



SHP Student Interns for Research and Scholarly Activities Project Proposal Form

Instructions:

Please fill each box to the right of the required fields, obtain the required signature and return via email to Michele Sisco (mcoral@shp.rutgers.edu) by **March 24, 2025**.

If you are sending attachments, please ensure your contact information is added to all your forms.

Faculty Contact Information:

Date submitted:	March 3, 2025
Faculty Name:	Riddhi Vyas PhD
Department/Program:	Health Informatics
Telephone number:	973 972 4279
E-mail:	Email: vyasrj@shp.rutgers.edu

Project Detail:

Project Title: (56 characters max)	Comparative Hospitalization Outcomes of Patients with Acute Myocardial Infarction (AMI) and Cardiac Arrest (CA) in the United States.
	<p>Null Hypothesis:</p> <ol style="list-style-type: none"> 1. There is no significant difference in incidence rates of AMI and CA. 2. Outcomes of LOS, Total Charges, In Hospital Deaths are significantly the same for both AMI and CA patients. 3. Existing Comorbidities do not result in significantly different hospitalization outcomes of the patients with AMI or CA.
Description:	The student will utilize the Health Cost Utilization Project (HCUP) Nationwide Inpatient Sample Datasets (after a brief online HCUP Data User Training). Either SPSS or SAS will be utilized to perform the necessary descriptive, inferential and predictive analyses. Those students with strong machine learning skills can explore other techniques (besides multiple linear and logistic regression models) too to derive some novel features or information from the datasets.
Specific Student Responsibilities:	1. Perform appropriate literature review on the topic and

- refine the hypotheses
- 2. Perform the required data analyses and share results with project supervisors.
- 3. Write a report and a publication manuscript as per the journal's formatting guidelines and submit it for publication.

Important Prerequisite: Students should be very familiar with use of SAS/SPSS and have to start working with them from day one of the project.

Start / end date of project:

WHAT OTHER EDUCATIONAL OPPORTUNITIES ARE AVAILABLE TO STUDENTS?

Students will become very familiar with a big federal data set (HCUP-NIS) of import for their future analytics projects. A manuscript publication in their portfolio will enhance their candidacy for future job and educational endeavors.

WHERE DO YOU PLAN TO PRESENT OR PUBLISH THE FINDINGS WITH THE STUDENT?

SHP Poster Day, Peer-reviewed Journals and any other appropriate forum

CHECK ALL APPROPRIATE BOXES BELOW AND PROVIDE REQUESTED INFORMATION.

This project is: clinical laboratory behavioral survey educational

Other: please specify__Public-Use Secondary Data Analyses

This project involves the use of human subjects (including chart review, retrospective studies and questionnaires).

Pending Approved IRB Protocol Number _____

IRB approval must be obtained by June 2025



3/7/25

Signature of Department Chair

Date