

associated with care coordination's effect on cardiovascular disease (CVD) risks to identify geographic areas that may benefit from supplementary clinic-community linkages. **METHODS/STUDY POPULATION:** We analyzed data with geocoded residential addresses and data from electronic health records for 9946 adults from a Centers for Medicare & Medicaid Services funded innovation project from 7/1/2013 to 3/30/2015. Variables included patient-level demographics, Elixhauser comorbidity index, total time with a nurse care manager, and neighborhood factors such as poverty indicators, walkability, and social capital index. Outcomes were change in CVD risk factors, hemoglobin A1C, blood pressure (BP), and low-density lipoprotein (LDL). Generalized linear models were used to assess the effect of nurse care management program on outcomes after controlling for confounding factors. **RESULTS/ANTICIPATED RESULTS:** We report preliminary models that include patient demographics (age, sex, race), health care utilization, nurse care manager contact time, Elixhauser comorbidity index, neighborhood education status, percent of population below 200% federal poverty level, median home value, walkability score of the residential address, and social capital index. After adjusting for all mentioned variables, in adults with HbA1C more than 7.5% at baseline, females had worsening HbA1C by 0.53% over the study period. Additionally, LDL values in females worsened over the study period by 4.8 mg/dL after adjusting for all variables. No clinically significant changes were noted for BP. **DISCUSSION/SIGNIFICANCE OF IMPACT:** Women's HbA1C and LDL worsened despite nurse care management and may benefit from additional community-based interventions or interventionists. In future analyses, we anticipate that CVD risk will worsen for patients with higher fast food proximity and with greater geographic distance from their PCP.

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### Gender homophily in translational collaborations; a network analysis study of investigators at one academic medical center

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**OBJECTIVES/GOALS:** Collaborations are at the core of translational science and team science. Differences by gender have been identified in various research contexts from recruitment to retention to promotion. This study assesses the relational associations of translational collaborations, and what role of gender. **METHODS/STUDY POPULATION:** In 2011 and 2013, clinical and basic sciences investigators at University of Rochester School of Medicine and Dentistry responded to an online survey nominating their research collaborators. Two study years were merged, and name lists were transformed into a collaboration network. Departments were classified into basic sciences (e.g. biochemistry) and clinical (e.g. urology). If respondent and partner were affiliated to different department classes, the collaboration was defined as translational. Multi-level GLM models were developed to assess the associates of the likelihood of translational vs. within discipline collaborations. Partner nominations were nested in respondents. **RESULTS/ANTICIPATED RESULTS:** 202 respondents were included in the multi-level GLM models. A collaboration was more likely to be translational if the respondent shared more collaborators with the partner (OR:1.13), and respondent was a central actor in collaboration network (OR: 1.2). Translational collaborations were less likely to be reported by clinicians (OR: 0.25). In the model to assess gender match, a collaboration was more likely to be translational if the respondent was male,

and nominated a male partner. For both genders, collaboration with a partner of the opposite gender was more likely to be translational if respondent had more shared collaborators with the partner. **DISCUSSION/SIGNIFICANCE OF IMPACT:** Translational collaborations happen in teams. Gender homophily exists in translational collaborations, and is reduced by shared collaborators; implying the effect of personal connections and community membership. Community-building interventions may increase diversity in translational collaborations.

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### Re-engineering the Approach to Extremely Preterm Breech Deliveries with Student Led Team Science

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**OBJECTIVES/GOALS:** Vaginal delivery is typically avoided in extremely preterm breech fetuses due to the concern for head entrapment by the cervix. Development of a device to prevent head entrapment would be best addressed by a multidisciplinary approach incorporating engineering principles with clinical obstetrics. **METHODS/STUDY POPULATION:** Construction of a collaborative multidisciplinary team to address the clinical challenge of preventing head entrapment was initiated through a unique course at the Massachusetts Institute of Technology (Course 2.75, Medical Device Design). The course would provide a structured means by which students (senior undergraduate and graduate students in Mechanical Engineering) would be paired with a clinical advisor and faculty in their department. Weekly team meetings were scheduled to review the clinical context pertinent to the problem and review engineering principles needed to develop a solution. The course also provided a small monetary budget (\$4K) for the students to purchase supplies. **RESULTS/ANTICIPATED RESULTS:** During the semester long course, several iterations of a prototype were designed. Each subsequent rendition was evaluated from both an engineering and manufacturing perspective, as well as clinical appropriateness. The weekly meetings allowed for rapid re-design and assured that all necessary parameters were considered by the entire team. Students also had access to lab facilities and additional mentorship that allowed for supplementary input beyond that generated by core team members. These interactions, along with those of their classmates working on other projects, provided a strong base for exploring subsequent device development. **DISCUSSION/SIGNIFICANCE OF IMPACT:** Successful medical device development requires a collaborative process and students can be ideal members of these teams as they reside in an environment that is conducive to exploration and novel idea generation. Course-based student led team science platforms can provide an excellent foundation for solving uniquely challenging medical problems.

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### Team Science in Parkinson's Research: Connecting Clinicians and Computational Teams

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**OBJECTIVES/GOALS:** This team science pilot program aims to elevate the quality of Parkinson's disease modeling initiatives by