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| **PROJECT NAME** |
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| **TEAM MEMBERS** |
| * Furhan Babar | Harlem Hospital Center - Finance * Mary Grace Boyd | Community Care – Workforce Development |
| **MOTIVATION** |
| This project was selected due to the impact to Harlem Hospital Center’s goal as it ties into the NYC Health and Hospital’s strategic pillars (SP).   * Improve quality of patient care and services (SP: Quality, Safety) * Increase revenue streams (SP: Financial Sustainability) |
| **DESCRIPTION** |
| ***Business Goal:***   * To be able to use this data to analyze trends in patients’ appointment no show data * To be able to use this data as baseline information when analyzing quality improvement projects related to quality of patient care and services provided in Harlem Hospital |
| ***Scope of the Project:***  This project aims to create a baseline data for quality improvement projects and analyze available data to seek trends that will help achieve Harlem Hospital Center’s business goal.   * SQL program will be used to manage and manipulate the data variables in the raw database * Python program will be used to convert the database into a data frame where it can be cleaned and structured for further data analysis and visualization * Tableau program will be used to generate reports and transform them into charts, graphs, dashboards, etc. for data visualization purposes |
| ***Data Inputs:***   * Raw data will include the following data variables: Medical record number, date of birth, phone, encounter provider, visit date, visit month, appointment time, status, encounter status, department, department id, average payment, visit type, visit type id, copay, check-in time, check-in / check-out, encounter diagnosis * Additional data obtained from other sources will include the following: holidays, weather, average payment |
| ***Hypothesis:***   * Keeping appointments during adverse weather conditions will most likely increase the rate of no-show patients * Male patients will most likely not to show for their appointment compared to their female counterpart. * Patients without insurance have the higher tendency to not show for an appointment than those who have insurance. * Patients will most likely ignore appointments during the summer months and on days before/after a holiday |
| ***Success Criteria:***   * The team will be able to setup and analyze the data using SQL, Python, and Tableau programs. * The team will be able to create a presentation specific to defined stakeholders/audience that was easy to understand using tables, graphics, and other forms of data visualization (i.e. dashboard) * The team will be able to prove / disprove written hypothesis by providing conclusion at the end of presentation. |
| **DATA BACKGROUND & SOURCES** |
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| **RESEARCH QUESTIONS:** |
| * What effect does a/an [data variable] have on the rate of patient “no-show” status for their appointment?   + Data variables: Weather, holidays, geographical location, type of appointment, primary care physician, reason for visit, religion, language, etc. * How have financial factors or insurance status affected patterns the rate of patients who are labeled “no-show” for their appointments? * How do genders compare in keeping their appointments? |
| **CONCLUSION:** *(Hypothetical Example)* |
| * Pediatric appointments have lesser no-show rate than any other appointment * Appointments right after holidays have a higher rate of “no show” rate than any other day * Patients with insurance have a lower “no-show” rate than those who does not have insurance |
| **REFERENCES:** |
| * https://w2.weather.gov/climate/xmacis.php?wfo=okx * https://en.wikipedia.org/wiki/Public\_holidays\_in\_the\_United\_States |