

# **East Lothian HSCP**

# Joint Strategic Needs Assessment

June 2023

East Lothian HSCP JSNA 2022

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## Introduction

A Joint Strategic Needs Assessment (JSNA) brings together publicly available health and socioeconomic information regarding a geographical area. JSNAs are of assistance in highlighting population need to inform strategic and operational planning.

This document was produced in partnership between Public Health Scotland (PHS) and East Lothian Health and Social Care Partnership (HSCP) and covers the population of the East Lothian Council area. It will be updated as new data becomes available.

The East Lothian Local Development Plan<sup>1</sup> 2018 comments: "East Lothian is part of the Edinburgh city region [and is] located to the east of Edinburgh's suburban edge. East Lothian measures approximately 270 square miles in area and includes 43 miles of coastline. The area has six main towns and extends from Musselburgh in the west to Dunbar and beyond to the area's administrative boundary with Scottish Borders in the east. Although Musselburgh is the largest town, Haddington is the area's administrative centre. To the south are the Lammermuir Hills and to the west are the Midlothian and City of Edinburgh Council areas. The Firth of Forth and East Lothian's attractive coastline are to the north."

The Development Plan also comments: "East Lothian has a varied and attractive landscape character comprising countryside and coast with a central agricultural plain framed by the backdrop of the Lammermuir Hills. These features combine to create an environment of considerable interest and quality. It also includes large and generally flat fields that provide long distance views across the countryside and coastal plain and its landmarks to the Lammermuir Hills, the Firth of Forth and beyond. The A1 and the East Coast Main Line pass west to east through the centre of the area with the North Berwick branch line to the north."

Of East Lothian's landscape, the Development Plan says: "Aberlady, Gullane and Belhaven Bays, together with the beaches along the coastal strip, are attractive landscape features that provide important amenity as well as visitor and leisure tourism attractions. They are also significant habitat resources for protected species and biodiversity of national and international significance. The Firth of Forth shoreline and islands are Special Protection Areas (SPAs), and the inland area to the south is an important feeding ground for protected species. East Lothian has many Sites of Special Scientific Interest (SSSIs), Local Nature Conservation Sites and other areas of natural and cultural heritage value."

Lastly, the Development Plan notes: "The availability of jobs relative to the population (job density) is lower in East Lothian (0.5) than in other local authority areas and the rest of Scotland (0.78). While many people are attracted to live in East Lothian, around half of its working residents elect to travel out of the area to access the wider range of jobs (often higher value) goods and services on offer elsewhere in the region. This demonstrates the link between the size of the working age population, the availability of jobs, and the commuting travel pattern towards the regional core and the capacity issues in the strategic and local transport network. These issues also manifest in the need for affordable housing and in the limited capacity in public transport services. Vehicle emissions are a key factor in the existence of an Air Quality Management Area at Musselburgh High Street. Air quality is being monitored at Tranent High Street.

## Demographics

## **Population Estimates**



## Figure 1. Annual Mid-Year Estimates and Projected Total Population for East Lothian (2018-based)

Source: National Records of Scotland, <u>Population Estimates Time Series Data</u> [Accessed: Apr. 2023]

Figure 1 shows the annual mid-year population estimates from 2001 up to the most recent mid-year estimate (2021) and the population projections for East Lothian up to the year 2043, based on 2018 population estimates.

As of 2021, the total population of East Lothian is 109,580, an increase of 19,670 individuals since 2000 (89,910).<sup>2</sup> The mid-year population estimate of East Lothian has increased year-on-year since 1988. The 2021 mid-year populations for East Lothian localities are estimated to be 45,563 and 64,017 for East Lothian East and East Lothian West, respectively.<sup>3</sup>

Population projections utilise current population estimates to predict the future population sizes and demographics. Analysis of a population's fertility, death rate, and migratory patterns are accounted for when calculating projections. For further information regarding population estimates see the NRS website.<sup>2</sup> Between 2018 and 2043 the population of East Lothian is predicted to increase by 12.8%, reaching a peak of 121,743 by the end of this period. As this figure is an estimate, the final population may be higher or lower.

Based on these projections, Lothian and East Lothian will see a faster population growth than Scotland. The cumulative changes for East Lothian and Lothian are predicted to differ by 0.2 percentage points by 2043.





Source: National Records of Scotland, <u>Population Estimates</u> [Accessed: Apr. 2023]

Figure 2 shows the percentage change in population of East Lothian, Midlothian, West Lothian, City of Edinburgh, and Scotland from 2001 up to the most recent mid-year estimate (2021).

Since 2001 the percentage of population change in East Lothian has remained higher than Scotland for each year. Compared to other Lothian Health and Social Care Partnerships, East Lothian had the has had the largest change in population from 2008 onwards, with an overall increase of 21.5% in 20 years.

## SIMD 2020 Quintile Ranking



#### Figure 3. East Lothian Deprivation by SIMD Quintile

Source: East Lothian by Numbers [Accessed: Feb. 2022]

The above map (Figure 3) highlights the SIMD2020 Scottish quintile for East Lothian.

One of the key measurements for deprivation in Scotland is SIMD (Scottish Index of Multiple Deprivation). The index distinguishes the level of deprivation using indicators of income, employment, education, health, access to services, crime, and housing. For further information regarding SIMD please see Appendix A or the Scottish Government website.<sup>5</sup>

East Lothian consists of 6 wards, Musselburgh, Preston and Seton and Gosford, Tranent, Wallyford and Macmerry, North Berwick Coastal, Haddington and Lammermuir and, Dunbar and East Linton. There are a total of 132 data zones, of which 8 are in the 20% most deprived of Scotland.<sup>4</sup>



#### Figure 4. Population Percentage of East Lothian by SIMD Quintiles, 2016 & 2021 Comparison

Source: National Records of Scotland, <u>Population Estimates by Scottish Index of Multiple Deprivation</u> [Accessed Apr. 2023]

Figure 4 displays the population percentage of East Lothian by SIMD deciles in 2016 and 2021.

The majority of SIMD deciles (1 (least deprived) to 7 and 10) have decreased in population percentage. Two SIMD deciles (8 and 9) have increased in population percentage, with SIMD 8 showing the largest change of all categories, an increase of 3.1 percentage points. As of 2021, the largest percentage of the population will be categorised as living within SIMD 8.

## Migration



#### Figure 5. In, Out, and Net Migration of the East Lothian Population

Source: National Records of Scotland, *Local Area Migration*, [Accessed: Mar. 2022]

Figure 5 shows the total in, out, and net-migration of the East Lothian population.

Since 2003/04, the total in-migration for East Lothian has remained higher than the out-migration, resulting in positive net migration for all years recorded. Migration has therefore contributed to an increase in the total East Lothian population.

Between 2004/05 and 2007/08 the in-migration increased, resulting in a spike in total net-migration. After a sharp decrease in 2007/08 the total net-migration trends upwards to 2019/20 (970 individuals), followed by a sharp increase in 2020/21 to 1,820 individuals.

Between 2003/04 and 2019/20 the total-out migration remained stable and increased sharply in the latest year (2020/21).

## Population by Age and Sex





Source: National Records of Scotland, <u>Population Estimates</u>, [Accessed: Mar. 2022]

Figure 6 shows the population breakdown of East Lothian by age and sex, as at the most recent midyear estimate (2021) for which this breakdown is available.

Above the age of 27 the female population is predominantly larger than the male population, this results in the total female population (56,936) being larger than the total male population (52,644) by 4,180, a 7.7% difference. It is common for Scottish Health and Social Care Partnerships to have larger female than male populations.<sup>7</sup>

## Life Expectancy

Life expectancy estimates the age to which an individual will live based on factors associated with their economic, geographical, and social circumstances at birth. Healthy life expectancy (HLE) predicts the number of years a person could expect to live in good health.<sup>8</sup>





Source: National Records of Scotland, <u>HLE</u> / <u>LE</u>, [Accessed: Mar. 2023]

Figure 7 shows the life expectancy and healthy life expectancy at birth based on 2019-2021 estimates for East Lothian and Scotland.

Both Scotland and East Lothian have a higher life expectancy and healthy life expectancy at birth among females than males.

The life expectancy and healthy life expectancy at birth in East Lothian is higher than Scotland in all categories. The largest difference between East Lothian and Scotland is present in the female healthy life expectancy at birth, which is 7.3 years higher than the Scottish population.

## Life Expectancy Projections



## Figure 8. Projected Life Expectancy at Birth by Sex and Geography

Source: National Records of Scotland, <u>Population Projections</u>, [Accessed: Jan. 2022]

Figure 8 shows the projected life expectancy at birth by sex for Scotland and East Lothian.

The life expectancy of individuals in the East Lothian and Scottish populations is predicted to increase for both sexes up to the latest projected year (2042-43). East Lothian shows more yearly variation than Scotland, likely due to smaller population sizes.

Within East Lothian, the life expectancy of males and females is predicted to increase by 2.4 and 1.8 years, respectively by 2042/43. This is a trend shared by Scotland.

## Urban-Rural Classification

"The Scottish Government Urban Rural Classification provides a consistent way of defining urban and rural areas across Scotland. The classification is based upon two main criteria: (i) population, as defined by the National Records of Scotland (NRS), and (ii) accessibility, based on drive time analysis to differentiate between accessible and remote areas in Scotland."<sup>9</sup>

"The population criteria is derived from the Settlements dataset produced by NRS, which defines areas of contiguous high density postcodes that make up a Settlement."<sup>9</sup>

"Accessibility is measured in terms of drive times to an urban area."9



Figure 9. Urban-Rural Population Composition by Geography, 2021

Source: National Records of Scotland, <u>Urban Rural Dashboard</u> [Accessed Apr. 2023]

Figure 9 shows the population percentage by urban-rural classification for Scotland and East Lothian in 2021.

East Lothian and Scotland have differing urban-rural profiles. East Lothian has no population in "remote rural" or "remote small town" classifications. The "accessible rural" population percentage of East Lothian is over double the size of the Scotland percentage, accounting for 26.3% of the East Lothian population.

In East Lothian, the urban-rural category with the highest percentage of population is "Other Urban Areas", with 43,574 people (39.8%).

## Mortality



## Figure 10. Total Number of Births and Deaths for East Lothian



Figure 10 shows the number of births and deaths for East Lothian.

There has been a gradual shift between the number of birth and deaths from 2010 to 2021. In 2010 the number of births exceeded the number of deaths and in the latest year the number of deaths exceeded the number of births.

The most recent year (2021) had the highest number of deaths recorded (1,186 deaths) since 2010 (984 deaths). The number of annual births has decreased from 1,123 in 2010 to 975 in 2021.

The trend suggests that the continued increase in population size in East Lothian (see Figure 1) can be accounted for by factors other than birth and death rates, such as migration.



Figure 11. Age-Sex Standardised Mortality Rates per 100,000 Population by Geography

Figure 11 shows the age-sex standardised mortality rates per 100,000 population for Scotland, NHS Lothian, and Scotland.

The Scotland, NHS Lothian and East Lothian populations have experienced a decrease in mortality rate from 2002-2004 until around 2017-2019. With the exception of 2007-2009 where rates were slightly higher than Lothian, East Lothian has had a consistently lower mortality rate than Lothian and Scotland.

The previous two years have shown an increase in the mortality rate for NHS Lothian (1,090.9 per 100,000 population) and Scotland (1,180.7 per 100,000 population). The East Lothian mortality rate has shown a minor increase in the most recent year (1,019.1 per 100,000 population).

Source: <u>ScotPHO Profiles</u> [Accessed: Jan. 2022]



Figure 12. Age-Sex Standardised Mortality Rates per 100,000 Population by Geography and SIMD Quintile, 2021

Source: <u>ScotPHO Profiles</u> [Accessed: Mar. 2023]

Figure 12 shows the age-sex standardised mortality rates for Scotland, Lothian and East Lothian by SIMD quintile, as at 2021.

Figure 12 suggests a relationship between mortality rates and SIMD with mortality rates being lower for less deprived SIMD categories. Within East Lothian, the most deprived SIMD category has a rate of 1,269.7 per 100,000 population and least deprived has a rate of 801.9 per 100,000 population.

## Equality

## Ethnicity

"Scottish data suggest that minority ethnic groups, with some exceptions such as Gypsy/Travellers, have better general health than the majority of the white population. These differences can vary by disease and ethnic group.

- Obesity prevalence varies substantially between ethnic groups.
- There is greater prevalence of sickle cell disease in African origin groups.
- The minority ethnic population shows lower age adjusted all-cause mortality and hospitalisation rates.
- There is a greater prevalence of cardiovascular conditions and diabetes in South Asian origin populations.
- Mortality in Scotland is higher in the majority ethnic (white) population than in the black and minority ethnic population."<sup>10</sup>



#### Figure 13. Percentage of Census Responses when asked about Ethnic Group by Geography

Source: <u>Scotland's Census</u>, 2011 [Accessed: Mar. 2023]

Figure 13 displays the results of the 2011 Scottish's Census ethnic group question. Within the Census Ethnic group is classified by people according to their own perceived ethnic group and cultural background.

East Lothian, Lothian, and Scotland have similar population structures in terms of ethnic group. For each geographic area the largest group is "White", with the largest specific groups being "White: Scottish", accounting for 85.5% of the East Lothian population.

## Sexual Orientation

For the purposes of data utilised the definition of sexual orientation used by the Scottish Government is "...a combination of emotional, romantic, sexual or affectionate attraction or feelings towards another person. It is not just related to sex, but is also about a person's identity. How a person determines their sexual orientation can be based on any combination of the above attractions, feelings or behaviours. It can change over time and a person may not know what their sexual orientation is."<sup>12</sup>

A 2022 Joint Needs Assessment lesbian, gay, bisexual, transgender and nonbinary people stated: "LGBT+ people face health inequalities on every measure of wellbeing (social, physical, mental and emotional, financial etc). This is true for all LGBT+ groups, but non-binary and trans people consistently demonstrate the worst health and wellbeing indicators and bisexual women also have particularly poor indicators for mental wellbeing."<sup>13</sup>





Source: <u>Scottish Survey Core Questions</u>, 2019 [Accessed: Mar. 2023]

Figure 14 shows the percentage of census feedback responses when asked about sexual orientation within Scotland, Lothian, and East Lothian as of 2019.

Survey responses suggest that the majority of individuals defined themselves as Heterosexual (95.6%) and a minority as Lesbian Gay, Bisexual (LGB) and Other (1.7%). Due to expected errors in collection, both groups can range in accuracy therefore the total percentage may not equal 100%.

There is no distinct difference in 'Heterosexual' or 'LGB or Other' when comparing East Lothian HSCP to the Lothian and Scottish populations.

## Long-Term Conditions

## Cancer

According to figures from the PHS Cancer Incidence in Scotland (2020) publication, in Scotland the four most common cancers of all people are Trachea, bronchus and lung (91 per 100,000 population), Breast (74.1 per 100,000 population), Prostate (134.7 per 100,000 population), Colorectal (61.6 per 100,000 population).<sup>14</sup>

In 2021, across Scotland 16,438 deaths resulted from cancer (excluding non-melanoma skin cancer). As of 2021, the types of cancers with the highest number of resultant deaths are Trachea, bronchus and lung (3,956 deaths), Colorectal (1,799 deaths), Prostate (1,066 deaths), Colon (1,025 deaths), breast (1,009 deaths), and Oesophagus (842 deaths).<sup>15</sup>

## **Cancer Prevalence**



## Figure 15. Cancer Prevalence per 100 population by Geography

Source: PHS, <u>Disease Prevalence Dashboard</u> [Accessed: Apr. 2023]

Figure 15 shows the prevalence of cancer per 100 persons in Scotland, NHS Lothian and East Lothian and its localities.

The Prevalence of cancer has increased each year in all geographic areas recorded in Figure 15. The prevalence of cancer in East Lothian and its localities has remained consistently above Scotland and NHS Lothian for all years measured. As of 2021/22, East Lothian has registered 3,882 cancer diagnoses.

For further information regarding Disease Prevalence figures see Appendix B.

## Cancer Mortality

Cancer Site	East Lothian Deaths	East Lothian EASR*	NHS Lothian EASR*	Scotland EASR*
Trachea, bronchus and lung	72	66.7	70.8	52.2
Colorectal cancer	28	25.9	29.3	17.2
Oesophagus	21	19.5	15.1	12.0
Breast	19	17.6	16.7	10.6
Pancreas	18	16.7	16.0	9.9
Colon	16	14.8	16.1	8.5

#### Table 1. Cancer Mortality for all Persons in East Lothian, NHS Lothian, and Scotland, 2020

Source: PHS Open Data, <u>Cancer Mortality</u> [Accessed Apr. 2023]

\* The European age-standardised (using the 2013 European Standard Population) mortality rate per 100,000 person-years at risk

Table 1 outlines the five bodily sites at which the highest number of deaths associated with cancer occur for East Lothian in 2020, and includes the rate for NHS Lothian, Scotland, and East Lothian. Trachea, bronchus and lung cancer have the highest number of associated deaths for all geographies listed in Table 1, all of which have a rate higher than 50 per 100,000 population.

2a. M	ale	2b. Female			
Cancer Site	Deaths	EASR*	Cancer Site	Deaths	EASR*
Trachea, bronchus and lung	31	60.3	Trachea, bronchus and lung	41	64.1
Oesophagus	17	34.7	Breast	19	29.2
Colorectal cancer	16	36.4	Colorectal cancer	12	19.1
Liver and intrahepatic bile ducts	10	19.3	Pancreas	11	17.9
Colon	9	19.1	Colon	7	10.8

#### Table 2. Cancer Mortality for East Lothian by Sex, 2020

Source: PHS Open Data, Cancer Mortality [Accessed Apr. 2023]

\* The European age-standardised (using the 2013 European Standard Population) mortality rate per 100,000 person-years at risk

Table 2a and 2b shows the number and rate of deaths associated with cancer for males and females in East Lothian. The tables highlight that the number and rate of cancer mortality can vary based on sex.

For East Lothian in 2020, the first, third and fifth highest causes of cancer were the same for males and females. The second and fourth highest cause of mortality for males and females do not appear in the highest five of the other sex.





Source: <u>ScotPHO Profiles</u> [Accessed: Apr. 2023]

Figure 16 shows the age-sex standardised rate per 100,000 population of early cancer deaths (individuals aged under 75) for Scotland, NHS Lothian, and East Lothian and its localities. A death is considered early mortality when it occurs prior to the age of 75.

Other than 2012-2014 and the latest year (2019-2021) the rate of early deaths from cancer for East Lothian has decreased yearly since 2009-2011.

There is no significant difference between East Lothian and its localities, however, the East Lothian rate is significantly lower than the Scottish population in 2018-2020.

As at the latest date (2019-2021), within East Lothian there were 141.7 cancer deaths recorded for those aged under 75, a rate of 132.0 per 100,000.

For more information regarding the ScotPHO Profiles calendar and financial year aggregates see Appendix C.

## Breast Screening Uptake

"Breast cancer is the most common cancer in women and people assigned female at birth (AFAB). About 1,000 women and AFAB people die of breast cancer every year in Scotland. Breast screening doesn't prevent cancer, but can detect cancer early and reduce the number of women and AFAB people who die from it."<sup>16</sup>

"Women between the ages of 50 and 70 (up to their 71st birthday) get invites for breast screening once every three years. The timing of an appointment depends on the GP practice a woman is registered at. Each GP practice takes part in the breast screening programme once every three years. This means that women may not receive their first invitation until they are nearly 53. Women who are 71 and over can self refer for breast screening by contacting their local screening centre."<sup>17</sup>



Figure 17. Percentage of Breast Screening Uptake by Geography

Source: <u>ScotPHO Profiles</u>, [Accessed: Apr. 2023]

Figure 17 shows the percentage of breast screening uptake for Scotland, NHS Lothian, and East Lothian.

East Lothian has had a higher percentage of breast screening uptake than NHS Lothian for all years measured in Figure 17 and a higher percentage than Scotland since 2008-2010.

At the latest point of measure 2010-2012, East Lothian had an uptake of 74.6%, consisting of 3,361 people completing a screening test.

## Bowel Screening Uptake

"Screening for bowel cancer helps detect abnormalities before symptoms appear."<sup>18</sup> "Everyone between the ages of 50 and 74 receive an invite to take the test in the post. After that, anyone over the age of 75 can call the helpline to self-refer. Home tests are sent to eligible participants every two years. The faecal immunochemical test (FIT) can detect and measure the amount of blood in a stool sample. This indicates whether a result is normal or not."<sup>18</sup>

As at the latest 3-year aggregate (2018-2020), 503,195.3 bowel screenings were completed in Scotland, a rate of 64.2 per 100,000 population.<sup>19</sup>



#### Figure 18. Rate per 100,000 population of Bowel Screening Uptake by Geography

Source: <u>ScotPHO Profiles</u> [Accessed: Apr. 2023]

Figure 18 shows the age-sex standardised rate per 100,000 population of bowel screening uptake in East Lothian and its localities, NHS Lothian, and Scotland.

All geographies have increased in bowel screening uptake since the initial measure (2009-2011), showing a yearly increase since 2015-2017. As at the most recent date there were 10,720 bowel screenings in East Lothian.

For all points of measure in Figure 18 East Lothian East has had a statistically higher rate of uptake than all other geographies included. East Lothian has had a statistically higher uptake than NHS Lothian for all years and higher than Scotland since 2012-2014.

## **Respiratory Conditions**

"Chronic Obstructive Pulmonary Disease (COPD) is a collective name for lung diseases that involve chronic airflow obstruction, like chronic bronchitis, emphysema and chronic obstructive airways disease (sometimes called chronic obstructive pulmonary disease)."<sup>20</sup>

## COPD Incidence



# Figure 19. Rate per 100,000 Population of Chronic Obstructive Pulmonary Disease (COPD) by Geography

Figure 19 shows the age-sex standardised rate per 100,000 population of Chronic Obstructive Pulmonary Disease (COPD) as a rate per 100,000 for East Lothian, NHS Lothian, and Scotland.

The rates of East Lothian, NHS Lothian and Scotland show small variation until 2017/18-2019/20, at which point there is a sharp decrease until the latest record (2019/20-2021/2022).

For East Lothian, the latest year recorded the lowest rate and number of COPD diagnoses since 2009/10-2011/12, with 97.3 per 100,000 and 91 cases, respectively.

From 2010/11-2012/13 to 2012/13-2014/15 and at the latest year (2019/20-2021-22), the East Lothian rate was significantly lower than Scotland rate.

Source: <u>ScotPHO Profiles</u> [Accessed: Mar. 2023]

### **COPD** Hospitalisations



# Figure 20. Rate per 100,000 Population of Chronic Obstructive Pulmonary Disease (COPD) Patient Hospitalisations by Geography

Source: <u>ScotPHO Profiles</u> [Accessed: Mar. 2023]

Figure 20 shows the age-sex standardised rate per 100,000 population of COPD hospitalisations for East Lothian and its localities, NHS Lothian, and Scotland.

The rate of COPD hospitalisations in East Lothian and East Lothian East have been significantly lower than the Scotland rate for all years recorded. East Lothian East is also significantly lower than East Lothian West for all years recorded.

The most recent year recorded (2019/20-2021/22) is the lowest rate and number of COPD hospitalisation within East Lothian since 2009/10-2011/12, 144.7 per 100,000 and 137.3, respectively.

## COPD Mortality



Figure 21. Rate per 100,000 Population of Chronic Obstructive Pulmonary Disease (COPD) Deaths by Geography

Figure 20 shows the age-sex standardised rate per 100,000 population of COPD deaths for East Lothian, NHS Lothian, and Scotland.

As at the most recent date (2019-2021), East Lothian has recorded 46.7 COPD deaths, equating to a rate of 51.1 deaths per 100,000 population.

The most recent year recorded (2019-2021) is the lowest rate and number of COPD deaths within East Lothian since 2009/10-2011/12, 51.1 per 100,000 and 46.7, respectively.

The mortality rate of East Lothian is significantly lower than Scotland in one year, 2010-2012.

Source: <u>ScotPHO Profiles</u> [Accessed: Mar. 2023]

## Asthma

"Asthma is a long-term condition that affects the lungs. Often starting in childhood, asthma causes swelling and narrowing of small tubes that carry air in and out of the lungs, causing coughing and shortness of breath. Asthma is very common, affecting 2 out of every 10 people in Scotland. Over 5 million people in the UK require treatment for asthma."<sup>21</sup>

#### Asthma Prevalence





Source: PHS, Disease Prevalence [Accessed: Apr. 2023]

Figure 22 shows the prevalence of asthma prevalence per 100 population for East Lothian and its localities, NHS Lothian, and Scotland.

East Lothian East, NHS Lothian and Scotland show a sharp increase in 2019/20 followed by a yearly decrease. The same trend is present but less pronounced in East Lothian West and East Lothian.

The prevalence of Asthma is higher in East Lothian than NHS Lothian and Scotland for all years recorded.

As at the latest year, the number of asthma registrations in East Lothian was 7,590, a prevalence of 7.1 per 100 population.

## Stroke

"A stroke is a serious, life-threatening medical condition that occurs when the blood supply to part of the brain is cut off. Stroke remains the third biggest killer in Scotland and the leading cause of disability. There were 15,000 strokes in Scotland in 2016 and 4,400 deaths."<sup>22</sup>

## Stroke Prevalence





Source: Public Health Scotland, <u>Disease Prevalence</u> [Accessed: Apr. 2023]

Figure 23 shows the prevalence per 100 population of stroke and transient ischemic attack (TIA) for Scotland, NHS Lothian, East Lothian and its localities.

For all years recorded, the rate of stroke and TIA is higher in all East Lothian localities than Scotland and NHS Lothian. The prevalence of stroke and TIA has been higher in East Lothian East than East Lothian West for all years recorded.

In 2021/22 the prevalence of stroke and TIA in East Lothian was 2.43 per 100 population, 2,604 registered cases.

#### Stroke Mortality



Figure 24. Rate per 100,000 Population of Stroke Deaths by Geography

Source: NHS Open Data, <u>Stroke Statistics</u> [Accessed: Apr. 2023]

Figure 24 shows the annual stroke death rate per 100,000 population for East Lothian, NHS Lothian, and Scotland.

NHS Lothian and Scotland have trended downwards since 2012 while East Lothian has had a more variable pattern, likely due to low numbers when compared to larger populations.

At the most recent measure (2021) there were 41 deaths due to stroke in East Lothian (36.4 per 100,00 population).

## Heart Disease

"Coronary heart disease (CHD) is caused when the heart's blood vessels, the coronary arteries, become narrowed or blocked and cannot supply enough blood to the heart."<sup>23</sup> "Despite a substantial reduction in the rate of death from coronary heart disease over the last decade, it remains one of the leading causes of death in Scotland."<sup>24</sup>In 2021, there were 11,606 heart disease deaths in Scotland.<sup>25</sup>

"Scotland has a high prevalence of the risk factors associated with heart disease, such as smoking, poor diet and physical inactivity. Overall, it is estimated that in Scotland around 6.7% of men and 4.2% of women are living with CHD."<sup>26</sup>

## Heart Disease Hospitalisations



## Figure 25. EASR per 100,000 population Heart Condition Activity by Geography

Source: NHS Open Data, <u>Scottish Heart Disease Statistics</u> [Accessed: Apr. 2023]

Figure 25 shows the European age-sex standardised rate per 100,000 population of discharges from hospitals in East Lothian, NHS Lothian and Scotland resulting from a heart condition.

Coronary Heart Disease (CHD) has the highest rate of activity across all conditions measured. In East Lothian CHD activity has been lower than Scotland since 2012/13 and lower than NHS Lothian from 2016/17 onwards. In East Lothian there were 589 CHD discharges at the latest point of measure (2021/22).

Heart attack and heart failure have similar rates of activity in East Lothian across all years. The rate of heart attacks in East Lothian has been lower than NHS Lothian and Scotland from 2012/13 the latest year (2021/22). From 2015/16 onwards the rate of heart failure has been lower in East Lothian than Scotland.

Angina has the lowest rate of all conditions measured for all areas in Figure 25. The East Lothian rate of angina lower than Scotland for all years measured.

As at 2021/22 there were 4,132 individuals registered with CHD in East Lothian. 1,579 were registered in East Lothian East (3.9 per 100 population) and 2,553 were registered in East Lothian West (3.8 per 100 population).

### Heart Disease Deaths



Figure 26. EASR per 100,000 Population of Deaths from Heart Conditions by Geography

Figure 26 shows the EASR per 100,000 of Heart Disease deaths for East Lothian, NHS Lothian, and Scotland.

For all areas indicated in Figure 26, the most common cause of death is CHD, followed by heart attack and lastly heart failure. For CHD and heart attack East Lothian has a lower rate than Scotland for the majority of years recoded.

In East Lothian the rate of CHD deaths decreased from 158.8 per 100,000 population to 106.4 per 100,000 population. As at 2021 there were 119 deaths from CHD and 92 deaths from heart attacks in East Lothian.

Source: NHS Open Data, <u>Scottish Heart Disease Statistics</u> [Accessed: Apr. 2023]

## Diabetes

Diabetes is a metabolic disease characterized by elevated levels of blood glucose (or blood sugar), which leads over time to serious damage to the heart, blood vessels, eyes, kidneys, and nerves.

In Scotland, there are 310,544 people registered with Diabetes in GP practices, a prevalence of 5.29 per 100 population. There were 13,500 deaths in the year 2020 of people who had been diagnosed with Diabetes.

"Type 1 diabetes, once known as juvenile diabetes or insulin-dependent diabetes, is a chronic condition in which the pancreas produces little or no insulin by itself."<sup>27</sup> "In the Scottish Diabetes Survey 2017, Type 1 diabetes accounted for 11% of cases where the type was recorded."<sup>27</sup>

"The most common is type 2 diabetes, usually in adults, which occurs when the body becomes resistant to insulin or does not make enough insulin."<sup>27</sup> "In the Scottish Diabetes Survey 2017, 88.2% (263,271) were recorded as having type 2 diabetes and 10.5% (31,447) type 1 diabetes."<sup>27</sup>



#### Figure 27. Diabetes Prevalence per 100 Population by Geography

Source: PHS, <u>Disease Prevalence</u>, [Accessed: Apr. 2023]

Figure 27 shows the trends of Diabetes prevalence in East Lothian and its localities, NHS Lothian, and Scotland.

The prevalence of diabetes has increased annually from 2017/18 to 2021/22 for all geographic areas measured in Figure 27. East Lothian recorded an increase from 5.1 per 1,000 population to 5.4 per 1,000 population of diabetes prevalence. East Lothian and its localities have had a higher prevalence of diabetes than NHS Lothian for all years recoded.

As at the most recent year, East Lothian had 5,752 patients registered with diabetes.

## Sensory Impairment

#### Hearing Loss and Low Vision

Hearing loss is a common problem that often develops with age or is caused by repeated exposure to loud noises. Action on Hearing Loss estimates that there are more than 10 million (about 1 in 6) people in the UK with some degree of hearing impairment or deafness. Hearing loss can occur suddenly, but usually develops gradually.<sup>28</sup>

"The statutory definition for the purposes of registration as a "blind" person under the National Assistance Act (1948) is that the person is "so blind as to be unable to perform any work for which eyesight is essential."<sup>29</sup>

"To date, there is no data which accurately identifies the number of people in Scotland who have low vision. The best estimate is provided by Scottish Government registration data statistics. These were last published in 2010 and show 34,492 people are registered blind or partially sighted. However, as registration is optional, this number underestimates the true picture. Indeed, it has been suggested that registration data may only reflect 23-38% of eligible people. "<sup>29</sup>





Source: <u>Scottish Survey Core Questions</u> [Accessed: Jan. 2022]



### Figure 29. Percentage of Population with Low Vision or Partial Sight Loss by Geography

Source: <u>Scottish Survey Core Questions</u> [Accessed: Jan. 2022]

In Figure 28 and Figure 29 the East Lothian population has the highest percentage of individuals living with Deafness or Partial Hearing Loss (DPHL) (4.8%) and low vision or Partial Sight Loss (BPSL) (1.8%) when compared to Lothian and Scotland.

Importantly, the lack of confidence intervals means we are unable to determine whether there is a significant difference between the geographical populations (East Lothian, Lothian, and Scotland).

## Alzheimer's and Dementia

"Dementia is the name for a group of symptoms associated with an ongoing decline of brain functioning. It can affect memory, thinking skills and other mental abilities. Alzheimer's is a specific diagnosis which is included under the general term Dementia."<sup>30</sup>

## Dementia Prevalence

The most recent estimates included in the Scottish Government's publication 'National Dementia Strategy: 2017 – 2020' cite the number of individuals living with Dementia in Scotland as 90,000.<sup>31</sup>

Figure 30. Estimated Cases of Dementia in East Lothian by age, based on 2017 EuroCoDe and Harvey Study Figures



Source: <u>Alzheimer's Scotland</u> [Accessed: Apr. 2023]

Figure 30 shows the estimated cases of dementia in East Lothian by age grouping. The number of Dementia cases was determined by applying 2017 EuroCoDe and Harvey Study figures to East Lothian populations (See Appendix D for further details and figures).<sup>32</sup> The figures are crude estimations and do not account for local variance.

From 2016 to 2021, the yearly average of individuals in East Lothian suffering from these conditions is 1,091 females and 645 males. This disparity by sex in Dementia prevalence is seen internationally.<sup>33</sup>

Figure 30 shows that as an individual's age increases their likelihood of contracting Dementia increases. Age appears to have a more pronounced impact on females than males. In males, there is a consistent and small difference between age groups, whereas the female population shows larger susceptibility to Dementia above the age group 75-79.

The same EuroCoDe and Harvey Study estimates were used across all years, therefore, the yearly increase seen in figure 44 for both male and female populations is due to population increases.
#### Alzheimer's Disease and Other Dementia Deaths





Source: National Records of Scotland, <u>Alzheimer's and other dementia deaths</u> [Accessed: Jun. 2023]

Figure 31 shows the age-standardised rate per 100,000 population of Alzheimer's Disease and Other Dementias for East Lothian, NHS Lothian, and Scotland by 5-year calendar year aggregates.

From 2000-2004 to 2017-2021 there has been an increase in the mortality rate of Alzheimer's disease and other dementias for all geographies measured in Figure 31. Over this period, the mortality rate of East Lothian increased from 80.0 per 100,000 population to 134.0 per 100,000 population.

The mortality rate of East Lothian was significantly higher than the rate of Scotland from 2000-2004 to 2011-2015 and higher than Lothian for seven out of the seventeen aggregate years measured. For the most recent two years (2016-2020 and 2017-2021) East Lothian has shown no significant difference in mortality rate from Scotland and Lothian.

As of the most current measure (2017-2021), the number of deaths in East Lothian due to Alzheimer's disease and other dementias was 697, an increase from the initial measure of 292 in 2000-2004.<sup>34</sup> As of the year 2017-2021, East Lothian has the 12<sup>th</sup> highest mortality rate of all 32 Scottish partnerships.<sup>34</sup>

## Impact of COVID-19

## COVID-19 Cases



#### Figure 32. Daily Positive Cases of COVID-19 for East Lothian

Source: PHS Open Data, <u>COVID-19 Statistical Data in Scotland</u> [Accessed May. 2023]

Figure 32 shows the daily positive cases of COVID-19 for East Lothian.

The number of daily cases of COVID-19 within East Lothian was consistently below 50 until 21<sup>st</sup> June 2021, when the number spiked to 173. The number of cases steadily increased from August to March, with spikes later occurring in the months of September, January, April, and July. The number of cases has remained low since September 2022, with the number daily cases remaining below 26 until the most recent point of measure (May 2023).

The seven days with the highest daily cases in East Lothian all occurred within a 12 day span (27<sup>th</sup> December 2021 to 5<sup>th</sup> January 2022). The highest daily cases in East Lothian occurred on January 4<sup>th</sup> 2022 with 413 cases in a single day. The month with the highest number of cases was March 2022 (7,138 cases).



## Figure 33. Cumulative Positive Cases of COVID-19 for East Lothian

Source: PHS Open Data, <u>COVID-19 Statistical Data in Scotland</u> [Accessed May. 2023]

Figure 33 shows the cumulative number of cases pf COVID-19 for East Lothian.

From the initial point of recording (March 2020) to October 2020 the cumulative number of COVID-19 cases gradually increased to from zero to 439. Over a similar timeframe from October 2020, the number of cases increased, resulting in 2,968 cases by June 2021. Following this, the number of COVID-19 cases increased from 2,968 cases in June 2021 to 38,801 cases by the end of June 2022. Since, the total has continued to increase but plateaued, reaching a cumulative case count of 42,119 by the latest measure (May 2023).

#### COVID-19 Deaths



#### Figure 34. Rate of Cumulative Deaths from COVID-19 by Geography

Source: PHS Open Data, <u>COVID-19 Statistical Data in Scotland</u> [Accessed May. 2023]

\*Please note: The release of daily COVID-19 deaths data ceases at the end of May 2022.

Figure 34 shows the rate of daily COVID-19 deaths for East Lothian, Lothian, and Scotland.

East Lothian, Lothian and Scotland all show a sharp increase in death rate from April 2020 to May 2020 followed by a plateau up to November 2020. At this point Scotland and Lothian increase in rate while East Lothian's increase was delayed by approximately 2 months (January 2021). Similarly, Lothian's rate is delayed from January 2021 onwards. From this point each geography shows a pattern of plateau followed by a gradual increase from July 2021 onwards. As of May 2022, the East Lothian COVID-19 death rate (171.5 per 100,000 population) was lower than Scotland and Lothian.

The total number of COVID-19 deaths within East Lothian from March 2020 to May 2022 was 185.

### **COVID-19 Vaccinations**

The Scottish vaccination programme began in December 2020.<sup>35</sup> Scotland has used multiple brands of vaccination including Pfizer/BioNTech (8 December 2020), Oxford/AstraZeneca (4 January 2021), and Moderna (7 April 2021) which were made available to the public at different times.<sup>36</sup>

Scotland implemented a double-vaccine programme followed by a third booster dose. The specific timings of when the second and third vaccine dose could be administered varied between the brands of vaccine. As of 7<sup>th</sup> March 2022 a fourth dose termed the "Spring Booster" has become available for high risk groups and people aged 75 and over.<sup>37</sup>

As at April 2022, East Lothian administration of dose one was 82,707, dose two was 80,555, and dose three was 72,364 (NHS Open Data). For the fourth dose, 76.8% of the eligible East Lothian population have received a booster vaccination.<sup>38</sup>



#### Figure 35. Doses of COVID-19 Vaccinations by Type of Dose for East Lothian Patients Aged 18+

Source: <u>Scottish Health and Social Care Open Data</u> [Accessed Mar. 2022]

Figure 35 shows the number of doses of COVID-19 vaccinations by type of vaccine for East Lothian patients ages 18 and over.

The daily administration of the first and second doses are highly erratic and spread over 8 months. While the third dose has a clearer trend and shorter overall period of activity (~4 months).

The most active period for distribution of the first dose was between December 2020 and July 2021, the second dose was between February 2021 to September 2021, and the third dose was between October 2021 to February 2022. This highlights that there was a greater overlap between the first and second doses than with the third dose. This is due to the primary doses being introduced in conjunction, while dose 3 was applied as a booster dose in later months. For more information see the East Lothian HSCP website.

## Lifestyle

## Smoking

Smoking is a significant public health issue in Scotland and a leading cause of preventable ill health, premature death and disability.<sup>39</sup> Annually, smoking is a direct result of 33,500 admissions and 10,000 deaths in Scotland. Approximately 21% of the adult Scottish population are smokers.<sup>39</sup>

### **Smoking Prevalence**





Source: <u>ScotPHO Profiles</u> [Accessed: May. 2023]

Figure 36 shows the percentage of respondents (aged 16 and over) to the Scottish Survey Core Questions who smoke for East Lothian, NHS Lothian, and Scotland

Overall, the percentage of surveyed individuals considered a smoker within East Lothian has decreased by 4.6 percentage points from the first survey year 2012 (24.8%) to the latest year, 2019 (20.2%). The increase from 2018 to 2019 is the largest increase in smoking prevalence in seven years, from 14.3% to 20.2%.

There is no statistical difference between East Lothian and other geographies of interest (Scotland, NHS Lothian) for each survey year.

### Smoking During Pregnancy



Figure 37. Percentage of the Surveyed Population Smoking during Pregnancy by Geography

Source: <u>ScotPHO Profiles</u> [Accessed: May. 2022]

Figure 37 displays the percentage of women with a known smoking status who are recorded as "current smoker" at their 1<sup>st</sup> antenatal booking appointment within Scotland, NHS Lothian, and East Lothian and its localities.

Scotland shows a gradual decline in percentage since the initial point of measure, whereas, all other geographies included in Figure 37 have followed a trend of increasing until 2009/10-2011/12 (2012/13-2014/15 in that case of East Lothian East) followed by a gradual decrease until the most recent point of measure (2018/19-2020/21).

East Lothian was significantly lower than Scotland's percentage from 2003/04-2005/06 to 2008/09-2010/11. From 2013/14-2014/15 onwards the East Lothian West is significantly higher than the East Lothian East percentage.

#### Smoking Quit Rate



Figure 38. Percentage of Participants who Successfully Quit Smoking 12 weeks Follow-up by Geography

Source: <u>ScotPHO Profiles</u> [Accessed: May. 2022]

Figure 38 shows the percentage of respondents aged equal to and over sixteen who successfully still quit smoking at the three-month follow-up with an NHS Smoking Cessation Service for Scotland, NHS Lothian, and East Lothian.

The percentage and number of individuals quitting smoking in East Lothian has increased from 2009/10 (10.4%, 92) to 2019/20 (22.4%, 180) by 12 percentage points, a total of 88 individuals.

There is no significant difference between East Lothian and other geographies included in Figure 38.

## Drug Misuse

The misuse of drugs can have a wide range of effects on people's health and their place in their communities. In Scotland the drug-related admission rate has shown a general upward trend from 3,366 in 1996/97 to 10,323 in 2020/21.<sup>40</sup>

A proportion of drug use goes unreported, resulting in the expectation that suspected drug use and deaths are higher than total estimates. In September 2021, Police Scotland suggested that in 2020 suspected drug deaths within Scotland were 5% higher than reported figures. For more information see the Suspected Drug Deaths in Scotland publication.<sup>41</sup>

#### Drug-related Hospital Admissions





Source: <u>ScotPHO Profiles</u> [Accessed: Apr. 2023]

Figure 39 shows the age-sex standardised rate per 100,000 population of general acute inpatient and day case stays with a diagnosis of drug-misuse within Scotland, NHS Lothian, and East Lothian and its localities.

The rate per 100,000 population of drug-related hospital admissions has been increased since the initial point of measure (2002/03-2004/05) to the most recent (2017/18-2019/20). Over this time the number of admissions within East Lothian has increased from 48 to 156 (60.9 per 100,000 population to 164.1 per 100,000 population). The East Lothian rate is significantly lower than the Scotland and NHS Lothian rate between the years 2007/08-2010/11 to 2010/11-2012/13 and significantly lower than Scotland from 2014/15-2016/17 onwards. The East Lothian East rate is significantly lower than the East Lothian West rate from 2017/18-2020/21 to 2019/20-2021/22.

#### Drug-related Deaths



# Figure 40. Age-sex Standardised Rate per 100,000 Population of Drug-related Deaths by Geography

Figure 40 shows the age-sex standardised rate per 100,000 population of drug-related deaths within Scotland, NHS Lothian, and East Lothian.

East Lothian, NHS Lothian and Scotland have all increased in the rate of drug-related deaths since 2006. From 2006 to 2021, the East Lothian rate has increased from 1.8 to 15.6 per 100,000 population.

Since 2006 there are three years in which the East Lothian rate was significantly lower drug death rate than Scotland (2006 and 2020).

Source: <u>ScotPHO Profiles</u> [Accessed: Apr. 2023]

## Alcohol

The Scottish Health Survey 2018 reported that 24% of Scottish adults consumed alcohol to hazardous or harmful levels.<sup>42</sup> In Scotland 1,020 annually deaths were attributed entirely to alcohol, an average of 20 people per week.<sup>43</sup>

#### **Alcohol Consumption**





Source: Scottish Health Survey, <u>Alcohol Consumption (Hazardous / Harmful Drinker)</u> [Accessed: Apr. 2023]

Figure 41 shows the percentage of respondents to The Scottish Health Survey aged 16 and over who engage in hazardous / harmful (hazardous/harmful drinkers consume over 14 units per week) alcohol consumption for Scotland, Lothian, and East Lothian.

Between 2012-2015 and 2017-2021 the percentage of Hazardous/Harmful Drinkers in East Lothian has decreased from 29% to 25%. There has been no statistical difference between the East Lothian and Scotland or Lothian population.

Over the same period of measurement as Figure 41, the East Lothian percentage of non-drinkers has ranged between 12% to 15%, equalling 14% as at 2017/2021.



Figure 42. Estimated Alcohol Consumption (Mean Weekly Units) by Geography

Source: Scottish Health Survey, <u>Alcohol Consumption (Mean Weekly Units)</u> [Accessed: Apr. 2023]

Figure 42 shows the mean weekly units of alcohol consumed by respondents of The Scottish Health Survey aged 16 and over for Scotland, Lothian, and East Lothian.

The mean weekly units of alcohol consumed increased from 2012-2015 to a peak of 13.5 units per week in 2014-2017 and trended downwards to the latest year to 11.8 units per week.

There has been no statistical difference between the East Lothian and Scotland or Lothian population.

#### Alcohol-related Hospital Admissions





Source: <u>ScotPHO Profiles</u> [Accessed: Apr. 2023]

Figure 43 shows the age-sex standardised rate per 100,000 of general acute inpatient and day case stays with a diagnosis of alcohol misuse for Scotland, NHS Lothian, and East Lothian.

In East Lothian, after the peak of 680.8 per 100,000 in 2007/08 the rate decreased to 380.9 per 100,000 in 2016/17 and has trended upwards until the most recent year (2021/22) to 437.0 per 100,000 population.

East Lothian and East Lothian's localities have had a statistically lower alcohol admission rate than Scotland for all years recoded. As of the latest year (2021/22) East Lothian rate is statistically indistinguishable from the NHS Lothian population, a change from the previous nine years (2012/13 to 2020/21) in which East Lothian had a statistically lower rate than NHS Lothian. The rate of East Lothian East has been statistically lower than NHS Lothian and Scotland for all years recorded.

#### Alcohol-related Deaths



# Figure 44. Age-Sex Standardised Rate per 100,000 of Alcohol-related Hospital Deaths by Geography

Source: <u>ScotPHO Profiles</u> [Accessed: Apr. 2023]

Figure 44 shows the age-sex standardised rate per 100,000 population of hospital deaths which are directly related and attributable to alcohol misuse within Scotland, NHS Lothian, and East Lothian and its localities.

The rate of alcohol-related deaths decreased from 2002-2006 (20.1 per 100,000) to 2009-2013 (12.2 per 100,000) and have trended upwards to the latest year (2017-2021) to a rate of 14.9 per 100,000.

Neither East Lothian or its localities show any significant difference in the rate of alcohol deaths from the NHS Lothian or Scottish populations.

## **Physical Activity**





Source: Scottish Health Survey, *Physical Activity* [Accessed: Apr. 2023]

Figure 45 shows the percentage of the participants in The Scottish Health Survey meeting summary activity levels (based on the Chief Medical Officer' Physical Activity Guidelines, 2011) for Scotland, Lothian, and East Lothian.<sup>44</sup>

All geographic areas in Figure 45 have increased in the percentage of people meeting physical activity levels since 2013-2016. East Lothian has increased from 64% to 71%, an increase of 7 percentage points.

At no point has the East Lothian population percentage shown significant difference to the Scottish of Lothian population.

From 2013-2016 to 2017-2021 the percentage of people categorised with "Very low activity" levels have fallen from 19% to 17%.

## Mental Health

"Poor mental health is an important public health challenge and significant mental health inequalities exist in Scotland. Improving the mental health and wellbeing of the population is a national priority because this is recognised as having a positive effect on many different aspects of society."<sup>45</sup>

The distribution of mental ill health is unevenly distributed across Scotland and more prevalent in deprived areas.<sup>45</sup>

### Mental Wellbeing

#### Figure 46. Mean of Mental Wellbeing (Using the WEMWBS) Survey Results by Geography



Source: Scottish Health Survey, <u>Mental Wellbeing (MEMWBS)</u> [Accessed Apr. 2023]

Figure 46 shows the mean of the WEMWBS survey results for East Lothian, Lothian, and Scotland.

Mental wellbeing is recorded using the Warwick-Edinburgh Mental Well-being Scale (WEMWBS). 'WEMWBS is a scale of 14 positively worded items for assessing a population's mental wellbeing. WEMWBS is suitable for adults aged 16 and above and also for use at a population level in teenagers aged 13 years and over in samples of over 100.'<sup>45</sup>

The MEMWBS mean score in East Lothian has minorly decreased from a 51.4 at the initial point of measure (2012-2015) to 50.8 at the latest point of measure (2017-2021).

The East Lothian mental wellbeing score was statistically higher than the Scottish population at 2012-2015 and the latest year (2017-2021).

When separated by sex there is no distinction in Mental Wellbeing score between the male and female population.

## General Health Questionnaire (GHQ-12)

"The General Health Questionnaire (GHQ-12) consists of 12 items, each assessing the severity of a mental health problem over the past few weeks using a 4-point scale (from 0 to 3). The score is used to generate a total score ranging from 0 to 36, with higher scores indicating worse conditions."<sup>46</sup>

"For each of the 12 questions one point is given if the participant responded "more than usual" or "much more than usual". Scores are then totaled to create an overall score of zero to twelve. A score of four or more (described as a high GHQ-12 score) is indicative of a potential psychiatric disorder. Conversely a score of zero is indicative of psychological wellbeing. As GHQ-12 measures only recent changes to someone's typical functioning it cannot be used to detect chronic conditions."<sup>46</sup>

Figure 47. Responses by Percentage to the General Health Questionnaire (GHQ-12) by Geography and Score Grouping



Source: Scottish Health Survey, <u>General health questionnaire (GHQ-12)</u> [Accessed: Apr. 2023]

Figure 47 shows the General Health Questionnaire (GHQ-12) score as a percentage of participants for East Lothian, Lothian, and Scotland.

In East Lothian, the percentage of people with a GHQ-12 category of Score 0 and Score 1-3 have decreased from the initial point of measure (2012-2015) to the latest year. Score 0 has decreased from over this time from 67% to 61%. Over this period the Score 4+ has increased in East Lothian from 8% to 18%. A higher score signifies a potential psychiatric disorder thereby indicates an increase in the potential psychiatric disorders in East Lothian over this period (2012-2015 to 2017-2021).

At the latest year (2017-2021), the Score 1-3 category East Lothian is significantly lower than the Scotland population. The Score 0 and Score 4+ categories do not show any significant difference between geographies included in

### **Psychiatric Hospital Admissions**





Source: ScotPHO Profiles, [Accessed: Apr. 2023]

Figure 48 shows the age-sex standardised rate per 100,000 population of patients discharged from psychiatric hospital for Scotland, NHS Lothian, and East Lothian.

From 2009/10-2011/12 to 2019/20-2021/22 the rate of psychiatric hospital discharges for Scotland, Lothian, East Lothian, and East Lothian localities has decreased. The rate in East Lothian has decreased from 286.1 per 100,000 population (2009/10-2011/12) to 224.0 per 100,000 population (2018/19-2020/21).

Over the recording period, East Lothian and its localities have shown no significant difference to Scotland or NHS Lothian.

## Prescriptions



Figure 49. Estimated Percentage of Population Prescribed Drugs for Anxiety/Depression/Psychosis by Geography

Source: <u>ScotPHO Profiles</u>, [Accessed: Apr. 2023]

Figure 49 shows the estimated percentage of the population prescribed drugs for anxiety, depression, and psychosis for Scotland, NHS Lothian, and Scotland.

Comparing the first point of measure (2010/11) to the latest year (2020/21), the percentage of the population prescribed mental health medication has increased in all geographies measured. Over this period, the East Lothian percentage has increase by 3.8 percentage points from 2010/11 (14.8%) to 2020/21 (18.6%). In East Lothian the percentage has increased each year, other than 2017/18 and the most recent year.

Scotland, East Lothian and the East Lothian localities have had a significantly higher percentage than NHS Lothian for all financial years recorded (2010/11 to 2020/21). The percentage of East Lothian and East Lothian East have been significantly lower than Scotland from 2017/18 to the current year (2020/21).

## Deaths from Suicide



# Figure 50. Age-sex Standardised Rate per 100,000 population of Deaths from Suicide and Undetermined Intent by Geography

Source: ScotPHO Profiles, [Accessed: Apr. 2023]

Figure 50 shows the age-sex standardised rate per 100,000 population of deaths from suicide and undetermined intent for Scotland, NHS Lothian, and East Lothian and its localities.

East Lothian and its localities have a similar trend represented by a high rate and plateau between the years 2008-2012 and 2010-2014 at which East Lothian reaches a peak rate of 17.7 per 100,000 population.

There is no significant difference in rate between East Lothian and its localities to Scotland or NHS Lothian.

## Service Utilisation

## Inpatients and Day Cases

"Inpatients refer to people who are admitted to an available staffed bed in a hospital (either electively or as an emergency) and either: remain overnight whatever the original intention; or are expected to remain overnight but are discharged earlier. Day cases refer to episodes where a person makes a planned admission to an available staffed bed in a hospital for clinical care, and requires the use of a bed (or trolley in lieu of a bed). For the purposes of national data, a day case episode refers to a patient who is admitted as a day case and is discharged on the same day as planned."<sup>48</sup>

In 2018/19 Scottish hospitals recorded 1,518,997 inpatient episodes and 1,052,785 inpatient stays. <sup>48</sup>





Source: PHS Open Data, <u>Activity by Council Area and Deprivation</u> [Accessed: Apr. 2023]

Figure 51 shows the European age-sex standardised rate per 100,000 population of inpatient and day case episodes for Scotland, Lothian, and East Lothian.

The episode rate for all inpatients and day cases within East Lothian has been lower than the episode rate of Scotland and Lothian for all points of measure from 2012/13 to 2021/22.

The episode rate of inpatients and day cases for East Lothian showed an overall increase from 25,856.5 per 100,000 in 2011/12 to 26,502.7 per 100,000 in 2019/20. After a sharp decline in 2020/21 to 21,879.0 per 100,000 the rate has increased to 25,050.1 per 100,000. The decline of episodes in all areas in 2020/21 likely resulted from the impact of COVID-19 which greatly reduced in-person contact episodes and admissions for non-COVID diseases.<sup>49</sup>

As at 2021/22, in East Lothian there were 27,882 episodes, of which 89.9% were stays (25,050).<sup>50</sup>



# Figure 52. European Age-sex Standardised Rate per 100,000 Population of Hospital Inpatient and Day Cases Episode Rate by Geography and SIMD, 2021/22



Figure 54 shows the European age-sex standardised rate per 100,000 population of inpatient and day case episodes by SIMD for Scotland, Lothian, and East Lothian in the year 2021/22.

For Scotland, Lothian, and East Lothian there is a relationship between the rate of hospital inpatient and day case episodes and SIMD. For each area the rate of episodes is higher for smaller SIMD categories (most deprived) and lower for larger SIMD categories (least deprived).

In East Lothian the most deprived category had a rate of 32,449.7 per 100,000 population and the least deprived category had a rate of 19,427.1 per 100,000 population.

East Lothian shares a similarity with Lothian, the 3<sup>rd</sup> quintile slightly above the rate of all SIMD categories when combined. Scotland differs, with a third quintile lower than the combined rate of all SIMD categories.

#### Length of Hospital Stay



Figure 53. European Age-sex Standardised Rate per 100,000 Population of Total Length of Stay (Days) for Hospital Inpatient and Day Cases by Geography

Figure 53 shows the European age-sex standardised rate per 100,000 population of total length of stay (days) for hospital inpatients and day cases for Scotland, Lothian, and East Lothian.

East Lothian has had a higher rate of rate of total length of stay than Lothian and Scotland from 2020/21 onward.

The East Lothian rate trended downwards from 2012/13 to 2020/21, showing a decrease from 108,093, to per 100,000 population to 69,519.2 per 100,000 population. In the latest year (2021/22) the East Lothian rate has increased to 83,092.2 per 100,000 population.

As at 2021/22, in East Lothian the total annual stays amounted to a total length of stay of 93,006 days and an average length of stay rate of 3.34 per 100,000 *population*.<sup>50</sup>

Source: PHS Open Data, Activity by Council Area and Deprivation [Accessed: Apr. 2023]

## Outpatients

"An outpatient is a patient who attends (outpatient attendance) a consultant or other medical clinic, or has an arranged meeting with a consultant or a senior member of their team out-with a clinic session. Outpatients are not admitted to a hospital and do not use a hospital bed."<sup>51</sup>

#### New Attendances





Source: PHS Open Data, <u>Activity by Council Area and Deprivation</u> [Accessed: Apr. 2023]

Figure 54 shows the European age-sex standardised rate per 100,000 population of hospital new outpatient attendances for Scotland, Lothian, and East Lothian.

The rate of new outpatient attendances in East Lothian have been higher than Scotland for all years measured since 2012/13 and lower than Lothian since 2018/19.

In Figure 54 the rate of new outpatient attendances has followed a similar slight downward trend in East Lothian, Lothian, and Scotland from 2011/12 to 2019/20, at which point there was a sharp decrease to 17,859.9 per 100,000 population and has increased to the latest year (2021/22) to 24,448.6 per 100,000 population.

### Care at Home

"Home Care (or its broadly equivalent term 'Care at Home') are a variety of support types intended to help people with assessed support needs to live at home, including in sheltered housing or equivalent accommodation."<sup>52</sup>At the latest period of measurement (2021/22 Q4), in Scotland there were 65,495 people receiving care at home, totalling 9,403,105 hours.



Figure 55. Rate per 1,000 Population Receiving Care at Home by Geography

\*Locality information is available up to 2020/21 due to publication

Figure 55 shows the rate per 1,000 population receiving care at home in Scotland, East Lothian and all its localities.

Between the initial point of measure and latest point of measure East Lothian West is the only geography to increase in the rate of people receiving care at home. At the most recent available date for the areas East Lothian and East Lothian East the rate of people receiving care at home are lower than Scotland.

In East Lothian between 2017/18 Q4 and 2021/22 Q4 there has been a decrease in the number of people receiving care at home from 1,450 to 1,265 and the number of total hours from 258,600 to 241,895. At the latest point of measure (Quarter 4 of 2020/21), those aged 85 and over account for 35.6% of the population receiving care in East Lothian East. <sup>52</sup> In East Lothian West the largest group receiving care at home is aged 18 to 64 (31.7% of the population), higher than the 85 and over age group which accounts for 30.6% of the population. <sup>52</sup>

Source: PHS, Insights in Social Care: Statistics for Scotland [Accessed: Apr. 2023]

## Care Homes

In Scotland there were 35,045 people being supported in care homes 2021/22 Q4 and the median length of stay of 460 days as at the latest financial year recorded (2021/22).<sup>52</sup>



Figure 56. Rate per 1,000 population of People Supported in Care Homes by Geography and Age

Figure 56 shows the rate per 1,000 population of people supported in care homes by age group in East Lothian and Scotland.

East Lothian and Scotland share a similar age profile of those being supported in care homes. In East Lothian and Scotland people aged 85 and over have accounted for the majority of the rate of the population in care homes for all quarters measured. This same age group has shown a downward trend in rate in both East Lothian and Scotland from quarter 1 of 2017/18 to quarter 4 of 2021/22.

In real terms, the number of people supported in care homes of in East Lothian has shown an overall decrease from 790 residents in quarter 1 of 2017/18 to 700 residents in quarter 4 of 2021/22.<sup>52</sup>

The median length of a care home stay in days has been higher in East Lothian than Scotland for all financial years since 2017/18.<sup>52</sup> As of the latest year (2021/22), the East Lothian median length of stay in a care home was 605 days. <sup>52</sup>

In East Lothian the majority of care home residents are long stay (anyone funded for a period of over 6 weeks (42 days) by the Local Authority) residents. <sup>52</sup> As of 2021/22 long stay residents accounted for 93.5% of people supported in care homes in East Lothian. <sup>52</sup>

Source: PHS, Insights in Social Care: Statistics for Scotland [Accessed: April 2023]

## Palliative and End-Of-Life Care





Source: Scottish Government Statistics, <u>Palliative and End of Life Care</u> [Accessed: Apr 2023]

Figure 57 shows the percentage of palliative care patients who spend the last 6 months of life in either a home or community setting or a hospital setting for East Lothian and Scotland.

East Lothian and Scotland follow a similar trend, with the percentage patient's staying in community settings increasing and the percentage of patients staying in hospital settings decreasing.

In East Lothian between 2012/13 and 2021/22 the percentage of home or community stays increased from 84.8% to 87.8%.

### Dental

"It is now widely recognised that a healthy mouth has a significant impact on physical health as well as on other aspects of day-to-day life including engaging with others socially and as a result, may have wider socio-economic consequences"<sup>53</sup>

The Scottish Health Survey reported that in 2019 the population of Scottish adults who had at least some natural teeth was 93% including 78% who had 20 or more natural teeth.<sup>53</sup>

As of September 2021, the number of adults and children registered with an NHS Dentist in Scotland was 4,319,817 and 901,000, respectively.<sup>54</sup> As of March 2022, there were 90,961 people registered with East Lothian dental practices.<sup>55</sup>





Source: Public Health Scotland, <u>Dental statistics - registration and participation</u> [Accessed: May 2023]

\*Please note: Lifetime registration' was introduced in April 2010 meaning the patient will no longer be deregistered on the grounds of attendance. Therefore, age groups can exceed 100%.

Figure 58 shows the percentage of people aged 18+ population registered with an NHS dentist by age group for Scotland and East Lothian at 30<sup>th</sup> September 2022.

In East Lothian the percentage of registrations generally decreases with age, whereas, Scotland does not share this direct relationship and has the largest percentage of registrations in the 35-44 age group.

As at 30<sup>th</sup> September 2022, in East Lothian there were 78,292 adults registered with and NHS Dentist, 89.6% of the population.<sup>54</sup>

## Housing and Homelessness

From the Health Scotland Housing and health inequalities briefing: *"Housing has the potential to reduce or reinforce health inequalities. It exerts a substantial influence on health and wellbeing through several linked routes, including: the affordability of homes; the quality of homes; and the role of the home as a platform for inclusion in community life. In Scotland, many people do not live in a house that is warm, dry and affordable, with people on low incomes being disproportionately affected."<sup>56</sup>* 

Homelessness has a detrimental impact on people's health and wellbeing. When compared to the general population, homeless people have a lower life expectancy and a higher percentage of diagnosis of mental and physical health problems.<sup>57</sup> Homelessness is driven by variety of societal factors and is distributed unequally in Scottish communities.<sup>57</sup>

For further information regarding housing and homelessness within East Lothian see the Housing Needs Assessment.

## Poverty

From the Public Health Scotland overview of poverty: "Poverty is usually defined as having less than 60% of median household income. The median is the income level where half of the households in the population have more income, and half have less."<sup>58</sup>

From the Scottish Government publication Poverty and Income Inequality in Scotland 2019-22: "It is estimated that 21% of Scotland's population (1,110,000 people each year) were living in relative poverty after housing costs in 2019-22. Before housing costs, 19% of the population (1,000,000 people) were living in poverty."<sup>59</sup>

Poverty has a direct and detrimental impact on people's health. When comparing the most and least deprived areas within Scotland, the most deprived areas have higher rates of premature mortality, coronary heart disease, cancer mortality and alcohol related hospital admissions.<sup>60</sup> Those living in deprived areas are also at increased risk of mental health problems.<sup>61</sup>

For further information regarding poverty, see the East Lothian Poverty Needs Assessment.

## Wellbeing

## Falls

"Although there is no universally agreed definition of frailty, most definitions consider frailty a form of complexity, associated with developing multiple long-term conditions over time leading to low resilience to physical and emotional crisis and functional loss leading to gradual dependence on care. In many ways it is progressive like a long-term condition."<sup>62</sup>





Source: Core Suite of Integration Indicators, National Indicator 16 [Accessed: May. 2023]

Figure 59 shows the rate per 1,000 population of falls in people aged 65 and over for East Lothian and Scotland. Please note that annual figures for these indicators are presented by financial year until 2020/21 and calendar year for 2021. Falls are identified as patients who have been admitted to a hospital with the ICD-10 coding for falls included in any of the six available diagnosis categories.

The rate of falls in East Lothian has increased each year since 2017/19, showing a sharp increase from 19.0 per 1,000 population to 22.9 per 1,000 population between 2018/19 and 2019/20. Since 2019/20 East Lothian has had a higher rate of falls than Scotland.

As of the most recent calendar year (2021), the number of falls within East Lothian was 526.63

### Frailty





Source: Scottish Health Survey, Provide any regular help [Accessed: May. 2023]

Figure 60 shows the percentage of East Lothian participants to The Scottish Health Survey who provide any regular help or care for any sick, disables, or frail person for East Lothian, Lothian, and Scotland.

East Lothian, Lothian and Scotland have maintained a consistent percentage between 2012-2015 and 2016-2019. There is no significant difference between any geography displayed in Figure 60.



# Figure 61. Percentage of East Lothian Participants who Provide any Regular Help or Care for any Sick, Disabled or Frail Person by Sex

Source: Scottish Health Survey, <u>Provide any regular help</u> [Accessed: May. 2023]

Figure 61 shows the percentage of East Lothian participants of The Scottish Health Survey who provide any regular help or care for any sick, disables, or frail person by sex.

Over the period recorded, male population decreased, followed by an increase while the female population increased and was followed by a decrease.

At the current year (2017-2021), the male population accounts for 8% of the and females accounted for 17%.

Since 2014-2017 the female population percentage has been significantly higher than the male population, suggesting that the female population has responsibility for more of the informal care delivery within East Lothian.

### Weight

"What causes someone to have a higher weight is complex and often not well understood. Weight is influenced by a person's experience throughout their life-course, including economic, social and environmental factors. This includes whether our environment supports or constrains physical activity; accessibility of affordable healthy food; the influence of social circles, and industry marketing, alongside genetic and physiological factors."<sup>64</sup>

As of 2019, 66% of adults (over 16) in Scotland were considered within the unhealthy weight ranges of overweight and obese. In the Scottish child population (ages 2 to 15) 30% are at risk of being overweight, of which 16% are at risk of obesity.<sup>64</sup>

#### Healthy Birth Weight

"Generally speaking, infants weighing 2.5 kg or more, but less than 4 kg, at birth are considered to have a "normal" birth weight. A birth weight of less than 2.5 kg is considered to be low, whereas 4 kg or more is considered high."<sup>65</sup>



#### Figure 62. Percentage of Live Births Born at a Healthy Birth Weight by Geography

Source: <u>ScotPHO Profiles</u> [Accessed: Apr. 2023]

Figure 62 shows that the percentage of all live singleton births recorded with a healthy birth weight for Scotland and East Lothian.

The healthy birth weight percentage in East Lothian has had minor variation over the time recorded in Figure 62, changing from 81.6% to 81.2% from 2009/10-2011/12 to 2019/20-2021/22. East Lothian has had a significantly lower healthy birth weight percentage than Scotland from 2017/18-2019/20 onwards. The healthy birth weight percentage in East Lothian East has significantly lower than Scotland and NHS Lothian from 2017/18-2019/20 onwards.

#### Overweight



# Figure 63. Percentage of Participants who Self-Reported as Overweight (Including Obese) by Geography

Source: Scottish Health Survey, <u>Body Mass Index (BMI)</u> [Accessed: May. 2022]

Figure 63 shows the estimated percentage of participants to The Scottish Health Survey who self-reported as overweight or obese (BMI of over 25) for East Lothian, Lothian, and Scotland.

In Figure 63, the percentage of people estimated to be overweight in East Lothian has increased from 2014-17 (65%) to 2016-2019 (68%).

Due to this increase, the percentage of East Lothian is significantly higher than Lothian as of 2016-2019. Scotland has maintained the same percentage (65%) of estimated obesity for all years and shows no significant difference from East Lothian.

### Self-Assessed General Health



# Figure 64. Percentage of Participants` Self-Reported Rating of their Health in General by Geography

Source: Scottish Health Survey, <u>Self-assessed General Health</u> [Accessed: May. 2023]

Figure 64 shows the Percentage of Participants` to the Scottish Health Survey (aged 13 and above) Self-Reported Rating of their Health in General for East Lothian, Lothian, and Scotland. Participants ratings include a range from 'very good' to 'very bad'.

In all geographies and years available, the majority of respondents answered "Very good/Good". The percentage of respondents answering "Very good/Good" has decreased from 2012-2015 to 2017-2021. The category of "Bad/Very Bad" has increased from 5% in 2012-2015 to 7% in 2017-2021.

As of the latest measure (2017-2021), all categories for East Lothian show no significant difference from Scotland or NHS Lothian.
### Appendix A

"The Scottish Index of Multiple Deprivation is a relative measure of deprivation across 6,976 small areas (called data zones). If an area is identified as 'deprived', this can relate to people having a low income but it can also mean fewer resources or opportunities. SIMD looks at the extent to which an area is deprived across seven domains: income, employment, education, health, access to services, crime and housing."<sup>5</sup>

For further details of SIMD see the Scottish Government website: <u>https://www.gov.scot/collections/scottish-index-of-multiple-deprivation-2020/</u>

### Appendix B

'Scottish Primary Care Information Resource (SPIRE) is a system that enables Public Health Scotland to request and obtain authorised information from GP Practices about specific health conditions, which are then released as statistics for informing the public about incidence and prevalence of certain conditions.'<sup>66</sup>

Prevalence is based on Read Codes entered by practice staff in the GP practice system and conditions are defined by Business Rules v32.<sup>66</sup>

'Not all NHS Boards, Health and Social Care Partnerships (HSCPs), clusters and general practices are included in this release. Of the 916 practices in Scotland, as at 1 April 2022, 678 returned data from SPIRE. Of these 678 practices, 87 were removed after the application of the Removal criteria, leaving 591 practices. Table 2 shows the number of practices by NHS Board included for 2021/22 data.' <sup>66</sup>

For further information regarding Disease Prevalence figures see the Disease Prevalence Dashboard: <u>General practice disease prevalence data visualisation - General practice - disease prevalence data</u> <u>visualisation - Publications - Public Health Scotland</u>

# Appendix C

Data sourced from the ScotPHO profiles are displayed as single years, 3-year aggregates, and 5-year aggregates (calendar and financial). For aggregated years a rolling average is calculated to determine the numerator. Therefore, it is possible for the numeric to contain a decimal.

For further information see the ScotPHO Profiles page (for definitions select the "Info" tab, followed by the "Indicator definitions"): <u>https://scotland.shinyapps.io/ScotPHO\_profiles\_tool/</u>

# Appendix D

Table 3 indicates the 2017 EuroCoDe and Harvey Study prevalence estimates of Dementia for males and females. Figures were sourced from Alzheimer's Scotland:

https://www.alzscot.org/sites/default/files/images/0002/5517/2017\_Webpage\_-\_Update\_Headline.pdf

Age group	EuroCoDe Males (Under 60 Harvey)	EuroCoDe Females (Under 60 Harvey)
30-34	0.0672	0.0672
35-39	0.0672	0.0672
40-44	0.0672	0.0672
45-49	0.0672	0.0672
50-54	0.0672	0.0672
55-59	0.0672	0.0672
60-64	0.2	0.9
65-69	1.8	1.4
70-74	3.2	3.8
75-79	7	7.6
80-84	14.5	16.4
85-89	20.9	28.5
90-94	29.2	44.4
95-99	32.4	48.8
100+	32.4	48.8

Table 3. Prevalence Rates of Dementia (%) given by the EuroCoDe and Harvey studies

# Appendix E

#### **Confidence Intervals**

Throughout this document 95% confidence intervals (CI) have been displayed to allow further interpretation of the East Lothian results when compared to Scotland, Lothian, and East Lothian Localities.

95% CI indicates the 95% probability that the result lies within the range between the upper and lower confidence limits. If these ranges do not overlap (e.g. the Upper confidence limit for East Lothian is lower than the Lower confidence limit for Scotland) we have labelled the results as "Statistically significant".

Confidence intervals tend to be smaller for results where the sample size was larger (e.g. Scotland) and larger for smaller sample sizes (e.g. East Lothian).

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