VAX-CHI-NATION
Effectiveness of Vaccination Campaigns in Chicago

Group Name and members: Team 1 – Vax-Chi-Nation
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Executive summary: Over the last couple of years, the COVID-19 pandemic has caused significant structural changes in the way healthcare, public policy, business, and other integral areas operate worldwide. With the pandemic and rise of COVID-19 cases have come subsequent efforts to vaccinate our communities. Studies have shown that increased COVID-19 vaccination rates lower transmission, hospitalization, and death outcomes which, in turn, saves financial resources that can otherwise be allocated elsewhere. Looking back at the regulations that Chicago established to increase vaccination rates in its population, what insights can be drawn from this experience and how can we apply such lessons to future healthcare processes?

Business case: The city of Chicago has a robust vaccination program - named VaxChiNation. Our aim is to understand if this investment has yielded significant improvements in the public health scenario in Chicago. With a focus on descriptive statistics, we will analyze the vaccination rates and other relevant COVID-19 data metrics and visualize our findings on a dashboard. To measure the success of our campaign, we will compare our findings and measurements to the US National average and/or figures from similar cities in the midwest. By analyzing our own vaccination efforts and comparing them to others, we will evaluate what methodologies we believe have worked and what areas we can further optimize and improve for future campaigns. Some additional measurements that we may opt into include pursuing some modeling in order to gain better insight for some trends and correlating our COVID-19 numbers with Chicago economic trends.

Data sources:

The following publicly available data will be used:

- Chicago Community Vulnerability Index
  https://data.world/cityofchicago/xhc6-88s9
- Location of Testing Sites in Chicago
  https://data.world/cityofchicago/thdn-3grx
- Vaccination Locations
  https://data.world/cityofchicago/6q3z-9maq
- Vaccination Rate by Age/Ethnicity
  https://data.world/cityofchicago/37ac-bbe3

Database & tools: SQL(MySQL), Python, Tableau