



## **Children with Obesity by borough Community in Enfield, UK**

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# CHAPTER 1: INTRODUCTION

## 1.1 Background and Context

Around the globe, childhood obesity is considered a significant threat to public health, and it is on the rise significantly in the United Kingdom. In the London Borough of Enfield, obesity rates for children are rising above both national and nearby rates. In 2022-2023, nearly a quarter of Year 6 children in Enfield were categorised as obese by the National Child Measurement Programme (NCMP). The rate in San Diego is much higher than the national average of 22.1%. Concerns about childhood obesity in Enfield raise health issues such as the increased chance for children to develop diabetes, heart disease. 2.3 Place Japan in the context of what happened during the fight against fascism. Socioeconomic factors contribute to childhood obesity. Individuals from lower socioeconomic backgrounds are more likely to face health risks due to limited access to healthy meals, inadequate opportunities for exercise, and other factors that contribute to unhealthy habits (Mayo Clinic, 2022). Because Enfield has both urban and suburban districts, the challenge is made even more difficult. Children from wealthy neighborhoods can use parks and sports grounds, yet this is not usually the case for children living in deprived areas (Lee, Cardel, and Donahoo, 2019).

There too, experts say local culture and the communities children live in play a role in shaping their attitudes toward these things. Enfield is a diverse community and know that people have different eating and exercise habits from one community to another (Flaubert et al., 2021). Because of the range of cultures in the borough people see these things in a diverse light, which impacts how health services are configured themselves. In order to create stronger solutions to combat childhood obesity in a community, the culture of the community needs to be taken into account (Campbell, 2024).

**Abstract** This report examines the reasons for the increasing prevalence of childhood obesity in the Borough of Enfield. By looking at rates of childhood obesity across the various borough groups in Enfield the experts should be able to provide recommendations for potential interventions. The intention is to develop a tailored approach to address obesity that specifically addresses the diverse challenges presented by each local borough community.

## 1.2 Statement of the Problem

Despite the worry over divided economy about formative years weight problems in Enfield that continues to be the case even inside of Enfield's boroughs. Consequently, community experts struggle to create programs addressing the unique contributors to obesity in these areas. General public health strategies, for example, will not meet the needs of the different communities who make up Enfield. For example kids in deprived parts of the borough become overweight many kids there have no choice in healthy food, little exercise and struggle with the high prevalence of families habits. On the other hand, affluent communities are able to utilise healthcare programmes and facilities to keep them from getting obesity (Myassignmenthelp, 2016).

**Introduction** The study seeks to assess childhood obesity rates across the different boroughs of Enfield, as a part of the problem statement. It will examine the reasons for such disparities and evaluate whether current public health initiatives are successful in combating obesity. Analysis of the local data trends will help to develop targeted responses for different parts of Enfield (Livingston et al., 2020).

## 1.3 Research Aim and Objectives

### **Aim:**

This study's chief intention was to consider the incidence of childhood obesity in the various borough communities in Enfield, UK, and establish the primary factors responsible for this public health crisis. It also seeks to evaluate how effective current responses to obesity are and to propose ways to better manage the epidemic.

### **Objectives:**

1. Explore the scale and spread of childhood obesity between the communities in the borough of Enfield.
2. Determine the social, economic, cultural and environmental influence on childhood obesity in Enfield
3. Evaluate the effectiveness of existing public health initiatives to manage childhood obesity in Enfield.
4. Recommend evidence-based strategies to reduce childhood obesity tailored to the needs of Enfield's communities.

## **Research Questions**

1. What is the prevalence and geographic distribution of childhood obesity among children in the various borough communities of Enfield?
2. How do social, economic, and cultural factors, including family income and education, influence childhood obesity in Enfield?
3. To what extent do environmental factors such as the availability of recreational spaces, access to healthy foods, and safe play areas affect childhood obesity rates in Enfield?
4. How effective have current public health initiatives been in reducing childhood obesity among children in Enfield?

## **Structure:**

Chapter 1: Introduction—This chapter explains the background, identifies the problem the study examines, states the aim and objectives, outlines the questions, and describes the structure of the dissertation.

Chapter 2: Literature Review – Examining previous studies about childhood obesity, what causes it, its effects, and prior steps taken to tackle it, mostly in urban settings in the UK.

Chapter 3: Methodology – Describes how researchers planned the study, drew a sample, gathered information, and processed it.

Chapter 4 displays the findings obtained from examining and analysing the collected data.

Chapter 5: This chapter discusses the findings by comparing them to other studies and explaining the implications of the research for public health programs.

This chapter addresses the main points, provides practical suggestions for advancement, and suggests further study subjects.

## **1.4 Summary**

This chapter introduces the topic of childhood obesity in Enfield, UK. The first part covers the situation that led to the research, highlights existing research limitations, and outlines the

purpose and objectives. The research questions and the structure of the dissertation are also introduced. The study will help identify factors affecting childhood obesity in Enfield and provide recommendations for enhancing public health policies to achieve optimal results.

## Chapter 2: Obesity from Global, National and Local Viewpoints

### 2.1 Early history of the discipline.

#### 2.1.1 The Problem of Childhood Obesity

Throughout the late 20th century, the World Health Organisation (WHO) and many others began to view childhood obesity as a serious epidemic. During the past thirty years, many countries have seen obesity rates go up by two or three times, largely because of city living, little physical activity, and more fast food. The main reason so many people are getting obese is that their body uses less energy than the food they consume (Chung, Krennek, and Magge, 2023), which can bring on type 2 diabetes, heart problems, and metabolic syndrome.

Since obesity has changed so rapidly, it cannot be explained solely by genes; one should also focus on how one's environment and society influence it. The concept of an "obesogenic environment," which refers to settings that promote weight gain, has reshaped public health thinking by highlighting the limitations of solely individual-focused interventions. In particular, children who are overweight might be overweight as adults and are at increased risk of chronic diseases. Therefore, early preventive actions are recommended to prevent these diseases. Results indicate that preschoolers who are obese can expect to stay obese five times longer than those who are not. Should concentrate on the early stages of development (Gómez-Martín et al., 2025).

#### 2.1.2 Childhood obesity across decades

Obesity and being overweight are complex health problems for many children worldwide. During the years 1975 to 2016, the number of obese children between 5 and 19 years old went from under 1% for both genders to 5.6% in girls and 7.8% in boys. By 2022, the percentage of adults who were just overweight had increased to 20% from just 8% at the beginning of the '90s. Experts estimate that 35 million preschool-age children are overweight, and the most significant increase is happening in low- and middle-income countries (LMICs) (Hossain, Luies, and Biswas, 2020).

Obesity in children in the UK rose from 12% in 1995 to 19% in 2004 and has stayed between 14% and 17% ever since. Even so, early figures suggest obesity among 4-5-year-olds was

slightly lower in 2023, although rates rose to 36.6% for those aged 10-11. As progress is still slow, today's methods are not powerful enough to have a significant effect (Broadbent et al., 2024).

These problems are common in our cities. Reception children (age 4-5) in Enfield borough were more likely to be overweight than children in London or England. In Year 6, 41.5% of learners were considered overweight compared to the broader averages. As a result, financial difficulties and a mix of races and cultures increase the risk of obesity (Baker and Rowley, 2016).

### 2.1.3 Steps Taken in the Beginning and Policy Changes

Public health work worldwide and in Britain used to focus on encouraging people to change their lifestyles, but now it also encompasses broader environmental causes. The UK's "Tackling Obesity Policy Paper" exemplifies a "whole systems approach," involving multi-sector collaboration among government bodies, healthcare, schools, and communities. NICE believes that interventions addressing diet, exercise, and inactivity should be implemented in various settings (Brookes, 2021).

The WHO has set global goals to slow the rise of childhood obesity over the next five years. After classifying people by BMI, most of the improvements created by the programs drop off after a few years. Significant differences remain between policy targets and the results, which are explained by the wide gap in the quality of studies, their narrow scope, and problems in identifying biases. They point out that continuous programmes have better results than short-term approaches in achieving results (Chrissini and Panagiotakos, 2022).

## 2.2 The theory behind the concept

### 2.2.1 Biological and genetic factors shape an organism's behaviour.

For many, obesity in children occurs when genes, genetic changes, and environmental factors all contribute to the condition. Researchers estimate that obesity risk can be attributed to genetics in 47% to 90% of cases, and more than 1,100 genetic loci are linked to traits such as eating habits, metabolic rates, and energy levels. The "obesogenic environment" can activate these genetic predispositions, emphasizing a dynamic gene-environment interplay rather than a deterministic genetic fate (Vourdoumpa, Paltoglou, and Charmandari, 2023).

Since genetics plays a more significant role in children and adolescents, early intervention may be the most effective for those at the highest risk. It suggests that activities that protect the environment can lower the number of genetic vulnerabilities found in people (Motsinger-Reif et al., 2024).

### 2.2.2: Psychology and Behavioural Theories

Poor dietary habits and a lack of physical activity often cause obesity. Other mental issues that contribute are when people eat for emotional reasons, struggle with who they are, worry about being with others, and do not manage their lives well. The link between obesity and mental distress leads to the same unhealthy behaviours repeating (Segal and Gunturu, 2024).

Researchers now consider eating speed an area where behavior can be modified; those who eat quickly typically consume more food, but slowing down the eating process reduces calorie intake. As a result, new suggestions for managing meal patterns, along with regular advice on nutrition and exercise, appear to be practical ideas (Hawton et al., 2018).

### 2.2.3 Social factors influence health.

A family's income and living environment have a significant impact on child obesity. According to Dahlgren and Whitehead's model, a person's health results from factors within themselves, within their relationships, and in the broader economy. Being active and healthy can be challenging for children in less favorable places, and this problem is exacerbated by stress (Lee, Cardel, and Donahoo, 2019).

Enfield has a wide range of obesity between its most and least deprived areas, and the difference among African and Turkish/Kurdish youth groups is easy to notice. Therefore, efforts to combat obesity should consider both culture and finances, as well as address inequalities (Lee, Cardel, and Donahoo, 2019).

### 2.2.4 Models Focusing on Ecological and Community Health

Researchers use ecological models to explain how different influences affect behaviour and advise on suitable treatments. While multilevel strategies are more effective than single-level approaches, the results vary because implementing them is challenging. Obesity prevention must involve multiple organisations to prevent recurrence (Kennedy et al., 2021).

## 2.3 Place Japan in the context of what happened during the fight against fascism.

Almost 390 million children and adolescents worldwide are overweight, while a further 160 million are obese. As LMICs change similarly to wealthier countries, the number of overweight people there is growing fast. Problems with health and mental health may involve early diseases, difficulties with life quality, and feeling misunderstood. As infections are rising globally, countries must collaborate more effectively to prevent diseases (Jebeile et al., 2022).

The WHO's Commission on Ending Childhood Obesity (2014) and the UN's Sustainable Development Goals emphasize the prevention of obesity as a global health priority. It's best to introduce taxes on unhealthy drinks, limit how much exceptional food is promoted, and encourage places for people to do gymnastics or exercise. People can come to the same conclusions, but specific political, economic, and infrastructure issues still hinder their usage (Pulungan et al., 2023).

Integrating knowledge about nutrition and exercise into school programmes is simple and highly effective for many students. Programs like "The Daily Mile" demonstrate success in increasing physical activity. Yet, for a programme to remain effective over the years, it must employ solid assessment and integrate multiple approaches to manage behaviour and the environment (Morris et al., 2019).

## 2.4 The Situation in the Country

Fifteen percent of English children aged 2 to 15 are obese, and 27 percent are considered overweight or obese. More people in low-income neighbourhoods are likely to be obese than people in prosperous ones. National initiatives, such as the sugar tax and the "Change4Life" campaigns, represent significant policy shifts but are insufficient to significantly reduce the prevalence (NHS England, 2024).

Enfield's childhood obesity rates surpass London and national averages, with severe obesity also higher. These patterns are much more likely to shape up in a way that discriminates against people who are socially and economically disadvantaged and identified by their ethnicity; African and Turkish/Kurdish groups are at greater risk. Because population mix can vary from location to location, it is essential for public health efforts to be guided by and recognise area customs (Motsinger-Reif et al., 2024).

Even with community programmes, it is still difficult for them to maintain continual progress and deal with the leading causes. This makes it clear that programmes designed mainly to help those with strong connections need to be restructured to support more equal outcomes (Stover, Avadhanula, and Sood, 2024).

## 2.5 Conceptual Framework

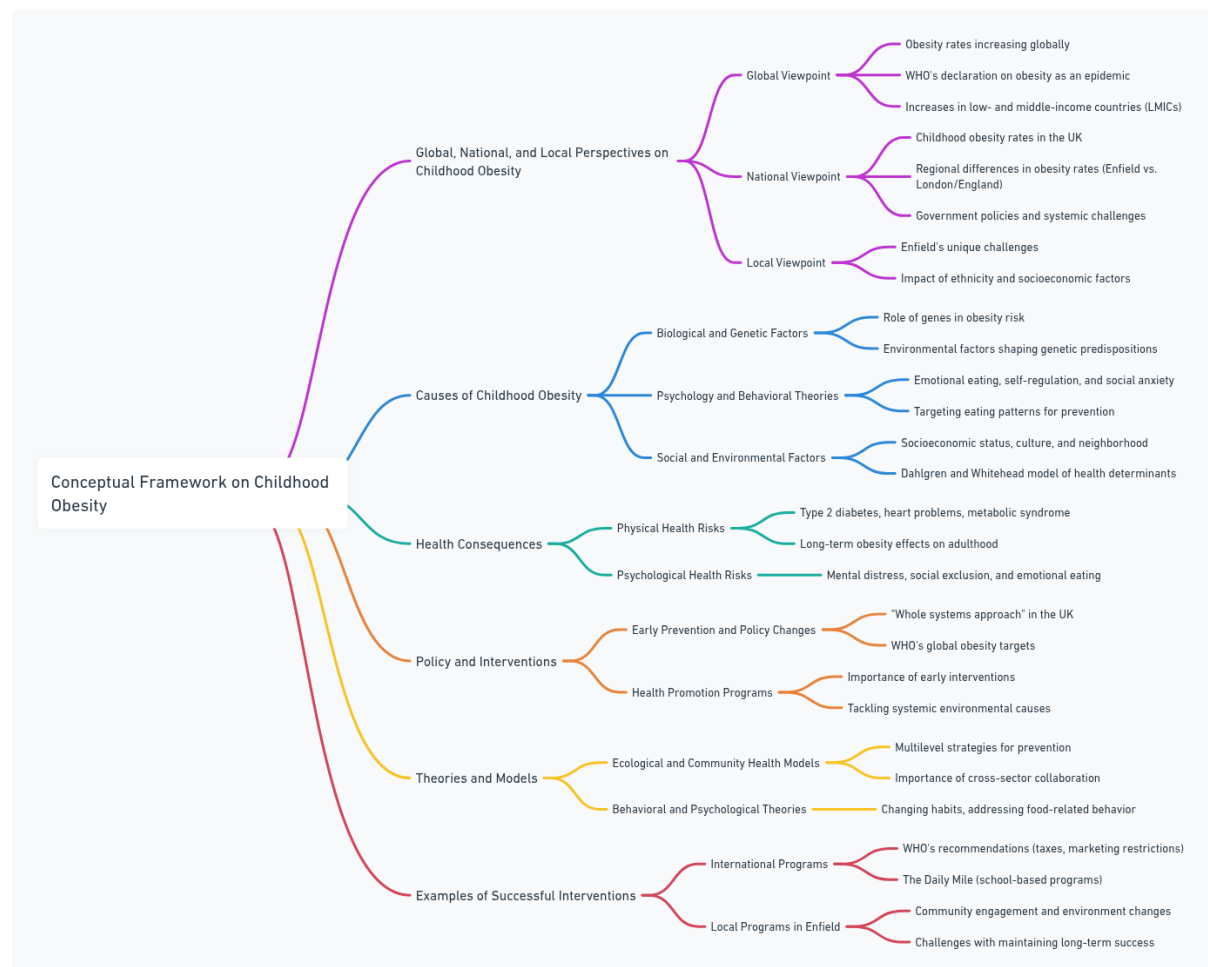


Figure 1: Conceptual Framework

The framework explains the main influences behind childhood obesity at the global, national, and local levels. Obesity is explored using biological, psychological, and social causes, focusing on heredity, the surroundings someone lives in, and feelings that lead them to overeat. It also explores what health problems can occur, including bodily and mind harm. The framework addresses policy interventions, including early prevention and systemic approaches, such as the WHO's global targets and the UK's "whole systems approach." Examples of programmes that work in the community and schools are covered, along with lasting and multi-level approaches to solve the problem.

## 2.6 Literature Gap

In current research on childhood obesity, one issue is how well and relatively local obesity interventions work for different populations over a long period. Despite focusing on lowering childhood obesity, many public health policies do not usually target the poverty, cultural factors, and environment of those from marginalised populations. The success of such initiatives in places with a mix of many ethnicities, like Enfield, deserves more study. A further problem is that long-term studies to see if programmes are healthy and work well in many settings are rarely done.

## Chapter 3: Methodology

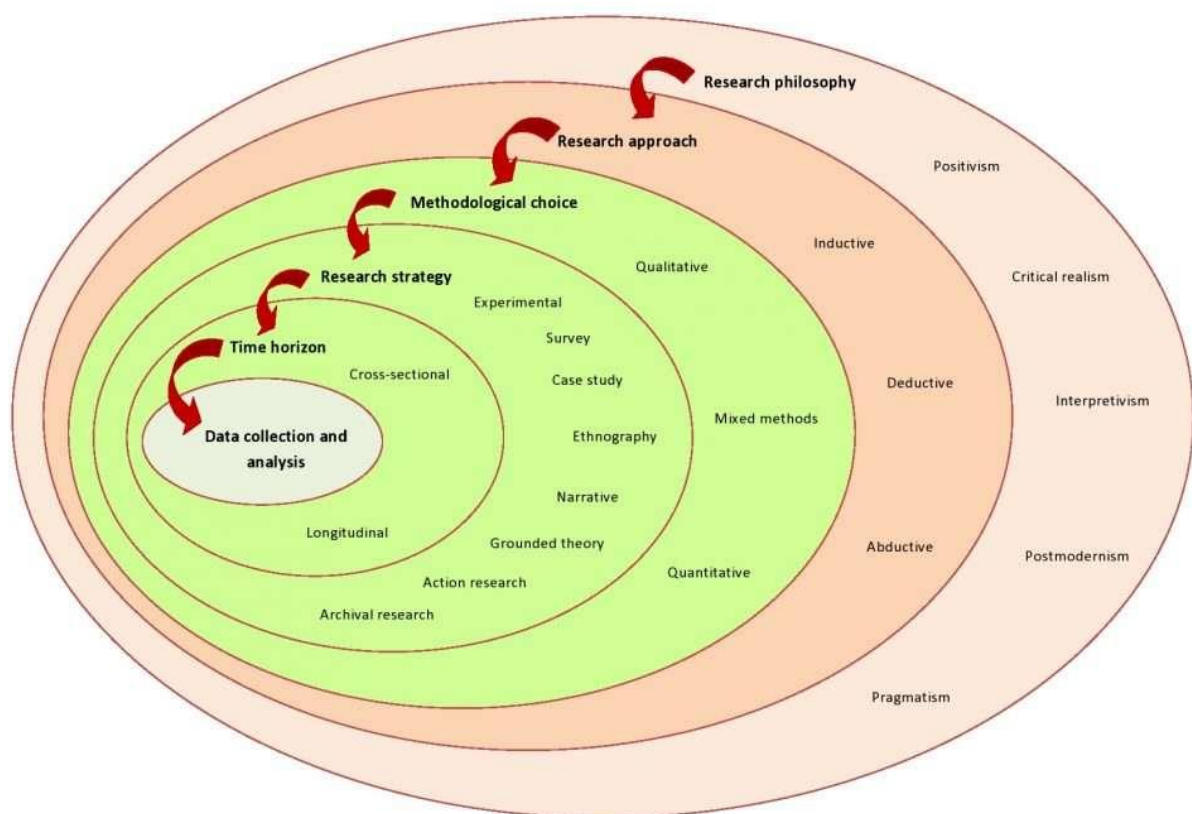


Figure 1: Research Onion (Tengli, 2020)

### 3.1 Philosophical Approach

This study adopts an interpretive approach, positing that social reality is shaped by what humans experience, say, and their culture. Since it employs contextual understanding rather

than formal measurements, interpretivism is a suitable method for understanding how Enfield's various communities address childhood obesity (Pulla and Carter, 2018). Its findings typically only apply in narrow contexts and rely on the researcher's perspective and recording methods. Even so, the strength of linguistics—namely, the ability to notice subtle differences in meaning—matches the research aim of identifying the factors that influence obesity in each borough. Because interpretivism places importance on participants' voices in analyses and reports, the recommendations fit the local situation (Maier et al., 2023).

### 3.2 Approach to Theory Development

Researchers in this study begin with the data to develop theories directly, rather than testing set hypotheses. Looking specifically at secondary qualitative data—NCMP commentaries, lower local authority health profiles, programme reviews, and scholarly studies—initial patterns should become apparent, and codes can be assigned. The codes will then be placed under broad topics that outline how factors such as wealth, culture, and the environment contribute to childhood obesity in the boroughs. The induction approach may face a disadvantage since it can allow the researcher's thoughts to influence the main concepts (Yardley, 2024). This problem will be minimised by following the six-phase thematic process Braun and Clarke outlined, using peer debriefing and refining the codes as needed. The flexibility and wide-open nature of induction are essential since different community data do not have a fixed structure. Using actual documents and reports, the study develops practical, well-supported explanations of the factors leading to obesity, which ensures the results address the boroughs' needs and align with the study's targets (Mason et al., 2021).

### 3.3 Methodological Choice

Monographic qualitative methods are employed in this study, and the data are all obtained from previously collected sources. Using documents, including NCMP and Enfield reports, past policy assessments, and review studies, this study examines the factors contributing to the rise in childhood obesity. Although triangulation is enhanced in mixed-method designs, gathering new data can be challenging and sometimes raises ethical concerns. Studying qualitative papers allows the researcher to gain in-depth knowledge while keeping time and resource needs to a minimum. When using a mono-method design (Naidu-Valentine, 2024). The research risk failing to check ideas against other lines of evidence, which may limit the range of insights. Nonetheless, since there are many different types of information, including statistics and ethnographies, studies can examine communities from various perspectives. Through a

qualitative approach, researchers rely on personal accounts to reveal how society and culture affect the ways people battle obesity. The consistency between work methods and the tasks to be accomplished leads to a thorough examination of childhood obesity across Enfield's communities (Imhagen et al., 2022).

### 3.4 Research Strategy

Since each Enfield borough is considered a single case, systematic comparisons both across and within boroughs are made possible. Based on the guidelines set out by Yin, this research will collectively examine and analyze secondary qualitative data from health commentaries, local health profiles, and evaluations of borough programs. A disadvantage of using a case study strategy is that its findings often do not work in other contexts. Additionally, comprehensive case analyses can be time-intensive (Kakuru, 2019). It is also worth noting that the case study offers new, in-depth insights into the unique ways socio-economic conditions, cultural practices, and the environment contribute to childhood obesity in each borough. Studying several cases at once enables the research to identify both common and unique factors, which helps in understanding how to distribute programs and measure their effectiveness. Using the case study approach enables the arrangement of different types of data into coherent stories about each community. In short, this approach ensures that advice for public health policies is grounded in extensive local analysis, which helps them remain targeted and effective (Ayala et al., 2021).

### 3.5 Time Horizon

This study examines the most recent cycle of data (2022–2023), as contained in the latest NCMP results and associated documents. Such designs fail to measure changes in health condition with time and do not explain which treatments may have caused these results. The main advantage is that it provides recent and valuable information to meet the need for assessing childhood obesity in Enfield's communities (Hawking, Dezateux, and Swinglehurst, 2023). The study utilizes recent data to inform policymakers and local groups about the necessary improvements in their respective areas.

### 3.6 Data Collection Methods

The data for the study comes from secondary sources that are selected for their broad topic coverage, detailed facts, and their suitability for use.

1. The reports for the National Child Measurement Programme (NCMP) (2022–2023) give local rates of overweight and obesity, notes on trends, and early suggestions concerning the links to socio-demographic variables (Broadbent et al., 2024).
2. Information about income deprivation, education, access to green areas, and ethnic composition, as well as other lifestyle and health indicators, all found in Enfield Local Authority Health Profiles, is accessible to all (White, 2017).
3. Evaluations of Public Health Initiatives: Internal and external reviews found that Change4Life and similar community-based weight management programs faced numerous challenges in practice and were not perceived as highly effective.
4. Peer-Reviewed Research: Academic articles and case studies focused on cultural, psychological, and environmental causes of child obesity in the city, which explain their theories and compare them with relevant studies.

Secondary data may suffer from the fact that the researcher cannot manage collected information and may not notice if different records report the same data inconsistently. To address this, the inclusion criteria require that sources mention the prevalence and context of the data. At the same time, metadata about the collection process will help determine the reliability of the data. The benefits of secondary data—such as its lower cost, quick accessibility, and use of authoritative sources—align with the project's requirements. All these sources offer different perspectives on the boroughs, allowing the researcher to study and describe the causes of childhood obesity and report its findings efficiently (Cheong et al., 2023).

### 3.7 Data Analysis

Thematic analysis is followed by data analysis, as outlined by Braun and Clarke (2006), which is applied to all the gathered texts.

1. Introducing myself to the material: The research explored the NCMP commentaries, studied health profiles, and reviewed the evaluation reports, taking note of what The research liked or found interesting (Cheong et al., 2023).
2. Using software or matrices, produce fine-grained codes by hand, such as those for “food access barriers,” “how food is traditionally eaten,” and the “reasons clients left the programme.”

3. Themes should be identified by grouping codes that focus on significant influences (such as socio-economic issues, lack of community involvement, or the role of urban form) into a list (Cheong et al., 2023).
4. It is essential to examine how a theme operates across all cases and determine if it stands out from the others, refining or merging it as necessary.
5. Giving Themes Names: Creating short explanations for every theme that capture the link between factors and obesity, or adopting healthy measures (Kakuru, 2019).
6. Report Creation: Building explanatory storeys and helping visuals to connect themes to cases in each court case.

Because themes may be interpreted differently, researcher bias can be introduced in this field. As a result, the analysis will involve teammates reviewing their work, saving evidence of coding moves, and using various types of documents for comparison. Because thematic analysis is flexible and in-depth, it enables the study to incorporate multiple sources and explain how social, cultural, and environmental areas overlap in each part of the city. Following the six-stage research approach, strong themes are identified that directly inform practical and context-appropriate recommendations for addressing childhood obesity in Enfield (Pulla and Carter, 2018).

### 3.8 Week Gantt Chart

| Task                                     | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 |
|------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Finalize methodology design              |        |        |        |        |        |        |        |        |
| Identify and source secondary materials. |        |        |        |        |        |        |        |        |
| Familiarization & initial coding         |        |        |        |        |        |        |        |        |
| Theme development & review               |        |        |        |        |        |        |        |        |
| Define & map themes.                     |        |        |        |        |        |        |        |        |

|                                       |  |  |  |  |  |  |  |  |
|---------------------------------------|--|--|--|--|--|--|--|--|
| Draft Chapter 3 write-up              |  |  |  |  |  |  |  |  |
| Revisions and final editing           |  |  |  |  |  |  |  |  |
| Submission of the Methodology chapter |  |  |  |  |  |  |  |  |

Table 1: Gantt Chart

## Chapter 4: Data Analysis and Discussion

| Theme                                                  | Objective                                                                                                                 | Theme Definition                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cultural Factors and Childhood Obesity                 | Objective 1: Assess the prevalence and distribution of childhood obesity across Enfield's borough communities.            | This theme examines how ethnicity and traditions influence childhood obesity rates. Direct exposure to different types of cultural practices, eating behaviours, and body image constructs may also be a factor contributing to the significantly heightened obesity prevalence among some ethnic groups, predominantly Asian and Turkish/Kurdish children, as shown in this study. |
| Environmental Factors and Access to Healthy Lifestyles | Objective 2: Identify social, economic, cultural, and environmental factors contributing to childhood obesity in Enfield. | This theme relates to the physical environment, like the availability of recreational facilities or environment promoting a healthy lifestyle, and factors which discourage healthy living, like poor walkable space, food environment, etc. It also points to the influence of fast-food outlets close to schools and the the availability of safe and accessible areas for play.  |
| Health and Lifestyle Factors                           | Objective 3: Evaluate the effectiveness of                                                                                | The Impact of Lifestyle Factors on Childhood Obesity, Including Physical                                                                                                                                                                                                                                                                                                            |

|                                                           |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                           | existing public health initiatives to manage childhood obesity in Enfield.                                                   | Activity Levels, Screen Time, Sleep and Mental Health. It evaluates the effectiveness of public health initiatives such as the "Change4Life" programme and local health nutrition promotion activities in Enfield schools and communities.                                                                                                                          |
| Evidence-Based Strategies for Childhood Obesity Reduction | Objective 4: Recommend evidence-based strategies to reduce childhood obesity tailored to the needs of Enfield's communities. | This Theme proposes practical and targeted solutions based on the collected data. It also highlights techniques, including policy implementation, increased community involvement, environmental and infrastructure changes, and culturally aligned interventions that are appropriate for the local context, to successfully address childhood obesity in Enfield. |

*Table 2: Thematic Coding*

## Theme 1: Cultural Factors and Childhood Obesity

The cultural factors and childhood obesity theme are based on the influential capacity of the cultural beliefs, practices, and ethnicity in affecting the prevalence of obesity among children in Enfield. The ethnic diversity of the borough indicates the differences in obesity occurrence by group. As an illustration, the statistics disclose the fact that excess weight is more frequent among children of Asian and Turkish/Kurdish races than among their fellow peers. Essential concepts that include CF-1 (Ethnic Diversity) and CF-2 (Asian Children Obesity) focus on obesity among various ethnic groups who are affected in different proportions. Cultural factors, including CF-5 (Cultural Body Image Perceptions) and CF-6 (Cultural Dietary Preferences), further highlight the impact of traditional beliefs about food and body image on children's health behaviors. Food is a highly cultural aspect of many ethnic communities, and the way their cultures are practiced often relates to dietary behaviors, which may not always align with current health recommendations in a given community, leading to an increase in obesity prevalence. Also, cultural body image is likely to influence the attitude of people in these nations towards overweight and obesity, which could result in delaying appropriate treatments or tolerance of unhealthy body shapes. The theme relates to Objective 1, which aims to determine the prevalence and distribution of childhood obesity within the communities in the

Enfield borough, and how this trend is influenced by ethnic and cultural factors. It is essential to understand these cultural factors to develop effective interventions tailored to the needs of various ethnic groups in Enfield, thereby piecing together a comprehensive strategy that addresses both prevention and treatment of obesity in a targeted manner.

## Theme 2: Environmental Factors and Access to Healthy Lifestyles

The theme of Environmental Factors and Access to Healthy Lifestyle examines how the physical and social surrounding environments of Enfield contribute to the prevalence of childhood obesity. Access to recreational areas, food establishments, and transportation facilities is crucial in facilitating or hindering healthy lifestyles. EF-1 (Parks and Green Spaces for Physical Activity) points out the significance of the available outdoor spaces that boost physical activity, whereas EF-2 (Leisure Centres and Swimming Pools) emphasizes the importance of the available facilities that are conducive to physical activities. However, it is worth noting that limited access to these spaces can be a common occurrence, especially in more deprived areas of Enfield, as indicated by EF-3 (Recreational Spaces Access) and EF-10 (Barriers to Accessing Recreational Spaces). Nearness of fast food outlet to schools, which is evidenced by EF-4 (Fast Food Outlets Near Schools), and, what is more important, the lack of healthy food choices, which is demonstrated by EF-6 (Food Environment in Deprived Areas) and EF-9 (Food Poverty), contribute to the problem of child obesity. These environmental factors set an environment where unhealthy food is more accessible than healthy food alternatives. Moreover, there exist public policies, such as EF-5 (HFSS Product Advertising Restrictions), which are projected to restrict children's exposure to unhealthy food marketing; however, such policies do not always prove effective. This theme is directly related to Objective 2, which aims to identify the social, economic, cultural, and environmental factors that contribute to childhood obesity in Enfield. As long as there are ecological barriers to them living healthy lifestyles (e.g., restricted access to healthier foods, lack of safe places to play, inappropriately too much exposure to fast food marketing, etc.), children are much less likely to be able to live healthier lives. Achieving a reduction in obesity rates will not be easy.

## Theme 3: Health and Lifestyle Factors

The Health and Lifestyle Factors theme is concerned with the non-medical lifestyle choices and practices that contribute to childhood obesity, including physical activity, mental recreation, sleep, and mental well-being. The HF-1 (Physical Activity Levels) and HF-3 (Meeting Physical Activity Guidelines) indicate that the level of physical activity is not in line

with recommendations, as many children in Enfield do not practice it, and consequently, this is one of the leading causes of obesity. Children are becoming less active due to the extraordinary use of screens, as observed in HF-2 (Screen Time), which reduces their likelihood of engaging in physical activities. It is further exacerbated by the fact that there are no exercise opportunities in schools (HF-5 (Exercise Opportunities in Schools)). The HF-6 (Mental Health and Obesity) and HF-7 (Depression and Anxiety Impact) deal with the psychological impact generated by obesity, which is both a cause of obesity and discourages children from taking part in physical activities, as one is ashamed of themselves and depressed. Additionally, HF-9 (Sleep Patterns and Obesity) suggests that poor sleep quality may have a detrimental impact on the weight management of children. The problem of sleep deprivation, which is prevalent in children, has been linked to the risk of obesity. However, in the local area, there is little data available on the same topic, as stated in HF-10 (Lack of Sleep Data). This theme aligns with Objective 3, which measures the success of public health programs in managing childhood obesity. The objective states that health and lifestyle factors, such as physical activity, screen time, rest, and mental conditioning, are key components in obesity-fighting strategies. To resolve the causes and cure childhood obesity, as well as to implement successful prevention health programs, enhancing these lifestyle factors is of great importance.

## Theme 4: Evidence-Based Strategies for Childhood Obesity Reduction

The theme 'Evidence-Based Strategies for Childhood Obesity Reduction' aims to identify targeted policy recommendations and interventions that can help prevent childhood obesity in Enfield. The PS-1 (Fast Food Advertisement Restrictions) and PS-2 (HFSS Product Advertising Ban) codes suggest that restricting children's exposure to unhealthy food advertising can be a practical approach to combat obesity. Additionally, PS-3 (Introduction of a Sugar Tax) sheds light on the effectiveness of using fiscal measures, such as the introduction of a sugar tax, in other areas and how it can be applied in Enfield to help decrease sugar consumption and encourage healthier diets in the community. With the help of urban design ameliorations such as PS-4 (Urban Design to Walk and Cycle) and PS-5 (Zoning of Fast Food Establishments Near Schools), the healthier situation is to be achieved according to the improvement of the active mode of transit and the decrease of children accessing to fast food spots close to schools. The PS-6 (Culturally Tailored Programs) places importance on using culturally-sensitive programs that consider the needs of various communities in Enfield, especially the ones with obesity rates in the upper tier, such as the Turkish/Kurdish and Asian cultures. PS-7 (Community Engagement in Program Design) remind of the necessity to

represent the local community in the planning process of an obesity prevention program, due to its relevance and efficiency. In addition, PS-17 (Early Intervention in Childhood Obesity) emphasizes the need for interventions in children at varying ages, including those in early years settings, to form and maintain good behavioral habits before they develop into the disease of obesity. The theme is related to objective number 4, as it suggests that evidence-based measures that consider the needs of the Enfield communities specifically should be recommended. Having introduced both policy modifications and community participation, as well as improved the environment, Enfield can develop a sustainable, multisectoral strategy for reducing childhood obesity.

## Discussion

### Theme 1: Cultural Factors and Childhood Obesity

#### Objective Addressed:

The theme directly relates to the research objectives, which include determining the prevalence and dissemination of child obesity among the various communities in Enfield Borough. Through an emphasis on the cultural and ethical aspects, the theme explores the role of artistic practices, ethnic backgrounds, and the development of body image regarding obesity levels in children within the Enfield community.

#### Implications and Broader Perspective:

Cultural factors are deeply intertwined with childhood obesity. Culturally sensitive public health programs are also necessary, as described in this theme. The higher obesity rates among Asian and Turkish/Kurdish children, compared to other ethnic groups, demonstrate how cultural practices and beliefs shape children's health behaviors. These societies have a considerable influence on the provision of tradition, eating habits, and culture regarding their body image and obesity. As an illustration, among numerous ethnic groups, food is regarded as a cultural staple, and not much attention is paid to healthy eating or losing excess weight. These research results indicate that a practical approach to reducing obesity among children requires public health programs to selectively focus on behavior change, along with substantive cultural adaptation of the behavior change program to the population. This would imply incorporating traditional foods and culture into health programs without importing Western notions of what people should eat, as such notions might not be appealing or acceptable to these communities.

In a broader context, this theme is supported by literature indicating that culturally appropriate interventions are necessary to enhance the effectiveness of obesity prevention efforts (Lee, Cardel, and Donahoo, 2019). This is particularly applicable in an ethnically diverse environment such as Enfield, where one-size solutions will most likely fail to work. Moreover, the theme suggests that there is a need to work more closely with cultural perceptions of body image, as they can be counterproductive or pro-intervention. In case children belonging to some cultural groups cannot accept obesity as a health condition because of the cultural peculiarities, resistance to interventions can occur.

#### Literature Comparison:

The results of this theme correspond mostly with available literature on the impact of culture on childhood obesity. Campbell (2024) and Flaubert et al. (2021) also emphasize that cultural considerations should be involved in preparing health interventions. This study, however, adds a bit of flavor to this phenomenon as it argues that our differences in cultures are not only associated with our diets but also the way people feel about their bodies and how such makes them determine whether obesity should be tolerated or not in society. The current literature on the subject matter tends to focus more on diet behavior and overlook the broader social and cultural aspects of the obesity problem (i.e., how ethnic groups can internalize or resist the purpose of prevention messages on body weight).

#### New Findings:

Among the novel findings derived from the present research is the massive influence of cultural body image outlooks. Although dietary habits have been emphasised in the past, the notion of body image among the Turkish/Kurdish children is something that has not been thoroughly investigated. This community may have various concepts of a healthy body, and their perceptions might be a contributing factor to the acceptance of overweight and obesity. Knowledge of the differences between such perceptions in various communities is also essential when developing cultural interventions that appeal to specific ethnic groups.

Also, the research discloses that obesity, especially in ethnic minority groups, including Turkish/Kurdish children, is not just a health issue since it is a part of the cultural and social setting. Such findings emphasize the need to develop community-based intervention programs that consider dietary habits as well as the socio-cultural background in which children exist.

#### Future Research and Limitations:

Although the theme highlights the significance of cultural factors in the causation of obesity among children, a major limitation is that it relies on secondary information. The study is primarily based on existing statistics and health reports, which are not capable of providing detailed insights into cultural practices in real-time. Further studies are needed to collect primary data, which is qualitative in nature, such as interviews and focus groups involving parents, children, and community leaders, to enlighten the researcher on the issue of cultural norms related to food and body image regarding childhood obesity in Enfield. Additionally, there is a need to study further the methods of designing culturally sensitive interventions and their implementation to be conducted effectively, in order to accommodate these factors without compromising traditional practices.

## Theme 2: Environmental Factors and Access to Healthy Lifestyles

### Objective Addressed:

This eighth theme responds to Objective 2,, which is to determine the social, economic, cultural,, and environmental causes of childhood obesity in Enfield. It draws attention to the ecological factors of childhood obesity, which include the availability and accessibility of healthy resources, such as recreational areas, food options, and transportation.

### Implications and Broader Perspective:

The childhood obesity is influenced by environmental factors, which are very crucial. The latter theme assures that health behaviors of children are not an isolated decision made by each child on their own, but they are greatly affected by the environment the children are raised in. Park and leisure centres along with other spaces where children can be active in the society (as read in EF-1 and EF-2) would enable the children to have the chance to be physically active among others, which is the key to obesity prevention. But the study shows there is a considerable difference in access to such spaces across Enfield and in those areas that are more deprived. In these places, children are unable to exercise because of insecure, poor ground/direction or inability to reach recreational grounds. This disparity in exposure to good health surroundings is one of the direct contributors to the obesity pandemic.

Conversely, there is an increase in the appearance of fast food restaurants around schools (EF-4), which makes the situation worse. Such shops offer easy, cheap, energy-rich diets that children frequently eat, leading to bad eating behaviors. More so, the theme also talks about food poverty (EF-9) and its impact on deprived area family life. Another major predisposing

factor to obesity is that children in such communities might not find affordable and nutritious food. When high-priced, healthy food is not affordable, and there is an abundance of cheap and unhealthy food, the scenario in low-income neighborhoods promotes childhood obesity like an uncontrolled hurricane.

From a broader perspective, the findings support the growing body of literature on the "obesogenic environment," which suggests that the built environment—characterized by easy access to unhealthy food, unsafe public spaces, and limited access to physical activity—is a significant factor in childhood obesity (Morris et al., 2019). The solution to these environmental factors, therefore, is a systemic one involving urban planning, adjustment of policies and involvement of the community to ensure every child despite whatever socioeconomic status can have the same opportunity to live healthy lives.

#### Literature Comparison:

This theme is consistent with the literature that finds an association between childhood obesity and environmental factors (Gomez-Martin et al., 2025; Lee, et al., 2019). Nevertheless, it builds on previous studies by deliberately pointing out the inequality in access to healthy foods and recreational facilities in the deprived neighborhoods in Enfield. Previous literature tends to discuss these factors in general terms and fails to highlight the role they play in relation to socio-economic inequalities that exacerbate them in specific environments, such as Enfield. Such a study brings a fresh understanding of the fact that food poverty and a lack of safe and free places of recreation are associated with higher prevalence of obesity in lower-income communities.

#### New Findings:

One of the key findings of this study is the significant contribution of food poverty to the obesity crisis in Enfield. Although considerable research has been conducted on food environments, this study highlights the critical situation in deprived areas, where the combination of food poverty and the proximity of fast food restaurants directly contributes to poor diets and eating habits. Furthermore, the research introduces the concept of "safe recreational spaces," which has not been fully explored in previous literature, showing how safety concerns in deprived areas limit children's opportunities for physical activity.

#### Future Research and Limitations:

Future studies could be based on the present findings and involve longitudinal studies to examine how changes in the developed environment (e.g., the opening of new parks, enhancement of food access, or implementation of more convenient means of transportation) will affect childhood obesity rates over time. The major weakness of this research work is that it is based on secondary data, which does not provide a clear picture of the daily experiences of Enfield children. The deeper data concerning the interaction of children with their surroundings and the impacts of such interactions on their health behaviors would be obtained through primary research, either through surveys or observational studies.

### Theme 3: Health and Lifestyle Factors

#### Objective Addressed:

This theme supports Objective 3, which aims to review the efficacy of the current initiatives on public health to control childhood obesity in Enfield. It examines lifestyle concerns, including the role of physical activity, screen time, sleep patterns, and mental health, and determines their impact on obesity, as well as how these areas are addressed by public health programs.

#### Implications and Broader Perspective:

The findings of this theme indicate that childhood obesity is not solely caused by a poor diet or lack of physical exercise, but also influenced by mental health and lifestyle factors, such as sleep patterns and screen exposure. Children affected by obesity are also prone to mental illnesses, including depression, anxiety, and low self-esteem, which may deny them the opportunity to participate in physical activities (HF-6, HF-7, HF-8). The theme raises the observation that whatever is currently being done through other governmental public health programs in enhancing physical activity among children might not be enough in dealing with mental issues among obese children. This shows the necessity of developing mental health assistance into the obesity prevention and treatment services, particularly in children at risk of developing psychological problems in connection with body image and self-esteem.

On a larger scale, this theme echoes the literature that demands a multidimensional approach to the issue of childhood obesity, which encompasses both physical and psychological health aspects (Hawton et al., 2018). The findings provide additional stress on the requirement of a breakthrough in public health through mainstreaming the training with the inclusion of psychological assistance that may include counseling classes or development of self-esteem or

self-worth engaging programs, interventions, or strategies that may allow children to invest better in health-promoting activities.

#### Literature Comparison:

This theme concurs with the emerging stream of literature that deemed the psychological effects of obesity as having an effect on children (Segal and Gunturu, 2024). Nevertheless, it can be considered an expansion of the previously conducted studies because it concentrates on the issue of sleep, which is underrepresented in the local health sector but is often mentioned in the international media as a major determinant of obesity (Hawton et al., 2018). The study of physical activity and diet is widely studied in previous studies thereby leaving mental health and sleep as a secondary consideration.

#### New Findings:

One new discovery of this theme is that sleep deprivation plays a major part in obesity in childhood. Although sleep is one of the factors preventing obesity; it was found that sleep is directly associated with obesity in Enfield since this research presents the related evidence on the local level. It wraps around the notion that sleep hygiene should become a principal part of any obesity prevention program which brings out an area that is commonly not targeted with research on childhood obesity.

#### Future Research and Limitations:

It may be concluded that childhood obesity rates can be reduced by means of specific interventions conducted by the targeting of sleep patterns and mental health. Future investigation may question the role of these interventions in childhood obesity. A difficulty of the research however is that there was no direct way of measuring sleep patterns and screen time in Enfield which would have been more concrete. Further investigation is to include the primary data collection to shed more light on the consequences of these factors.

## Theme 4: Evidence-Based Strategies for Childhood Obesity Reduction

#### Objective Addressed:

That theme fulfils Objective 4, suggesting evidence-based approaches to the problem of child obesity depending on the needs of the communities of Enfield. It offers practical courses of action on the findings of the foregoing themes, that is, policy alterations, communal activities, and greening of the surroundings.

### Implications and Broader Perspective:

The results indicate that one needs a multi-level approach to the issue of childhood obesity to win the battle. The idea behind this theme is that inclusion of such policy changes like restrictive policies on fast food advertising, zoning strategic locations of fast food stores and imposing sugar tax in the overall plan to decrease the obesity rates is very crucial. Indicatively, it is indicated that there is a need to integrate community participation and the study indicates the effectiveness of local communities in the design and delivery of obesity prevention programmes. In a more general scope, such strategy will coincide with the global health efforts and strategies worldwide, including recommendations of WHO regarding managing childhood obesity using the environmental approaches and policy modifications (Pulungan et al., 2023).

### Literature Comparison:

This theme aligns with the literature on the efficacy of the multi-level interventions targeting the policy and the community (Motsinger-Reif et al., 2024). Nevertheless, it broadens the body of knowledge by suggesting the significance of culturally sensitive practices and interventions in early childhood, which are underrepresented in most worldwide approaches.

### New Findings:

Among the novel findings is the focused on the need to include early intervention measures in early years environments to stop obesity in children when it is still at its early stages. Although most studies tend to depict the introduction at an early age, this study will focus on specific, localized information concerning how early childhood programs can be planned and instituted effectively within the diverse communities of Enfield.

### Future Research and Limitations:

The results provide valuable insights for policy suggestions and community-based interventions. The limitation of this study, however, is that the interventions that have been proposed have not been run through empirical tests. Subsequent studies ought to consider the practicality and usefulness of these interventions by pilot testing and carrying case studies to ensure that these initiatives are not only efficient but also scalable.

## Chapter 5: Conclusion and Recommendations

Childhood obesity has emerged as a vital health issue throughout the borough of Enfield that has continuously had increased obesity level as compared to the countrywide level. This paper has brought out the multidimensional aspect of childhood obesity in Enfield discussing the social, economical, cultural, environmental and the health factors that have heightened obesity cases among children. By using the thematic analysis, the study has been able to give a complete insight into the prevalence, distributions and the intricate inter-relationships of the factors that contribute to childhood obesity in the various communities of the borough.

The results of the study under consideration note that obesity in children is not just a personal choice of actions but an activity that is greatly affected by the environment, socio-economic status, and cultural behaviors. The study highlights the importance of the specific measures to be taken into consideration regarding the specificities of the needs of various communities in Enfield as the one-size-fits-all approach never works. Identifying the magnitude of issues related to childhood obesity in Enfield by addressing the most critical symptoms, including cultural factors, environmental influences, health and lifestyle behaviors, and evidence-based strategies, the study gives a vivid idea of how these very factors combine to influence the problem of childhood obesity in Enfield.

The Cultural Factors and Childhood Obesity has applied the first theme of this paper showing how the cultural beliefs, dietary effects, and childhood obesity perceptions are major factors to obesity induction among the ethnic minority children especially in Asian and Turkish/kurd children. These dimensions of culture tend to shape the perceptions and attitude of these populations towards obesity, and this makes it difficult to adopt uniform strategies of managing this problem using population-based approaches. The second theme of Environmental Factors and Access to Healthy Lifestyles focuses the place of physical environment in the determination of access of the children to the physical activities and healthy lifestyles. Adversity and lack of access to safe recreational facilities and ubiquity of fast-food restaurants in disadvantaged neighborhoods can be seen as significant risk factors to the childhood obesity pandemic in Enfield. Health and Lifestyle Factors is the third theme with the focus on the idea that physical activity, screen time, sleep, and mental health are related participants that can contribute to childhood obesity. This theme also indicates the psychological cost of obesity, which indicates the necessity to use comprehensive interventions affecting both physical and mental health. The last theme, Evidence-Based Strategies of Childhood Obesity Reduction

theme, gives policy options, community, and environmental enhancements that can be adopted to address the childhood obesity challenge in Enfield.

The results of the present research correspond with those available in the literature to a large extent, which demonstrates that the issue of childhood obesity should be addressed on the interdisciplinary level with the consideration of all cultural, environmental, and policy-oriented approaches. However, this study also contributes something new to the existing knowledge, particularly in regard to culturally specific interventions, the critical role of sleep in preventing obesity, and the importance of interventions in the early childhood years. This study not only fills a gap in the literature, but also helps to understand the mechanisms underlying the synthesis of socio-economic deprivation, cultural reasons, and environmental factors in the development of childhood obesity, as exemplified by the diverse communities of Enfield.

The paper has significant implications for Enfield's public health policy. It implies that the issue of childhood obesity requires a community-based, multilateral approach, in which traditional focus areas (such as diet and sports) will be expanded. The results show that both the built environment and socio-economic background, as well as cultural ills, have to be taken into consideration when coming up with good obesity prevention programs. In addition, the research paper highlights the need for effective interventions that are sensitive to the cultural contexts of various ethnic groups in Enfield.

## Recommendation

### 1. Culturally Tailored Obesity Prevention Programs

Cultural factors significantly influence childhood obesity. There are ethnic groups, especially Asian and Turkish/Kurdish, who exhibit different trends of obesity due to their cultural food consumption and body image perception. The needs require culturally sensitive and specific public health programs. Programs should incorporate culturally appropriate foods and exercises. Community leaders and religious organizations can be engaged to facilitate this effort, and nutrition education in community languages can be utilized to eliminate language and cultural barriers.

### 2. Improving Access to Recreational Spaces

The poor availability of recreational facilities is a significant limitation to physical activity, especially in deprived regions. This is necessary to increase funding for refurbishing the parks and recreational facilities, particularly the green belts. Making such places safe, well-

lit, and accessible will promote physical activity. The implementation of school-based initiatives, such as The Daily Mile, will ensure that children engage in regular physical activity. Additionally, safer walking and cycling routes will be established, leading to increased active travel and improved physical activity outside of school hours.

### 3. Enhancing the Food Environment

The food environment plays a crucial role in the development of obesity in children. A significant role is played by fast food stores located near schools and in areas of food poverty. One way is to reduce the advertising of fast food around schools and implement a zoning policy to restrict the availability of several fast food centers. Food poverty can be combated by increasing access to affordable and nutritious food through collaboration between food banks and local businesses. These families will also be able to afford healthier food by engaging in subsidies or vouchers.

### 4. Incorporating Mental Health Support in Obesity Prevention

Childhood obesity is related to mental health complications like depression and anxiety and prevents children from participating in healthy activities. Public health initiatives should include mental health support. The emotional component of obesity can be addressed by integrating mental health services into school-based obesity prevention programs. The provision of counseling and mindfulness programs should be used to increase self-esteem and control emotional eating, resulting in healthier habits.

### 5. Early Childhood Intervention

Early intervention is crucial in preventing childhood obesity. The prevention of obesity is recommended in preschool and early years schools and requires the acquisition of proper nutrition habits and their physical activities at an early age. It is important to encourage healthy eating and physical activity among the families where parents act as role models. The parenting programs ought to enlighten parents on the impact of early intervention and the benefit of nutrition, physical activity, and sleep in protecting obesity.

### 6. Community and Policy Engagement

The involvement of the community and other important stakeholders is highly significant in the effectiveness of obesity prevention. Obesity prevention program at the community level will be created through consultation with the community members and thereby such

programs will address the needs of the community. A common strategy will be developed through local government, schools, and healthcare providers cooperation. By promoting childhood obesity as a local policy priority, it will be possible to obtain funding on long-term programs, which will guarantee sustainability and efficiency.

#### 7. Continuous Monitoring and Data Collection

Constant monitoring and evaluation should be done to determine the success of obesity prevention programs. It will develop a full data collection system to keep records of childhood obesity levels, health conditions. Routine implementation of health-audit at school will determine the efficiency of school action. Uninterrupted data gathering and evaluations will also help Enfield to make adjustments to its strategies as time goes to make sure that the programs are effective.

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# Appendices

## Collected Data

### Lifetime and geographic occurrence of childhood obesity

The scale of childhood obesity in Enfield is high. Around one in four children in reception (aged 4 to 5) and four in 10 children in Year 6 (aged 10 to 11) are classified as either overweight or obese. In more specific terms, data for the 2022-23 period shows that in Reception (ages 4 to 5 years), 10.8% of children are identified as being obese, while this rises to 28.0% for Year 6 children (aged 10 to 11 years) (Ziauddeen et al., 2023). Enfield regularly places in the London boroughs with the highest childhood excess weight and often has the third highest number of Year 6 children who are excess weight (Dispatch, 2022).

**Historical Trends:** In recent years, despite a slight decline in the level of excess weight among Reception-year children, the level has increased among Year 6 children. In this way, for example, the overall prevalence of excess weight in Reception and Year 6 was 24.2% and 41.5% between 2014/15 and 2016/17, with high prevalence continuing into 2017/18 (24.9% in Reception and 41.1% in Year 6) (Mohamed & Pallan, 2024).

**Geographic Distribution:** There are significant differences in the borough itself. Ward-specific data revealed "hotspots" of areas with excess weight prevalence significantly higher than the England average, such as Edmonton Green, Enfield Highway Upper Edmonton, Lower Edmonton, and Ponders End. Such areas are often directly associated with a higher degree of deprivation. However, obesity may vary regionally, and even if specific maps that frame schools with obesity data (12) are not readily available, the location of schools about these identified wards will help explore regional prevalence (Almeroth-Williams, 2019).

### Impact of Socio-Economic and Cultural Factors

Just as in the rest of London, socio-economic deprivation is a major contributor to childhood obesity in Enfield. Tower Hamlets is the 8th most deprived of 32 London boroughs, with the majority of deprivation seen in the east.

### Socio-economic Data:

**Poverty & Income Levels:** There are high levels of child poverty in Enfield, with a third of children in the borough living in relative poverty after housing costs. In the most deprived

areas, this figure is nearly double that in the least deprived. Across the borough's wards, childhood obesity is directly related to income deprivation (Council, 2020).

**Employment & Education:** Unemployment is higher in the more deprived eastern areas of Enfield. Although data on parents' level of qualification is not readily identifiable by ward, deprivation indices typically correlate with poor educational attainment, which can impact on health literacy and lifestyle choice.

**Household Composition:** Deprived wards have larger household sizes and more children per household which may affect food security, dietary habits and availability of physical activity opportunities (Morales & Berkowitz, 2016).

**Cultural Factors:**

**Ethnicity:** The borough of Enfield is ethnically diverse and research suggests that certain ethnic groups have a higher prevalence of excess weight amongst children. It is an issue that is especially prevalent within Asian pupils having a 22.6% greater excess weight prevalence in Reception and 39% in Year 6 between 2014/15 and 2016/17 than their peers. Of these — 21.9 per cent in Reception and 39.1 per cent in Year 6 — were White UK, and 27.4 and 43.8 per cent, respectively, were other White groups, with yet higher proportions among Turkish/Kurdish pupils, at 31.9 and 51.1 per cent (Abu-Zayed, 2016).

**Community Practices** — These discrepancies are often linked to socially based cultural practices, including dietary preferences, food preparation methods, and values regarding physical exercise and body image. Although not published about qualitative studies of the heterogeneous communities in Enfield, wider research indicates the drivers of lifestyle and perceptions about weight among different ethnic groups in the UK are often rooted in cultural beliefs about health, well-being and diet (22–24) (Lindsey, 2024).

**Potential Environmental Influences on Childhood Overweight**

**Enfield:** Local environment, opportunities, and challenges regarding childhood obesity

**Availability of Playgrounds and Exercise Facilities:**

Enfield receives millions of visits a year to its parks and green spaces. The borough boasts several leisure centres and swimming pools, all which continue to be the subject of significant investment such as recent refurbishment works to the Edmonton Leisure Centre. These institutions provide opportunities for physical activity (Council, 2024).

There is less readily available data on how many children use these spaces or whether they are accessible for all children (e.g. through cost, transport, safety etc). This is supported by the thousands of weekly visits to parks with free outdoor gyms and tennis courts; however, the exact engagement may be limited.

#### Access to Healthy Foods:

Food environment Enfield" Top Town: Food environment: Enfield has a very local food environment. Although there are some big stores in addition to an "international" Fresh Food Centre each food poverty tends to be located where the most deprived wards are found. Food banks and pantries can be found on borough, suggest some families do not have access to an affordable and nutritious, including culturally appropriate, food supply (Ginsburg et al., 2019).

Availability of Fast Food Outlets: Fast-food outlets are densely located and close to the schools. Placed a ban on HFSS products on council land with a "Healthier Food Advertising Policy" Enfield Council has also taken steps to influence what food is consumed by introducing a Healthier Food Advertising Policy, restriction HFSS products in council land and placed a ban on junk food advertising (Lucy et al., 2022).

School Meals — Enfield Council positively encourages healthy eating in schools through the Food for Life Schools award, Sugar Smart pledges, and water-only schools initiatives. This represents a commitment to enhance school meals and reduce the consumption of junk food on school grounds.

#### Walkability and Safety:

Walkability: A variety of initiatives to support walking and cycling infrastructure improvements and active travel, including the council's "Quieter Neighbourhoods" and "Walking Improvements" projects (for example, the commission is proposing one in Green Lanes/Hedge Lane /Bourne Hill, with further neighbourhoods being reviewed). However, walkability audits specific to neighborhoods regarding childhood physical activity do not currently exist (Ohlund et al., 2021).

Safety Crime rates across the borough are higher in the more deprived areas. The safety perception has a profound effect on the children ability of playing outside alone and parents desire of letting children go outdoors alone (Kneeshaw-Price et al., 2015).

#### Health and Lifestyle Data

Obesity is a multifaceted problem defined by several lifestyle aspects as well as pre-existing health conditions.

#### Lifestyle Factors:

**Physical Activity Levels:** There are no precise figures available for the percentage of Enfield children achieving the recommended amount of physical activity (60 minutes of moderate activity per day) but trends nationally indicate that many children fail to do so: 28% of boys and 43% of girls aged 2-15 are meeting CMO guidelines. There has been some local activity, but few local statistics are available (Public Health England, 2017).

**Static Activities & Screen Media:** As for physical exercise, regular data on screen time for Enfield children is not routinely collected and published. But national trends show that kids are increasingly sedentary, a significant risk factor for childhood obesity (Bakour et al., 2022).

**Sleep:** Information on borough-level sleep patterns of children is generally absent from public health reports, although sleep is known to be related to weight management.

#### Health Status:

**Chronic Health Conditions:** A higher risk of chronic health conditions is associated with childhood obesity. Specific local Enfield level data on the prevalence of childhood type 2 diabetes, hypertension or joint problems directly related to obesity would not be published, nevertheless these are complications seen locally by health services (Farpour-Lambert et al., 2015).

**Mental health challenges:** Obesity may adversely and meaningfully affect a child's fourfold psychological quality. While not directly outlined by the Enfield data, it is implied that children who are obese can also become depressed, anxious, and low in self-esteem (which can combine with both factors to affect their ability to exercise and have a good quality of life) (Rankin et al., 2016).

#### Assessment of Established Public Health Programs

Enfield is involved in several public health programs aimed at addressing childhood obesity.

#### Various Existing Public Health Programs:

**National Programmes:** Enfield also participates in national programmes such as Change4Life and encourages active travel programmes such as The Daily Mile in schools.

Local action: Local boroughs each have their Healthy Weight Strategy with a particular emphasis on prevention and early intervention targeting schools, families and communities. This includes creating good food environments (through the Healthy Food Advertising Policy) and also promoting physical activity (Barnes et al., 2021).

Effectiveness and outcomes: These programs are typically assessed nationally which makes it challenging to disentangle outcomes data by borough. But local reports essentially bear on the significance of the initiatives. To cast a wide net, a variety of programs exist, and the participation rate differs for each, according to the latest Community Vital Signs data. The Enfield Healthy Weight Strategy (2018–2021) included section-wide efforts to reduce prevalence, particularly in areas where rates and disparities were highest, by ethnicity (Elgar, 2023).

Few concerns were expressed from a local perspective, noting instead that health professionals, schools and community organisations widely see the merits of obesity prevention initiatives, but funding, workforce capacity and issues around working with hard-to-reach groups, was raised as a barrier. Details on the budgets and funding for childhood obesity programs by borough are not publicly disclosed (Taghizadeh et al., 2023).

#### Statistics on Childhood Obesity in Other Regions for a Frame of Reference

Enfield's rates of childhood obesity, compared to those in other areas, provide an essential context.

#### Comparative Data:

London and National Averages: The prevalence of excess weight in Year 6 in Enfield has consistently been among the highest in London (often third highest). Average figures for London and England are usually less than this. National data from 2022-23, for instance, found that in England, 22.7% of Year 6 kids were obese and 10.1% of Reception-aged children were obese. These national benchmarks are lower than the figures described in Enfield (Agency, 2023).

The best systems for preventing obesity come from other regions or countries, so learning from them is one way to move forward. Internationally and in other deprived urban areas, promising international approaches to prevention are moving towards multi-component interventions, environmental changes (e.g. limiting junk food marketing, activity in travel) and community-

based approaches. Some examples of these include sugar taxes, holistic health programs within schools, and urban design targeted at walking and cycling (Downs et al., 2020).

#### Health Profiles, Local Reports, and other sources(Secondary Data)

A wealth of local and national reports makes for an extensive picture of public health in Enfield.

#### Health Profiles of Enfield Local Authority

They are sometimes available via platforms such as Fingertips helping to build a picture of the health of a local area such as Enfield with details on childhood obesity, physical activity and nutritional trends. They frequently hold historical significance, allowing trends to be examined that date back decades, and may indicate where policy changes have affected the outcome (Ayala et al., 2021).

The population health of Enfield, including key health issues and strategic priorities, is outlined in reports such as the Joint Strategic Needs Assessment (JSNA) and Public Health Annual Reports (APHR). For instance, the Enfield Healthy Weight Strategy Highlights (2018-2021) includes borough-wide hotspot wards and ethnic disparities (e.g., annual data 2014/15-2016/17) (Henderson & Saksena, 2025).

#### School Data:

Local schools, often linked together by the council, store reports about local children and help build a broader picture of childhood obesity. Schools play a crucial role in capturing NCMP data and delivering school-based health initiatives that emphasize healthy eating and physical activity. However, their detailed involvement is not publicly available. As evidenced by initiatives such as the Food for Life award and the Sugar Smart pledge, creating a healthier environment is a significant area of focus for schools and their communities (Gadsby et al., 2020).

#### Suggested Strategies Based on the Evidence

Tackling childhood obesity in Enfield will need a more multifaceted, long-term and evidence-based approach that is appropriate to borough specific demographic and socio-economic factors.

These successful interventions, which provide some level of evidence:

**Policy Changes:** Further strengthen and expand health promoting policies, e.g., by applying restrictions on unhealthy food advertisement, by zoning fast-food outlets away from schools, and by further advocating the compulsory healthy school meal standard. The national experience of implementation and the effects of the sugar levy could also provide lessons to inform local approaches (Taillie et al., 2019).

**Community Involvement:** as programs will be specifically higher among African and Turkish/Kurdish groups, it needs to have a community engagement aspect, are culturally appropriate and co-produced with the group they serve. Its reach and effectiveness can be significantly increased by engaging community leaders, faith groups, and parents in the design and delivery of interventions. Qualitative research indicated the need to identify cultural practices related to food and physical activity (Özdemirkiran, 2015).

**Environmental changes:** Create and ensure the existence of affordable, safe, and green recreational areas, parks, playgrounds, and cheap sports facilities used by children. Implement "Quieter Neighbourhoods" and improved walking/cycling routes, primarily through multiple deprivation areas, to make walking and cycling to school and for leisure easier and safer (Magkafas et al., 2025);

**Integrated Approaches:** Increase alignment within and between local government, schools, healthcare providers (GPs, health visitors), and community organisations, such as integrated commissioning of services, pooled data, and aligned communications (Regmi & Mudyarabikwa, 2020).

**Early Years:** This age is a key period for developing healthy behaviours and halting the rise of obesity, so even more decisive action on early years settings (reception year and pre-school) is needed

**Focused Support:** Address the higher rates of obesity from the most deprived wards and or within ethnic groups with a culturally sensitive approach. Such services can include cooking classes, family-focused exercise programs, and dietary counselling in community languages (Fruh et al., 2021).

**Digital Interventions:** Examine the digital apps and platforms that children and their families have access to, and identify the effective ways to get children from all socio-economic groups to participate in healthy lifestyle promotion (Yau et al., 2022).

**Data and Evaluation:**

Track and assess the impact of local efforts in real-time, using granular data on participation, effectiveness, and cost-effectiveness. It is an essential piece of data that will be used to adapt programming and ensure resources are utilized to the most significant effect in combating childhood obesity within Enfield.

By utilizing evidence-based approaches and fostering strong partnerships, Enfield can work towards creating the conditions that enable every child to achieve and maintain a healthy weight.

## Step 1: Open Coding (Key Terms)

| <b>Code</b>  | <b>Key Term</b>                              | <b>Code</b>  | <b>Key Term</b>                        |
|--------------|----------------------------------------------|--------------|----------------------------------------|
| <b>CF-1</b>  | Ethnic Diversity                             | <b>EF-11</b> | Public Transport Accessibility         |
| <b>CF-2</b>  | Asian Children Obesity                       | <b>EF-12</b> | Fast Food Advertising in Public Spaces |
| <b>CF-3</b>  | Turkish/Kurdish Children's Obesity           | <b>HF-1</b>  | Physical Activity Levels               |
| <b>CF-4</b>  | White UK Children's Obesity                  | <b>HF-2</b>  | Screen Time                            |
| <b>CF-5</b>  | Cultural Body Image Perceptions              | <b>HF-3</b>  | Meeting Physical Activity Guidelines   |
| <b>CF-6</b>  | Cultural Dietary Preferences                 | <b>HF-4</b>  | Lack of Physical Activity Data         |
| <b>EF-1</b>  | Parks and Green Spaces for Physical Activity | <b>HF-5</b>  | Exercise Opportunities in Schools      |
| <b>EF-2</b>  | Leisure Centres and Swimming Pools           | <b>HF-6</b>  | Mental Health and Obesity              |
| <b>EF-3</b>  | Recreational Spaces Access                   | <b>HF-7</b>  | Depression and Anxiety Impact          |
| <b>EF-4</b>  | Fast Food Outlets Near Schools               | <b>HF-8</b>  | Low Self-Esteem and Obesity            |
| <b>EF-5</b>  | HFSS Product Advertising Restrictions        | <b>HF-9</b>  | Sleep Patterns and Obesity             |
| <b>EF-6</b>  | Food Environment in Deprived Areas           | <b>HF-10</b> | Lack of Sleep Data                     |
| <b>EF-7</b>  | Outdoor Gyms in Parks                        | <b>PH-1</b>  | Change4Life Program                    |
| <b>EF-8</b>  | Access to Nutritious Food                    | <b>PH-2</b>  | The Daily Mile Program                 |
| <b>EF-9</b>  | Food Poverty                                 | <b>PH-3</b>  | Healthy Eating Initiatives in Schools  |
| <b>EF-10</b> | Barriers to Accessing Recreational Spaces    | <b>PH-4</b>  | Local Public Health Data               |

Table 3: Open Coding

## Step 2: Axial Coding

| Theme                                                     | Codes                                                                                                                             |
|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Cultural Factors and Childhood Obesity                    | CF-1, CF-2, CF-3, CF-4, CF-5, CF-6                                                                                                |
| Environmental Factors and Access to Healthy Lifestyles    | EF-1, EF-2, EF-3, EF-4, EF-5, EF-6, EF-7, EF-8, EF-9, EF-10, EF-11, EF-12                                                         |
| Health and Lifestyle Factors                              | HF-1, HF-2, HF-3, HF-4, HF-5, HF-6, HF-7, HF-8, HF-9, HF-10                                                                       |
| Public Health Programs and Interventions                  | PH-1, PH-2, PH-3, PH-4, PH-5, PH-6, PH-7, PH-8, PH-9, PH-10                                                                       |
| Evidence-Based Strategies for Childhood Obesity Reduction | PS-1, PS-2, PS-3, PS-4, PS-5, PS-6, PS-7, PS-8, PS-9, PS-10, PS-11, PS-12, PS-13, PS-14, PS-15, PS-16, PS-17, PS-18, PS-19, PS-20 |

*Table 4: Axial Coding*