Robert Wood Johnson Foundation

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Geisinger Data Description

This is supporting information for the 2020 Health Data for Action (HD4A) Call for Proposals. To apply, or for more information about the funding opportunity, please visit **www.rwjf.org/cfp/hd4a3**.

Geisinger Hospital was founded in 1915, and its philosophy and organization was based on that of the Mayo Clinic. Geisinger has evolved from a single hospital in Danville, PA, into a fully integrated health system that serves central, south central and northeast Pennsylvania, spanning across 45 counties, and 7 counties in southern New Jersey. Geisinger is one of the largest integrated health systems in the United States serving approximately 4.2 million residents. The physician-led system employs more than 30,000 including a 1,697 physician member multi-specialty group practice. Geisinger comprises seven acute care hospitals, one alcohol and chemical dependency treatment center, two research centers, two stand-alone nursing homes and an insurance company.

The Geisinger dataset is a home-grown data structure and is solely from the provider side comprised predominantly of Electronic Health Record (EHR) with various other billing and clinical specialty systems rolled in. The data is all deidentified pursuant to HIPAA's Safe Harbor method. The ambulatory data dates to 1996 with full EHR integration (Inpatient) starting in 2005. Patients average 19 visits (outpatient, inpatient, emergency department), 180 blood pressure measurements, and 350 laboratory results over 5.6 years of follow-up. The population is very stable in the region, with very low out-migration. The average age of the population is 41, 52% female, and 90% white.

Typical studies use data from the core set of data including, but not limited to, patient demographics, encounters, diagnoses (encounter and patient medical history), vital measurements, laboratory results, medications (reported, administered, and ordered), social history, and procedures. Additional, detailed, information is available for tumor, surgeries, and Gastro-intestinal procedures.

Geisinger has developed a research and innovation environment that allows external collaboration with researchers at Geisinger. Data analysts and researchers will assist and be involved with the awarded project team to ensure understanding and quality/completeness of the data. This will allow the awarded team to focus on the analysis of the data and rely on the experience and knowledge of data analysts for defining populations, features, and outcomes. Researchers interested in working with Geisinger should proactively define a list of software applications required to ensure that work can be conducted within the environment.

Researchers who are awarded with the opportunity to work with Geisinger data, infrastructure, and staff will be required to complete institutional requirements for any individual doing human subjects research. Geisinger requires Collaborative Institutional Training Initiative (CITI) and minimal internally developed training modules. All projects will be conducted with deidentified data but will still require a submission to the Institutional Review Board (IRB) at Geisinger with a Geisinger researcher listed on the protocol. Proposed projects involving Geisinger data will be reviewed and vetted by a committee of Geisinger research data staff and investigators. Appropriate agreements will be executed for each approved project. It is expected that Geisinger investigators and data team members be included and referenced on any publications arising from the data provide.

This Geisinger data is ideal for looking at chronic disease burden over a stable, homogeneous population. Treatment response is also well represented in the population due to the frequency of visits and detailed information in the EHR. Research interests are generally focused on chronic disease and management with a strong background of identifying improved care processes and predicting risk and benefit of interventions/resource allocation.