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Asthma in the Bronx: Identifying Trends in Hospitalization

BACKGROUND:

Asthma is the most common chronic disease in children, affecting approximately 5 million (7.0%) US children under age 18. In New York City, 11.2% of children age 0-13 years, have been diagnosed with asthma. In addition to increased prevalence, children with asthma in NYC tend to have poorer outcomes when compared to the nation.

Asthma is the leading cause of emergency room visits and hospitalizations in New York City's most economically disadvantaged neighborhoods. The Bronx currently has the highest rates of asthma related ED visits and hospitalizations compared to other boroughs.

While New York City has experienced overall improvement in asthma burden, the Bronx experienced a steady increase in asthma-related ED visits and hospitalizations from 2010 – 2016 when compared to New York City.

AIMS:

Through this study, we plan to investigate trends in asthma hospitalizations in the Bronx and identify factors that may be associated with asthma hospitalizations. We hypothesize that neighborhood of residence may be an important contributing factor to asthma related hospitalization.

METHODOLOGY: We retrospectively reviewed de-identified cases of Bronx Hospital discharges sourced from the New York State Statewide Planning and Research Cooperative System (SPARCS). Selection criteria included age 0-17 years and diagnosis of asthma documented at discharge. A total of 19851 cases were reviewed, predominately male (59.1%), non-Hispanic (46.4%), with self-reported race of "other" (60.1%). SPARCS data was exported to and maintained within Microsoft Excel. R statistical software was used for frequency calculation. The frequencies for the qualitative characteristics are shown as percentages based on valid data and excluding any missing data.

RESULTS: The majority (95.37%) of patients hospitalized for asthma in the Bronx resided within Bronx county. Montefiore Henry and Lucy Moses Division accounted for the majority of hospitalizations at 34.3%.

CONCLUSIONS:

Preliminary findings support existing literature documenting the burden of asthma by sex on the Bronx. Observed residential and facility differences may provide a unique opportunity for further investigation.

REFERENCES:

- To be included in powerpoint

