Factors affecting rural residents willingness to share personal data for COVID-19 contact tracing
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OBJECTIVES/GOALS: The goal of this study was to examine the attitudes of central Pennsylvania rural residents toward data sharing in the setting of the COVID-19 pandemic. We determined their willingness to provide cell phone data and personal information to public health staff investigating COVID-19 cases, as well as their concerns about sharing this information. METHODS/STUDY POPULATION: We used the electronic medical records of an academic healthcare institution in central Pennsylvania to obtain names and addresses of patients who had visited an outpatient clinic or been an inpatient within the prior three years, were 18 years or older, and who resided in a community defined as rural by the Commonwealth of Pennsylvania. The survey included four statements about contact tracing, three statements about intent to receive the COVID-19 vaccine, and validated scales for general trust and distrust in healthcare organizations. All study variables were summarized to determine their distributions, and bivariate binomial logistic regression was conducted. A multivariable model including all of the independent variables was then fit for each outcome variable. RESULTS/ANTICIPATED RESULTS: The response rate was 19.5%. 95% of respondents were white, 56% were female, and nearly two-thirds were older than 60 years. Binomial logistic regression showed that both distrust in healthcare organizations and political values influenced respondents willingness to share information with contact tracers as well as their concerns about sharing. Respondents who indicated that they wanted to get vaccinated as soon as possible were significantly more likely than those who did not want to be vaccinated to be willing to share their cell phone location data and personal data. Conversely, they were less likely to be concerned with these data being shared without their permission. DISCUSSION/SIGNIFICANCE: Understanding rural residents concerns about sharing personal information is critical if we are to develop successful strategies for lessening the impact of COVID-19 and managing future pandemics. This study is a first step in eliciting such concerns in the context of COVID-19 and has implications for directing a successful pandemic response.

Diversity, Equity, and Inclusion
Biostatistics, Epidemiology, and Research Design

Developing Strategies to Address Health Disparities For First Generation Regenerative Medicine Treatments
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OBJECTIVES/GOALS: The objective of this research is to begin documenting barriers to regenerative care to proactively address issues of accessibility and determine and implement interventions in anticipation of equitable care. We will explore the accessibility of Platelet Rich Plasma (PRP) for the treatment of knee osteoarthritis (Knee OA) METHODS/STUDY POPULATION: This research has two components. First, retrospective chart analysis using electronic databases to gather factors such as sex, race, ethnicity, disease severity, price, insurance, and treatments. Second. Prospective survey to gather the information (income, employment, education level) that are not found in the chart. Patients with knee OA conditions who received standard care will be compared to knee OA patients who received the novel PRP treatment. Statistical prediction modeling will be employed to determine the probability of receiving novel regenerative PRP treatment based on gathered explanatory variables. Our sample size is about 1000 patients per group (PRP group vs standard care group). Patients are from the three Mayo sites (Rochester, Arizona, Florida) as well as Detroit Medical Center. RESULTS/ANTICIPATED RESULTS: Our preliminary analysis shows that only a homogenous of patients (white) are receiving the novel PRP regenerative care to treat knee OA even though African Americans suffer from knee OA at a much greater rate. However, we still don’t know what is the main driver of this homogeneity. We anticipate that insurance coverage and out-of-pocket cost of care for PRP to be a huge barrier. Also, we are anticipating the lack of knowledge about PRP and its level 1 meta-analysis efficacy, as well as physician bias for not recommending PRP to certain underrepresented populations could play a role as well. We plan to order the level of influence of each barrier for each sex, race, and ethnicity, so intervention can be personalized and targeted for each population of interest. DISCUSSION/SIGNIFICANCE: Almost half of Americans live with at least one chronic medical condition and regenerative medicine holds tremendous promise to address many disease categories. To design any intervention to increase access requires knowledge about barriers in regenerative care, which is why this research is very critical now before the wide implementation of care.