Introduction

There is a push in the U.S. to address environmental injustices. Overburdened communities are defined as “minority, low-income, tribal, or indigenous populations or geographic locations in the United States that potentially experience disproportionate environmental harms and risks.”[[1]](#endnote-1) To determine which are the most pressing environmental problems, the harm from particular environmental problems should be quantified in terms of health effects.

The goal of this research was to predict the specific negative health outcomes: asthma prevalence, cancer, chronic kidney disease, chronic obstructive pulmonary disease (COPD), coronary heart disease (CHD), and stroke from a variety of environmental factors. This prediction would allow these outcomes to be linked to specific environmental factors in overburdened communities.

Methods

The data about the eleven environmental indicators came from the EJScreen (environmental justice scrren) 2022 data (from the U.S. Environmental Protection Agency,[[2]](#endnote-2) and they are defined in the appendix and in the data wrangling notebook. The data on the health outcomes were obtained from U.S. Centers for Disease Controls and Prevention’ Local Data for Better Health 2022.[[3]](#endnote-3)

These data sources did not Since the health data was collected at the census tract level and the environmental data was collected at the census block level, the environmental data was

1. <https://www.epa.gov/environmentaljustice/ej-2020-glossary>, accessed 2023\_03\_25. [↑](#endnote-ref-1)
2. <https://www.epa.gov/ejscreen>, accessed 2023\_03\_18. [↑](#endnote-ref-2)
3. <https://chronicdata.cdc.gov/500-Cities-Places/PLACES-Local-Data-for-Better-Health-Census-Tract-D/cwsq-ngmh>, accessed 2023\_3\_24. [↑](#endnote-ref-3)