

The London Olympics and Public Health

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Background

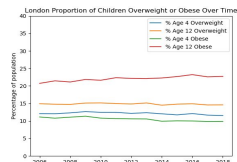
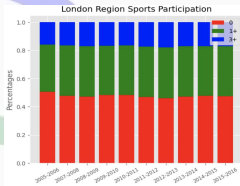
The UK Government and London originally included in its bid for the 2012 Summer Olympics the desire for the games to better the health of its residents, yet many studies have shown the health impacts of the Olympics to be negligible overall.

In our investigation, we focus on the effects of the Olympics on public health in specific regions and at specific income levels, using childhood obesity and adult sports participation as proxies for public health.

Data Exploration

Datasets

We analyzed the London Sports Participation dataset, the London Taxpayer Income dataset, and an outside dataset on childhood obesity in London.



Figures 1 & 3 - Sports participation rate of all of London over time. Proportion of children categorized as overweight or obese in London.

Sports Participation Analysis

Developing a weighted index called Sports Participation Index (SPI) to capture sports activity, we concluded London in aggregate had negligible changes in SPI before and after the Olympics.

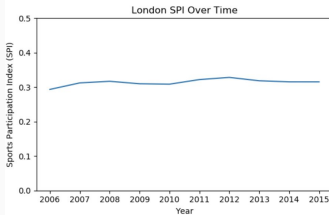


Figure 2 - Sports Participation Index for London over time

Overweight & Obesity Analysis

We looked at the proportion of overweight and obese children in London. Some mild trends can possibly be inferred, but a holistic trend is ambiguous. We developed a weighted index called the Unhealthy Weight Index (UWI) that combines the overweight and obese data for further analysis.

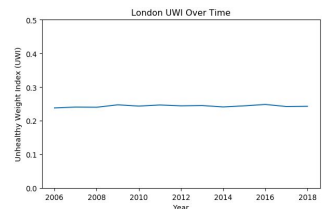
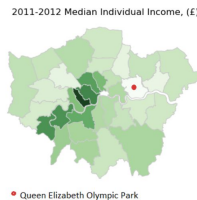


Figure 4 - Calculated value of the Unhealthy Weight Index (UWI) over time

Understanding Relationship to Income



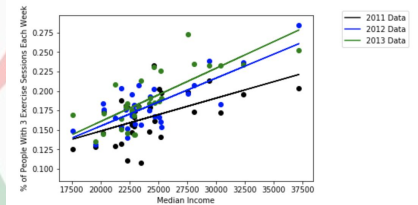
Borough	Income (£)
Kensington and Chelsea	37200
Westminster	34200
Richmond upon Thames	31500
...	...
Brent	20200
Barking and Dagenham	19600
Newham	17600

TABLE 1 Median individual incomes for London boroughs

Wealth is not equally concentrated among London's 32 boroughs. After finding that obesity and sports participation overall didn't change in London, we wanted to look at specific boroughs and see whether regional income inequality played a role

Understanding Relationship to Income

"Accounting for the proximity factor of Queen Elizabeth Olympic Park, three out of five of the boroughs that experienced a statistically significant increase in SPI were in the top income quartile"



The relationship between income and participation in 3+ sports per week seemed to become stronger and more unequal as the Olympics came and went. Each point is data from a specific borough, where color indicates the year.

"Aside from Lewisham, all of the boroughs which experienced a statistically significant decline in the UWI were in the top quarter of boroughs by income ranking"

An Analysis Across Boroughs and Income