



The Relationship between Green Space on Immunity using GIS Mapping.

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INTRODUCTION

Green space is a group of plants in an urban area. The question for this project was "How does green space affect immunity?". Hypothesis was "if you have a lot of green space in your area then you will have a higher immunity level because the air will be cleaner compared to other areas with a smaller amount of green space". In this project we used the My World program to help calculate the information we needed by using GIS to look at areas with different green space sizes and maps that shows the areas health levels. After the information was calculated we used the results to show which areas had high or low health levels with a large or small amount of green space.

METHODS & MATERIALS

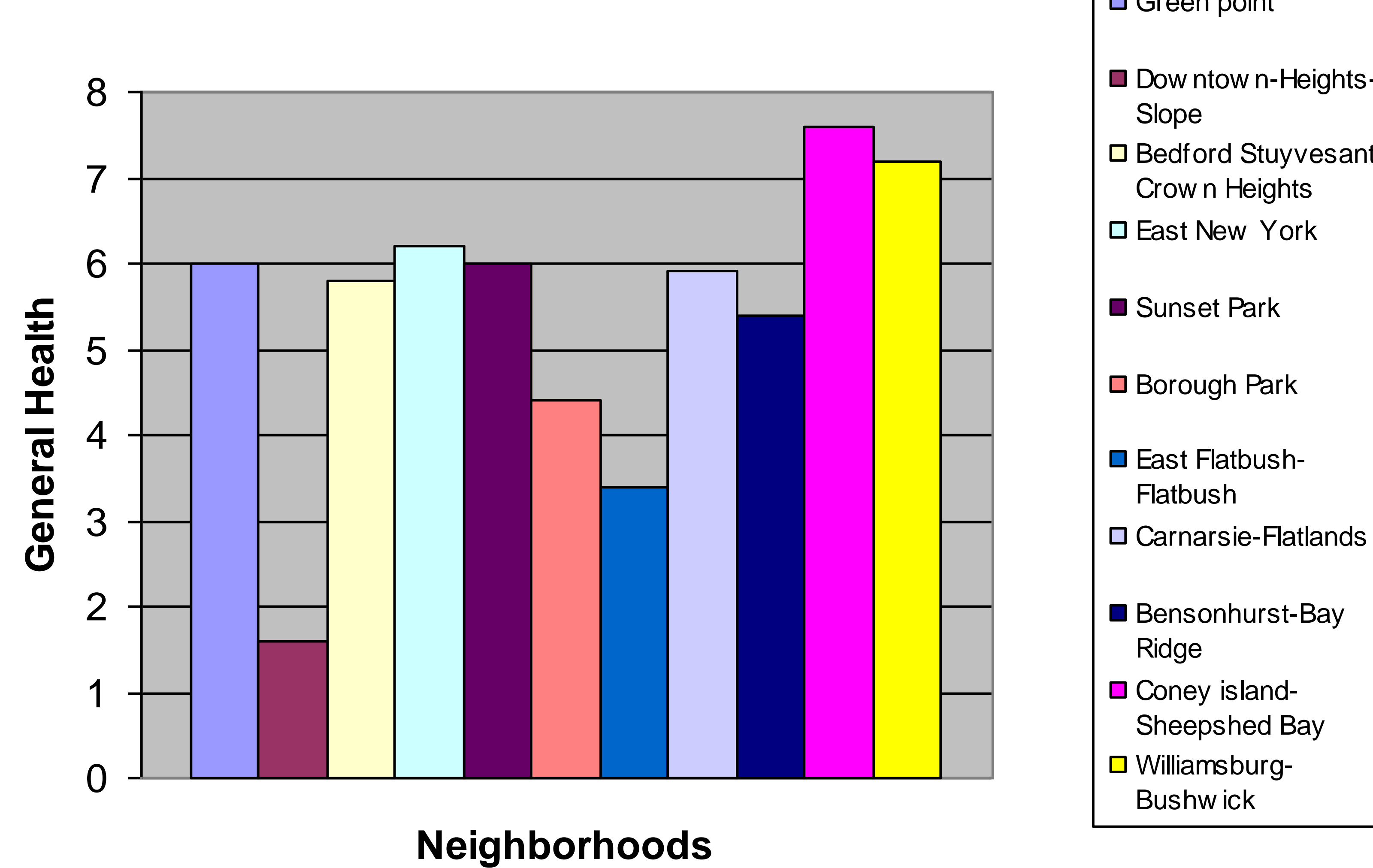
The materials that we used were Microsoft Office Excel, My World GIS, a map of Brooklyn and the neighborhoods of Brooklyn. The method was that we used the data from the internet source nyc.gov to be able to get the map and neighborhoods of Brooklyn. We used the My World GIS to calculate and organize the data. From the My World software we created a scale from 1-10, 10 being the best health and 1 being the worst; to calculate the health scores in Brooklyn by using a selected color scheme to identify the different types of data. To organize the data was to put all of the neighborhoods health scores and average into a table on Microsoft Excel. First we put the numbers of the green space count for each of the groups in their spots, and then calculated it for the average. After we got back the data, we were able to find the mean for the different groups green space count and health scores. We put together all of the groups data, then we put the data into a final table.

RESULTS

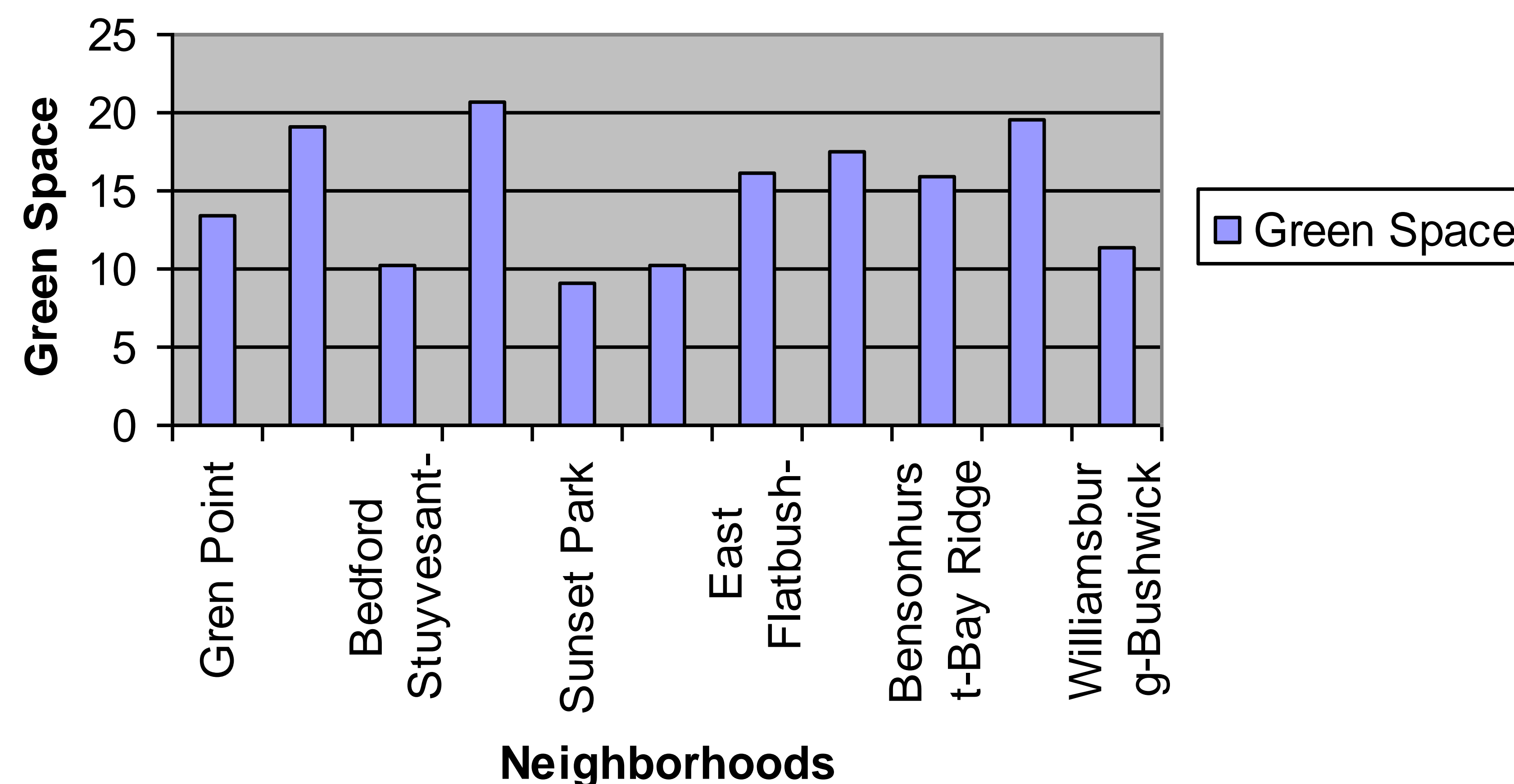
The results in the graph, as seen in Figure 1, shows the mean score of general health in Brooklyn neighborhoods. We saw that Coney Island and Sheepshead Bay have the best general health in Brooklyn. Downtown, Heights and Slope have the worst general health in Brooklyn.

The numbers in Figure 2 represent the green space scores from each neighborhood in Brooklyn. They are averaged out of 5 different green space scores. The neighborhood with the highest green space turned out to be East New York, and the lowest was Sunset Park.

General Health In Brooklyn



Green Space in Neighborhoods of Brooklyn



CONCLUSION

Our hypothesis stated that the neighborhoods in Brooklyn closest to green space have better health. We found that the less green space count we had, the worse the health was in that area. Our hypothesis goes with our results because green spaces help the health rate in these areas and not make it worse. The reason for our results is because the areas around green spaces have cleaner air, therefore resulting in better health for some of the people in Brooklyn.

This information is important to know because you can be aware of the health rate in your community. You can also see the benefits of green space for your health. More fresh and open air can due your immune system good. Another area that you could possibly study related to this would be green space and allergies. How green space in Brooklyn can affect people with allergies or bring about allergies.

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