

Impact of Air Quality and Green Spaces on Respiratory

This map series explores how air quality, respiratory health, and access to green spaces impact well-being across the U.S.

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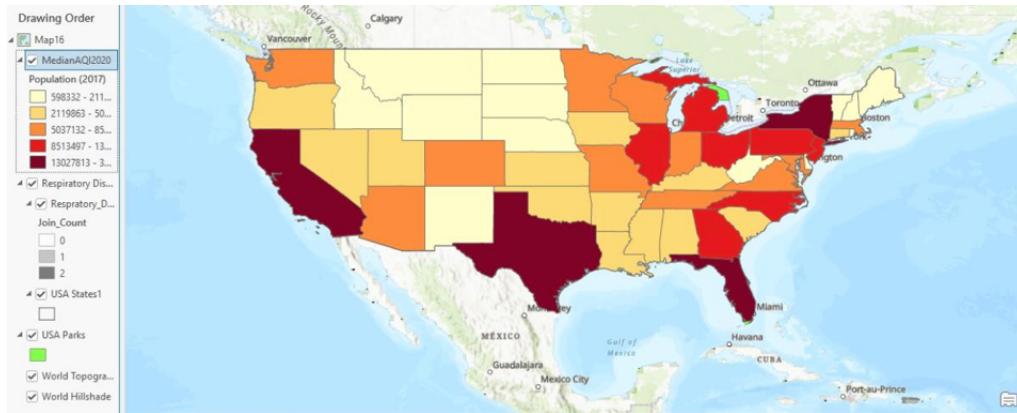
Introduction

Air quality and access to green spaces play a significant role in the health of U.S. residents, especially concerning respiratory diseases. Poor air quality can exacerbate conditions like asthma and bronchitis, while green spaces provide a sanctuary that can help improve both physical and mental health. In this story, we'll explore how these factors interconnect across the United States and their impact on public health. Through a series of maps and images, we'll see how air quality, respiratory diseases, and green spaces shape the health of different regions, and the encouraging trends in areas with more green space.

Air Quality Across the U.S.

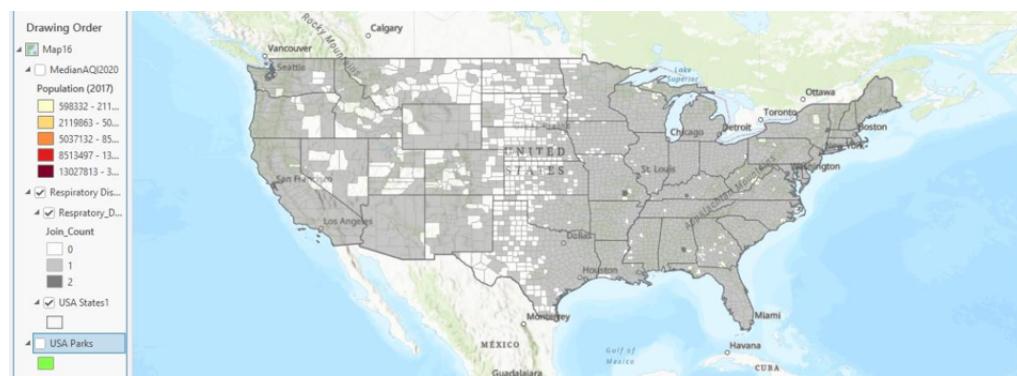
The **Air Quality Index (AQI)** map paints a clear picture of air quality throughout the country. It shows how different regions fare in terms of pollution levels, highlighting areas where the

air quality is poor (red zones) and areas with cleaner air (green zones). Poor air quality has well-known links to various respiratory issues, and by mapping this data, we can identify which regions are most at risk. The image below visualizes the Air Quality Index across the U.S., helping us see areas that may require urgent attention to improve air quality and protect residents' health.



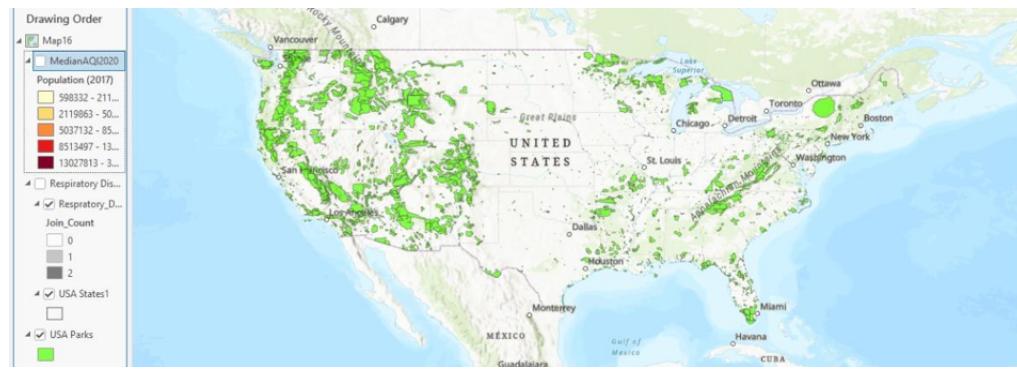
Respiratory Diseases in the U.S.

Next, we look at the **prevalence of respiratory diseases** across the United States. This map shows where respiratory issues such as asthma, bronchitis, and other lung conditions are most common. In areas where the air quality is poor, it's unsurprising that rates of respiratory diseases tend to be higher. This image helps us link the rise of respiratory problems in polluted areas, emphasizing the need for action to reduce air pollution and prevent these diseases from spreading further.



Green Spaces and Health

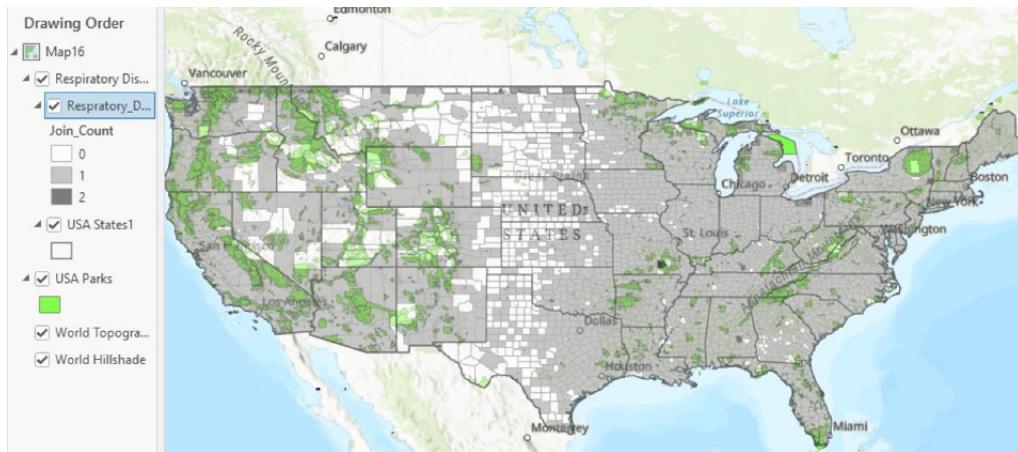
Access to **green spaces and parks** plays a key role in promoting better health. This map highlights the locations of parks and recreational areas across the United States. These green spaces not only provide residents with places to relax and exercise, but they also contribute to cleaner air and improved mental health. The presence of parks can reduce stress and lower the impact of air pollution. Areas with more green spaces tend to show a healthier population, and this image helps us explore the distribution of green spaces and their potential benefits for residents.



The Correlation Between Green Spaces and Respiratory Health

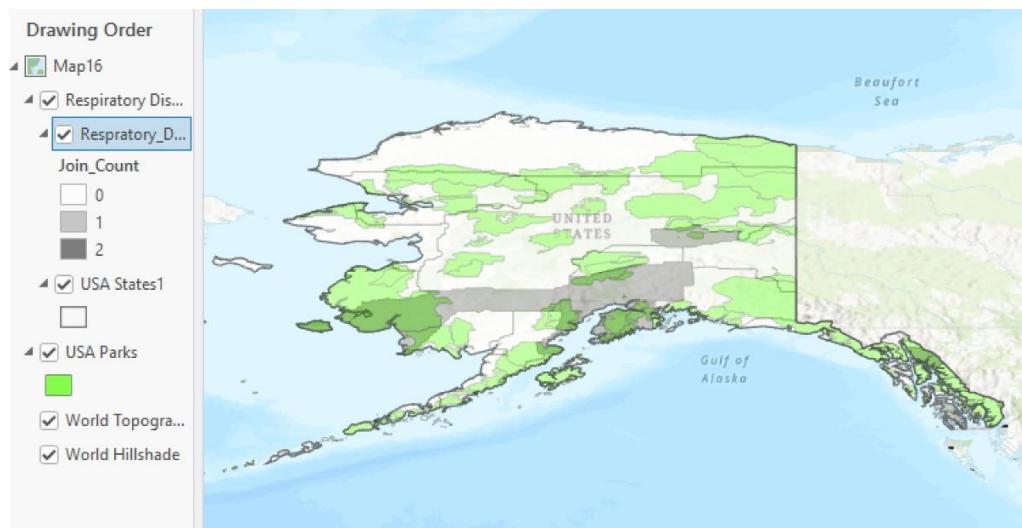
When combining the data from the **respiratory disease map** and the **green space map**, we begin to see a trend emerge. In areas with more green spaces, especially in less

densely populated cities, there tends to be a lower prevalence of respiratory diseases. The clean air provided by parks and green areas may offer significant health benefits, especially for those who live in less polluted environments. This image highlights this important connection, showing how improving access to green spaces can lead to healthier communities.



Alaska: The Impact of Green Spaces on Respiratory Health

Alaska stands out with its high ratio of green spaces to respiratory diseases. This image delves deeper into how Alaska's abundance of natural parks and wilderness correlates with a lower rate of respiratory diseases. The state's expansive green areas contribute to cleaner air, creating a healthier environment for its residents. This example demonstrates the powerful impact that green spaces can have on respiratory health, showing that areas with ample natural space are better equipped to promote public health and reduce disease.



Conclusion

This exploration of air quality, respiratory diseases, and green spaces in the U.S. shows how interconnected these elements are. Poor air quality contributes to a higher incidence of respiratory diseases, but increasing access to green spaces can mitigate some of these effects. The images and maps provide valuable insights into how environmental factors shape public health, emphasizing the importance of cleaner air and more green spaces to improve the well-being of communities across the United States. Moving forward, prioritizing both air quality improvement and green space expansion could significantly reduce the impact of respiratory diseases and promote a healthier future.

map sources are found on **ARCGIS online** search:

USA Parks

Respiratory Disease_WFL1

AQI 2020 FINAL 3_0_WFL1