally-renown human-centered design team, and Research Jam, Indiana CTSI's patient engagement core, integrated and tailored complimentary programs to address the challenges of engaging mothers with opioid misuse around the time of birth. METHODS/STUDY POPULATION: Gathered data through focus groups, site visits, and one-on-one interviews with key stakeholders: mothers in opioid use recovery, peer recovery coaches, and other