

RESULTS/ANTICIPATED RESULTS: All were (cis)female, 74% were African-American, 96%, US citizens, with average age of 16. Participants lived in approximately 4.5 group homes or foster placements prior to program entry; 56% of youth had run away. Youth also averaged nearly two bench warrants before specialty court participation. Bivariate analysis indicates older age at entry into juvenile court was associated with fewer episodes of running away ($p < .02$) and new citations ($p < .001$). Poisson regression estimated older age at entry into the juvenile justice system was associated with fewer bench warrants, citations, foster placements, but not running away while in the program. Additionally, longer duration between time at first citation and entry into the program was associated with fewer bench warrants, running away, and citations. **DISCUSSION/SIGNIFICANCE OF IMPACT:** Younger girls may be particularly vulnerable to trafficking and recidivism without early and persistent intervention. Youth experiencing sex trafficking need to be diverted away from juvenile justice to comprehensive trauma informed services.

4384

Factors Impacting Access to Gender Affirming Care for Gender Diverse Youth in the United States

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OBJECTIVES/GOALS: Access to pediatric subspecialty care varies by sociodemographic factors. Providers for gender diverse youth (GDY) are rare, and GDY face health disparities, stigma, and discrimination. We examined the association between GDY access to medical and mental health care and rurality, race, parental education, and other GDY-specific factors. **METHODS/STUDY POPULATION:** We surveyed parents of GDY (<18 years old) across the United States. Participants were recruited through online communities and listserves specific to parents of GDY. We determined associations between access to gender-specific medical or mental health providers and rurality, race, parental education, as well as other GDY-specific factors including age, time since telling their parent their gender identity, parent-adolescent communication, parent stress, and gender identity using chi-square or Fisher's exact tests. We calculated adjusted odds ratios using logistic regression models. **RESULTS/ANTICIPATED RESULTS:** We surveyed 166 parents and caregivers from 31 states. The majority (73.2%) identified as white, 66.5% had earned a bachelor's degree or higher, and 7.6% lived in a zip code designated rural by the Federal Office of Rural Health Policy. We found no evidence of association between reported GDY access to medical or mental health care and race, parental education, or rurality. We did find a significant univariate association between access to mental health care and feminine (either female or transfeminine/transfemale) gender identity ($p = 0.033$, OR 2.60, 95% CI 1.06 – 6.36). After controlling for parent-adolescent communication in a backwards elimination logistic regression model, it was no longer significant ($p = 0.137$, OR 2.05, 95% CI 0.80 – 5.25). **DISCUSSION/SIGNIFICANCE OF IMPACT:** Despite rurality, race, and parental education impacting access to pediatric subspecialty care, we failed to find these associations among GDY accessing gender care. There is a need to better understand structural and societal barriers to care for this population including the impact of stigma and discrimination.

4480

Full STEM Ahead: An Innovative Approach to Translate Science into the School-community

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OBJECTIVES/GOALS: To provide a translation of health sciences and research to a low-income population and elevate the role of science in personal health and career pathways through the implementation of a STEM-focused, researcher-led, school-community event. **METHODS/STUDY POPULATION:** Through a strong school district partnership, families from two urban, low-income, high-minority middle schools were invited to attend an academic-community event entitled, *Full STEM Ahead* in Lancaster, Pennsylvania. Thirty-five Penn State and community partners engaged participants in discovery-focused learning through activity stations. Topic areas included: 3D printing in medicine, herd immunity, HPV cancer prevention, lung health, and germ prevention. Evaluation data from participants and organizational partners was collected to assess process outcomes and qualitative feedback. This event was part of a randomized controlled trial to improve attitudes toward adolescent vaccination. **RESULTS/ANTICIPATED RESULTS:** Seventy-four parents and students participated in the two-hour event. Evaluation data indicated that 100% of participants who completed the evaluation rated the event as "good" or "excellent" and agreed that they "learned something new." Specific qualitative feedback indicated that participants enjoyed the STEM information and various learning activities offered. School district leadership hopes to continue the partnership to host the event in future years and expand to other schools, offering an opportunity for academic-community collaboration. **DISCUSSION/SIGNIFICANCE OF IMPACT:** This event was an innovative approach to connect low-income communities with science and potentially effective in engaging participants in learning. Similar opportunities should be explored to bridge the gap between research and community engagement, especially to increase research awareness.

4517

Gender Disparities: Heart Failure in Puerto Rican Women

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OBJECTIVES/GOALS: Women within the ages of 65-75 have a lower incidence of heart failure than men. However, after the age of 75, the incidence of HF in women triples, matching that of men. (Lloyd-Jones et al., 2002) Overall, women with heart failure live longer at the expense of presenting more severe symptoms and poorer perceived quality of life. Generally, women with heart failure receive suboptimal treatment throughout their lifetime. In fact, women are more likely to develop heart failure after myocardial infarction. This trend is, in part, because physicians are less strict when treating them. (Chou et al., 2007) Studies in heart failure by ethnicity have shown that, despite equal access to healthcare, Hispanic women have higher rates of readmission than Non-Hispanic-white (NHW) women. (Durstensfeld, Ogedegbe, Katz, Park, & Blecker, 2016) One study in Boston demonstrated that Puerto Rican Women have higher rates of diabetes, obesity, and chronic kidney

disease compared to blacks and NHW women.(Todorova, Tejada, & Castaneda-Sceppa, 2014)These are cardiovascular risk factors that warrant further study in Puerto Rican women living on the island, but data are lacking. Objective: The purpose of this study is to evaluate the gender disparities in presentation, management, and outcomes in Puerto Rican Hispanic hospitalized for heart failure METHODS/STUDY POPULATION: To this end, we will perform a secondary analysis of data from the PR Cardiovascular Surveillance Study (PRCSS). We will extract personal data from 4,461 medical records of patients admitted with heart failure (ICD-9 Codes 428) at 21 hospitals in Puerto Rico, during the years 2007, 2009 and 2011. For statistical methods, we will implement chi-square and t-tests at a significance level of 0.05. RESULTS/ANTICIPATED RESULTS: We expect to find that women will have: fewer interventions, less optimized heart failure medication, higher BNP, older age of diagnosis, but paradoxically better outcome than male counterparts of the same age. DISCUSSION/SIGNIFICANCE OF IMPACT: With this study, we would like to raise awareness about gender-specific health disparities Puerto Rican Hispanic women with heart failure experience while hospitalized.

4428

Harnessing Community Paramedicine for Transformative Fall Prevention Solutions

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OBJECTIVES/GOALS: Healthcare costs for falls are expected to reach nearly 55 billion dollars annually in the US by 2020. Leveraging 911 calls as trigger events to activate fall prevention solutions could transform our ability to identify high-risk individuals and significantly improve fall prevention strategies globally. METHODS/STUDY POPULATION: An innovative pilot program entitled Community-centered Fall Intervention Team (Community FIT). Community FIT that leverages 911 calls, implementation science approaches, community partnerships, and collaboration among multiple healthcare disciplines including physical therapists, community paramedics, physicians, and social service coordinators was used to design and implement a community paramedicine fall intervention program. 911 call reports from February 2016 – August 2019 were analyzed using time series analyses to measure community level outcomes in fall-related calls and transports. RESULTS/ANTICIPATED RESULTS: 224 grab bars were installed free of charge to local residents (averaging approximately \$125 per home for modifications). Over an 18-month period, time series analysis indicated an approximate demonstrated a consistent drop in the average fall-related 911 calls per month from 11.6 to 4.5 calls (a change of 61.21%) and a decrease of 58% in the transport rates to the hospital for fall-related 911 calls. 911 referrals to the community paramedicine program have also increased by 83%, demonstrating increased activation of fall prevention strategies with Community FIT. DISCUSSION/SIGNIFICANCE OF IMPACT: Collectively, these pilot study results provide preliminary support for individual and system level improvements in fall prevention by leveraging 911 calls to activate a community medicine fall prevention program. Future studies are needed to determine reach, long-term effectiveness, and sustainability of the program.

CONFLICT OF INTEREST DESCRIPTION: Johnson & Johnson Hip Fracture Advisory Board (not related to project submission)

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Implementation of an Opt-Out recruitment policy at Duke University School of Medicine

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OBJECTIVES/GOALS: In March 2019, Duke updated recruitment guidelines and adopted an “Engagement” policy that requires patients to ‘opt-out’ of communications regarding potential research participation. This created an opportunity to evaluate recruitment for ongoing clinical studies pre and post implementation. METHODS/STUDY POPULATION: Implementation of the new policy required new training for study teams, modification to recruitment plans, and expansion of ongoing efforts to improve direct-to-patient messaging through EPIC/MyChart tools. The impact of this new policy on overall recruitment was monitored and characterized both prior to and after implementation of the policy. Customized MyChart messages have been generated for over 22 studies, with a total of 41,386 messages sent to potential participants. RESULTS/ANTICIPATED RESULTS: Only a small number of study teams have modified their recruitment plans with transition to the new policy. This may be related to lack of understanding about policy implementation, potential recruitment opportunities, required training, resource limitations, etc. However, our case study, TMIST, had an 48% improvement in average enrollment within the first 2 months of implementation, and an almost 40% improvement in recruitment efficiency. Since becoming an “opt-out” institution, 11 study teams have implemented direct-to-patient recruitment via the MyChart patient portal. One unintended consequence we’ve noted is several different study invitations to potential participants within some patient populations. DISCUSSION/SIGNIFICANCE OF IMPACT: The new policy allows study teams to engage in direct-to-patient outreach, leading to an increase in enrollment for some studies. Incorporation of direct-to-patient messaging strategies can be a cost and resource saving measure to improve recruitment. The need to recruit similar populations demonstrated that strategic, thoughtful approaches are needed.

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Indiana Clinical & Translational Science Monon Collaborative – Community Impact Hubs

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OBJECTIVES/GOALS:

- Conduct an environmental scan of Marion County (Indianapolis) neighborhoods using electronic medical record data, state health data, and social and economic data
- Develop strong network of community collaborators
- Conduct a thorough assessment for each targeted neighborhood by listening and understanding the pressing health issues