HEALTH EQUITY REPORT

Data, Methods, and References

Asthma

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Data and Methods

Hospitalizations and ED visit data were generated from the State Planning and Research Cooperative System (SPARCS). The Finger Lakes Health Systems Agency's SPARCS Portal was used to generate hospitalization, ED visit and resource data[vi].

Prevalence data (adults 18+ with current asthma) and covariates (smoking, poor mental health) was derived from the Expanded Behavioral Risk Factor Surveillance System (eBRFSS) surveys [xxii]. County prevalence data for children age 0-17 is not directly available, estimated from American Lung Association[iv]. Heating source derived from the American Community Survey (ACS)[xxiii].

Where available, the asthma-related indicators were generated by the following groupings:

- Region-- Albany, Columbia, Greene, Rensselaer, Saratoga, Schenectady, CapReg, Upstate;
    - Data is included in the Appendices for other Asthma Coalition of the Capital Region (ACCR) participants - Fulton and Montgomery counties.
- Gender—Male, Female;
- Age—0-14 yrs., 15-24 yrs., 25-34 yrs., 35-44 yrs., 45-64 yrs., 65-74 yrs., 75+ yrs.;
- Race/Ethnicity—White non-Hispanic, Black non-Hispanic, Hispanic;
- Socioeconomic status—SES 1 (low), SES 2, SES 3, SES 4, SES 5 (high).

When reviewing Race/Ethnicity, the graphs present rates by "Other" categories. Because these categories include a mix of racial groups (e.g. Asian, Native American, Multi-race) and were generally low in number, these categories were not discussed in the narrative.

The Finger Lakes Health Systems Agency's (FLHSA) SPARCS Data Portal included a SES query with analysis available at the Zip code level or by Zip Code aggregate, including county. SES was based on average income, level of education, value of housing stock, age of housing stock, population crowding, percent of persons paying more than 35% of their income on housing, and percent of children living in single parent households. The FLHSA SPARCS Data Portal only had SES scores available for counties north and west of Westchester County. Each Zip code was assigned a value of SES 1 through SES 5, with SES 1 being the lowest and SES 5 being the highest. SES 1 and SES 5 each contain 15% of the population, SES 2 and SES 4 each contain 20% of the population, and SES 3 contains 30% of the population. Since the SES categories are Zip-code based, data generated by SES might vary from data generated by county.

Economic cost (direct health care spending plus indirect costs of lost wages, lost productivity, and lower academic performance) is prorated to the Capital Region from CDC estimates using adult asthma prevalence data derived from the (BRFSS) and county prevalence estimates for children from the American Lung Association. It is a Conservative estimate, without adjustment for inflation from 2009 to the present. Disparate personal life disruption adds to this economic burden, but is not quantified.

Resource information was generated from the SPARCS database. The charge information from SPARCS represents billing data that were submitted by hospitals in New York State. Total hospitalization charges included the accommodation charge and the ancillary charge for all patients hospitalized within a given year. The accommodation charge is defined as the accommodation rate charged per day for a specific type of accommodation multiplied by the length of stay in days. The rate charged per day depends on the type of room (e.g. private, semi-private, or within a ward), type of care (e.g. general, medical, rehabilitation, etc.) and level of care. The ancillary charge is the sum of all ancillary costs, such as nursing, pharmacy, laboratory, etc. The ED visit charges include only the ancillary charges. The charge ("list price") markup over cost varies widely by hospital and region and over time. These charges are listed in the Appendices.

A Hospital acute admission/discharge will cost approximately 10 times that of an Emergency Department visit. A patient with an asthma attack may be directed to either setting depending on their need and the hospital's treatment decision. Because of this, there are situations where a County may have higher Hospitalization spending and lower ED visit spending (or the reverse). We noted relative differences where they were significant.

Graphs and asthma hospitalization and ED rates presented are age-adjusted. Because of small numbers for some of the asthma-related indicators, rates were presented in red if the rates were unstable (<10 events in the numerator). The report utilized the asthma hospitalization and ED visit primary ICD codes utilized by the NYSDOH – the Clinical Classification (CCS) Diagnosis Category 128: Asthma (i.e. the 14 ICD-9-CM asthma diagnosis codes in 493.xx).

References – Data and Methods

(Note: Reference numbers consistent with Introduction and Summary References)

[iv] Pediatric prevalence estimated from American Lung Association 2014 calculations - http://www.lung.org/assets/documents/research/estimated-prevalence.pdf

[vi] Statewide Planning and Research Cooperative System (SPARCS)-FLHSA SPARCS Portal http://www.health.ny.gov/statistics/sparcs/

[xxii] Expanded Behavioral Risk Factor Surveillance System (Expanded BRFSS) http://www.health.ny.gov/statistics/brfss/expanded/

[xxiii] Table B25040-Heating Source -5 year 2014 American Community Survey (ACS). https://www.census.gov/programs-surveys/acs/