

OBESITY AND DEPRIVATION

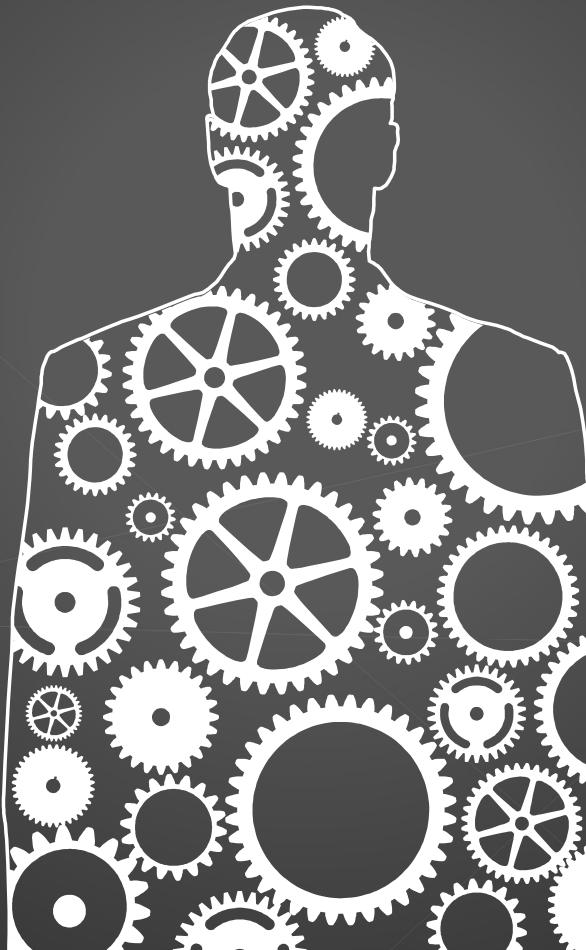
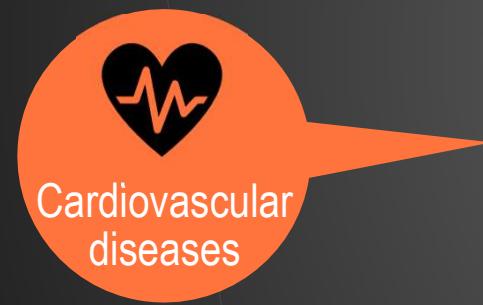
A COMPARISON OF THREE LONDON BOROUGHHS

SUMANA KHAN



Obesity and its health impacts

63% of adults in the UK are overweight, and half of them can be classified as obese –
Dept. of Health & Social Care



Obesity – Root Causes



High sugar/processed food



Sedentary lifestyle



Genetics



Other illnesses/medications



Chronic stress



Socioeconomic Status



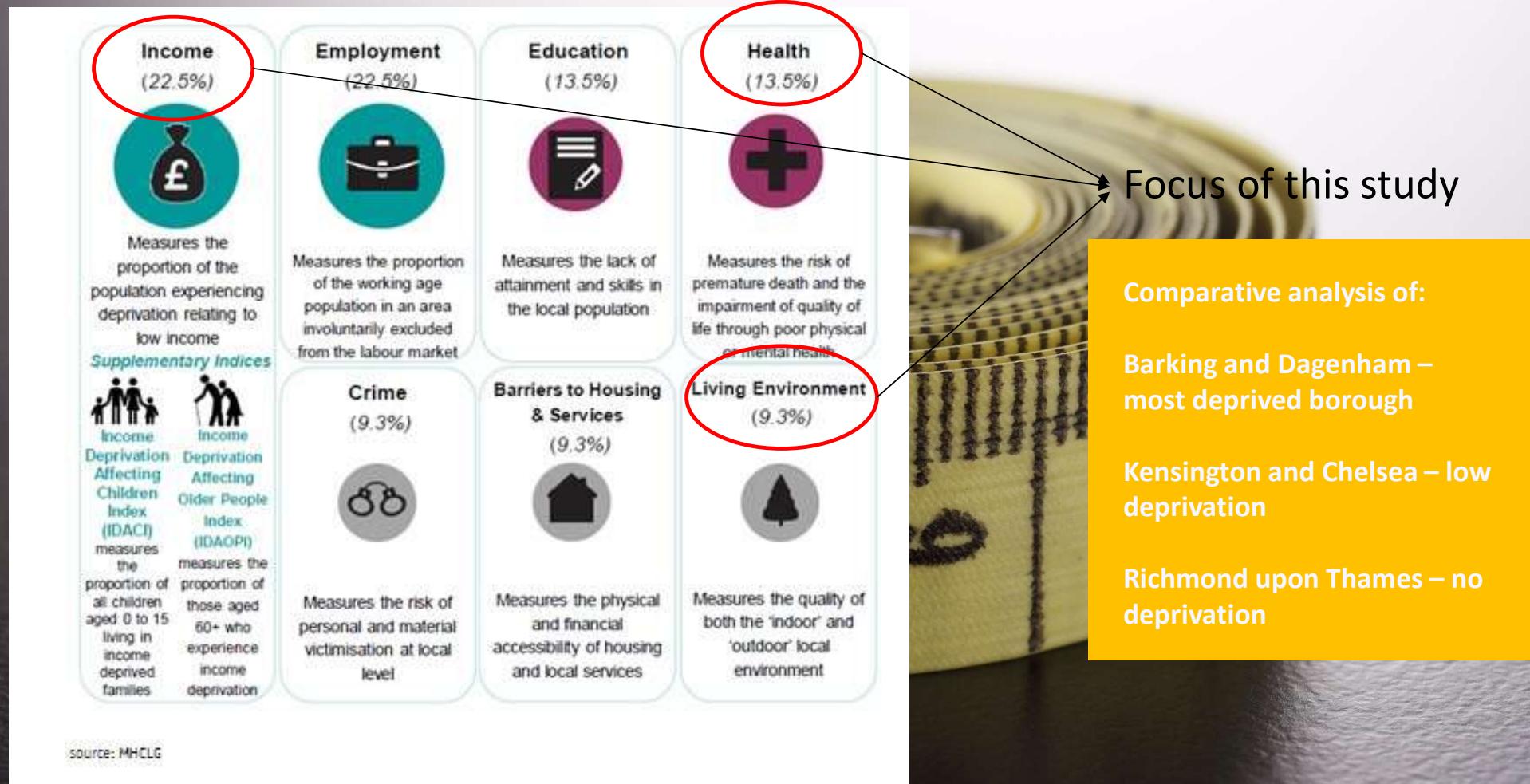
Environmental factors



Urban architecture

Aim of this study: To explore the link between obesity and community level deprivation

Measuring deprivation – Indices of Deprivation



Source: [https://www.londoncouncils.gov.uk/members-area/member-briefings/local-government-finance/indices-deprivation-2019#:~:text=In%20London%2CHackney%20has%20the,Chelsea%20\(ranked%2091st\).](https://www.londoncouncils.gov.uk/members-area/member-briefings/local-government-finance/indices-deprivation-2019#:~:text=In%20London%2CHackney%20has%20the,Chelsea%20(ranked%2091st).)

Methodology

Geospatial comparisons

1. Top venues from Foursquare
2. Foursquare visualization
3. Access to open spaces – choropleth maps



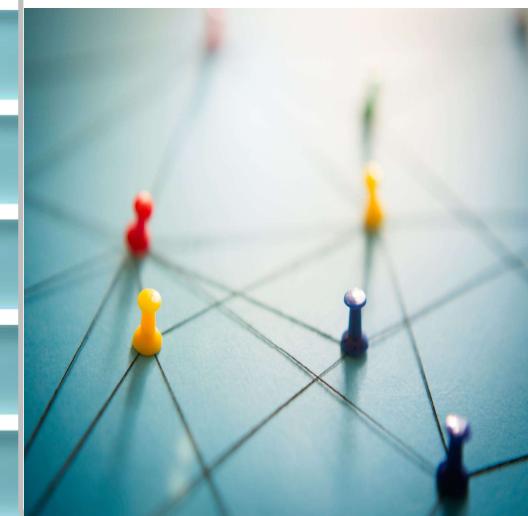
Demographic comparisons

1. Prevalent childhood obesity rates
2. Adult diabetes prevalence
3. Preventable mortality rate
4. Annual household income

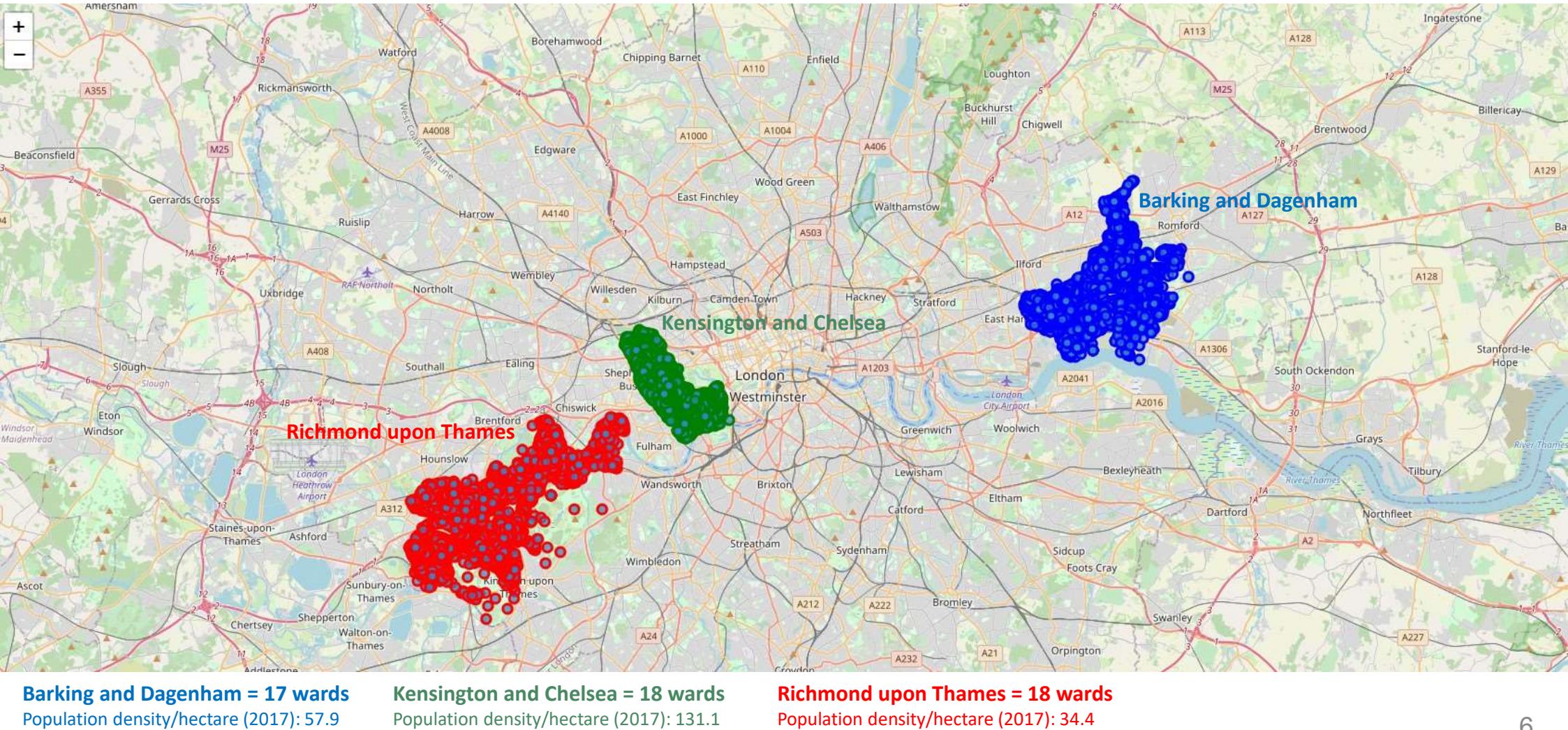


Linear regression analysis

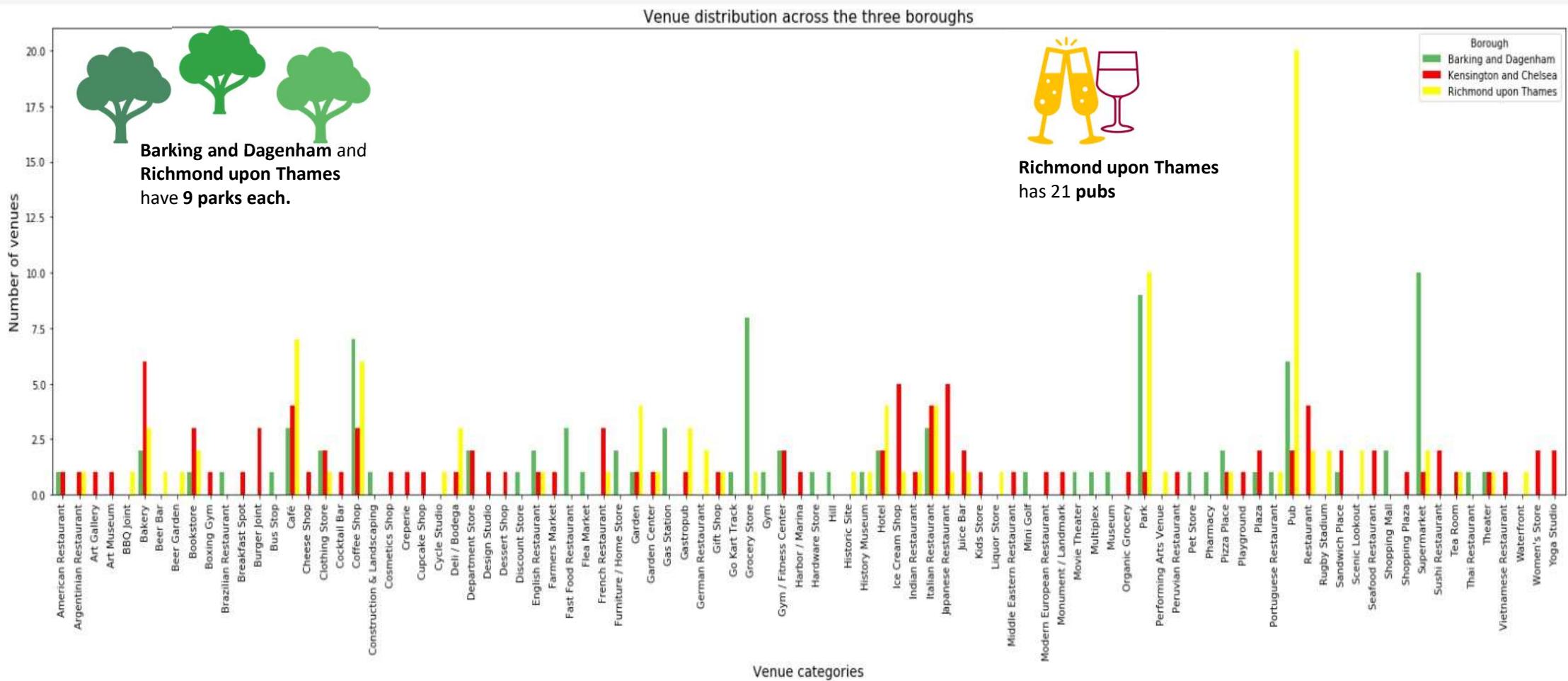
1. Relationship between preventable mortality and childhood obesity, adult diabetes, and annual income
2. Relationship between childhood obesity and annual income



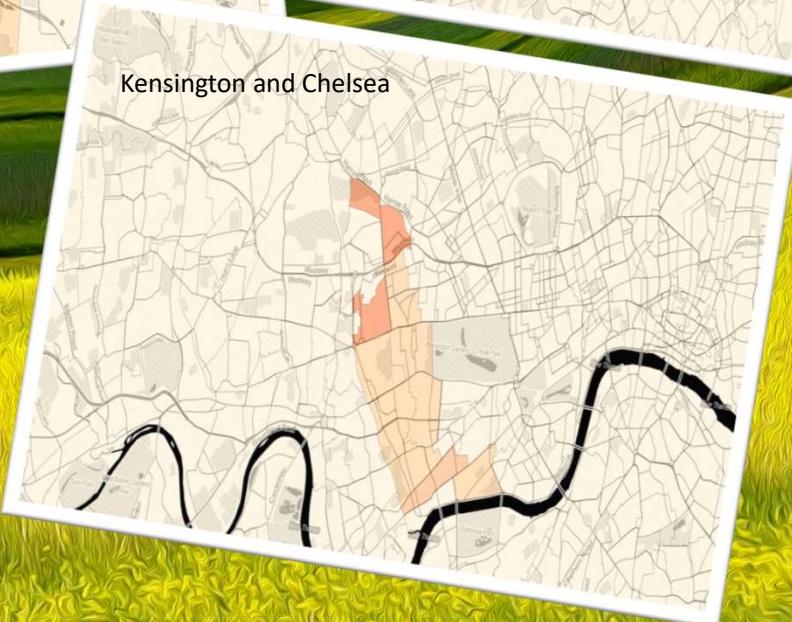
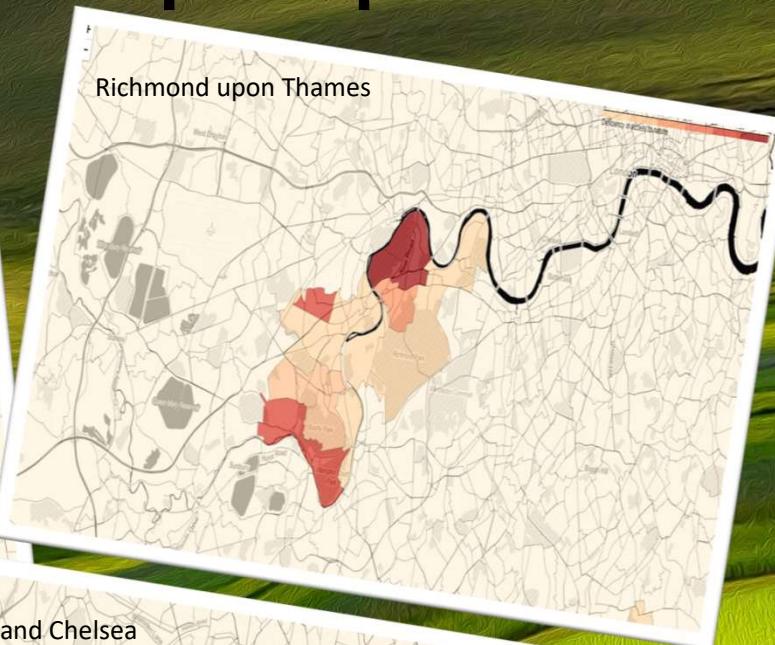
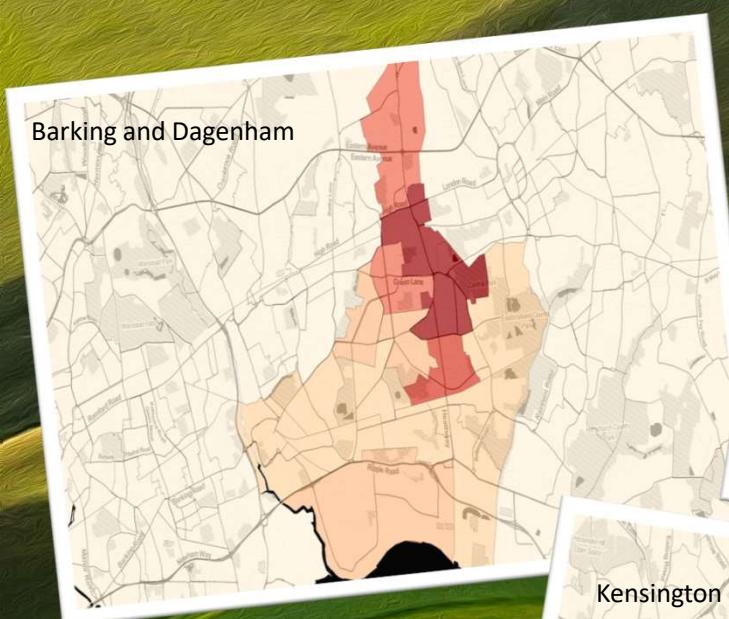
FINDINGS – Visualizing the boroughs



FINDINGS – Comparison of top venues

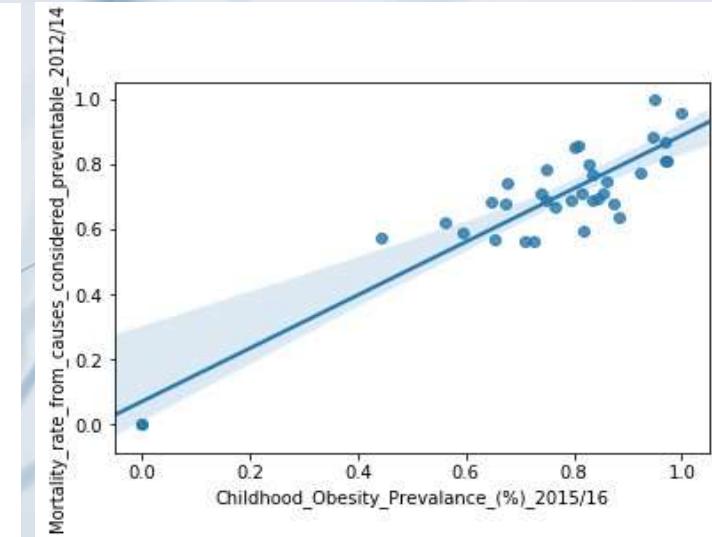
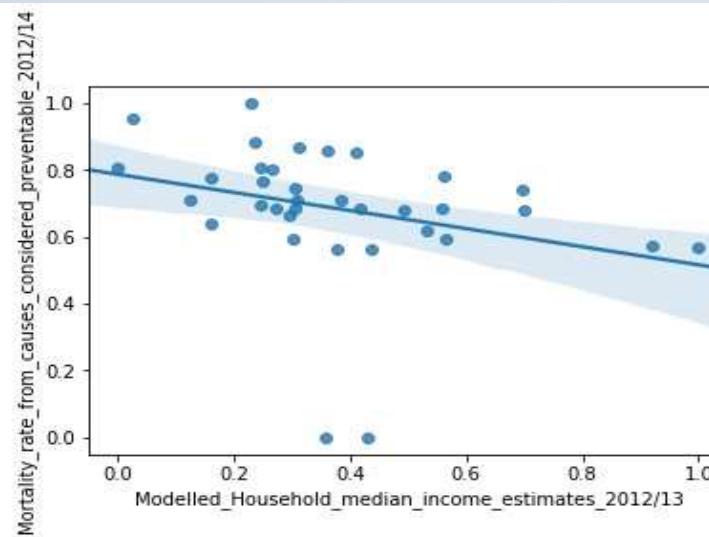
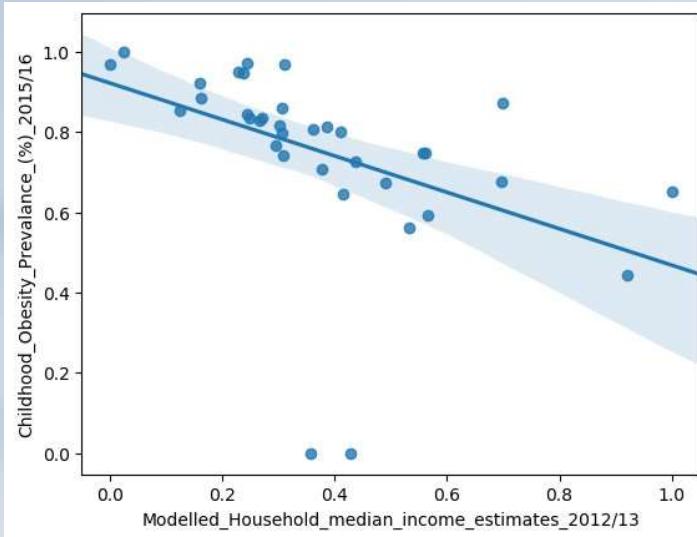


FINDINGS – Access to open spaces



- Only **23%** of the wards in Barking and Dagenham have good access to nature
- **38%** of wards in Richmond upon Thames, have good access
- **Over 50%** of wards in Kensington and Chelsea have good access to nature.

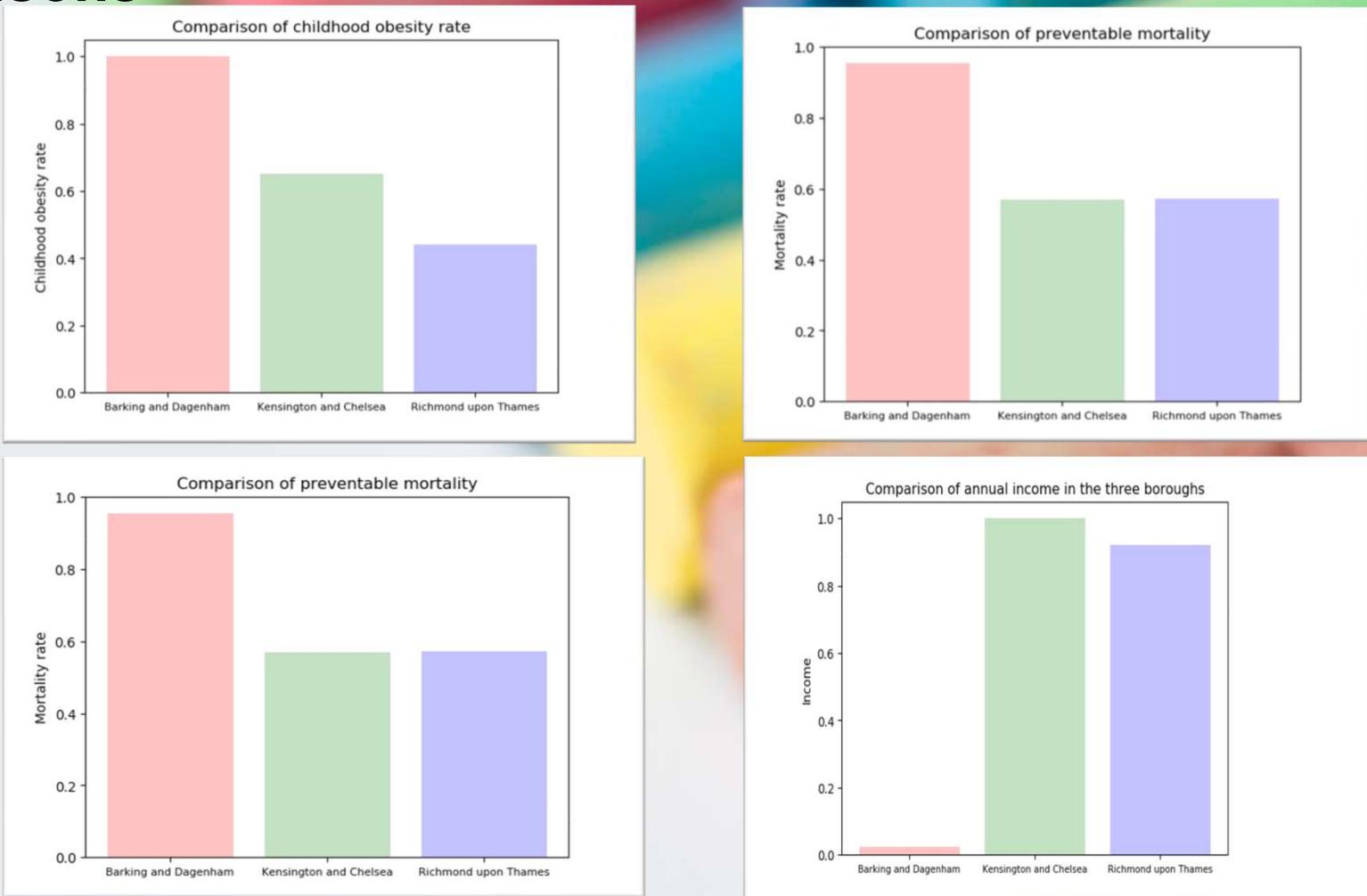
FINDINGS – Linear regression snapshot



- Lower incomes potentially predict higher rate of childhood obesity
- Strong relationship between childhood obesity and preventable mortality
- Higher incomes reduce risk of mortality from preventable causes

Better socioeconomic status positively impacts health from childhood, reducing health complications in adulthood, including mortality

FINDINGS – Regression findings reflected in Demographic comparisons



Significant difference in deprivation indices related to health and income between Barking and Dagenham and the other two boroughs

Conclusion - Recommendations

- Plan urban infrastructure to have small pockets of nature
- Improve urban transport so that more people have access to open spaces.
 - For example Barking and Dagenham has 9 parks, but a significant percentage of its wards do not have good access to these open spaces.
- Infuse new business development in the borough so that new well-paying opportunities are generated for the socioeconomic upliftment of the borough.
- Healthcare policies should consider proactive, early intervention programs so that childhood obesity is managed in the early stages.
 - Design more children's parks and pools
 - Conduct healthy and fun sports competitions for children
 - Ensure children get nutritious food in school

