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INFO 201

**Story Pitch:**

Our project will introduce two issues of concern: air pollution and public health within New York State. Both topics of research touch on different aspects of health: community health and environmental health. Technological advancements have skyrocketed in recent decades, and the amount of air pollution we create with our digitized way of living has affected the health of the community. Whether it be cars, fossil fuel burning to get electricity, or factories that manufacture products we use daily, they are all releasing tons of air pollutant particles into the atmosphere. When we are aware of the severity of air pollution, we want to raise awareness on the topic. To many people, they may not care much about air pollution, as it may be an "up in the air" issue, but we have discovered an issue that is more down to the ground: health complications. Our intentions and interests are dependent on two datasets from independent sources, along with our inspirations from the articles we have collected. What inspired us to go in-depth with air pollution and community health concerns was the increase in the human population in condensed areas, like New York State. In these highly populated places, there are many more people who need to use cars and electricity, thus producing a greater amount of air pollutants. In addition to a crowded area, another one of the many causes of the increased severity of air pollution is from the continuous advancement of human activities, which has been rapidly increasing throughout the years. For example, more transportation, agriculture, increased factory productions, increased demand for supply, and human waste are part of the multitude of reasons for worsened air quality. The other dataset of our interest was community public health. The increase in deaths and other health complications (e.g., cancer, cardiovascular diseases, diabetes, obesity, etc.) overall was also interesting. Causes of these health concerns varies from the environment, living situations, eating habits, genetics, age group, minorities, etc. For example, children and seniors are much more prone to getting sick from airborne particles, and people with pre-existing health conditions are more vulnerable to these pollutants as well. Driven by our collective commitment to fostering informed action, our project endeavors to bridge the gap between data insights and tangible, effective policy recommendations, emphasizing the imperative for collaborative efforts between policymakers, community advocates, and the public to forge a sustainable, resilient path toward a healthier future for all New Yorkers. Given these points, we will continue to address the problems of air pollution and community health in efforts to utilize our datasets and to bring awareness to the public of these conditions in human-concentrated metropolitan states like New York.

**2 Datasets:**

Air pollution

This dataset is downloaded from the following website: <https://catalog.data.gov/dataset/air-quality>. This dataset is from the New York State government, and we are not sure how the data is collected. It is about the different types of air pollutants in different cities, and how much of each is present in the air from 2005 to 2020. There are 12 columns (features) and 16,123 rows (observations).

Community health indicator report

This dataset is downloaded from the following website: <https://health.data.ny.gov/Health/Community-Health-Indicator-Reports-CHIRS-Trend-Dat/jb5s-mei3/data>. This dataset is from the U.S. Department of Agriculture, and we are not sure how the data is collected for this dataset as well. It is about the different health indicators and their numbers in the years 2004-2016 in New York state counties. There are 14 columns (features) and 176,304 rows (observations).

**Research:**

<https://www.eea.europa.eu/en/topics/in-depth/air-pollution/eow-it-affects-our-health#:~:text=The%20World%20Health%20Organization%20(WHO,a%20leading%20cause%20of%20cancer>.

* Air pollutants are linked to various health issues, which includes type two diabetes, obesity, systemic inflammation, Alzheimer’s disease, and dementia.
* People of older age and young children, or people with pre-existing health conditions, are more sensitive to air pollution.

<https://www.who.int/health-topics/air-pollution#tab=tab_1>

* There is a relationship between air pollution and premature death.
* Socioeconomic status can also be a risk factor in a community’s susceptibility to air pollution, which is mentioned in our story pitch.

<https://www.cbsnews.com/news/air-pollution-biggest-human-health-threat-smoking-alcohol-study/>

* Air pollution is an invisible health threat that concerns people’s life expectancy and continues to increase in air particle concentrations compared to past years.
* On the other hand, our story pitch is more focused on a specific state within the US rather than the article discussing international countries and their air pollution concerns.

<https://www.niehs.nih.gov/health/topics/agents/air-pollution/index.cfm#:~:text=Vehicle%20emissions%2C%20fuel%20oils%20and,of%20human%2Dmade%20air%20pollution>.

* This article does a fine job of including many aspects of health issues developed by air pollution. As well as including what air pollution is, how it is made and sources, the amount of air pollution harming an individual, and other sources they included to find more evidence.
* In contrast, our story pitch relies more on data collection of the health impacts of air pollution in a metropolitan state, and less on how the air pollution is made.

<https://www.apa.org/news/press/releases/2022/03/air-pollution-adolescents>

* Air pollution can also affect adolescent development health and overall health even with small amounts of air pollution compared to large amounts.
* Although, the datasets we collected for the story pitch are mainly concerned with other physical and common health concerns rather than just depressive concerns that may be hard to find more data on.

<https://www.ccacoalition.org/content/short-lived-climate-pollutants-and-food-security#:~:text=Air%20pollution%20stunts%20crop%20growth,to%2015%25%20in%20some%20regions>.

* Food insecurity and hunger are other health concerns that this article discusses with how air pollution can cause agriculture productions to yield and crops to stunt. Leading to food scarcity and hunger among the human population.
* But this article touches on health concerns lightly, and more on concerns of agriculture production and ways to reduce air pollution production.