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I declare that this dissertation is my own unaided work.

Literature sources have been identified and acknowledged.

I declare that the work has not already been accepted in substance for any degree and is not concurrently submitted in candidature for any degree.

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A Systematic Review of Health Inequalities in English Coastal Towns

Dissertation UZVRTM-45-M

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ABSTRACT

Coastal towns in England confront unique health issues, with greater disease burdens and lower life expectancy than non-coastal towns. Understanding and resolving these health inequalities is crucial not only for improving the health of coastal residents, but also for lowering overall health inequalities in England. Thus, this research conducted a thorough analysis of health inequalities in English coastal towns, focusing on the responsible factors and reduction strategies. A systematic search was performed in bibliographic databases (including PubMed, Ovid MEDLINE, Ebsco PsycINFO, Ovid Embase and Ebsco CINAL) for relevant publications, and grey literature from government as well as other public agencies were included in the search process. The search was conducted from March to June 2024 and time (2014 - 2024) as well as geographical limits (England) were applied. Using criteria created by the Critical Appraisal Skill Programme (CASP), the quality of each study included in this review was assessed independently, and ten (10) papers were deemed eligible for analysis. The key findings of the review show that coastal communities in England face a significantly higher burden of ill health compared to non-coastal areas and key factors contributing to these inequalities include socio-economic deprivation, demographic shift, limited access to healthcare, and environmental factors. The review discusses potential public health and policy implications, health economics of inequalities prevention and evaluation of control strategies implemented in some coastal towns. Integrated policy approach, place-tailored public health interventions, collaboration with communities, investment in connectivity infrastructure, talent retention and climate change risks mitigation are recommended for control of health inequalities. Future studies should aim to provide detailed insights into the specific health needs of these communities and evaluate the effectiveness of targeted interventions.

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Glossary of Terms

BUA – Built Up Area

CASP – Critical Appraisal Skills Programme

CCF – Coastal Community Fund

CCG – Clinical Commissioning Groups

COPD - Chronic Obstructive Pulmonary Disease

DFLE – Disability Free Life Expectancy

DHT – Digital Health Technology

EZ – Enterprise Zone

GCSE – General Certificate of Secondary Education

GP – General Practitioner

HMO – Houses in Multiple Occupations

HLE – Healthy Life Expectancy

HWBS - Joint Health and Wellbeing Strategy

IDM – Index of Multiple Deprivation

JSNA – Joint Strategic Needs Assessment

LSOA – Lower Super Output Area

MHCLG – Ministry of Housing, Communities and Local Government

NHS – National Health Services

ONS – Office for National Statistics

PHE – Public Health England

PRISMA – Preferred Reporting Items for Systematic Reviews and Meta-Analysis

QOF – Quality and Outcome Framework

SMR – Standardized Mortality Ratios

1.0 INTRODUCTION

1.1 Background of Study

Health inequalities refer to systematic variations in the state of health or the allocation of health-related resources across individuals and populations caused by the "conditions under which people are born, live, grow, work, and age" (P.H.E. 2015), and they have been linked to a variety of outcomes. The coast of England runs for about 11,000 kilometres and is home to over 17% of the population (ONS, 2020). Coastal communities vary greatly, from huge urban centres and port cities to small fishing villages and coastal resorts. However, many communities face similar challenges that contribute to poor health outcomes, such as an aging population, economic deprivation, geographic isolation, poor access to health and environmental stressors. Coastal settlements in England have severe and persistent health disparities compared to inland places, despite being portrayed as lovely seaside getaways (Somerville *et al*., 2015). These disparities show up in a variety of physical and mental health outcomes, including reduced life expectancy and increased rates of chronic disease as well as mental illness. Understanding and resolving these health disparities is critical not only for improving the health of coastal dwellers, but also for reducing overall health inequalities in England. While health disparities between parts of England have long been acknowledged, the difficulties confronting coastal communities have gotten less attention until lately.

Recent studies and policy programs have started shedding light on the extent of health disparities in coastal towns. The 2021 annual report of Chief Medical Officer focuses primarily on the health of coastal towns, stressing that they have some of the worst health outcomes in England, despite frequent efforts by local public health teams. This analysis discovered that even after accounting for factors such as age and deprivation, there is still a "coastal excess" of illness burden across several conditions. Similarly, academic studies have found a clear core-periphery pattern in disease frequency, with coastal areas having higher rates of illness across almost all conditions in the Quality and Outcomes Framework dataset (Asthana & Gibson, 2022).

The causes of these health disparities are multifaceted and interconnected. Many coastal towns have experienced economic decline following the loss of traditional industries such as shipbuilding, fishing and domestic tourism. This has resulted in high unemployment rates, low-wage seasonal work, and deprivation concentrations. Many coastal communities' housing stock has a significant proportion of former guest homes that have been transformed into poor-quality Houses in Multiple Occupations (HMOs),

which contributes to poor living conditions (Whitty, 2021). Demographic shifts have also played a role, with many places experiencing an influx of older retirees alongside the departure of younger working-age individuals, leading to an uneven age structure and greater pressure on health and social care services.

Additionally, geographic isolation is another important element, with many coastal towns having difficulty obtaining healthcare services, education, and career prospects. Transport links to large urban areas are frequently inadequate, and digital access can be limited. This isolation can intensify emotions of being "left behind" and worsen mental health consequences. Environmental variables are also important, with coastal communities facing greater hazards from climate change, such as flooding and extreme weather conditions, that can have both direct and indirect effects on health (Sayers *et al*., 2020).

The health inequalities reported in coastal communities extend throughout the life period. Children and young people in these communities mostly have lower educational outcomes and less opportunities, which can have long-term effects on health and well-being. A recent study discovered that coastal communities have some of the lowest rates of higher education participation in England, as well as high hospitalization rates for self-harm, alcohol, and substance abuse among young people (Asthana & Gibson, 2022). For working-age adults, the paucity of high-quality employment possibilities and the frequency of seasonal, low-wage work can lead to stress and poor mental health as well as unhealthy behaviours. Older persons in coastal towns frequently experience issues such as social isolation, restricted access to resources, and management of various chronic ailments.

Moreover, the COVID-19 pandemic has exposed and, in many cases, exacerbated existing health disparities (Whitty, 2021). Coastal regions were especially vulnerable because of their older populations, higher incidence of pre-existing health issues, and economic reliance on industries such as tourism, which were badly damaged by lockdowns and travel restrictions. The pandemic also highlighted and exacerbated digital exclusion, with many coastal people unable to access online health services and support (Davenport *et al*., 2020).

Addressing health disparities in seaside areas necessitates a diverse strategy that goes beyond conventional healthcare interventions. It requires coordinated action

from a variety of sectors, including healthcare, housing, education, transportation and economic development. Recent government programs are beginning to acknowledge the need for a comprehensive approach. For example, the government's Levelling Up plan includes special measures for coastal regions, with the goal of boosting economic growth and improving public services (MHCLG, 2021). Within the healthcare sector, there is a growing realization of the need to modify service delivery models to address the specific demands of coastal communities. This includes measures to increase the recruitment and retention of healthcare workers in coastal towns, expand digital health capabilities, and create more integrated care models to better manage an aging population with complicated health requirements. Community-based initiatives and asset-based strategies are also showing potential for reducing health disparities in coastal areas. Social prescribing programs that integrate people to community groups and non-clinical services have been effectively carried out in various coastal locations, reducing social isolation and improving mental health outcomes (Kimberlee, 2016).

Despite these initiatives, there are still considerable hurdles to tackling health disparities in coastal towns. One major concern is a lack of detailed, coast-specific data that can guide focused improvements (Asthana and Gibson, 2022). Many health indicators are presented at a large geographical scale, which can obscure the true magnitude of health disparities in coastal communities. There is also a need for additional research into the exact mechanisms by which coastal life affects health to improve evidence-based policymaking and interventions.

1.2 Aim

The study aims to systematically review factors responsible for English coastal towns having some of the highest rates of health inequalities in the United Kingdom and explore strategies for inequalities reduction.

1.3 Objectives

This study specifically seeks to -

1. ascertain the factors responsible for the health inequalities facing English coastal communities.

2. explore strategies for the reduction of health inequalities in English coastal towns.
3. evaluate the reduction strategies for health inequalities in the study area.

1.4 Study Rationale

Seaside towns in England are some of the most attractive, vivacious, and historically significant places in the country, but they also have some of the worst health outcomes in England, with a short life expectancy and a high prevalence of many major diseases (Whitty, 2021). There is additional evidence that children and adolescents have extremely poor outcomes, including high hospitalization rates for self-harm, alcoholism, and substance misuse. This could be an early warning indication of a future public health disaster in these areas, indicating a shift in the distribution of disadvantaged children since the 1990s (Asthana and Gibson, 2022).

The cause of the coastal increase in burden of disease are not well understood. Nevertheless, research suggests the emergence of a new and concerning patterns of deprivation, accompanied by complex interconnected difficulties among "lagging" seaside communities, such as low incomes, high unemployment, seasonal jobs, poor housing, hidden homelessness, harmful patterns of selective migration, poor educational outcomes and low skills, as well as high rates of anti-depressant and opioid medication (Corfe, 2019). Coastal towns and communities have major health concerns, and their drivers are more comparable than their inland counterparts. This indicates that, in addition to local action, a national strategy is required to tackle the recurring health issues in coastal areas (Whitty, 2021). Coastal areas had hitherto been disregarded by policymakers because their high rates of deprivation and illness were masked by their association with surrounding rich communities. Except for beach resorts, there has been little investigation into the difficulties faced by coastal communities across the country. There is a striking paucity of data and evidence on the health of coastal towns, as well as far less research than their significance to ill health in the UK would suggest (Asthana and Gibson, 2022). This dearth of research needs to be addressed by the academic community, as having good knowledge of the causative factors of poor health, is critical to establishing effective strategies for addressing the health inequities.

1.5 Significance of the Study

Ultimately, effective policies development to secure coastal communities' future prosperity, sustainability and health, necessitates precise information on which to base judgments about how much risk should be handled and which health-promoting opportunities should be explored. Currently, such information is insufficient or unavailable. By providing a comprehensive analysis of health disparities in English coastal towns, this study contributes to both academic understanding and practical initiatives to enhance health outcomes in these areas.

This study provides insights into residents' experiences in coastal communities, particularly concerning trends in health outcomes of children and young people. It provides a broad overview of the current poorly understood patterns of deprivation, including their causes and potential solutions. This study proposes policies and interventions aimed at boosting wellbeing in coastal towns by incorporating sectors with substantial health repercussions, such as education, transport and housing.

2.0 LITERATURE REVIEW

2.1 English Coastal Health Divide

English seaside towns, which arose as pleasure and leisure destinations in nineteenth century, have been ignored for far too long. Seaside communities face several

challenges stemming from the demise of their core businesses. Their location on the country's margins puts them on the outskirts of the economy, resulting in social and health issues (House of Lords Report, 2019). There is a growing consensus that England's coastal areas demand far more National Health Service, Public health and social care services than their inland equivalents, both crudely (unadjusted) and standardized.

The Chief Medical Officer's (CMO) 2021 annual report emphasized the much higher incidence of physical and mental health illnesses in coastal regions, which usually have shorter life expectancies, disability-free life expectancy (DFLE), and healthy life expectancy (HLE). Coastal towns have much higher Standardized Mortality Ratios (SMRs) for a variety of illnesses, including preventable mortality, than non-coastal towns (Gibson and Asthana, 2021). This is somewhat explained by the fact that seaside residents are often older and more poor than non-coastal regions. Even after accounting for these traits (as well as ethnicity), there seems to be a "coastal excess" in disease and prevalence of risk factors (Gibson and Asthana, 2021).

In addition, age-standardized data from the Census of 2021 gives additional evidence of the coastal health difference. Seaside built-up areas (BUAs) had a smaller proportion of residents reporting "very good" health (45.4%) than non-coastal BUAs (47.7%). Similarly, coastal areas had higher rates of residents reporting "bad" health (4.9% vs. 4.1%) and "very bad" health (1.5% vs. 1.2%) (ONS, 2023). This pattern persisted across BUAs of varying sizes, showing a consistency in coastal effect. Disability rates have a similar trend. According to age-standardized proportions, seaside BUAs had higher percentage of residents who were "limited a little" (11.4%) or "limited a lot" (9.2%) by disability than non-coastal areas (10.0% and 7.5% respectively) (ONS, 2023). These findings show that health concerns in coastal communities persist even after accounting for age disparities.

2.2 The Coastal Excess of Non-Communicable Diseases

Although not all disease conditions have a clear core/periphery distribution, coastal communities have a higher burden of illness for almost all non-communicable diseases in the quality and outcome framework (QOF) dataset, including diabetes, chronic obstructive pulmonary disease (COPD), and mental health. Data on

patients reporting a long-term health problem surveyed by General Practitioner (GP), show that coastal areas had higher rates of disease (Asthana and Gibson, 2022).

This uncommon granular perspective was created utilizing GP-level QOF, and survey data (NHS, 2020) attributed to Lower Super Output Areas (LSOA) based on National Health Services Digital data on the LSOAs where GP patients reside. This offers a unique perspective on routinely published health, healthcare, and health-related data, which, with few exceptions, are only made accessible to individual NHS provider trusts and/or large administrative units (like Clinical Commissioning Groups (CCGs) and Local Authorities). This is particularly relevant to coastal towns, as few CCGs or local governments serve all, or even mostly coastal people. It also affects smaller towns that like seaside localities, tend to constitute only a section of the CCG or LA of which they are a member (Asthana and Gibson, 2022). As a result, evidence on the features and needs of such groups is combined with information about the Clinical Commissioning Group and Local Authorities.

The "coastal excess" in illness burden in England is partly due to coastal residents being older and more disadvantaged than their non-coastal counterparts. 16.6% of coastal inhabitants live in one of the country's 10% poorest Lower Super Output Areas (LSOAs), vs 8.4% of non-coastal inhabitants (Asthana and Prime, 2023). On the other end of the scale, 5.1% of coastal people reside in one of the least disadvantaged LSOAs, while 10.6% live in non-coastal towns. Furthermore, while the proportion of people aged 65 and older changes with deprivation, it is consistently substantially higher in coastal towns. Overall, 21.0% of residents in coastal LSOAs are 65years or older, compared to 17.8% in non-coastal LSOAs (Asthana and Prime, 2023). Additionally, coastal towns have less access to primary and secondary healthcare than inland towns, despite their larger need, which must be addressed by the medical profession (Matin *et al*., 2021).

2.3 Factors Responsible for Health Inequalities

2.3.1 Poor Coastal Economy

High levels of deprivation, exacerbated by severe and long-standing difficulties with local economies and jobs, are significant contributors to poor health outcomes in coastal areas (Whitty, 2021). Many seaside villages were built around a single industry,

and the fall of traditional businesses such as shipbuilding, fishing, and tourism has strained many coastal economies. This has made many England coastal communities face substantial economic issues, such as greater rates of unemployment, seasonal job patterns and lower earnings (Gibson and Asthana, 2021). Economic hardship has a direct influence on health since it reduces access to resources, creates poor living conditions, and increases stress.

High-quality jobs are a vital step toward quitting smoking, improving mental and physical health, as well as adopting lifestyles that include healthy patterns of diet, leisure activity and transportation (The Conversation, 2021). Economic and structural health variables are essential in explaining low life expectancy and a high incidence of chronic illness in places with beautiful sea scenery. A House of Lords select committee research published in 2019 addressed the economic, connectivity and educational problems that coastal towns face, emphasizing the necessity of creating professional possibilities for young people. The Resolution Foundation (an inequities think tank) demonstrated a long-standing and growing salary disparity, which expanded further between 2017 and 2019, before being particularly hard hit by Covid-19 (The Conversation, 2021).

Additionally, economic issues in these places are frequently worsened by the nature of local economies, which are highly reliant on seasonal businesses such as fishing and tourism. These industries generate low-wage, insecure jobs, which contribute to economic instability and social immobility. According to the "Turning the Tide" research, economic inactivity and long-term disease are more widespread among younger people in coastal areas, resulting in a generational cycle of impoverishment and bad health consequences (NHS England, 2023).

2.3.2 Poor Housing and Living Conditions

Housing quality and living conditions have an important role in determining health in coastal areas. There is an excess of former guest housing, resulting in considerable clusters of Houses in Multiple Occupation (HMOs) and, in some cases, trailer parks, all of which contribute to deprivation and poor health along the coast (BMJ, 2021).

Former hotels and boarding houses in Blackpool and Morecambe have been sold to developers to be converted into cheap bedsits, acting as a magnet for those down on their luck in the surrounding area hoping for a second chance (Bunting, 2024). Coastal areas mostly have older, low-quality dwelling stock and issues like damp, cold, as well as overcrowding are more prevalent (Gibson and Asthana, 2021). Poor housing conditions contribute to respiratory illnesses, mental health challenges, and other health problems. The temporary nature of some coastal populations, with a large proportion of short-term rentals and multi-occupancy houses, can exacerbate these issues (Gibson *et al*. 2011).

Similarly, coastal communities attract a highly vulnerable population, whether it is persons leaving prison, fleeing domestic violence, or dealing with substance misuse and mental illness. Every year, over 8,000 people migrate to Blackpool, with almost two-thirds receiving Universal Credit and nearly half being single males (Blunting, 2024). While absentee landlords profit handsomely from buy-to-let properties, public services (the NHS, Police and Social services) are under severe strain because of the concentration of vulnerability in these regions (Bunting, 2024). Deprivation is typically concentrated around the coast. The preponderance of HMOs in coastal areas is associated with greater rates of mental health problems, substance addiction, and chronic diseases. The quantity of housing in coastal communities makes them attractive to distant authorities and the government, as low-cost destinations to move poor city inhabitants and international migrants (The Conversation, 2021).

2.3.3 Educational Outcomes

Many coastal towns have lower educational achievement rates, and fewer young people pursue higher education. This limits future work opportunities and may contribute to a deprivation cycle. Poor educational results are linked to decreased health literacy and poorer health behaviours in adulthood (Marmot *et al*., 2020). It has an influence on health both directly, through diminished health literacy, and indirectly, by limiting employment and social mobility. The cycle of low educational achievement and restricted economic opportunity can perpetuate health disparities across generations. In a similar vein, educational capital is low in coastal areas, with many towns having much higher-than-average proportions of working-age people with little

or no degrees. Families' knowledge, information, and experience with school have a significant impact on shaping children's own hopes and expectations (Wenham, 2020).

Overall, students in coastal towns perform slightly worse in General Certificate of Secondary Education (GCSE) examinations, but levels of achievement for deprived students are considerably lesser than their age peers living in non-coastal areas (DfE, 2019), owing to a lack of career development opportunities in coastal towns.

Educational disparity is mirrored in inequalities in health outcomes for children and adolescents. London now has the lowest hospital admissions rates for self-harm (aged 10-14), substance abuse (aged <18) and alcoholism (aged <18). In contrast, seven of the ten Local Authorities with the highest hospital admissions rates for self-harm (10-24 years) in 2018/19 were seaside (PHE, 2020). Blackpool has the highest hospital admissions rates for substance addiction (ages 15-24), about three times the England average and more than seven times that of Camden and Islington. Torbay's rate of hospital admission for alcohol-related conditions (under 18 years) is 2.5 times of the national average and 10 times that of Newham (Asthana and Gibson, 2022). These findings suggest that education is likely the most significant modifiable social predictor of health, as it predicts employment, affluence, access to financial resources, as well as health behaviours and psychosocial well-being (The Lancet P.H., 2020). Thus, lower educational success in coastal communities may be an early pointer for a growing health discrepancy between the core and the periphery.

2.3.4 Children and Adolescent’s Outcome

The limited work opportunities available to children growing up in economically depressed coastal villages remote from major urban centres has a detrimental socio-psychological impact. London's strong scholastic accomplishment has been attributed to its greater ethnic diversity (children of immigrants are regarded to have particularly high aims and ambitions (Woodman and Wine, 2015) and the number of possibilities available outside of the school gates. As a global city, the capital exposes young people to a wide range of social, cultural and economic opportunities that are likely to shape their knowledge, aspirations, and expectations. In contrast, young people in seaside communities are often unable to go beyond the low-wage hospitality and care businesses. Indeed, the term "job choices" might be ambiguous. Poor rates of advancement to higher education are crucial in this regard (Wenham, 2020).

2.3.5 Low Access to Health Services

Coastal areas have a major healthcare gap, as evidenced by service standards, cancer indicators, and emergency admissions. According to Health Education England's appraisal of the 2021 CMO report, coastal areas had 15% fewer consultants,14.6% lesser postgraduate medical trainees, and 7.4% fewer nurses per patient, while having older and poorer populations. (Matin *et al.*, 2021). These communities face challenges in hiring and keeping healthcare personnel, resulting in delayed diagnosis, inadequate treatment, and poor health outcomes. The reasons for the workforce mismatch and disease frequency in coastal towns remain unknown. Nevertheless, long-standing concerns have been expressed, that because of the intrinsic cardiovascular activity-based resource allocation approaches, systemic biases contained in the 2002 Allocation of Resources to English Areas (AREA) formula (Asthana and Prime, 2023) may continue to disadvantage regions servicing older demographics. There are also complaints that NHS funding formulae fail to sufficiently reflect the challenges providers confront in achieving economies of scale (Asthana and Prime, 2023), given their coastal location and the geographically dispersed populations they serve. Moreover, the sea, serving as a barrier, along with weak transportation links, limits catchment areas for health services and makes it more difficult to attract healthcare workers to coastal regions. This limits access to both specialist and routine healthcare. In addition, the digital gap in these locations hinders access to telehealth services, which could otherwise offset some of the issues created by geographical isolation (Whitty, 2021).

2.3.6 Health behaviours and lifestyles

Many risk variables that influence health outcomes are strongly associated with deprivation. People's situations and environs can make it tough to change unhealthy habits. Several socioeconomic factors influence one’s ability to be physically active and eat properly. Risk variables such as smoking, are higher in coastal communities, with study indicating a 6.71% excess coastal prevalence rate (Whitty, 2021). Smoking has been emphasized as a major concern in many seasides’ Directors of Public health case studies. Hartlepool and Blackpool state that almost a quarter of women smoke during pregnancy, while in Hull, despite the decline in number

of women that smoke during pregnancy, it is still twice that of England (20.6% vs. 10.4%) (Whitty, 2021).

Excessive use of alcohol is also frequently mentioned as a problem by coastal Directors of Public Health. Morecambe and Hastings, like other coastal towns, have high hospital admission rates due to alcohol-related damage (Whitty, 2021). The Torbay case study shows higher admissions for alcohol-related conditions than the England average, with Blackpool having the highest rates of hospital admission for alcohol-related damage in the UK. Alcohol-related admissions among 0-17-year-olds were shown to be greater in coastal areas (Whitty, 2021). Similarly, the Coastal Directors of Public Health have identified substance abuse as an issue. The estimated incidence of crack cocaine and/or opiate use in Hull is more than double that of England (18.1 versus 8.9 per 100,000 people aged 15 to 64). These local data are confirmed by Office for National Statistics research, which discovered that the fatality rate from drug poisoning was greater in coastal areas than non-coastal areas (ONS, 2018). Those living in deprived coastal cities are also more likely to suffer from poor health due to bad health behaviours, as research shows that among the twenty (20) Local Authorities in England and Wales with bad or very bad health (with respect to the 2011 census), ten were coastal areas (Corfe, 2017).

2.3.7 Environmental Factors

Coastal areas face a variety of issues, including environmental risks worsened by climate change. As land-sea border territories, they are subject to a variety of stresses from both the hinterland and the sea, causing coastal populations to deal with rise in sea levels, coastal erosion and flooding (Kantamaneni *et al*. 2018). A significant chunk of the British shoreline is at risk of eroding by 2050 (Sayers *et al*., 2022). The weight of climate change adds to the already established issues discussed above. The impacts of natural disasters on the local and regional economies have been emphasized by urban economists, with increased burdens and expenses imposed on residential properties, raising external migration, greater job losses, and a subsequent drop in household as well as tax incomes (Boustan *et al*., 2020). In coastal locations, these factors worsen economic contraction, local revenue loss, and displacement, complicating employment and skill retention initiatives and, as a result, health disparities.

2.4 Case Studies

2.4.1 Blackpool

This is a coastal town in Lancashire, England, known for its lively history as a tourist destination. However, in recent decades, it has encountered tremendous socioeconomic issues, which have resulted to severe health disparities. Blackpool is one of England's most disadvantaged places, frequently scoring high on the Index of Multiple Deprivation (IMD). The 2015 IMD assessed Blackpool as the most deprived Local Authority area in the country, with severe issues in health, employment, income and education (HWBS, 2019). Approximately 26.2% of children in Blackpool live in low-income homes, which is much higher than the national average of 17% (PHE, 2019). This persistent poverty is a major cause of health disparities, limiting access to resources and opportunities that improve health and well-being.

In addition, the life expectancy in Blackpool is significantly lower than the national average. Men in Blackpool have the lowest life expectancy in the country, at 74.7 years, while women have 79.9 years, three years lower than the national average (HWBS, 2019) (Figure 1). The inequality within Blackpool itself is stark: men in the poorest districts live 12.3 years less than those in the least deprived areas, while women live 10.1 years less (PHE, 2019). This substantial disparity highlights the town's long-standing health inequities.

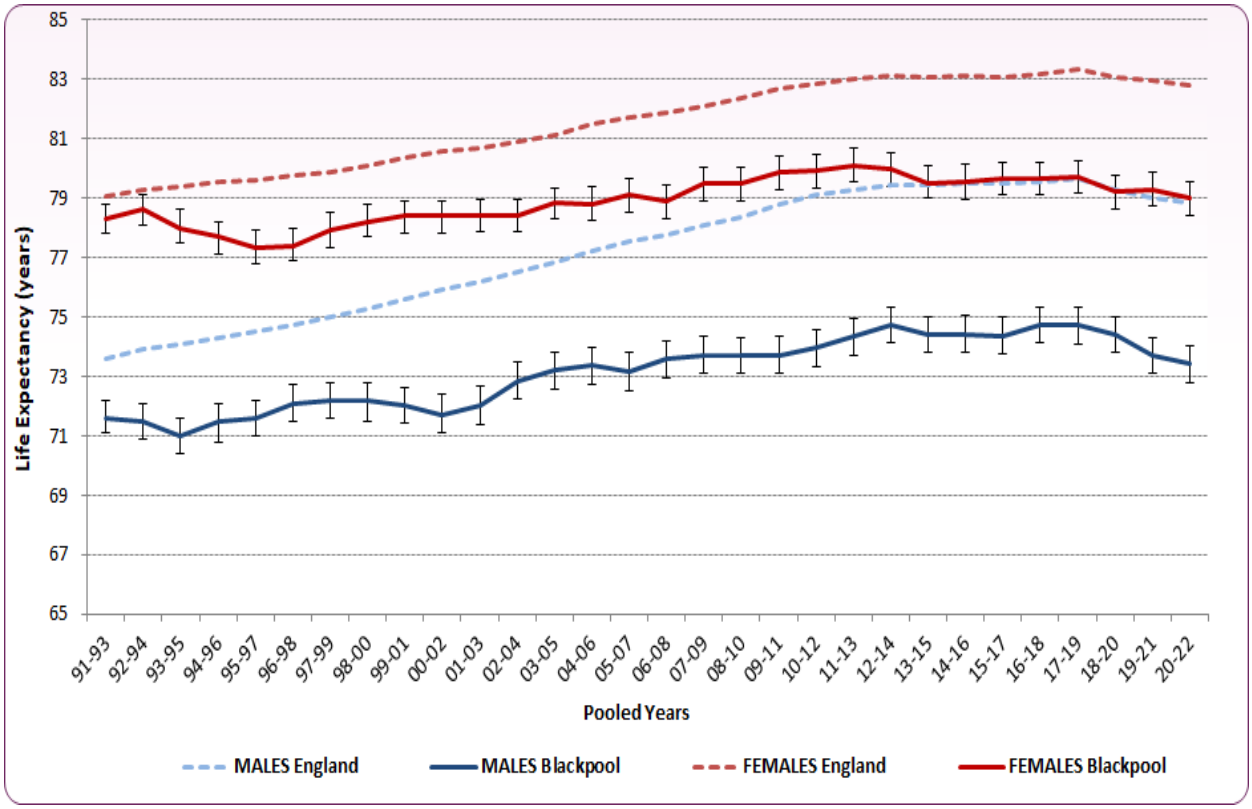

Fig 1: Blackpool Life Expectancy at Birth (1991-93 to 2020-22)

(Source: JSNA, 2023)

Similarly, mental health is a major worry in Blackpool, as the town has one of the highest percentages of mental health conditions in the United Kingdom. In the 2023 GP Survey, 17.5% of Blackpool patients identified as having a mental health condition (JSNA, 2023). The prevalence of GP-diagnosed depression in Blackpool is the highest in England, at 21.6%, compared to 13.2% nationally (JSNA, 2023). The high rate of antidepressant prescriptions highlights the area's mental health crisis. Blackpool has a high percentage of people with serious mental diseases like schizophrenia and bipolar disorder (JSNA, 2023).

Additionally, Blackpool has some of the highest rates of alcohol-related harm in the country. Alcohol-related hospital admissions among persons under 18years are much higher than the national average (PHE, 2019). Moreover, Blackpool has the highest drug-related mortality rate in England, demonstrating the devastating impact of substance abuse on the town (The Conversation, 2024). These difficulties are exacerbated by high smoking rates, particularly among pregnant women, which contributes to health disparities (HWBS, 2019).

Blackpool's health inequities are largely due to poor housing. Many inner-city dwellings are privately rented, with a sizable fraction converted from previous guest houses into houses of multiple occupations (HMOs) (HWBS, 2019). These housing circumstances create a concentration of low-income households that are vulnerable, resulting in high levels of transience, crime, and antisocial conduct. Poor housing is directly associated with poor health outcomes, such as respiratory and cardiovascular disorders that are common in Blackpool (HWBS, 2019).

Furthermore, Blackpool has some of the lowest educational achievement levels in the country. The average General Certificate of Secondary Education (GCSE) attainment score for Blackpool students is much lower than the national average, highlighting the challenges that children in the area face (PHE, 2019). Low educational attainment is strongly associated with poor health outcomes, as it limits prospects for higher-paying occupations and steady employment. Blackpool has a lower employment rate than the national average, with most of the residents being economically inactive because of chronic sickness or disability (HWBS, 2019).

2.4.2 Clacton-on-Sea

This is a coastal city in Essex, England, that demonstrates the widespread health disparities that exist in many of the UK's coastal communities. Clacton, formerly a prosperous coastal town, has been in economic decline for quite some time. The town's economy, which has traditionally relied on tourism, has failed to adjust to shifting economic conditions. This reduction has resulted in high rates of unemployment and economic inactivity, especially among younger residents. The decrease in economic prospects has had a direct influence on health outcomes, as employment is inextricably related to health and well-being (BBI,2022).

Clacton has substantial health inequities. Life expectancy in some districts of Clacton is up to 18 years lower than in affluent areas of Essex, such as Saffron Walden (BBC, September 28, 2023). This huge disparity reflects deeper socioeconomic challenges and emphasizes the urgent need for specific measures. Whitty (2021) highlighted Clacton's higher rates of preventable deaths below the age of 75, mainly from cancer and cardiovascular disorders. The community also has a greater rate of emergency hospital admissions for chronic obstructive pulmonary disease, chronic heart failure, and self-injury.

In addition, Clacton has the second highest demand for mental health services in the country. This high level of mental health need is reflected in the town's high "mood and anxiety disorders" indicator score (Whitty, 2021). Clacton has a much lower proportion of children who achieve a good level of development by the age of five than the national average. Educational attainment in Clacton is also an issue. The town has one of the lowest Attainment 8 scores in the country, indicating poor performance on important educational measures. Low educational attainment is strongly connected to future health disparities because they limit economic prospects and perpetuate cycles of poverty as well as poor health (Whitty, 2021).

Moreover, the town's housing stock, much of which is from a previous age, mostly fails to conform to modern health requirements. Poor living conditions can aggravate health issues, notably respiratory disorders (Whitty, 2021).

2.5 Health Inequalities Reduction Strategies

Over 10% (8 million people) of the UK's population lives along the shore, and they deserve equal educational and employment opportunities as the rest of the country (LUC, 2024). By addressing the specific reasons of a location's difficulties, it may be possible to build a community that offers a quality of life by the sea that inland areas cannot match. Despite the manifestations of deprivation that many coastal communities experience, there have been some demonstrable successes in recent years. Some towns are now hotbeds of art, culture, media, and business, with job prospects and salaries comparable to their nearby metropolis (Child, 2020). In recent years, several initiatives aimed at reducing the health inequalities in coastal communities have been implemented. These include –

2.5.1 Targeted Policies and Funding

Since 2012, the Coastal Communities Fund has allocated over £218 million in 354 projects around the UK. Over 18,000 UK jobs are being created or safeguarded by the Fund, as well as £363 million in new visitor spending (Government response to the House of Lords Report, 2019). Analysis suggests that this money was well spent, with every £1 invested having the potential to increase the coastal economy by up to £8. Traditional financing frameworks accessible to local actors in England (e.g., Coastal Communities Fund, High Street Fund, Freeport and many others, now merged into the

Levelling Up Fund) tend to prioritize the tangible features of regeneration (Fiorentino *et al*., 2024).

In 2019, the UK government declared levelling up the country to help people and towns that have fallen behind to catch up. To facilitate the initiative, a new Cabinet Office Level-Up Unit has been formed. This unit will contribute to the creation of a Levelling Up White Paper. If effective, investment in housing, education and employment in the most impoverished communities is likely to enhance health outcomes. The government has also created the Office for Health Improvement and Disparities, which is dedicated to addressing health inequalities (Davey *et al*., 2022).

2.5.2 Art and Culture-Led Regeneration

A new Folkestone Creative Quarter was established as part of a regeneration program that focused on the creative industries, arts, and education. Since its inception, the town has become a preferred location for a variety of artist's studios, creative ventures, shops, and businesses (House of Lords Report, 2019). The Roger De Haan Charitable Trust, the Heritage Lottery Fund, Kent County Council, the local district council, the regional development agency and Arts Council England collaborated to carry out the regeneration initiative.

Similarly, Margate is an excellent example of integrating arts and culture. The Turner Contemporary Art Gallery opened in a large glass box on the beachfront in 2011, and this has resulted in the development of a "Creative Quarter" with collaborative spaces for local artists, hence, many of the town's independent shops now have an artistic vibe. The Turner Contemporary Art Gallery has welcomed over 2.9 million visitors, with an annual average of 350,000 to 400,000. It was projected that these visits added over £68 million to the local economy, and the gallery was closely connected to a regenerated local cultural and artistic scene, as well as an increase in enterprises in similar sectors (Turner Contemporary, 2018). More than 20% of visitors to the gallery were locals, and the gallery was actively collaborating with local schools on engagement initiatives. Margate was ranked one of the top 15 locations to live in the UK by The Times in 2017, indicating its turnaround (Child, 2020). Margate and East Kent have used art and culture to spark rejuvenation, with the Turner Contemporary Art Gallery serving as an iconic attraction, drawing millions of tourists and major private investment in hotels, restaurants and shops (Ward, 2018). Nurturing creative and

cultural economies improves local character, encourages inclusivity and sustainability, and helps towns regenerate. Heritage and arts projects have consistently resulted in favourable outcomes.

2.5.3 Diversifying the Local Economy

Supporting economic diversification into industries such as fishing, environmental activities, and community enterprises helps to develop long-term local jobs. In Blackpool and the Fylde Coast, two local Enterprise zones (Hillhouse Enterprise Zone and Blackpool Airport Enterprise Zone) are critical in protecting and promoting the local economy's non-tourism industries (House of Lords Report, 2019). Blackpool Airport Enterprise Zone (EZ) took advantage of the financial benefits of Enterprise Zone approval to maximize the potential of the Business Park and airport, attracting new and current growth-oriented enterprises from a variety of manufacturing, digital, service and creative industries. The EZ came into being on April 1, 2016, with a 25-year lifespan, enabling the ability to host approximately 5,000 new employments, secure more than £2 billion in economic effect (GVA) and provide modern, flexible workspace for growing firms. In its first 18 months of existence, it saved or created 700 jobs (House of Lords Report, 2019).

2.5.4 Repurposing and Sensitive Development

Physical regeneration that focuses on repurposing existing structures, making environmentally friendly modern residences, and creating affordable workspaces encourages investment, creativity and entrepreneurship. Hastings was named the third most deprived coastal town in Britain in 2014, and its extraordinary recovery can be attributed to its existing built environment (Child, 2020). The council presented a vision centred on the revival of its ancient city, with culture at the centre of its future identity and regeneration, resulting in long-term economic and social advantages for its citizens. In 2016, the historic Victorian Pier reopened at a cost of £14.2 million, with a tourist centre, cafes and restaurants, as well as open-air performances, with the goal of attracting 325,000 visitors each year. The pier had an estimated 75,000 visitors in its first fortnight of operation (Peter, 2016). In 2017, it won the Royal Institute of British Architects' (RIBA) Stirling Prize. The Ramblers Association named the town the "Best Walking Neighbourhood" in the UK in 2018, following the renovation of the pier, which was nearly destroyed by fire in 2010 (Child, 2020). By 2021, the council hoped

Hastings will be a town that people wanted to love, visit, work, and invest in. However, the pier has since been sold to private individuals after the foundation that funded it went bankrupt (The Guardian, 2019).

2.5.5 Improving Connectivity

Investing in better transportation (road, rail, and public transit) and digital infrastructure minimizes geographical isolation, improves tourism, and provides locals with additional work options. Brighton and Hove City Council has a robust, fast growing ICT and Digital sector that presently supports approximately 1,500 enterprises and 6,800 jobs, up by over 40% in the last five years (House of Lords Report, 2019). Improved train connections, such as HS1 in Kent, have been "game-changers" for commuters and visitors, revitalizing seaside towns. Similarly, Bournemouth has witnessed an incredible transformation from an old retirement city to a tech hotspot on the south coast. Taking advantage of a thriving digital economy, it has been able to combine its geographic attraction with a growing industry and talent access from the local university. According to Tech Nation, the sector employs 15,763 residents and contributes £352m yearly to the local economy (Child, 2020).

2.5.6 Place Based Regeneration

Newquay, Cornwall, was plagued by anti-social behaviours as it rose to prominence as a stag and hen party destination in the Southwest. While this boosted the economy, other tourists distanced themselves due to reports of public unrest. The development of Newquay has been modest but significant. The first approach was to address anti-social behaviour, which included prohibiting daytime drinking problem and limiting happy hours. This allowed new enterprises confidence to establish themselves in the town, and Newquay has benefited from a thriving outdoor water sports industry. It is possibly the best example of transforming geography from a disadvantage into an advantage (Child, 2020).

3.0 METHODOLOGY

3.1 The Concept of systematic Review

A systematic review is a methodical way of summarizing research findings on a particular topic. It answers pre-defined research questions using specific, reproducible processes to identify, select, critically evaluate, and analyse the findings of primary research papers to give a comprehensive summary of current evidence (Pollock and Berge, 2018). Systematic reviews differ from narrative reviews in many significant ways. Narrative reviews are prone to bias, while systematic reviews seek to reduce bias through rigorous and transparent procedures (Uman, 2011). High-quality, current systematic reviews are critical for helping healthcare practitioners and researchers stay updated with a huge fast-growing body of knowledge, as well as informing evidence-based practice and policy decisions. Cochrane Collaborations are the gold standard for systematic reviews, and they are designed for teams of health experts who share similar interests (Cochrane Collaborations, 2016).

Given the enormous increase in available knowledge, experts, policymakers, and decision-makers find it difficult to keep up with advances in their fields of expertise. Systematic reviews provide a simple method for synthesizing vast amounts of research within limited time, summarizing the complexities of new information (Boland *et al*., 2014). Additionally, they assist in identifying gaps in a field's current literature, highlighting methodological issues that can improve future work in a topic area, and identifying questions for which extant evidence has offered unambiguous answers, hence eliminating the need for future research (Chalmers and Glasziou, 2009).

In contrast, systematic reviews use an observational, retrospective research approach that is subject to both random and systematic error (Owens, 2021). Doleman *et al*. (2021) provide a full discussion of systematic review constraints, which include the risk of bias, inconsistency, selective outcome reporting and imprecision, which can lead to Type I and Type II errors. Publication bias is another crucial consideration. It is generally preferred to publish research with statistically significant results, even if studies with non-statistically significant results are nevertheless clinically significant. Furthermore, Petticrew (2003) asserts that systematic reviews are unable to provide specific guidance because of primary studies that have limited outcome evaluations. However, a lack of clear evidence should not be used to justify inaction on health

disparities, and stakeholders should be guided by the processes through which interventions can be reasonably expected to improve health (Macintyre, 2003). Well-conducted systematic reviews use clear strategies to reduce bias when selecting and rejecting research works, resulting in more reliable and precise results (Greenhalgh, 2019). Systematic reviews are successful when thorough search strategies are used.

3.2 Prior Reviews

If a systematic review has already addressed a research question, conducting another evaluation of the same evidence becomes unnecessary and causes issues for clinicians as well as policymakers seeking systematic reviews to guide their decision-making (Pollock and Berge, 2018). The identification of gaps in the literature and evidence can have an impact on future research and policymaking. In accordance with this, multiple searches were made before carrying out this systematic review, to identify similar reviews to the study topic under consideration. The PROSPERO and Cochrane Library websites were searched to ensure that no reviews had been published in this field of study. At the time of the search, it was discovered that no such reviews had been carried out in England. However, several studies and reports have examined this issue.

3.3 Research Design and Research Methods

This research was carried out as a systematic review of publications on health inequalities in England coastal towns and the control strategies. The research design was selected because it offers the benefit of collating evidence from a variety of sources for practice and policy making. This systematic review was conducted in line with established methodology (Higgins *et a*l., 2021) and reported in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses statement (Page *et al*., 2020).

3.4 Research Question

To focus the study, the following research question was answered:

Why do many English coastal towns now have some of the highest rates of health inequalities in the UK, and how could these inequalities be reduced?

A systematic review should be prompted by an interest in a topic and a desire to address a particular issue. The question should clearly state the problem to address, indicating the population to which it pertains, as well as any intervention and desired outcomes (Pollock & Berge, 2018). This question often includes the PICO elements of **P**opulation, **I**ntervention, **C**omparison and **O**utcome. The PICO framework is largely accepted for questioning to investigate evidence-based medicine and other interventions.

Table 1: PICO (Research Question)

Population	Residents of coastal towns in England
Intervention	Strategies to reduce health inequalities
Comparator	Comparison between health outcome in England coastal towns and non-coastal areas
Outcome	Health inequalities status

3.4.1 Population

The population of interest in this review is residents in coastal communities in England. No gender or age restrictions were applied to the search though a higher proportion of the residents are older, retired people. Several studies have consistently shown that there is an association between England coastal areas and health inequalities. Different studies may adopt different methods of collecting data in terms of the measured population characteristics with respect to the deprivation index. To ensure consistency in the data to be reviewed in this study, the focus has been on the domains of relative deprivation which include housing, education, income, unemployment and access to health care services.

3.4.2 Intervention

The interventions under review include various strategies aimed at reducing health inequalities in England coastal towns. Some of them include the Coastal Community Fund, Community/place-based initiatives, Art-based regeneration, Connectivity improvement, Repurposing and Sensitive Development and many others. Studies that present information on any of the above-mentioned were considered in the review.

3.4.3 Comparator

It would be studies that made comparisons between coastal and non-coastal areas, between coastal towns and national average or between different coastal towns with varying levels of intervention implementation.

3.4.4 Outcome

The outcomes of interest reviewed in this study include various health metrics such as life expectancy, prevalence of chronic diseases (e.g., cardiovascular diseases, mental health conditions), and overall wellbeing. These outcomes help to quantify the health disparities between coastal and non-coastal populations as well as between different coastal towns with varying levels of intervention implementation.

3.5 Eligibility criteria

The database search was focused on screening titles and abstracts for the following terms: “health inequalities in England”, “English coastal communities”, “health inequalities in UK coastal communities”, “health inequalities in England coastal towns”, “English seaside towns deprivation”, “health inequalities interventions” and “strategies for reduction of health inequalities”.

Inclusion criteria were:

- Studies published in English (to avoid possible omissions due to translation).
- Studies published between 2014 and 2024 to capture recent trends.
- Studies focusing on populations residing in England coastal towns.
- Research examining health inequalities, including socioeconomic status, access to healthcare, education, employment, and environmental factors.
- Research examining health outcomes such as life expectancy, morbidity, mortality, mental health, and chronic diseases.
- Studies that compare health outcome in England coastal towns with non-coastal areas or national average
- Studies that provide access to both abstract and full text
- Studies published on interventions and approaches to addressing health inequalities in coastal towns

- Studies focusing on facilitators and barriers of reducing health inequalities in coastal communities.

Exclusion criteria were:

- Studies not published in English.
- Studies carried out earlier than 2014.
- Studies focusing on non-coastal areas or regions outside England.
- Research not addressing health inequalities or not providing relevant data on health outcomes.
- Research that reported non-health inequalities.
- No systematic reviews or meta-analysis

3.6 Information Sources

A systematic literature search was carried out from March to June 2024 to identify relevant studies conducted and published in the United Kingdom between 2014 and 2024, that reported on England coastal towns health inequalities and control strategies. Articles were collected from electronic databases and through a manual search. The following databases (PubMed, Ovid MEDLINE, Ebsco PsycINFO, Ovid Embase, Ebsco CINAL) and grey literature from government as well as other public agencies (such as Public Health England, National Health Services England, Office for National Statistics and Quality and Outcomes Framework data) were included in the search process. The manual search was mostly focused on reference articles. To identify additional studies, a 'snowball' search was conducted, which involved searching the reference lists of papers suitable for full-text review and utilizing Google Scholar to identify as well as determine articles that cited them.

3.7 Search Strategy

The search strategy was broad enough to cover a wide range of studies on responsible factors and strategies to address health inequities. Relevant materials were obtained from two sources: published studies in journals and grey literature from the government and other public agencies. The search for peer-reviewed academic literature was undertaken using agreed-upon search criteria, which comprised a combination of terms related to the PICO framework. Depending on the specifications of each database, and to boost the sensitivity of information

retrieval, MeSH (Medical Subject Headings) and non-MeSH keywords were employed as needed. The table below lists the search terms.

Tables 2: Development of Search Strategy

Population	(Location)	Intervention	Outcome
Coastal town	England	Reduction	Health inequality
Seaside town	English	Strategies	Health disparity
Coastal community	United Kingdom	Intervention	Health outcome
Seaside resort	UK	Prevention	Poor health
Coastal area		Approach	Morbidity
Coastal population		Action	Mortality
		Initiatives	Life expectancy
		Programs	Chronic disease
		Policies	Mental health

The advanced search was utilised by incorporating the use of truncation and database specific limiters (such as "" to return actual terms and * for a wildcard search). The use of Boolean operators (OR, AND) was also applied to narrow the scope of search and effectively find relevant studies. “OR” combines search terms so that each search result contains at least one of the terms. “AND” combines search terms so that each search result contains all the terms.

The primary example of the search strategy string used is found below.

Table 3: Search Strings

Population	("coastal town*" OR "seaside town*" OR "coastal communit*" OR "seaside resort*" OR "coastal area*" OR "coastal population*")
(Location)	("England" OR "English" OR "United Kingdom")
Intervention	("reduction strateg*" OR "intervention*" OR "polic*" OR "program*" OR "initiative*" OR "action*" OR "approach*" OR prevention)
Outcome	("health inequalit*" OR "health disparit*" OR "health outcome*" OR "life expectancy" OR morbidity OR mortality OR "chronic disease*" OR "mental health" OR "physical health" OR "health status" OR "quality of life")

The developed search query applied to the five databases for search is found below:

("coastal town*" OR "seaside town*" OR "coastal communit*" OR "seaside resort*" OR "coastal area*" OR "coastal population*") AND ("England" OR "English" OR "United Kingdom") AND ("health inequalit*" OR "health disparit*" OR "health outcome*" OR "life expectancy" OR morbidity OR mortality OR "chronic disease*" OR "mental health" OR "physical health" OR "health status" OR "quality of life") AND ("reduction strateg*" OR "intervention*" OR "polic*" OR "program*" OR "initiative*" OR "action*" OR "approach*" OR prevention)

The grey literature was obtained from various relevant documents on this topic which include Public Health England Reports, National Health Services England Initiatives, UK Parliament Reports, National Institute for Health and Care Excellence (NICE), and Policy documents.

3.8 Data Management

To maintain a paper trail, search results were exported to Mendeley reference management software. After saving these exports, they were labelled according to the database from which they were received. The results of the grey literature search were compiled into one file. Following the initial search, the references were organized using

Mendeley software, and duplicate studies were removed. The remaining studies at this level were assessed for possible inclusion in the review.

3.9 Study Selection Process

The titles and abstracts of all references identified by the search strategy were scree ned (in Mendeley software) by one reviewer to exclude irrelevant results, as single screening ensures efficient use of time and resources.

At this point, clearly irrelevant studies were removed, and a new folder was created to separate them from the review.

Where there was ambiguity about a study's eligibility for inclusion, another folder was created for full text screening of the documents. Full-text articles of potentially relevant studies about health inequalities in England coastal towns were initially assessed for eligibility in accordance with specified study characteristics. Articles had to meet the following primary criteria: a) coastal towns were clearly stated as study setting; b) England was considered as study location, c) health inequality was the outcome d) assessing and addressing the determinants of health inequalities were seen as interventions, e) quantitative, qualitative or mixed methods studies were used.

Study had to meet the following eligibility criteria to be included in the final review:

(i) contains at least one of the four key concepts (coastal town, England, health inequality and intervention)

(ii) Has all the study characteristics listed above (a-e). Studies examining health inequalities in settings other than England's coastal towns were not included. Other reasons for exclusion are captured in a PRISMA chart.

The full text of all publications identified as fulfilling the eligibility criteria were reviewed. Information extracted from each study include - year of publication, aim, study design, data sources, population, health inequalities measured, main findings and intervention suggested. The main outcomes of interest were factors/reasons for health inequalities in England coastal population from 2014 to 2024 and their reduction strategies to reflect the aim of the study. All results consistent with outcome domains were sought from each study.

3.10 Data Quality Assessment

It is very necessary that only those studies free from error and bias or have attempted to reduce them are included in a systematic review (McClean, 2019). The included studies' quality was assessed using the adapted Critical Appraisal Skills Program (CASP) checklist created for systematic reviews (CASP, 2015), which consists of ten questions about methodological and reporting concerns that can be responded with "Yes," "No," or "Can't tell." The CASP checklist helped the grading of the quality of studies against set questions to test the suitability and quality of the literature considered to answer the research question. It is useful in ensuring that quality, impact of bias, heterogeneity and the applicability of the studies included in a review is addressed. Each study was assessed against the CASP checklist, and the awarded grades were tabulated. The collated relevant studies on the CASP checklist were discussed with my supervisor for further assessment.

The CASP checklist questions were as follows:

1. Was there a clear research question and/or aim of the research?
2. Did the author(s) cite the right, important and relevant method of study for the research?
3. Were the research methodology and design appropriate for addressing the research questions?
4. Were the factors responsible for health inequalities assessed?
5. Was there comparison of coastal and non-coastal areas/national average?
6. Did the study consider reduction strategies?
7. Was there a clear statement of study findings?
8. Can the result be applied generally?
9. Are there any policy implications to this study?
10. Does the study result fit other available evidence?

Grading was by simply using “Yes”, “Cannot tell” and “No”. Maximum point of ten (10) was allotted for a “Yes”, five (5) points for a “Cannot tell” and zero (0) point for a “No”. The overall score for each included study was marked in percentage and graded as follows: 80% and above was grade A studies, 70% up to 79.9% was grade B, while score from 64.9% to 69.9% was grade C. Papers with grade below 64.9% were considered not to have passed the CASP tool test.

3.11 Data collection process

After excluding low-quality studies from the review, data extraction was performed. It was accomplished by gathering the necessary information from the relevant literature's characteristics and conclusions. According to McClean (2019), it is critical that each paper be considered similarly using a standard procedure to ensure that no paper is given preference over another. In keeping with this, the data extraction spreadsheet was designed to address the research question. McClean (2019) recommends that at the very least, it should contain the following information:

Study details (Author(s), year of publication, title, country of origin)

Study methods (study design, source of data)

Outcomes measured (relevant to the research question)

Author's findings

Comments from the review (i.e. results from the critical appraisal and personal views on the authors' interpretation)

A data extraction sheet was used to obtain information (including author details, topic, study design, study setting and population, type of health inequalities studied, study results, intervention suggested and study quality) from the selected studies based on the study objectives.

3.12 Data Synthesis

A meta-analysis could not be conducted due to the variability in study settings, populations, and interventions (aimed at reducing health inequalities in English coastal areas) captured in the included papers. Meta-analysis should only be performed if the data from the included research is sufficiently similar and combining them makes sense. However, during the preliminary search conducted at the protocol stage, it was determined that the included studies would be heterogeneous. As a result, the studies for this review were narratively synthesized.

According to Popay *et al*. (2006), narrative synthesis is the second-best method for synthesizing the findings of several included research and should be utilized when statistical meta-analysis is not possible. In addition, researchers who aim to increase the likelihood of scientific synthesis being used to inform policy and practice are likely

to find narrative synthesis to be a useful tool, even when utilizing specialized statistical approaches. Narrative synthesis involves more than just explaining and synthesizing the essential aspects of the included studies. It allows for the investigation of similarities and differences, as well as the exploration and assessment of correlations between findings and the strength of the evidence. It makes it easier to address specific research questions, such as informing policy and practice (Lisy and Porritt, 2016).

According to the Cochrane handbook, in the absence of a body of knowledge established by rigorous techniques being developed and tested for statistical synthesis, systematic reviews using narrative synthesis may be biased and produce unreliable conclusions, leading to harmful decisions (Higgins *et al*., 2022). However, this issue can arise due to statistical procedures that produce deceptive results. This emphasizes the significance of improving the methodological basis of this approach. As a result, tested guidance for conducting narrative synthesis in the context of systematic reviews was applied in this study.

Ryan (2013) offered guidelines for the usage and implementation of narrative synthesis. Khan *et al*. (2011) recommend that the reviewer begin with a written summary that includes details about the characteristics, design, and effects of the included studies. A combination of guidelines was employed to create an effective data synthesis procedure.

3. 13 Bias Assessment

Given the limited database searches, not all relevant literature was captured, however, bias in data extracted from available studies was reduced by including carefully searched grey literature in addition to electronic database searches to try and locate evidence that had not been peer-reviewed.

3.14 Ethical Consideration

Considering that this is a type of secondary study that uses existing and publicly available data, ethical approval was not necessary (McClean, 2011). Moreover, the papers included in this review were publicly available articles that did not require ethical approval for research purposes.

4.0 RESULTS

4.1 Study Selection

The searches retrieved a total of 490 articles (484 from five online databases and 6 from other sources) for studies published between 2014 and 2024. After deduplication and screening of the titles and abstracts, twenty (20) possibly relevant full-text articles were selected for further evaluation. The PRISMA flow diagram depicts the research selection procedure and reasons for exclusion (Fig 2). The list of studies that were omitted from full text screening is found in Appendix 1.

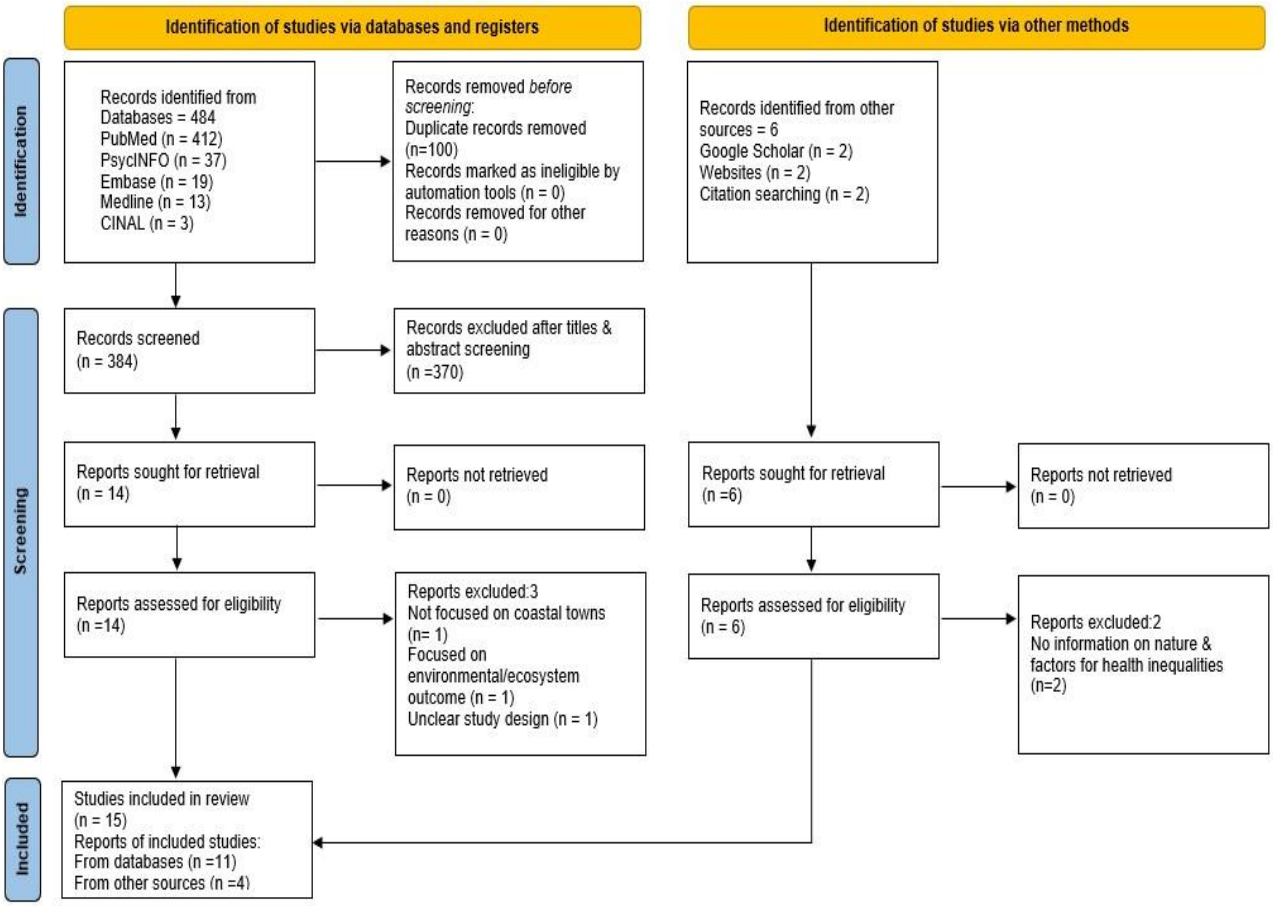

Figure 2: PRISMA Flow Diagram of Selection Process

4.2 Quality Assessment

The result of the Critical Appraisal Skills Program (CASP) tool utilization for critical analysis of the studies are shown in the table 4 below:

Table 4: CASP Checklist for Individual Quality Assessment of Screened Literature

Study & Questions	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Was there a clear statement of the research question and/or aim of the research?	Y	Y	Y	Y	Y	Y	N	Y	N	N	Y	Y	N	N	N
Did the authors cite the right and relevant method of study for the research?	Y	N	Y	Y	N	N	N	N	N	N	N	N	N	N	Y
Were the research methodology and design appropriate for addressing the research questions?	Y	C	Y	Y	C	C	C	C	C	C	C	C	N	N	Y
Were the factors responsible for health inequalities assessed?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	C
Was there comparison of coastal and non-coastal areas/national average?	N	Y	Y	N	N	Y	Y	Y	Y	N	Y	Y	N	N	N
Did the study consider reduction strategies?	N	Y	N	N	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	N
Was there a clear statement of study findings?	Y	Y	N	C	Y	Y	N	Y	Y	C	C	Y	N	N	N
Can the result be applied generally?	Y	Y	C	C	Y	Y	C	Y	Y	Y	Y	Y	Y	Y	Y
Are there policy implications to this study?	Y	Y	Y	Y	Y	Y	C	Y	Y	Y	Y	Y	Y	Y	Y
Does the study result fit other available evidence?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Quality level	80	85	75	70	75	85	45	85	75	60	80	85	50	50	55

The CASP checklist questions were graded for each paper separately as follows:

Y for “Yes” represented 10 points

C for “Cannot tell” represented 5 points

N for “No” represented 0 point

The overall score was calculated in percentage (over 100) as ten (10) questions were graded. Studies with grades higher than 60% of the total expected score (100) received the “passed” comment (**P**).

The quality assessment process found ten (10) studies to be of sufficient quality for inclusion in the review (Table 5).

Table 5: Quality Assessment Scores for Reviewed Studies

Study Number	Authors & Year	Score (%)	Comment
2	Asthana & Gibson, 2022	85	P
6	Whitty, 2021	85	P
12	Emmins *et al.*, 2023	85	P
8	Kent County Council Public Health Report 2021	85	P
1	Agarwal *et al.*, 2018	80	P
11	West Sussex County Council Public Health, 2024	80	P
5	Asthana & Prime, 2023	75	P
9	Child, 2020	75	P
3	Fiorentino *et al.*, 2024	75	P
4	Wenham, 2019	70	P

4.3 Study Characteristics

Following quality assessment of individual studies, ten (10) papers were selected for inclusion in the literature review. This comprises three (3) publications from grey literature and seven (7) from the peer-reviewed, academic databases. Their key information was transferred to a spreadsheet which included: author(s), date, title, aims, research type, findings and proposed interventions. Findings were synthesised in accordance with the primary research question. The full text papers considered in this systematic review are listed in Appendix 2. Details extracted from the selected studies are illustrated in table 6 below.

Table 6: Data Extraction from Included Studies

Study number	Authors & Year	Title	Aim	Study design	Research type	Study findings	Intervention
2	Asthana & Gibson, 2022	Averting a public health crisis in England's coastal communities: a call for public health research and policy	To demonstrate how poor health and public health outcomes are now subject to a significantly peripheral distribution in England.	Ecological study	Quantitative	Coastal areas have high disease prevalence across conditions. Children and young people have poor outcomes.	More research, policy, education, community intervention etc
6	Whitty, 2021	Chief Medical Officer's Annual Report 2021 Health in Coastal Communities	To explore the health and wellbeing of coastal communities, combining insight from local leaders with data analysis.	Government report	Quantitative	Coastal communities have some of the worst health outcomes in England, with low life expectancy and high rates of many major diseases.	National strategy to improve the health and wellbeing of coastal communities. Addressing mismatch between health and social care worker deployment and disease prevalence in coastal areas by HEE/NHSE
12	Emmins et al., 2023	Communities on the edge: Assessing the need for Levelling Up	To research and report on the scale of the coastal Levelling Up challenge, and the	A research report for the Coastal Communities	Quantitative	Levelling up has the potential to help transform communities and increase	The green economy, Marine environment and infrastructure,

		in England's coastal authorities	opportunities for growth in coastal communities	Alliance and partners		their contribution to the national economy, but the framework would benefit from slight adjustments.	Education and careers, The visitor economy
8	Kent County Council Public Health Report 2021	Health and Wellbeing of Coastal Communities in Kent	To highlight the issues facing coastal communities in Kent and the need for engagement with local communities to create sustainable plans for the future.	Evidence review	Quantitative	Kent coastal areas show a 'coastal excess' of poor health outcomes compared to inland areas.	Kent Public Health plan to work with partners to develop local evidence which will be used to inform a strategy aiming to address the needs of individual coastal communities in Kent.
1	Agarwal et al., 2018	Disadvantage in English seaside resorts: A typology of deprived neighbourhoods	To make a significant contribution to policymaking by identifying the internal dynamics of resort change in relation to disadvantage, specifically, patterns of socio-spatial disadvantage and the way in which	Using univariate, bivariate and multivariate analyses of database for incidence of multiple deprivation	Quantitative	There is persistent, complex and distinct spatial clustering of Deprivation in English coastal towns.	A much stronger geographical emphasis in future research and policy agendas, including third sector partnerships

			place- and population-based factors influence the outcome.				
11	West Sussex County Council Public Health, 2024	A framework for action to reduce coastal health inequalities	This framework aims to provide an insight into health and wellbeing and its wider determinants in our coastal West Sussex towns	Framework document	Quantitative	Proposes strategies to address health disparities in West Sussex coastal areas.	Public Health approach to reducing health inequalities in West Sussex coastal communities
5	Asthana & Prime, 2023	The role of digital transformation in addressing health inequalities in coastal communities: barriers and enablers	To suggest ways in which digital health technologies (DHTs) can support a greater shift towards prevention of poor health outcome	Evidence review	Quantitative	Touched upon the enormous potential of DHTs to promote better population health, reduce health inequalities, improve the experience and outcomes of care, reduce demands on the health and care workforce, and ultimately reduce costs.	Digital transformation

9	Child, 2020	Turning the tide: seaside regeneration	Not specified	Report	Quantitative	Our data analysis has shown how the problems, challenges and potential remedies for deprived coastal towns coalesce around a series of recurring themes.	Towns must create a clear and shared identity supported by investment into local and regional infrastructure. They must implement improved digital connectivity, incubating skills in residents that will evolve to engender economic growth.
3	Fiorentino *et al*., 2024	Coastal towns as 'left-behind places': economy, environment and planning	To build a comparative discussion on the causes of deindustrialisation and economic decline across our selected case studies and to provide an evaluation of the subsequent policy attempts to steer these coastal towns to a more successful future.	Collating material from interviews that were led across the four case studies, and subsequently leading a policy review and a comparative analysis of secondary data and socio-economic statistics.	Mixed-method approach	Not specified	Not specified

4	Wenham, 2019	"Wish you were here"? Geographies of exclusion: young people, coastal towns and marginality	To investigate processes of marginalisation and disconnection from the perspectives of young people who were deemed as disengaged, or 'at risk' of disengagement, from education, employment or training.	Interviews followed a semi-structured format via a topic guide	Qualitative	Contributed to the growing body of research on non-urban youth, highlighting the significance of place-based inequalities in areas of entrenched deprivation, and how the mobility imperative can consequently hold distinctly different meanings.	Not specified

4.4 Results of Individual Studies

This section discusses the findings of each study included in the review and appraises each study with its strengths and limitations.

4.4.1 Study 2: Asthana and Gibson, (2022)

This study argues that several health issues are more prevalent in coastal areas than in non-coastal locations, including high rates of coronary heart disease, and other noncommunicable diseases. It finds poor involvement in higher education and high rates of hospitalization for self-harm, alcohol and substance abuse as prevalent issues. The authors explain that the existing distribution of health and socioeconomic issues may point to an approaching public health crisis in these towns.

Some of the study's strengths include the use of a variety of health markers to map disease prevalence at the local area level, resulting in a thorough picture of health disparities in coastal towns. By relating health outcomes to socioeconomic and educational characteristics, the paper provides a holistic view of public health challenges and advocates for integrated policy responses. The study not only highlights problems, but also proposes practical policy interventions, outlining the importance of integrated approaches across sectors.

On the contrary, the study is mostly based on cross-sectional data, which limits its ability to examine changes over time or demonstrate causal links between socioeconomic factors and health outcomes. Moreover, while the study employs precise small-area data, the lack of an established definition of "coastal communities" and the heterogeneity in data granularity can make it difficult to generalize findings to other coastal locations. Although the study calls for greater research and policy alignment, it presents few concrete recommendations for measures that could effectively address the identified health inequalities.

4.4.2 Study 6: Whitty, (2021)

This study demonstrates that coastal areas bear a greater burden of both physical and mental health concerns than their inland counterparts, including higher incidence of avoidable illnesses, substance abuse, and mental health disorders. Furthermore, coastal locations have a higher proportion of older population, which leads to increasing healthcare needs. Nonetheless, these communities frequently struggle to

attract enough healthcare workers, resulting in a mismatch between need and supply. The study also noted that deprivation, poor housing conditions, and limited access to education and employment opportunities all contribute significantly to the region's poor health outcomes.

This research uses data from the Quality and Outcomes Framework (a pay-for-performance plan aimed at improving patients care quality) and other small-area datasets to conduct a detailed examination of health outcomes at the local level. Similarly, it integrates quantitative data with qualitative views from local leaders to provide a comprehensive picture of the health concerns facing coastal communities. The paper provides feasible suggestions for policymakers, highlighting the importance of targeted initiatives and better data gathering to reduce health disparities. However, a fundamental limitation is a lack of granular data specific to coastal towns, which might mask the true level of health inequities, caused by aggregation with more affluent inland locations. It recognizes the complex interaction of factors influencing health outcomes but may not fully capture all underlying causes due to limitations of data and the multifaceted nature of health inequalities.

4.4.3 Study 12: Emmins *et al*., (2023)

This report focuses on the discrepancies between coastal and non-coastal areas, underlining the importance of targeted initiatives under the Levelling Up agenda. It demonstrates that coastal areas have lower salaries, with roughly one-fifth of jobs paying less than the living wage. Household incomes in these locations are about £3,000 less than in non-coastal areas. Many jobs in coastal towns are seasonal and part-time, primarily in the tourism industry, which adds to economic instability. Moreover, the report reveals that fewer youngsters are attaining GCSE qualifications in crucial subjects such as math and English, as well as higher rates of alcohol-related hospital admissions, depression and suicide. Limited internet and 4G coverage create a digital divide that stifles economic growth and access to services. It also emphasizes various potential for coastal locations, including green jobs (1.2 million low-carbon jobs projected by 2050), increased renewable energy generation, and tourist economic prospects, particularly through the extension of the tourism season.

Some of the strengths of the study include a thorough investigation of several socioeconomic variables, which provides a comprehensive picture of the issues

encountered by coastal towns. By linking its findings with the Levelling Up agenda, the report provides policymakers with concrete ideas for addressing observed discrepancies. Furthermore, the involvement of different stakeholders, such as local councils and national organizations, increases the findings' legitimacy and significance. The study examines not just existing issues, but also potential future opportunities for coastal towns. However, as with the other studies mentioned above, it admits data granularity limitations for some indicators, which may impair the precision of certain findings. While the paper presents a broad perspective, it may fail to reflect the specific issues that different coastal communities face, which might differ greatly. In addition, the analysis is based on existing data, which may not accurately reflect actual conditions due to time gaps or data collection difficulties.

4.4.4 Study 8: Kent County Council Annual Public Health Report, (2021)

This report identifies several challenges confronting Kent's coastal towns, including greater prevalence of major diseases, lower life expectancy, and increased premature mortality, especially from cancer. The communities also confront substantial socioeconomic issues like high levels of deprivation, limited employment options, and substandard housing. These factors all contribute to the negative health effects seen. Additionally, the study identified difficulty in obtaining health and social care services in these regions, which was aggravated by challenges in hiring and keeping healthcare personnel due to the remoteness of some places and insufficient public transportation. The pandemic has exacerbated existing health inequities, making it important to address them using evidence-based, local interventions.

The report uses a variety of data sources to present a comprehensive picture of health and well-being in coastal areas. This includes demographic information, health outcomes, and socioeconomic factors. By focusing on distinct coastal locations in Kent, the paper emphasizes each community's unique difficulties and needs, while calling for specific, place-based initiatives. The findings are consistent with the Chief Medical Officer's coastal towns report, which highlights the larger issue of health inequities in these places throughout England.

In contrast, while the report provides a thorough examination of health issues, it may fail to represent the complex interaction of elements affecting health in coastal areas, such as environmental impacts or cultural features. The report may lack granularity in

some data items, potentially missing subtle variations within communities that may guide more precise solutions. Furthermore, the report only provides a snapshot of current situations, with no extensive longitudinal analysis for tracking changes over time or the effectiveness of initiatives. It is limited to Kent coastal communities and may not be applicable to other England coastal towns.

4.4.5 Study 1: Agarwal *et al*., (2018)

This study identified that socioeconomic disadvantage in English seaside towns has increased over the last decade, with many impoverished neighbourhoods exhibiting chronic and entrenched poverty. It uncovered unique geographical clustering of deprivation within coastal communities, demonstrating that disadvantage is not evenly distributed but concentrated in some places. Using multivariate analysis, the researchers created a new category of very impoverished coastal communities, with implications for more focused policy responses.

The researchers developed a unique spatial and temporal database that included publicly available sources other than the Index of Multiple Deprivation and census data. The study used univariate, bivariate, and multivariate analysis to conduct a detailed analysis of the data. It makes a case for a greater regional emphasis in future research and policy agendas. Additionally, the study emphasizes the potential value of involving the voluntary sector in tackling disadvantage in seaside resorts. However, while the study looks at trends over a decade, longer-term historical analysis could provide more context for the observed patterns of disadvantage. Its dependence on quantitative data analysis may miss some of the more nuanced, qualitative components of disadvantage faced by residents.

4.4.6 Study 11: West Sussex County Council Public Health, (2024)

According to this study, residents of West Sussex's coastal areas have poorer health results than those in non-coastal regions. This is due to several causes, including greater levels of deprivation, an older population, more potential years of life lost, an increased prevalence of serious diseases, and higher hospital admissions rates for self-harm. The framework focuses on a public health approach that uses local strengths and assets to enhance health outcomes. It encourages collaboration across sectors to address the social determinants of health, like housing and economic activities.

Some of the study's strengths include the use of a strong set of indicators to capture both mental and physical health over the lifespan, resulting in a thorough picture of health disparities. The framework was created with contributions from a variety of stakeholders, including public health specialists and community members, to ensure a balanced perspective. The study is based on the Chief Medical Officer's 2021 annual report on coastal health, which aligns local efforts with national priorities.

The study has some limitations, as several analyses (such as alcohol and substance abuse) were omitted owing to time constraints, indicating that more research is needed to strengthen the framework and its recommendations. The study focuses on a subset of indicators for the initial investigation, with plans to conduct more extensive assessments.

4.4.7 Study 5: Asthana & Prime, (2023)

This study focuses on the potential of digital transformation to change healthcare from a reactive to a preventive approach, which is critical for improving health outcomes in these areas. It demonstrates that coastal communities in England confront major health issues, with greater rates of physical and mental health conditions than inland places. These communities frequently have poorer digital maturity, limited internet access, and a lack of comprehensive electronic patient record systems, exacerbating existing health disparities. By promoting early diagnosis and allowing care to be provided at home, digital health technologies can help to change the paradigm toward prevention. This is especially important in coastal towns where access to regular healthcare services may be restricted.

The study presents a thorough analysis of both the enablers and barriers of digital transformation in coastal communities, providing a balanced perspective on the difficulties and prospects. The study corresponds with modern healthcare goals by emphasizing the transition from reactive to preventative care, as well as the potential long-term advantages of digital health initiatives. It makes tangible recommendations to politicians and healthcare practitioners, which are critical for bridging the digital divide and achieving health equity. However, while the study gives qualitative insights into the enablers and barriers of digital transformation, it does not include quantitative evidence to back up its conclusions. This may have an impact on the perceived robustness of the findings. As the study was undertaken by University of Plymouth

researchers, there may be an inherent bias toward spotlighting difficulties specific to coastal towns, affecting the objectivity of the results. In addition, it is largely concerned with coastal towns in England, which may limit the applicability of its findings to other areas or nations with distinct healthcare systems and digital infrastructure.

4.4.8 Study 9: Child, (2020)

The study provides a thorough examination of the socioeconomic issues and regeneration attempts in UK coastal communities. It highlights numerous major findings about coastal communities, including economic loss caused by high unemployment rates, poor wages, and a lack of investment, which is frequently linked to a decrease in domestic tourism and an increase in international travel possibilities. Coastal towns received an average score of 33.18 on the government's Overall Index of Multiple Deprivation, well exceeding the national average of 19.6 points. Similarly, it contends that seaside towns underperformed the national average in six of seven metrics of deprivation, including living environment, education, income, job, health, and crime. The paper emphasizes the significance of targeted regeneration measures, such as infrastructure investment, cultural and creative industry promotion, and the growth of alternative economic sectors like green industries.

Some of the strengths of the study include the analysis of 40 English coastal communities, which provides a comprehensive viewpoint on the subject. The study's emphasis on the potential of cultural and creative sectors offers a unique viewpoint on how to rebuild coastal economies and attract new visitors and inhabitants. It provides practical policy solutions for tackling coastal towns' decline, emphasizing the importance of long-term planning, infrastructure investment, and community engagement.

In contrast, some of the data utilized in the study may not reflect long-term patterns or the full impact of current economic and policy changes, potentially reducing the study's predictive usefulness. Although the study targets socioeconomic issues, it may not thoroughly investigate other crucial elements such as environmental sustainability and climate change, which are important for the long-term viability of coastal settlements.

4.4.9 Study 3: Fiorentino *et al*., (2024)

This paper presents a comprehensive overview of the socioeconomic and environmental issues that confront coastal communities in England, such as high unemployment, poor wages, and economic stagnation, as seen in other post-industrial regions. The collapse of traditional sectors like shipbuilding and fishing has made these places economically vulnerable. Coastal towns have numerous environmental issues, such as climate change-induced sea-level rise, flooding and erosion. These concerns compound existing socioeconomic issues by raising costs and risks for local communities. In addition, it criticizes the absence of efficient governance and strategic planning in coastal communities, emphasizing the importance of place-based initiatives and regional coordination in addressing these unique issues.

The study looks at coastal towns through the prism of the 'left-behind' debate, offering a deeper view of their challenges. By examining specific case studies such as Great Yarmouth, Ipswich, Lowestoft and Newhaven, the study provides real instances of the difficulties confronting coastal towns. Similarly, it addresses the long-term process of deindustrialization, which provides context for current issues. The research emphasizes the importance of regional collaboration and place-based approaches to regeneration.

Some of the study's drawbacks is its reliance on existing economic data, which may not cover all aspects of coastal town dynamics. While case studies add depth, bigger sample sizes may yield more generalizable results. The study's concentration on England may limit its application to other regions.

4.4.10 Study 4: Wenham, (2019)

This study investigates the experiences of young people living in disadvantaged coastal towns in the United Kingdom. It emphasizes how important geographical location is in developing young people's identities and life possibilities. Coastal communities, which are frequently marked by economic distress and restricted prospects, contribute to a sense of alienation and marginalization among young people. Young people in these places face increased inequality, aggravated by austerity policies and limited access to resources. This atmosphere influences their goals and possibilities, frequently leading to a sense of being 'left behind'. Furthermore, the study underlines the importance of social citizenship and belonging,

as many young people in coastal communities feel isolated from the larger population, affecting their sense of identity and community involvement.

The use of ethnography, participatory arts, and interviews in this study allows for a thorough knowledge of the participants' lived experiences. This methodological diversity enhances the data and enables more nuanced examination of complicated social situations. By focusing on young people in coastal communities, the study illuminates a group that is sometimes disregarded in research, providing vital insights into their specific challenges and viewpoints. It contributes to the growing corpus of work on the significance of place in youth studies, particularly in determining how geographical and social elements interact to influence young people's lives. However, with a sample size of 31 participants, the study's findings may not be applicable to all young people living in seaside towns or other similar environments. The participants' experiences may not accurately reflect the diversity of experiences within this demographic. Self-reported data, like that of many qualitative studies, involve the risk of bias. Participants' accounts may be influenced by their perspectives and the setting in which the interviews were held.

4.5 Synthesis of Results

All the ten (10) studies selected for review, provide a comprehensive analysis of public health issues in English coastal towns, particularly emphasizing the persistent health disparities caused by social determinants, the varied effectiveness of community-based and policy-driven initiatives, and the significance of localized data collection in informing tailored interventions. Considering the research question and findings of the studies, the synthesis was conducted as follows-

4.5.1 Health Inequalities and Wider Determinants

The widespread influence of health inequities, which are anchored in socioeconomic, demographic, and geographical factors, has been found across the studies. According to Asthana and Gibson (2022) and Whitty (2021), poorer socioeconomic position is substantially associated with greater rates of chronic diseases and reduced life expectancy, emphasizing the importance of income as a health determinant. Kent County Council's Annual Public Health Report 2021 and West Sussex County Council's Public Health framework document, 2024, emphasize that residents in coastal communities frequently have limited access to educational and career options,

aggravating health disparities. Additionally, Emmins *et al*. (2023) and Child (2020) analyse how environmental factors such as housing quality and pollution affect health. Poor living conditions and increased pollution in some coastal locations contribute to respiratory and cardiovascular disorders. Many coastal towns' infrastructure is old, limiting access to healthcare and emergency services during environmental disasters. According to Fiorentino *et al*. (2024), lifestyle factors such as nutrition and physical exercise are important, as coastal communities frequently have higher rates of obesity and smoking.

4.5.2 Mental Health and Wellbeing

Wenham (2019) describes the mental health issues that residents of coastal towns experience, including greater rates of despair and anxiety. This finding agrees with Whitty's (2021) report, which describes how environmental factors can cause mental health challenges and exacerbate pre-existing physical health conditions. Kent County Council's Annual Public Health Report 2021 also highlights a lack of mental health services in English coastal towns, limiting support for people in need. Furthermore, the isolation and economic deprivation that exists in these communities might exacerbate mental health problems. Child (2020) explains how geographical and social isolation among inhabitants can contribute to mental health problems and impede community engagement.

4.5.3 Health Care Access and Service Delivery

Whitty (2021) analyses the issues of healthcare accessibility, pointing out that coastal towns usually have fewer healthcare facilities and professionals, resulting in longer wait times and limited access to medical services. Asthana and Prime (2023) examined the impact of healthcare access on health outcomes, arguing that the physical isolation of some coastal communities can impede the delivery of health services. This is consistent with the findings of Emmins *et al*. (2023), which show that healthcare institutions in coastal towns are frequently under-resourced and have personnel shortages, resulting in longer wait times and lower quality care. This is exacerbated by the geographical remoteness of some coastal towns, making it difficult for inhabitants to obtain specialist services situated in urban areas.

4.5.4 Aging Population and Healthcare Challenges

According to the Kent County Council Annual Public Health Report (2021), England's coastal towns have a high number of elderly citizens with underlying health concerns that necessitate more extensive healthcare services, however these services are frequently unavailable. This is consistent with other study findings, such as Whitty's (2021) which highlights that coastal towns had a higher proportion of population aged 65 and older, and a lower proportion aged 0 to 15.

4.5.5 Reduction Strategies for Health Inequalities

4.5.5.1 Community-Based Approaches

Several studies, including those by Asthana and Gibson (2022) and Whitty (2021), highlight the importance of involving local communities in health initiatives. Empowering residents to participate in decision-making processes makes sure that interventions are tailored to the community's specific needs, which increases their effectiveness. Agarwal *et al*. (2018) and Child (2020) both underline the importance of community health professionals and local health programs in promoting health education and preventive care. These measures promote trust and make sure interventions are culturally and contextually relevant. Similarly, the Kent County Council's Annual Public Health Report (2021) emphasizes the significance of collaboration among local governments, health providers, and community organizations. These alliances are critical for combining resources and expertise to address health disparities more effectively.

4.5.5.2 Addressing Social Determinants of Health

Agarwal *et al*. (2018) and Child (2020) analyse strategies for addressing the underlying causes of health inequities, such as poverty and education. Asthana and Gibson (2022) and Whitty (2021) also argue that boosting work possibilities and educational attainment in coastal communities can have a major impact on health outcomes. Initiatives that promote access to education and economic opportunities can help to improve health outcomes by reducing some of the socioeconomic constraints that contribute to health inequities. Similarly, Emmins *et al*. (2023) and the West Sussex County Council Public Health report (2024) emphasize the necessity of improving living conditions in coastal areas. Ensuring residents' access to quality

housing and a healthy environment can have a substantial impact on their health and wellbeing. This is in line with the findings of Fiorentino et al. (2024) and West Sussex County Council Public Health (2024), which highlight the impact of poor housing conditions on health and call for initiatives to enhance housing standards and minimize overcrowding.

4.5.5.3 Improved Connectivity

According to Emmins *et al*. (2023), boosting digital connectivity in coastal areas would coincide with the broader goals of Levelling Up and contribute to higher income, employment, productivity, and global competitiveness, both in terms of corporate digital operations and the adoption of working from home. Asthana and Prime (2023) analysed the role of digital health technology (DHTs) in reducing health disparities in coastal areas. Their findings indicate that DHTs can enable a wider shift toward preventative healthcare, improve access to healthcare services, and solve staff shortages through remote care choices. Similarly, Whitty (2021) argues that enhanced transportation linkages can shorten travel times to healthcare facilities, making it easier for residents to get needed medical attention. Child (2020) highlights the benefits of the High Speed 1 rail link from Kent into London which enables faster and frequent links to the capital. Improved transportation alternatives can also help to alleviate social isolation by making it easier for people to commute to social events. Emmins *et al*. (2023) propose several options to increase connection, including community-led shared transportation programs, smaller electric minibuses, and bookable electric automobiles.

5.0 DISCUSSION

5.1. Study Findings

The findings from all ten studies show that coastal towns in England have a much higher load of illness than non-coastal locations. This is particularly evident in Kent, where two million residents of coastal areas are having shorter, unhealthy lives (Finlay and Coady-Stemp, 2024). Obesity, depression, mental health challenges, and domestic violence are all on the rise. Medway, Swale, and Thanet have lower life expectancy than the rest of England, despite Kent's proximity to London and continental Europe, which includes several affluent areas (Finlay and Coady-Stemp, 2024). The main cause of these health disparities is the high level of deprivation in coastal communities experienced across various domains, including education, skills and training, employment, income, health and disability, barriers to services and housing. This pervasive deprivation originates from long-standing issues with local economies and nature of employment in coastal communities.

Furthermore, coastal towns have specific environmental issues that have influence on health, such as increased flood risks caused by climate change and the possibility of severe long-term effects, such as disrupted access to healthcare and job loss. They often fail to attract and retain healthcare professionals, resulting in medical workforce shortages and challenges in providing effective healthcare services. The geographical nature of coastal towns creates additional barriers which include transport difficulties due to having half the surrounding area as sea, challenges with digital connectivity and longer travel times to reach major cities and services. These factors limit access to healthcare, education, and employment opportunities, further exacerbating health inequalities.

Some of the initiatives carried out to control health inequalities in some coastal communities include targeted funding (such as Coastal Communities Fund (CCF), art/culture-led regeneration (found in Margate and Folkestone), improved connectivity (such as digital platform in Bournemouth and high-speed rail link in Kent), community/placed-based initiatives (such as the control of anti-social behaviour in Newquay of Cornwall), repurposing and sensitive development (found in Hastings and Folkestone). These measures have significant potential to minimize health disparities,

however, they need to be part of a wider, integrated strategy to tackle the complex health issues in coastal towns.

5.2. Implication for Public Health Practice and Policy

Health inequalities research provides the evidence needed to advocate for improvement in healthcare access and personalized health services in these areas. The unique problems faced by coastal towns contribute to health inequities, needing specific interventions and policy changes. To address these problems, public health practice in coastal communities should concentrate on providing integrated health services that can easily be accessed by coastal residents. Mobile health units and telemedicine (as used in Cornwall) can be effective in connecting with isolated populations. Residents should be empowered to manage their health by developing community-based health promotion programs. These initiatives should prioritize preventive care, substance abuse prevention and mental health support. Collaboration between employers and educational institutions to provide opportunities for skill development and employment (as seen in Bournemouth) can help to alleviate socioeconomic disadvantages. This includes vocational training and apprenticeships designed to meet the demands of coastal economies.

Policymakers must acknowledge the unique problems that coastal towns face and enact policies that promote health equity, such as allocating targeted funds for healthcare facilities, education, and economic development to reduce health disparities. Encouraging collaboration among the health, economic and education sectors can result in a more unified strategy to tackling health inequalities. Health considerations should be integrated into all aspects of public policy, and a national strategy to meet the health needs of coastal towns is important. This policy should include actions to improve healthcare access, reduce environmental risks, and boost economic development. Policymakers should encourage research on the wider determinants of health in coastal towns, improvement of data collection, and evaluation of the efficacy of various interventions (as demonstrated in Plymouth).

5.3. Health Economics of Investing in the Prevention

Investing in the prevention of health disparities in coastal communities can result in significant economic benefits. Health inequalities have a profound economic impact that influences productivity, healthcare expenditures, and social welfare systems.

Addressing the social determinants of health, like housing, education and employment can improve health outcomes, lower long-term healthcare expenditures, and boost economic productivity. This comprehensive approach has worked well in Cornwall and Isles of Scilly.

According to Whitty (2021), improving access to healthcare services and encouraging healthy lifestyles will benefit coastal communities' health outcomes. Residents in Cornwall and Isles of Scilly receive information about their health quickly due to digital technology (Age UK, 2019), and this has helped to improve their health. Preventive strategies can reduce the prevalence of chronic diseases and increase life expectancy. Similarly, Asthana and Gibson (2022) argue that a healthier population leads to a more productive workforce, which can boost economic growth. Investments in health can lead to more job opportunities and higher incomes, breaking the cycle of poverty and misery. Disease prevention and early intervention can help to greatly reduce healthcare expenses. This is especially crucial in coastal areas, where healthcare resources are generally limited.

Additionally, addressing health disparities can result in stronger, more cohesive communities. Coastal towns can become more appealing places to live and work by improving social factors like education and housing, hence increasing social cohesion and quality of life. Improving health in coastal towns has the potential to significantly improve national health statistics by raising the country's median health and reducing overall health inequities in England.

5.4. Evaluation of Control Strategies

Community-based or place-based initiatives show great promise for lowering health disparities in England's coastal towns. These approaches, which leverage local assets and promote community empowerment, can address the wider determinants of health and enhance health outcomes. However, Whitty (2021) has underlined that coastal towns frequently lack the financial and human resources required to initiate and sustain community-based initiatives. This may limit the scope and impact of such interventions. Their success is dependent on genuine community engagement, sustainability, alignment with national policies, and thorough evaluation. Addressing the problems of resource restrictions, data limitations, and various community needs will be important in optimizing the impact of these initiatives.

Art-led regeneration has had mixed results in addressing health inequities in England's coastal communities, with some localized successes but little overall impact. While creative initiatives have provided economic benefits and cultural flair in some regions, they have not addressed the complicated, long-standing health concerns that many seasides' towns face. The 2021 England's Chief Medical Officer's report emphasized persisting health inequities in coastal towns, with higher prevalence of chronic diseases than in non-coastal towns. This shows that art-based interventions alone have been insufficient to address the root causes of poor health outcomes. St Ives in Cornwall has long had connections with artists, and Margate has become a model for arts-driven regeneration, with the Turner Contemporary gallery helping to attract visitors and investment. However, Bunting (2023) argues that the town still struggles with acute deprivation alongside its cultural resurgence.

Targeted funding for economic regeneration and creation of jobs can positively impact health by lowering poverty and improving living conditions. According to Whitty (2021), health metrics such as disease prevalence and life expectancy have improved in places where targeted funds have been efficiently utilized. However, funding levels are minimal, potentially limiting their influence. The CCF's exclusive focus on economic achievements may have hindered its ability to address health disparities holistically. It lacks defined health-related initiatives as well as insufficient attention to other wider determinants of health. Similarly, the Levelling-Up agenda has been criticized for being too broad to fully meet the unique requirements of coastal and rural communities.

Improving connectivity in coastal areas can address several health inequities. Enhanced transportation linkages can increase access to healthcare services, education, and job prospects, as many coastal villages are isolated, making it difficult for residents to obtain important services and participate in economic activities. Better transportation infrastructure can shorten travel times to major urban centres, allowing for easier access to specialized healthcare and larger job markets. Similarly, increased digital connectivity can help people gain access to health information and services. Telehealth services offer remote consultations, reducing the need for physical travel while providing prompt medical advice and treatment. Digital inclusion also helps with education and employment by allowing people to access online resources and work remotely. However, successful implementation needs meticulous planning, significant

investment, and an adherence to fair access and sustainability. Improved connection has not yet considerably decreased health inequities in English coastal towns since they frequently lag in digital maturity and encounter barriers to digital transformation, which may widen health inequalities rather than diminish them (Asthana and Prime, 2023).

Repurposing and sensitive development entails revitalizing infrastructure, housing, and public spaces to improve a community's living conditions and economic opportunities. In coastal communities, this involves improving housing stock and infrastructure, which can have a direct influence on health by minimizing exposure to risks like damp and mould, both of which are associated with respiratory disorders. The construction of parks, promenades, and recreational facilities promotes physical activity and social connection, both of which are beneficial to mental and physical health. Such upgrades may also attract visitors and investment, hence growing the local economy. Regeneration projects that create jobs and support local companies can help to alleviate poverty and improve health outcomes. However, repurposing programs confront problems such as limited funds for renovations and ongoing maintenance, the need for careful planning to ensure repurposed buildings satisfy health-related needs and potential resistance from property owners or local stakeholders.

5.5. Coastal Towns in Other Parts of United Kingdom

Coastal areas throughout the UK suffer comparable issues due to economic downturn, aging populations, and geographic isolation. The "coastal effect" on health appears to go beyond England, with evidence of health disparities in coastal communities in Wales as well as Scotland. However, the most extensive data is available for England, which demonstrates major health inequities in coastal towns (Asthana and Gibson, 2022). The extent of health disparities may be greater in England, notably along the east coast, where 85% of coastal communities fall into the higher income deprivation category (ONS, 2020). In Scotland, certain coastal towns benefit from oil and gas companies, thereby reducing some economic concerns, whereas coastal health disparities in Northern Ireland may be aggravated by the legacy of conflict in some areas. Policy responses and fund allocations may vary among UK nations, potentially affecting health outcomes.

5.6. Strength and limitations

This review was carried out in line with the best-known methodology literature and guidelines i.e. Cochrane, 2016. A clear research question and precise search strategy were developed, allowing for a systematic and efficient search of the literature to identify eligible papers for inclusion. The use of a suitable and accepted tool for quality assessment (CASP) ensured that poor-quality articles were removed, increasing confidence in the review. Furthermore, the review was conducted using recent papers that demonstrate the current state of health inequities in England's coastal towns.

In contrast, systematic reviews are often undertaken by two or more researchers, but this was conducted by a single reviewer, presenting the possibility of assessment bias, particularly in the utilization of quality assessment tool. This likelihood is heightened by the fact that this is a first attempt at systematic review, and the rigorous procedure had to be learned from scratch. The guidance from the school library staff and my supervisor, who is significantly more experienced, helped to put the review on the right track. Due to time constraints, searches were conducted at specific times. If databases had been rerun for a longer time, more papers may have been identified.

As a first-time reviewer, I was overwhelmed by the volume of papers screened. Screening studies and extracting data took much longer than I had anticipated. Learning to use specialized systematic review software and tools was challenging and rewarding. The systematic review was difficult, but it provided great learning opportunities. My next systematic review will be done with multiple reviewers for independent study selection and quality/bias assessment. Individual results will later be compared and analysed to promote a robust systematic review.

6.0 CONCLUSION

This systematic review provides a comprehensive synthesis of the existing evidence on health inequalities in English coastal towns, which are major public health concern due to higher disease burdens across mental and physical health conditions, reduced health outcomes (including life expectancy and healthy life expectancy) and higher rates of risk behaviours (such as smoking, and excessive alcohol intake). These inequalities are caused by socioeconomic deprivation, demographic shifts, restricted access to healthcare, and environmental issues. Addressing the wider determinants (such as education, employment and housing) responsible for health inequalities can improve health outcomes, reduce long-term healthcare expenditures, and boost economic productivity. Reduction strategies such as targeted funding, community or place-based approaches, art or culture-led regeneration, improved connectivity, repurposing, and sensitive development have been implemented in some communities; however, they are not yet effective in controlling the health inequalities due to data limitations, resource constraints, and lack of integrated policy. An integrated approach involving cross-sector collaboration, addressing social determinants of health, as well as enabling communities to take ownership of local assets and leverage their inherent strengths is required. The findings of this study will help policymakers, healthcare providers, and researchers understand the underlying drivers of health inequities and guide the development of targeted interventions to enhance health outcomes in coastal towns.

RECOMMENDATIONS

Going by the findings of this study, the following measures are recommended for health inequalities in England coastal towns -

1. Socioeconomic deprivations that cause health inequalities in coastal towns can be addressed with an integrated policy approach which connects education, economic, and public health strategies.
2. Public health interventions for coastal areas should be community specific, and focus on promoting healthy lifestyles, supporting mental health, and addressing substance abuse.
3. Limited access to health and social care services especially for vulnerable populations and mental health challenges can be tackled through collaboration between National Health Services, local authorities, and community organizations.
4. Investing in infrastructure, such as housing, transportation, and digital connectivity, can remove barriers to health and improve health outcomes in coastal areas, by improving access to healthcare facilities, quality housing, and reliable transportation links.
5. Environmental risks should be addressed by Integrating climate change mitigation strategies and access to green spaces into health planning, which might prevent future health crises in coastal towns.
6. Foundations for robust new economies in coastal towns should be built through current workforce upskilling, and retention of their best and brightest talent, which will facilitate stronger localised economies.
7. More research and data collection are needed to better understand the health challenges faced by coastal towns and inform effective interventions. Collecting granular data at the local level can help to identify specific health needs, target resources effectively, and evaluate interventions for effectiveness.

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APPENDIX

Appendix 1: The list of excluded studies from full text screening

Authors & Year	Title	Reason for Exclusion
Walthery *et al*., 2015	Health trajectories in regeneration areas in England: the impact of the New Deal for Communities intervention	Not specifically for coastal areas
Depledge *et al*, 2017	Future of the Sea: Health and Wellbeing of Coastal Communities	Focuses more on environmental/ecosystem outcome
Lloyd & Blakemore 2021	Health and Wellbeing Inequalities in Seaside Resort Towns: A Window on Policy Interventions in an Unequal Society	Unclear study design
UK Parliament, 2019	Government response to the Report of Session 2017-19 of House of Lords' Regenerating Seaside Towns and Communities Select Committee, on The Future of Seaside Towns	No information on factors responsible for health inequalities
Barton *et al*., 2022 House of commons Library	The future of coastal communities	No information on factors responsible for health inequalities

Appendix 2: Studies Included in Full Text Screening

Authors & Year	Title	Aim	Study Design	Research Type	Comparator	Reasons for Health Inequality	Study Result	Intervention
Agarwal et al., 2018	Disadvantage in English seaside resorts: A typology of deprived neighbourhoods	To make a significant contribution to policymaking by identifying the internal dynamics of resort change in relation to disadvantage, specifically, patterns of socio-spatial disadvantage and the way in which place- and population-based factors influence the outcome.	Using univariate, bivariate and multivariate analyses of database for incidence of multiple deprivation	Quantitative	No	Yes	There is persistent, complex and distinct spatial clustering of Deprivation in English coastal towns.	A much stronger geographical emphasis in future research and policy agendas, including third sector partnerships
Asthana & Gibson 2022	Averting a public health crisis in England's coastal	To demonstrate how poor health and public health outcomes are now subject to a	Ecological study	Quantitative	Yes (coastal and non-coastal)	Explored reasons for the health challenge	Coastal areas have high disease prevalence across	Yes (research, policy, education, community

	communities: a call for public health research and policy	significantly peripheral distribution in England.				s facing the periphery	conditions. Children and young people have poor outcomes.	intervention etc)
Fiorentino et al., 2024	Coastal towns as 'left-behind places': economy, environment and planning	To build a comparative discussion on the causes of deindustrialisation and economic decline across our selected case studies and to provide an evaluation of the subsequent policy attempts to steer these coastal towns to a more successful future.	Collating material from interviews that were led across the four case studies, and subsequentl y leading a policy review and a comparative analysis of secondary data and socio-economic statistics.	Mixed-method approach	Yes (different coastal towns)	Yes	Not specified	None

Wenham, 2019	“Wish you were here”? Geographies of exclusion: young people, coastal towns and marginality	The research investigated processes of marginalisation and disconnection from the perspectives of young people who were deemed as disengaged, or ‘at risk’ of disengagement, from education, employment or training.	Interviews followed a semi-structured format via a topic guide	Qualitative	No	Yes	This paper has contributed to the growing body of research on non-urban youth, highlighting the significance of place-based inequalities in areas of entrenched deprivation, and how the mobility imperative can consequently hold distinctly different meanings.	None
Walthery *et al*., 2015	Health trajectories in regeneration areas in England: the impact of the	To determine whether there is an overall effect of the NDC programme on health outcomes	Cross sectional (Use of data consisted of a household panel	Mixed method (quantitative and qualitative)	Yes (disadvantaged areas of England in which the NDC was	Yes	There is limited evidence that the NDC moderated the impact of socioeconomic	New Deal for Communities

	New Deal for Communities intervention	and their change over time. To test whether there was a differentiated impact of the NDC intervention on specific socioeconomic groups, namely those with low education, in jobless households or renting their home.	survey carried out and cross-sectional face to face interviews were conducted at each wave to compensate for attrition)		implemented, compared with residents of non-intervention areas)		factors on mental health and life satisfaction trajectories.	
Asthana & Prime, 2023	The role of digital transformation in addressing health inequalities in coastal communities: barriers and enablers	To suggest ways in which digital health technologies (DHTs) can support a greater shift towards prevention of poor health outcome	Evidence review	Not specified	No	Yes	We have been able to touch upon the enormous potential of DHTs to promote better population health, reduce health inequalities, improve the experience and	None

							outcomes of care, reduce demands on the health and care workforce, and ultimately reduce costs.	
Chris Whitty, 2021	Chief Medical Officer's Annual Report 2021 Health in Coastal Communities	To explore the health and wellbeing of coastal communities, combining insight from local leaders with data analysis.	Government report	Quantitative	Yes (coastal and non-coastal)	Yes	Coastal communities have some of the worst health outcomes in England, with low life expectancy and high rates of many major diseases.	National strategy to improve the health and wellbeing of coastal communities Addressing mismatch between health and social care worker deployment and disease prevalence in coastal areas by HEE/NHSE

Buchanan *et al*., 2024	Employment of people living in rural and coastal communities	Not specified	Secondary data from ONS,	Quantitative	Yes (Coastal & Non-coastal)	Yes	Not specified	None
Depledge *et al*, 2017	Future of the Sea: Health and Wellbeing of Coastal Communities	Not specified	Not specified	Quantitative	Yes (Coastal & Non-coastal)	Yes	Loss of the current health-promoting potential of coastal environments will negatively impact on the health and wellbeing of coastal communities.	Inter-sectoral policies, with co-beneficial outcomes (relating to both environmental and health outcomes
Lloyd & Blakemore 2021	Health and Wellbeing Inequalities in Seaside Resort Towns: A Window on Policy Interventions	Not specified	The context chosen here is the set of what we will go on to call Seaside Resort Towns (SSRTs). Blackpool	Not specified	No	No	Not specified	None

	in an Unequal Society		would be among the best known of them.					
Kent County Councl Annual Public Health Report 2021	Health and Wellbeing of Coastal Communities in Kent	To highlight the issues facing coastal communities in Kent and the need for engagement with local communities to create sustainable plans for the future.	Evidence review	Quantitative	Yes (Coastal and Non-coastal)	Yes	Kent coastal areas show a 'coastal excess' of poor health outcomes compared to inland areas.	Kent Public Health plan to work with partners to develop local evidence which will be used to inform a strategy aiming to address the needs of individual coastal communities in Kent.
Estate Gazette Radius Data Exchange, 2020	Turning the tide: seaside regeneration	Not specified	Report	Quantitative	Yes (Coastal towns and rest of England)	Yes	Our data analysis has shown how the problems, challenges and potential remedies for	Towns must create a clear and shared identity supported by investment into local and

							deprived coastal towns coalesce around a series of recurring themes.	regional infrastructure. They must implement improved digital connectivity, incubating skills in residents that will evolve to engender economic growth..
HOUSE OF LORDS Report of Session 2017–19	The future of seaside towns	Not specified	Select committee report	Qualitative	No	Yes	Not specified	All initiatives
UK Parliament, 2019	Government response to the Report of Session 2017-19 of House of Lords'	Not specified	Not specified	Not indicated	No	No	Not specified	None

	Regenerating Seaside Towns and Communities Select Committee, on The Future of Seaside Towns							
West Sussex County Council Public Health, 2024	A framework for action to reduce coastal health inequalities	This framework aims to provide an insight into health and wellbeing and its wider determinants in our coastal West Sussex towns	Framework document	Not specified	Yes	Yes	Proposes strategies to address health disparities in West Sussex coastal areas.	Public Health approach to reducing health inequalities in West Sussex coastal communities
Barton et al., 2022 House of commons Library	The future of coastal communities	Not specified	Report	Mixed	No	No	Not specified	None
Emmins et al., 2023	Communities on the edge: Assessing	To research and report on the scale of the coastal	A research report for the Coastal	Quantitative	Yes (Coastal	Yes	Levelling up has the potential to	The green economy,

	the need for Levelling Up in England's coastal authorities	Levelling Up challenge, and the opportunities for growth in coastal communities	Communities Alliance and partners		and non-coastal)		help transform communities and increase their contribution to the national economy, but the framework would benefit from slight adjustments.	Marine environment and infrastructure, Education and careers, The visitor economy
Keating et al., 2024	Movers, returners and stayers: the role of place in shaping the (im)mobility aspirations of young people in coastal towns	Not specified	Not specified	Qualitative	No	No	This article suggests that youth mobility plans are shaped not only by education and employment opportunities, but by their relationship with the place they grew up in and inclusion in public space.	Further research is required to understand the impact of staying on the young people who were so eager to leave a place that they view as a 'dead end' but have been unable to do so.

Bunting, 2023	How England's impoverished seaside towns became both a trap and a refuge	Not specified	Not specified	Not Indicated	No	No	Not specified	None
Bunting, 2024	Why politicians should care about the plight of English seaside towns	Not specified	Not Specified	Not indicated	No	No	Not specified	None