Cancer in Brighton & Hove

2022

Part of the Brighton & Hove Joint Strategic Needs Assessment (JSNA)

NHS Sussex

Brighton & Hove City Council

Contents

1. Executive summary

- Cancer is one of the most common causes of early death in the UK and in Brighton & Hove. 1 in 2 people will be diagnosed with cancer in their lifetime. 38% of cancer cases are preventable, with smoking being the single most preventable cause of cancer (Cancer Research UK 2022)
- Cancer is the leading cause of death in Brighton & Hove in those aged under 75 years, accounting for 26% of all deaths, followed by circulatory diseases at 23% in 2020[1]
- In 2021/22 Brighton & Hove had a lower prevalence of cancer registrations at 2.5% on its practice disease registers than England (3.3%) and East (4.7%) and West Sussex (4.2%)
- However, the under 75 mortality rate from cancer considered preventable in 2020 was 60.4 deaths per 100,000 people for Brighton & Hove, higher than the South East at 45 and 51.5 for England
- It is estimated that 38% of cancers are considered preventable, this JSNA includes cancers covered by the cancer screening programmes, and specifically, high use of tobacco and alcohol, as these are key issues in the city[2]. Although smoking rates have recently decreased to 13.7%, rates have consistently been much higher for a number of years, as are the rates of cancers most frequently attributable to smoking - oral, oesophageal and lung cancers.
- There are higher rates of cancer in areas with higher levels of deprivation. Brighton & Hove has lower cancer screening rates than England and the South East for cervical, breast and bowel cancer. People living in more deprived areas are less likely to access screening. The 10 most deprived GP Practices have lower uptake for breast and bowel screening with the exception of those age 50-65 for cervical screening
- Brighton & Hove has higher rates of two week wait referrals, with lower conversion rates [3] than England and the South East and neighbouring Sussex practices, however conversion rates vary between Primary Care Networks [4] (PCNs)
- Brighton & Hove had a similar proportion of cancers diagnosed at Stages 1 and 2[5] in 2020 as to England. However the South East, and half of the CIPFA

[1] Office for National Statistics Mortality Statistics via NOMIS, 2020
[2] Cancer Research UK 2022. Preventable cancers [accessed 30/01/2023]. Available from:https://www.cancerresearchuk.org/health-professional/cancer-statistics/risk/preventable-cancers#heading-Two
[3] Conversion rate is the percentage of urgent suspected cancer referrals which result in a diagnosis of cancer.
[4] Primary Care Networks are groups of General Practices working together to provide services.
[55] Cancer Research UK. Stages of Cancer 2023 [accessed 30/01/2023]. Available from: https://www.cancerresearchuk.org/about-cancer/what-is-cancer/stages-of-cancer#what.
Staging refers to the size and spread of the cancer at diagnosis

nearest neighbour comparators[6], had higher proportions. The stage at diagnosis varies greatly between tumour sites and this directly impacts upon treatment options and health outcomes. For example, cervical and skin cancers at earlier stages, and pancreatic and ovarian cancers at later stages

- There are notable variations in all of these indicators between Primary Care Networks (PCNs)[7] and practices in the city, in part this reflects differing age profiles and community demographics
- Brighton & Hove had fewer emergency hospital admissions for cancer in 2019/20, than England, the South East and East and West Sussex[8]
- There are differences in cancer incidence and mortality between males and females, with higher incidence and mortality in areas of higher deprivation, for certain cancers, emergency admissions and at later cancer stages at diagnosis, for example lung, and oesophageal cancers
- National studies have found that though a small number of cancer sites have higher incidence rates in Black and racially minoritized populations, for the majority of cancer sites, there is a lower incidence than the 'White' category
- The Covid-19 pandemic has impacted on all aspects of cancer prevention, screening, treatment and care for a number of reasons; staffing, public hesitancy in attending appointments and screening, briefly paused screening programmes, availability of diagnostics and treatment services and equipment. Macmillan estimates that nationally around 50,000 patients have missed a cancer diagnosis during the pandemic, with later stage presentations increasing, and treatment and surgery delays.[9] Data provided by the Surrey Sussex Cancer Alliance support this across all tumours and presentations.[10]

2. Notes on data used

The primary data source for this JSNA Summary has been from the Office for Health Improvement and Disparities (OHID) Public Health Outcomes Framework and Fingertips tools and NHS Cancer Data. Post July 2022, Brighton and Hove appears as Sussex ICB 09D.

Please note that the Covid-19 pandemic paused and/or delayed some of the data collection and analysis mechanisms.

The data is only available by age, persons, male and female, and some analysis by deprivation and ethnicity. At the time of writing there is no reported national data on

[6] Chartered Institute of Public Finance and Accountancy, uses a wide range of socio-economic indicators to facilitate baseline and comparison between similar local authorities. The comparator local authorities for Brighton & Hove are Bournemouth, Bristol, Coventry, Leeds, Medway, Newcastle upon Tyne, North Tyneside, Nottingham, Plymouth, Portsmouth, Sheffield, Southampton, Southend-on-Sea, Swindon, and York

[7] Primary Care Networks are groups of General Practices working together to provide services.

[8] At the time of writing NHS Brighton & Hove CCG was moving into an integrated care system so some of the data is available by CCG and some by ICB Sussex 09D

[9] NHS executive release 29 Nov 2021 [accessed Jan 2022]. Available from: https://www.nationalhealthexecutive.com/articles/covid-causes-rise-late-cancer-diagnosis

[10] COVID-19 Cancer Equity Data Pack-Surrey Sussex Cancer Alliance referral data over time. Available at: COVID-19 Cancer Alliance Data Packs.

cancers or cancer screening for people who identify as trans[11], non-binary or intersex. Such local data would likely be suppressed due to small numbers. This is also the case for analysis by other protected characteristics including disabilities, sexual orientation[12] and faith.

3. Introduction

3.1 What is cancer?

Cancer is a condition where cells in a specific part of the body grow and divide in an uncontrolled way. Some cancers may eventually spread into other tissues**.** There are more than 200 different types of cancer and each type has its own name and treatment. Improvements in awareness, diagnosis and treatments of cancers has made a real difference to life expectancies and peoples experience of living with and beyond cancer. [13] [14] [15]

3.2 Strategic context

The NHS Sussex Improving Lives Together Strategy builds on the NHS Long Term Plan, [16] and sets out actions to improve uptake of screening and early cancer diagnosis, and to reduce inequalities experienced by parts of the community including people with learning disabilities. There are targets to improve cancer survival by increasing the proportion of cancers diagnosed early (stages 1 and 2), from a half to three quarters, and by ensuring that improvements in quality of care, treatments and advances in precision medicine to enable patients to be offered more personalised therapeutic options.

The Surrey Sussex Cancer Alliance[17] brings together health, social care and third sector organisations to work together to transform cancer care, improve cancer survival and driving forward the aims of the NHS Long Term Plan for Cancer.

The Brighton & Hove response to the national plan - Delivering the NHS response as part of our Joint Health and Wellbeing Vision for our Population[18] - identifies cancer as a priority across the Brighton & Hove system.

Areas of focus include:

- Early diagnosis, supporting development and delivery of the Rapid Diagnostic Services programme and improving prevention and screening uptake
- Improving patient experiences with cancer care

[11] Trans is an umbrella term for people whose identity differs from what is typically associated with the sex they were assigned at birth. People under the trans umbrella may describe themselves using one or more of a wide variety of terms – including transgender.
[12] The terms used in this JSNA to describe sexual orientation Lesbian, gay, bisexual and/or trans (LGB&/T) will reflect the reports, and evidence used and may/may not include Trans – a gender identity, rather than a sexual orientation.
[13] For further detail please see:
NHS webpages and:
[14] Cancer Research UK
[15] Macmillan Cancer Support
[16] NHS Sussex Improving Lives Together. NHS Long Term Plan 2019 [accessed Jan 2022] Available at: https://www.longtermplan.nhs.uk/wp-content/uploads/2019/08/nhs-long-term-plan-version-1.2.pdf
[17] NHSE Surrey Sussex Cancer Alliance.
[18] SHCP Brighton & Hove – Place Based Response to the Long Term Plan. Available from: https://www.sussexhealthandcare.uk/wp-content/uploads/2019/10/191028-DRAFT-Appendix-Brighton-and-Hove-place-plan-v5.2.pdf

- Increasing personalised care with 70% of cancer patients to have access to all elements of the recovery package 2020, including health needs assessment, treatment summary, and access to a health and wellbeing event. [19] [20]
- Compliance with national cancer standards, including the Faster Diagnosis Standard[21]
- Reduce unwarranted variation in cancer outcomes.

Integral to this is the Brighton & Hove Joint Health and Wellbeing Strategy[22]. This sets out the prevention agenda necessary to support the health of our population over a life course throughout all stages of life and will help reduce cancer risks.

Primary Care Networks (PCNs) also receive funding to increase cancer screening uptake and earlier diagnosis. [23]

The National Health Service England (NHSE) Core20PLUS5[24] approach supports the reduction of health inequalities at national and system level. The Core20 identifies the most deprived 20% of the population through the national Index of Multiple Deprivation (IMD). The PLUS groups are those that local areas identify for more support in Brighton and Hove, and this is carers, vulnerable migrants, young people in transition from child to adult mental health services and LGBTQI+. This does not imply other groups in the community do not experience disadvantage, and there are ongoing programmes of work in place. The '5' – identifies '5' clinical areas requiring accelerated improvement which includes 75% of cancer cases diagnosed at stage 1 or 2 by 2028.

The annual NHS 2023/24 Priorities and Operational Planning Guidance makes clear Integrated Care Systems continue to build on the re-establishment of the cancer screening programmes to pre pandemic levels with commitments to the bowel screening age extension and additional breast screening capacity. It continues to emphasise the focus on reducing inequalities across communities in access to and improving outcomes from NHS services. [25]

In January 2023 England's Secretary of State for Health and Social Care announced that cancer would no longer have a separate dedicated long term national cancer plan, but would be rolled into a chronic disease strategy that would include cardiovascular disease, chronic respiratory disease, dementia, mental health

[19] NHSE Recovery from impact of COVID-19 on cancer services [accessed 30/01/2023]. Available from https://www.england.nhs.uk/cancer/quarterly-report-overviews/q4-2021-q1-2122/recovery-from-impact-of-covid-19-on-cancer-services/

[20] Macmillan personalised care recovery. [accessed 30/01/2023]. Available from https://www.macmillan.org.uk/healthcare-professionals/innovation-in-cancer-care/personalised-care

[21] NHS Cancer Faster Diagnosis standard

[22] Brighton & Hove Joint Health & Wellbeing Strategy 2019-2030. Available from: https://www.brighton-hove.gov.uk/sites/default/files/health/brighton-hove-health-wellbeing-strategy-2019-2030-26-july-19.pdf

[23] NHSEI Network Contract Directed Enhanced Service Early Cancer Diagnosis Guidance. 31 March 2020. Available at: https://www.england.nhs.uk/wp-content/uploads/2020/03/network-contract-des-early-cancer-diagnosis-guidance.pdf

[24] NHSE 2022 Core20PLUS5 (adults) – an approach to reducing healthcare inequalities. Available from: https://www.england.nhs.uk/about/equality/equality-hub/national-healthcare-inequalities-improvement-programme/core20plus5/

[25] NHS England » 2023/24 priorities and operational planning guidance [accessed 30/01/2023]

conditions, and musculoskeletal disorders. At the time of writing the details of this new approach are still in development.[26]

4. What is the local picture?

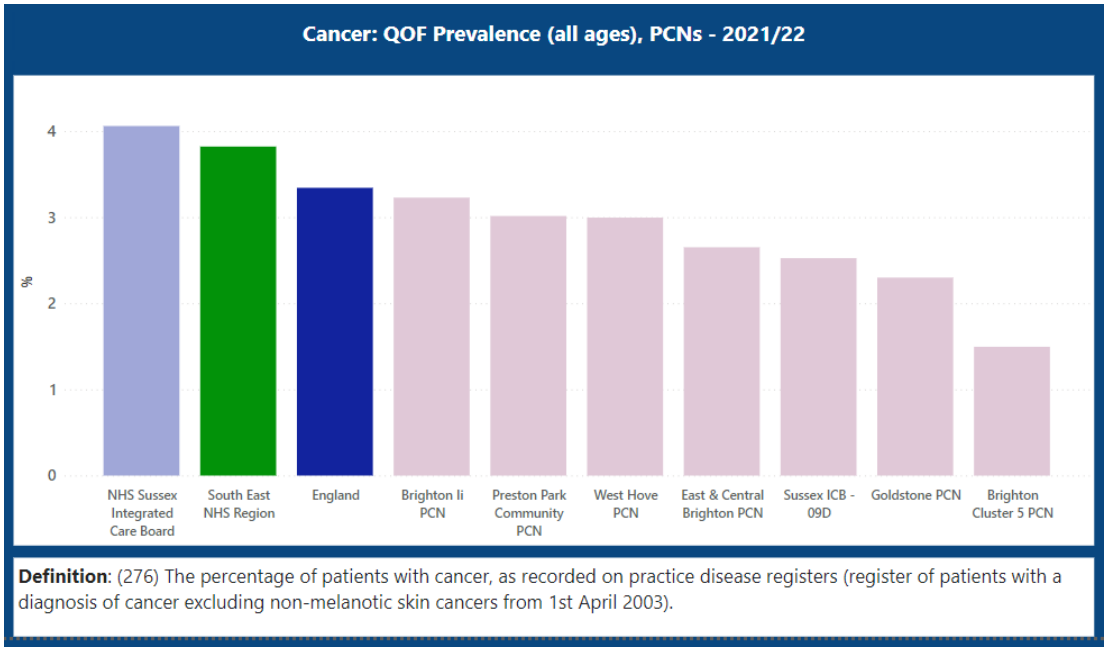
The Covid-19 pandemic impacted on all aspects of cancer prevention, screening, treatment and care for a number of reasons; staffing; public hesitancy in attending appointments and screening; briefly paused screening programmes; availability of diagnostics and treatment services and equipment. Macmillan estimates that nationally around 50,000 patients have missed a cancer diagnosis during the pandemic, with later stage presentations increasing, and treatment and surgery delays.[27] Data provided by the Surrey Sussex Cancer Alliance supports this across all tumours and presentations.[28]

4.1 Prevalence

Brighton & Hove had a lower prevalence of cancer registrations at 2.5% on its PCN practice disease registers in 2021/22 than England (3.3%) and East (4.7%) and West Sussex (4.2%).

The highest percentage of registrations were in The Deans & Central PCN (formerly PCN Brighton Ii) and the lowest North & Central PCN (formerly PCN 5) reflecting their demographic age profiles (Figure 1).

Figure 1: Percentage of patients with cancer recorded on GP practice register, Brighton & Hove PCNs, South East and England and West and East Sussex comparators, 2021/22

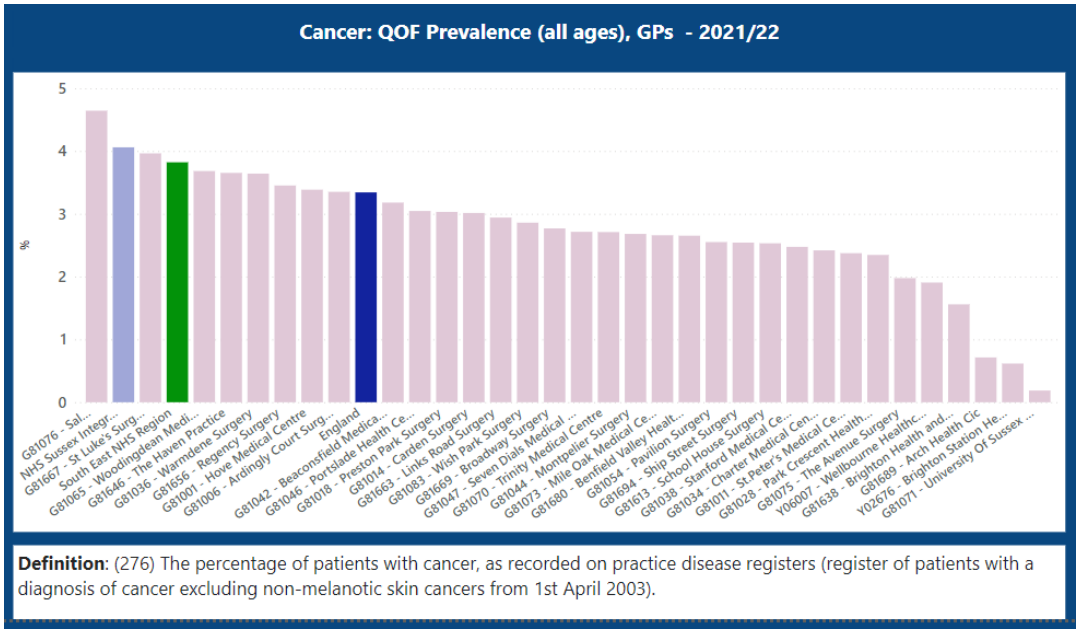


Source: (276) Cancer: QOF prevalence (all ages).

[26] Torjesen I. NHS in England will have one strategy for all major conditions, including cancer. BMJ2023;380:194. [accessed 16/02/2023] Available from doi:10.1136/bmj.p194 pmid:36696975
[27] NHS executive release 29 Nov 2021 [accessed Jan 2022]. Available from: https://www.nationalhealthexecutive.com/articles/covid-causes-rise-late-cancer-diagnosis
[28] COVID-19 Cancer Equity Data Pack-Surrey Sussex Cancer Alliance referral data over time. Available at: COVID-19 Cancer Alliance Data Packs.

Figure 2 shows prevalence by Practice, the lowest recorded cancer prevalence in 2021/22 was at University of Sussex practice (0.2%) and the highest at Saltdean and Rottingdean Practice (4.6%). These practices have very different patient profiles, the University of Sussex Practice with predominantly young adults, and with Saltdean and Rottingdean having a higher proportion of older people

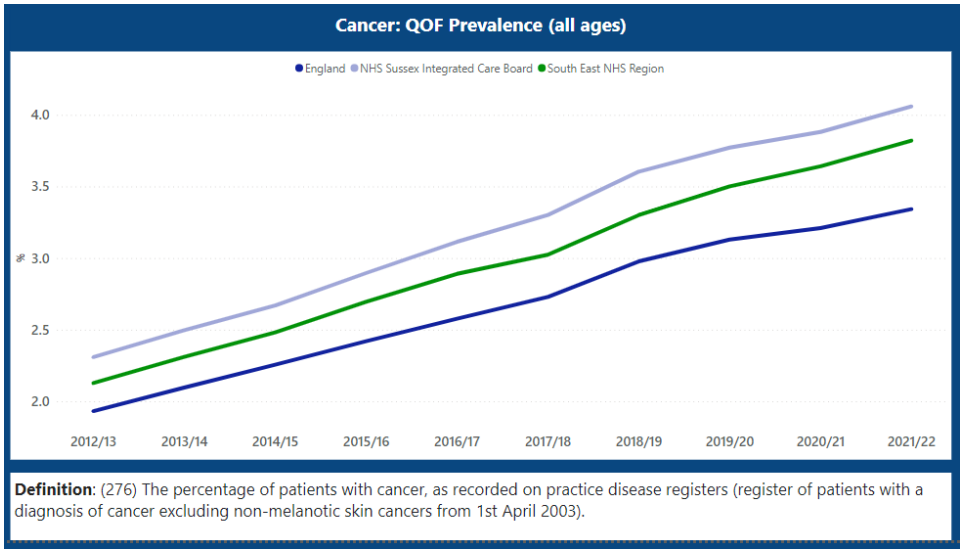
Figure 2: Percentage of patients with cancer recorded on GP practice register, by GP practice, NHS Sussex ICB, South East & England 2021/22



Source: [(276) Cancer: QOF prevalence (all ages)]

Figure 3 shows the percentage of patients with cancer recorded on GP practice registers, for NHS Sussex ICB, South East & England, as trends over time from 2012/13 to 2021/22. There has been a steady increase, with Sussex higher at 2.3% in 2012/13 moving to 4.1%, the South East moving from 2.1% to 3.8%, which is also higher than England moving from 1.9% to 3.5%.

Figure 3: Percentage of patients with cancer recorded on GP practice register, NHS Sussex ICB, South East & England, 2012/13 to 2021/22



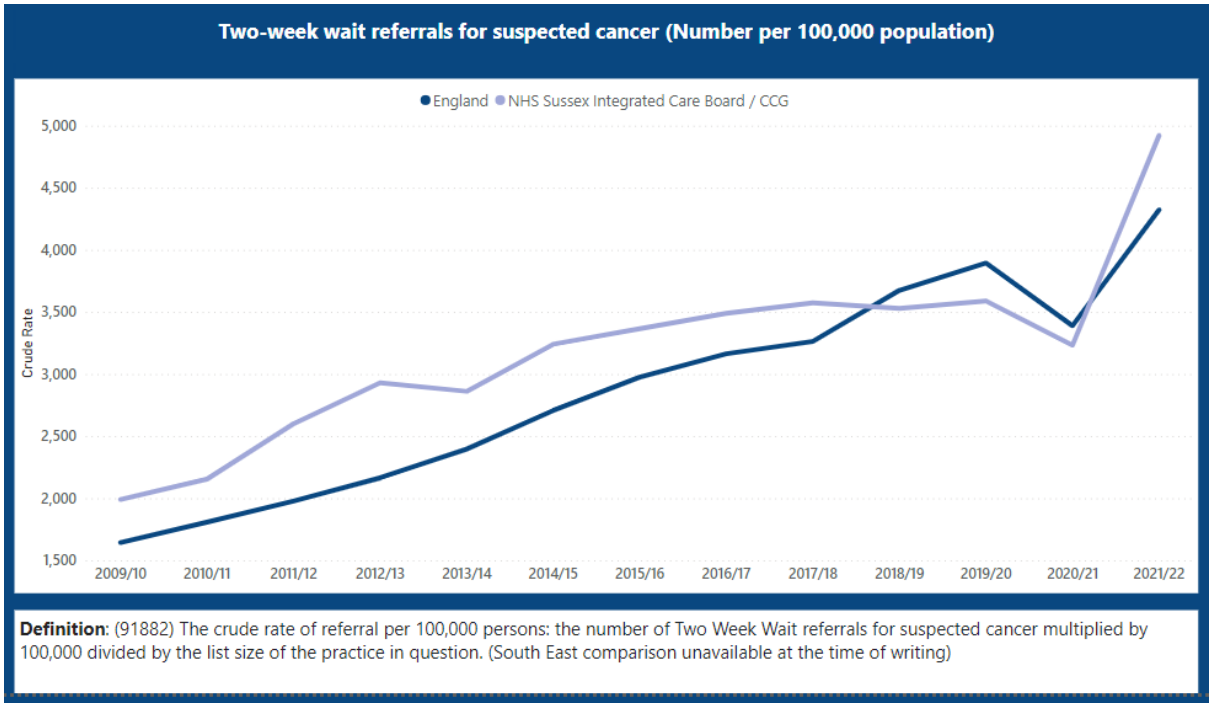
Source: [(276) Cancer: QOF prevalence (all ages)]

5. Referrals and diagnosis

5.1 Two week wait referrals

Brighton & Hove had a significantly higher rate of people referred onto the Two Week Wait Cancer pathway for diagnosis in 2021/22 than England, the South East and East and West Sussex (Figure 4).

Figure 2: Cancer 2 week wait referrals, rate per 100,000 people, Sussex ICB & England, 2009/10 to 2021/22



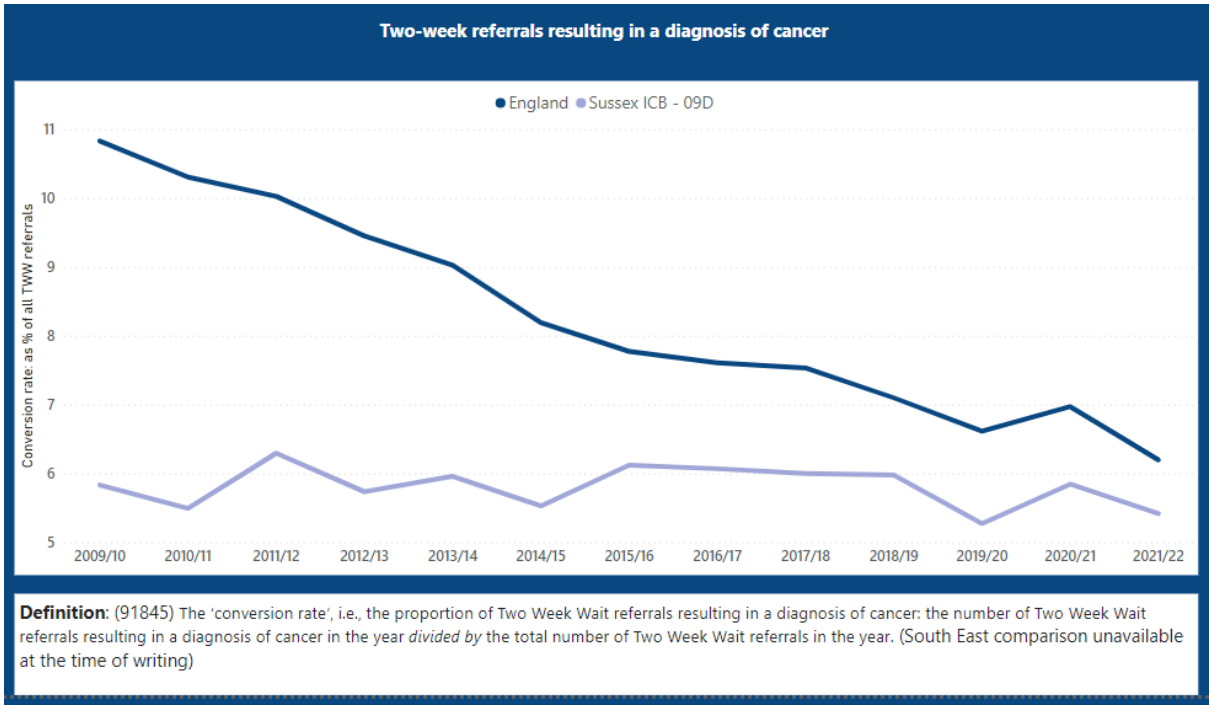
Source: [(91882) Two-week wait referrals for suspected cancer]

5.2 Two week wait referrals resulting in a diagnosis of cancer[29]

Brighton & Hove and all its PCNs had fewer referrals on the Two Week Wait pathway resulting in a cancer diagnosis in 2021/22, than England, the South East and East and West Sussex. (Figure 5).

[29] Two Week Wait data for specific cancers including: breast, lower GI, lung and skin is also available from: OHID 2023 online Cancer Services

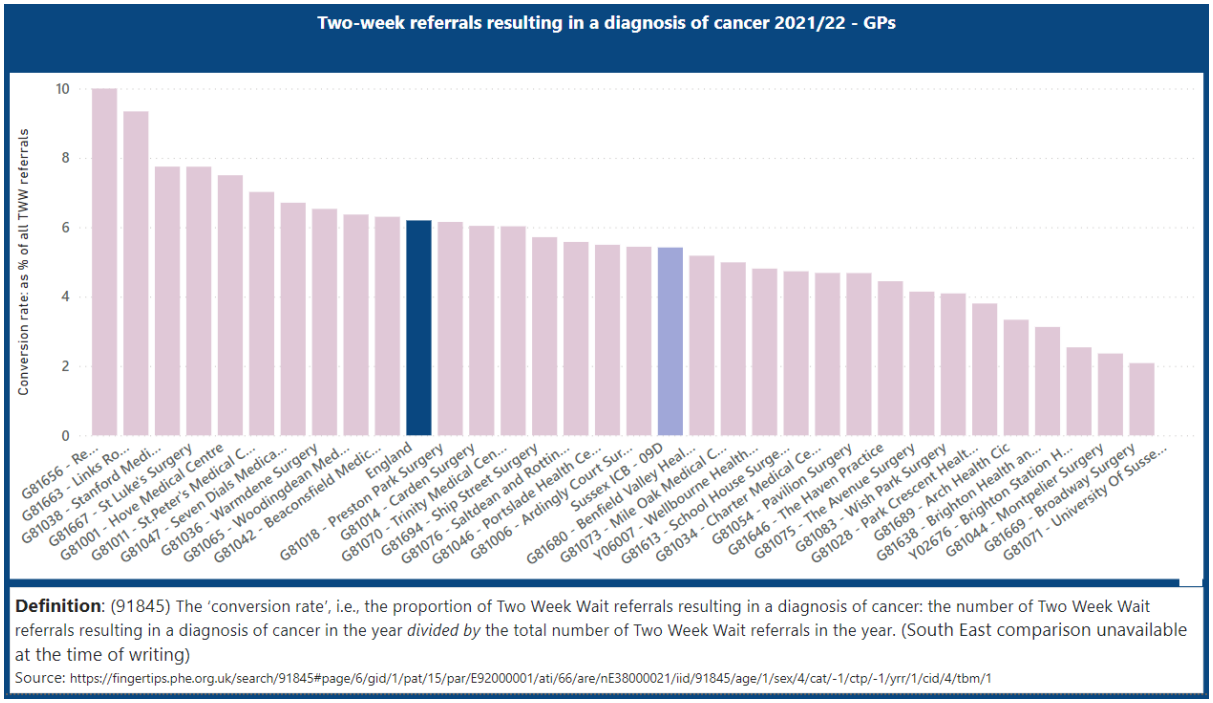
Figure 3: Percentage of Two-week referrals resulting in a diagnosis of cancer, Sussex ICB & England, 2009/10 to 2021/22



Source: [(91845) Two-week referrals resulting in a diagnosis of cancer]

Figure 6 shows the percentage of Two-week referrals resulting in a diagnosis of cancer, in Brighton & Hove GPs i.e. the conversion rates, and these vary greatly between practices from 2% to 10%.

Figure 4: Percentage of Two-week referrals resulting in a diagnosis of cancer, Brighton & Hove GPs, Sussex ICB & England, 2021/22

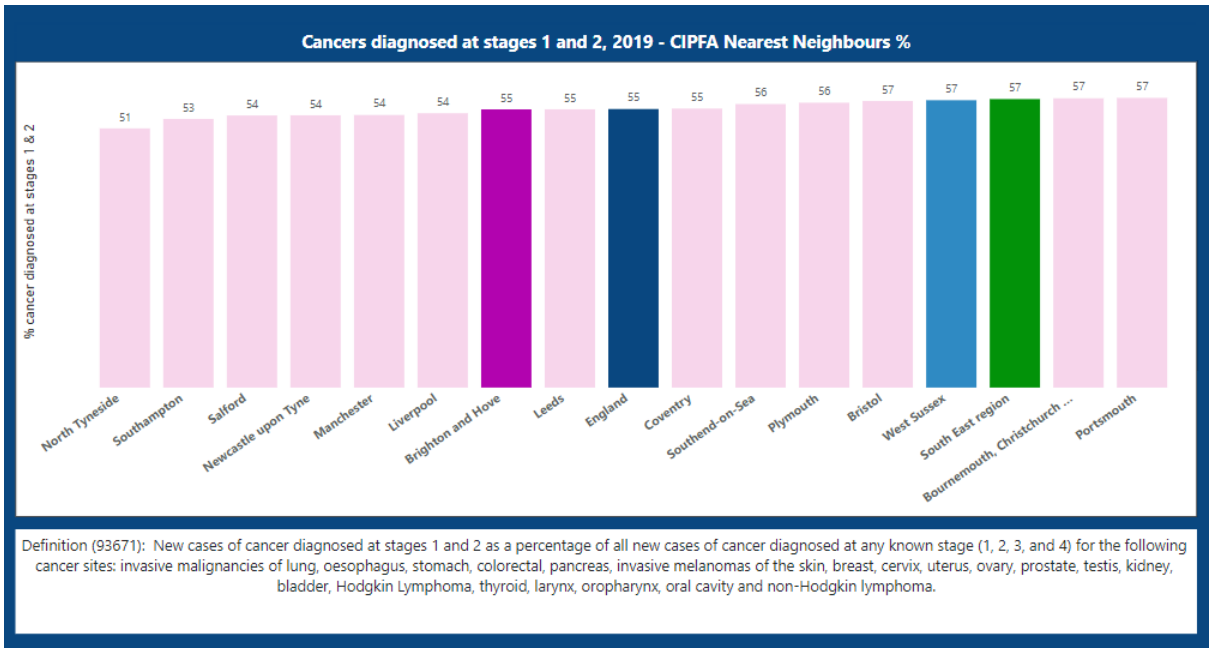


Source: [(91845) Two-week referrals resulting in a diagnosis of cancer]

5.3. Stage of diagnosis

Figure 7 shows the percentage of cancers diagnosed at stages 1 & 2. Brighton & Hove had a similar proportion of cancers diagnosed early – that is at Stages 1 and 2 - in 2019 to England. The South East and half of the CIPFA comparators had slightly higher proportions. It is key that cancers are diagnosed at the earliest stages for the best possible health outcomes.

Figure 5: Percentage of cancers diagnosed at stages 1 & 2, Brighton & Hove CCG, West Sussex, South East & CIPFA comparators, 2019



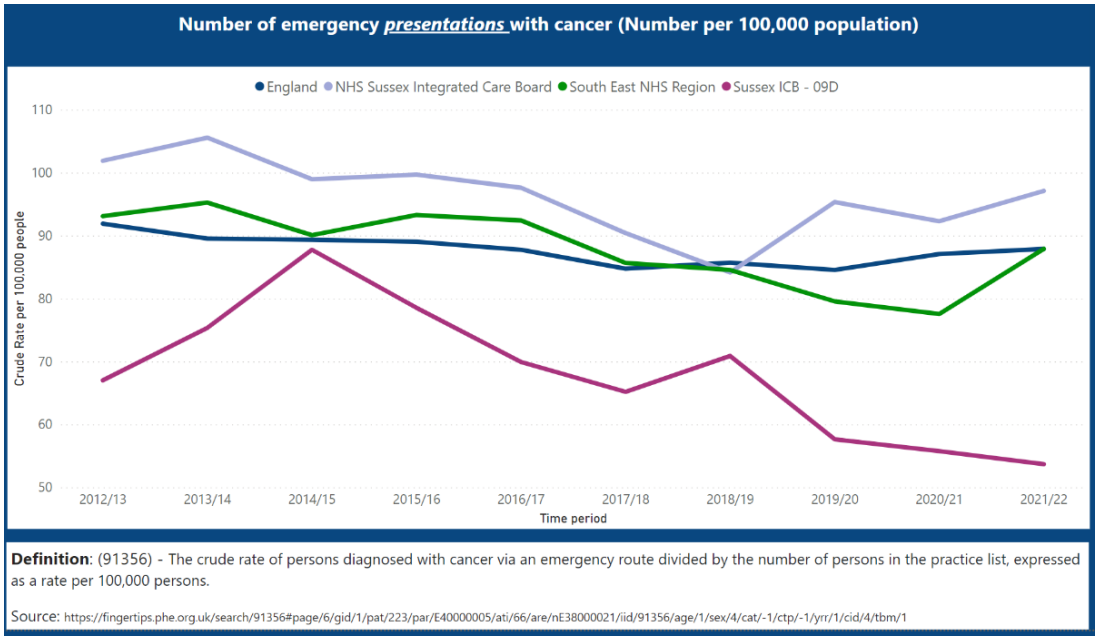
Source: [(93671) Percentage of cancers diagnosed at stages 1 and 2]

8. Emergency presentations and admissions

8.1 Emergency presentations with cancer 2021/22

Brighton & Hove had fewer emergency presentations for cancer in 2021/22 than England, the South East, and Sussex (Figure 26). This indicates that some cancers are going undiagnosed at an earlier stage. Receiving an initial cancer diagnosis as an emergency presentation, reduces treatment options and health outcomes.

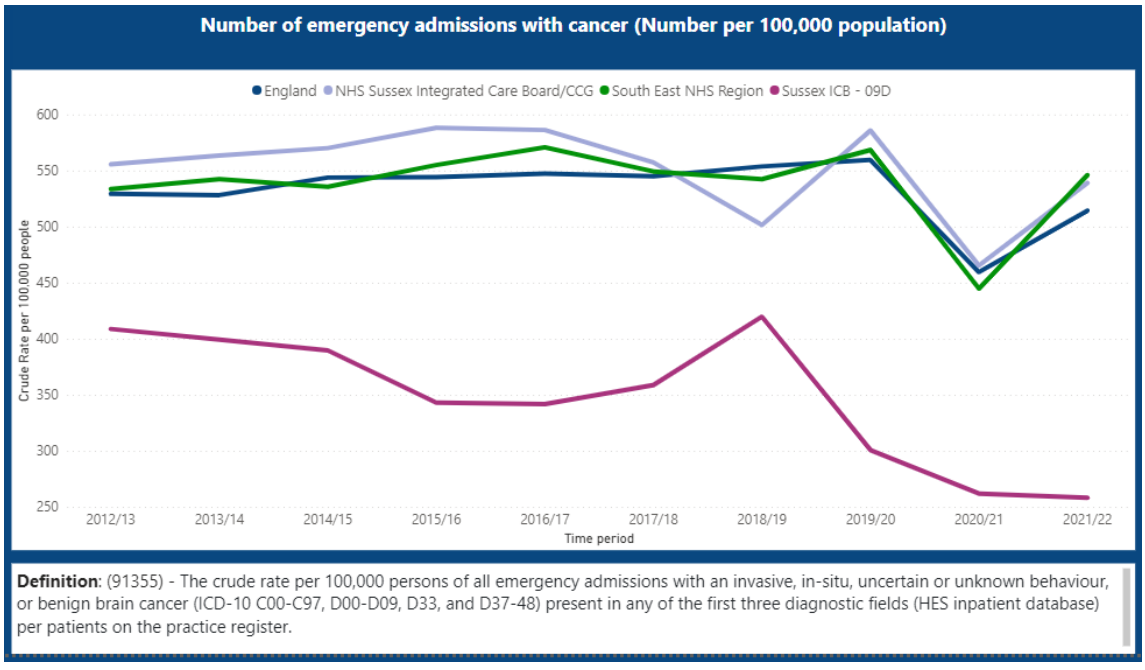
Figure 26: Number of emergency presentations with cancer (per 100,000 population), Brighton and Hove, NHS Sussex ICB, South East & England, 2012/13 to 2021/22



8.2 Emergency admissions with cancer 2021/22

Emergency admissions for people with cancer, some of whom will already have a diagnosis, are lower for Brighton and Hove higher than Sussex, the South East and England as is shown in Figure 27.

Figure 27: Number of emergency admissions with cancer (per 100,000 population), Brighton and Hove, NHS Sussex ICB, South East & England, 2012/13 to 2021/22



Source: [(91355) Emergency admissions with cancer (Number per 100,000 population)]

The higher rates for NHS Sussex as a whole for both indicators reflects the older age populations of East and West Sussex.

7. Screening: cervical, breast, bowel

7.1 What is screening?

Screening refers to the testing of an asymptomatic population in order to detect disease at an early stage and improve the likelihood of successful treatment.

There are currently three cancer screening programmes in the UK:

- Breast screening – offered to people with breast tissue [1] aged 50<71 in the UK. Saves 1300 lives per year nationally
- Cervical screening – is offered to people with a cervix aged 25-64 in the UK and saves around 5,000 lives nationally per year [2]
- Bowel screening – offered to people starting between the ages of 50-60 up to 74 in England. Regular screening reduces the risk of dying from bowel cancer by up to 25%, saves around 2,400 lives nationally per year.

Brighton & Hove has lower coverage rates for all three programmes than the South East and England. It also has lower coverage rates than other parts of Sussex and Surrey, apart from for breast cancer screening.

There is a link between deprivation and cancer screening uptake, with those from the most deprived areas least likely to access screening. This difference is seen at every point of the screening pathway and national and local programmes exist to address these inequalities.[30] Examples of local initiatives to address low uptake are in Appendix 1.

7.2 Cervical screening

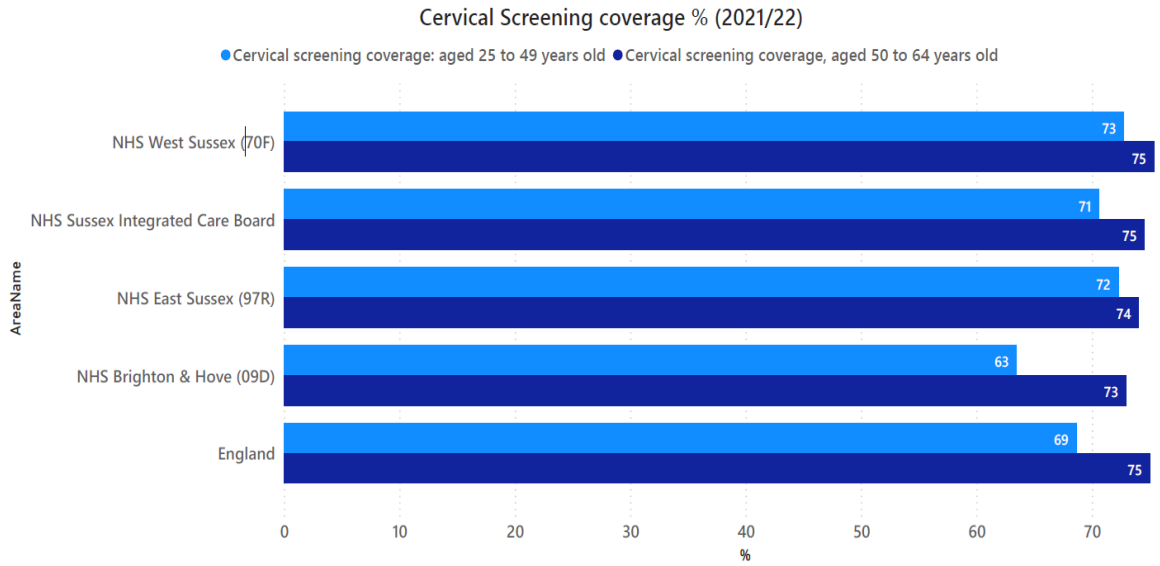
The national programme has a target of 80% for cervical screening and is managed by General Practice and not by a separate provider. Some PCNs are undertaking delivery across their PCN and others are supported by the activity taking place within commissioned sexual health clinics.

The proportion attending in Brighton & Hove (63%) is lower than England (69%), the South East (70.3%) and East & West Sussex (72%).

Figure 15 shows that compared to elsewhere in Sussex, Brighton and Hove coverage is noticeably less in the 25-49 age group at 63%, compared to 73% in 50-64 years.

[1] This includes women, some transgender women, some transgender men and non-binary people. When notified, the screening programme will cease to invite those who have had a total bi-lateral mastectomy.
[2] This includes women, some transgender men and non-binary people. When notified, the screening programme will cease to invite those with no cervix.
[30] NHSEI PHE Screening inequalities strategy 2020. Available at: PHE Screening inequalities strategy - GOV.UK (www.gov.uk) and https://www.gov.uk/government/collections/nhs-population-screening-access-for-all

Figure 15: Cervical Screening coverage % 2021/22 for ages 25-49 and 50-64

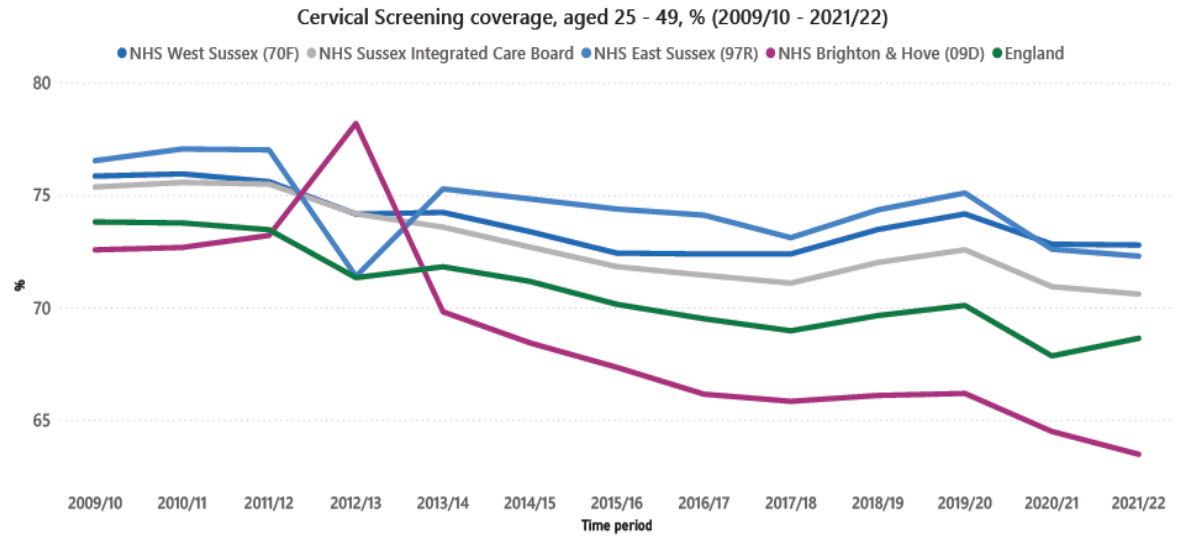


Definition: (93725)	Definition: (93726)
The overall cervical screening coverage: the number of persons registered at the practice screened adequately in the previous 42 months (aged 25-49) divided by the number of eligible persons on last day of review period (aged 25-49).	The overall cervical screening coverage: the number of persons registered at the practice screened adequately in the previous 66 months (aged 50-64) divided by the number of eligible persons on last day of review period (aged 50-64).

Source: https://fingertips.phe.org.uk/

There has been a downward trend in persons aged 25-49 years attending cervical screening since 2010, (excepting 2012/13) and since 2020 the gap with England and the rest of Sussex has increased, especially in the 25-49 age group (Figure 16 and 17) . Over the last 10 years uptake has decreased by 10% in the 25-49s and by 5% in the 50-64s.

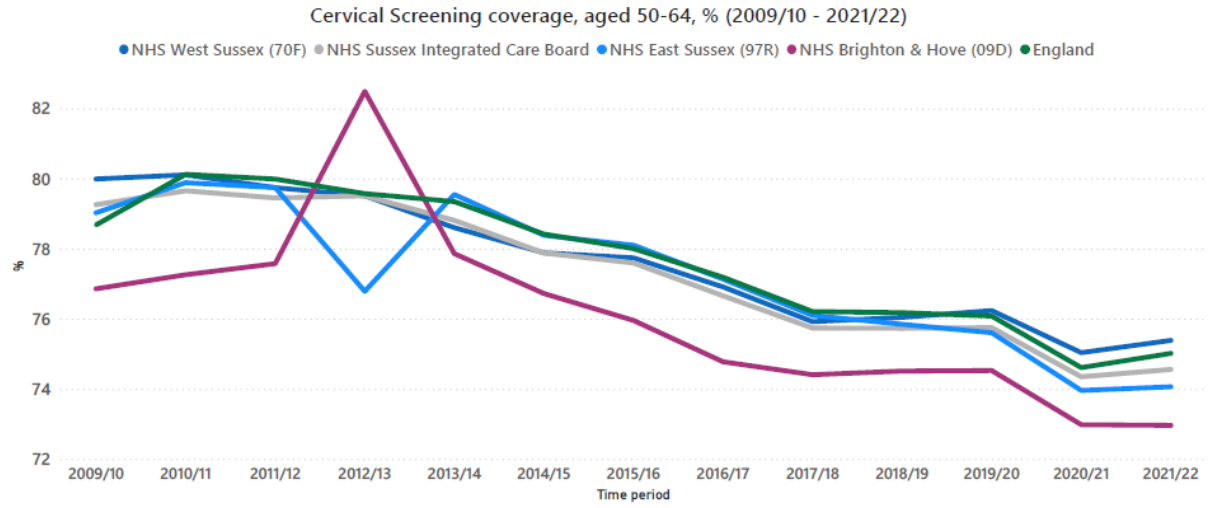
Figure16: Trends in Cervical screening coverage 25-49 (2009/10-2021/20)



Definition: (93725)
The overall cervical screening coverage: the number of persons registered at the practice screened adequately in the previous 42 months (aged 25-49) divided by the number of eligible persons on last day of review period (aged 25-49).

Source: https://fingertips.phe.org.uk/

Figure17: Trends in Cervical screening coverage 50-64 (2009/10-2021/20)

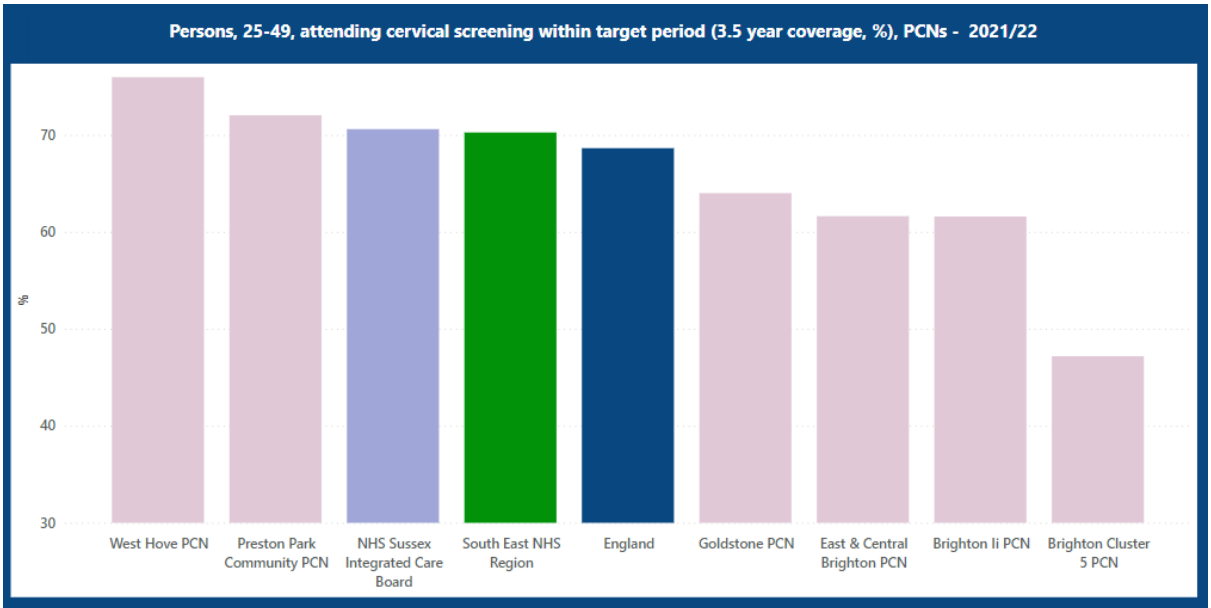


Definition: (93726)
The overall cervical screening coverage: the number of persons registered at the practice screened adequately in the previous 66 months (aged 50-64) divided by the number of eligible persons on last day of review period (aged 50-64).

Source: https://fingertips.phe.org.uk/

West Hove PCN had the highest proportion of persons aged 25-49 attending for cervical screening (76%) and North and Central (PCN5) lowest at 47.2%, potentially an effect of the younger student population registered (Figure18).

Figure 186: Percentage of Persons (25-49 yrs), with a record of cervical screening in the last 3.5 yrs, Brighton & Hove PCNs, Sussex ICB, South East & England, 2021/22

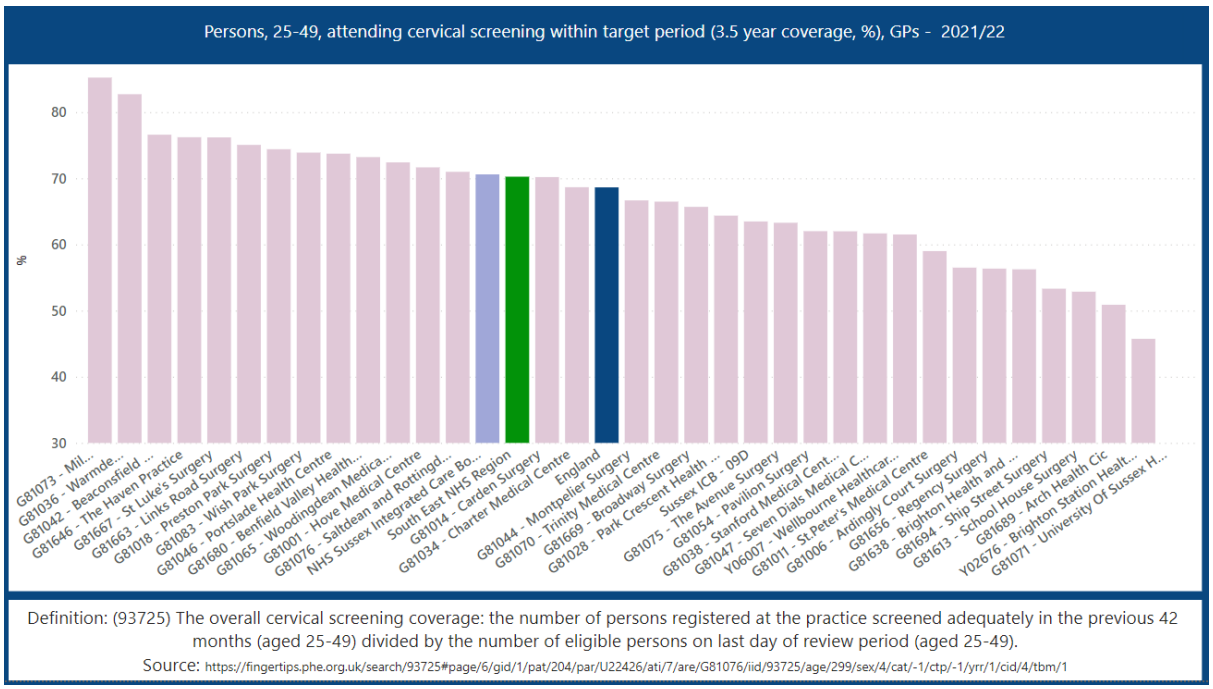


Definition: (93725) The overall cervical screening coverage: the number of persons registered at the practice screened adequately in the previous 42 months (aged 25-49) divided by the number of eligible persons on last day of review period (aged 25-49).

Source: [(93725) Cervical screening coverage: aged 25 to 49 years old]

Figure 19 shows coverage over the 3.5 year period by general practice with notable variations from 85% to 21% the latter practice an effect of patient age profile.

Figure 79: Percentage of Persons (25-49 yrs), with a record of cervical screening in the last 3.5 yrs, Brighton & Hove GPs, Sussex ICB, South East & England, 2021/22



Source: [(93725) Cervical screening coverage: aged 25 to 49 years old]

In 2020 the incidence rate per 100,000 of cervical cancer in Brighton & Hove was 13.2 (n=18), higher than East Sussex (9.0) and England (8.5) and West Sussex (9.8).[31]

It is estimated that screening currently saves approximately 4500 lives a year nationally and prevents 70% cervical cancer diagnoses. [32] [33]

In 2020 the Brighton & Hove cervical cancer mortality rate was 3.6 per 100,000 (n=5), compared to East Sussex at 2.6 and West Sussex at 3.3.[34]

However, if everyone attended screening regularly 82.9% of deaths could be prevented.[35]

7.3 Breast screening

The national programme for breast screening invites eligible people for a mammogram from the age of 50 up to their 71st birthday every three years. People are invited before their 53rd birthday. Coverage data is for the 53 – 70 year old age group. Eligible people

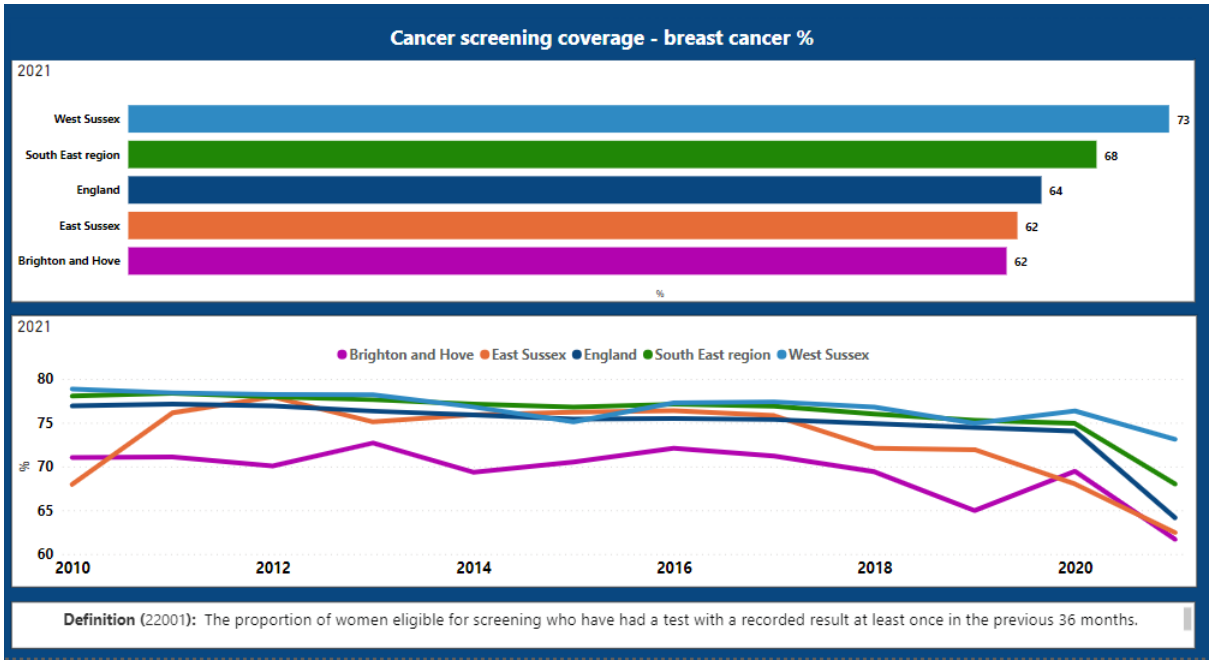
[31] An incident case of cancer is a new case of cancer, counted once when the cancer is diagnosed. This is the rate per 100,000 population with age standardisation applied. Data available from:: https://www.cancerdata.nhs.uk/incidence_and_mortality
[32] OHID fingertips data definitions. Available from: Public health profiles - OHID (phe.org.uk)
[33] Jo's Cervical Cancer Trust 2023.[Accessed 30/01/2023]. Available from: https://www.jostrust.org.uk/information/cervical-screening
[34] Cancer Data 2023. NHS Digital. Incidence and Mortality [accessed 30/01/2023]. Available from: https://www.cancerdata.nhs.uk/incidence_and_mortality
[35] Impact of cervical screening on cervical cancer mortality: estimation using stage-specific results from a nested case–control study. British Journal of Cancer volume 115, pages1140–1146 (2016)

over 71 years are not routinely invited but can request a mammography screening. The target is 70% coverage.

Brighton & Hove experienced an upward trend in breast screening coverage in 2020, this dipped in 2021 due to the impact on services of the Covid-19 pandemic. In 2021, 61.7% of those eligible had a test recorded in the last 3 years, this was lower than East Sussex (62%), West Sussex (73%), the South East (68%) and England (64%) (Figure 20)

Although 2020 had seen an upward trend, there were still a lower proportion of eligible people in Brighton & Hove with a screen recorded in the last 3 years than many other areas in the South East and lower than England. This is shown in the below graph (Figure 20).

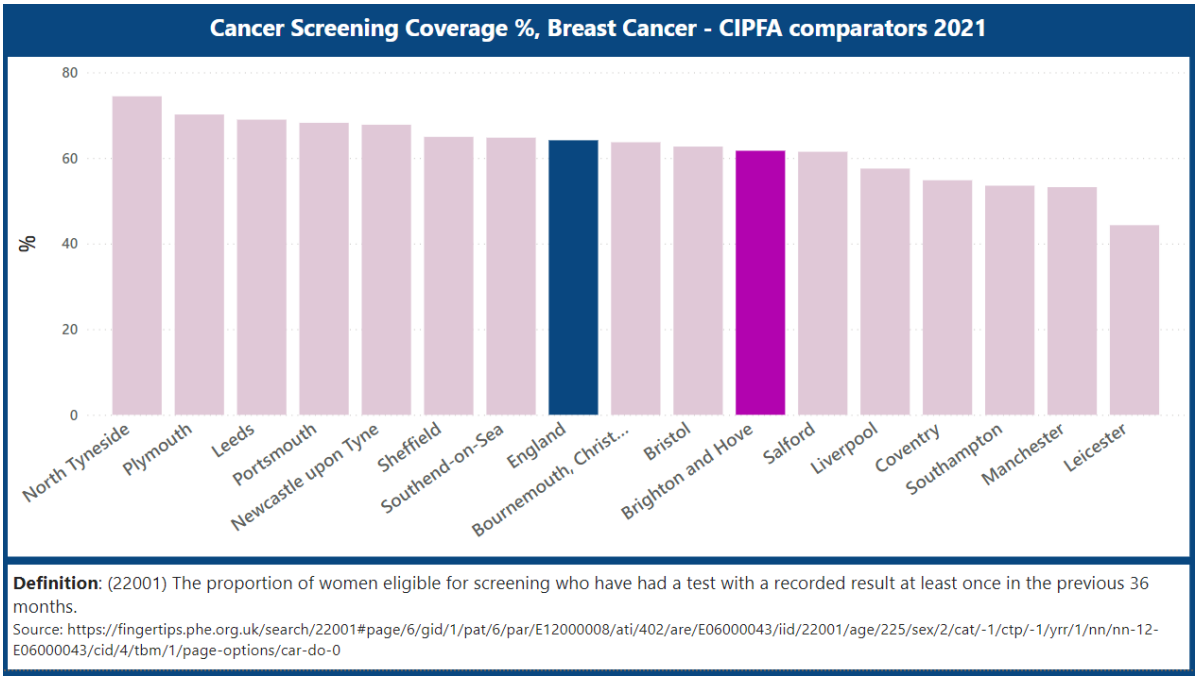
Figure 20: Percentage of people, with a record of breast screening in the last 36 months, Brighton & Hove CCG, East & West Sussex, South East & England, 2021 and trends from 2010 to 2021



Source: (22001) Cancer screening coverage: breast cancer

Brighton & Hove breast screening uptake was in the lower third of its CIPFA comparators, in 2021 (Figure 21)

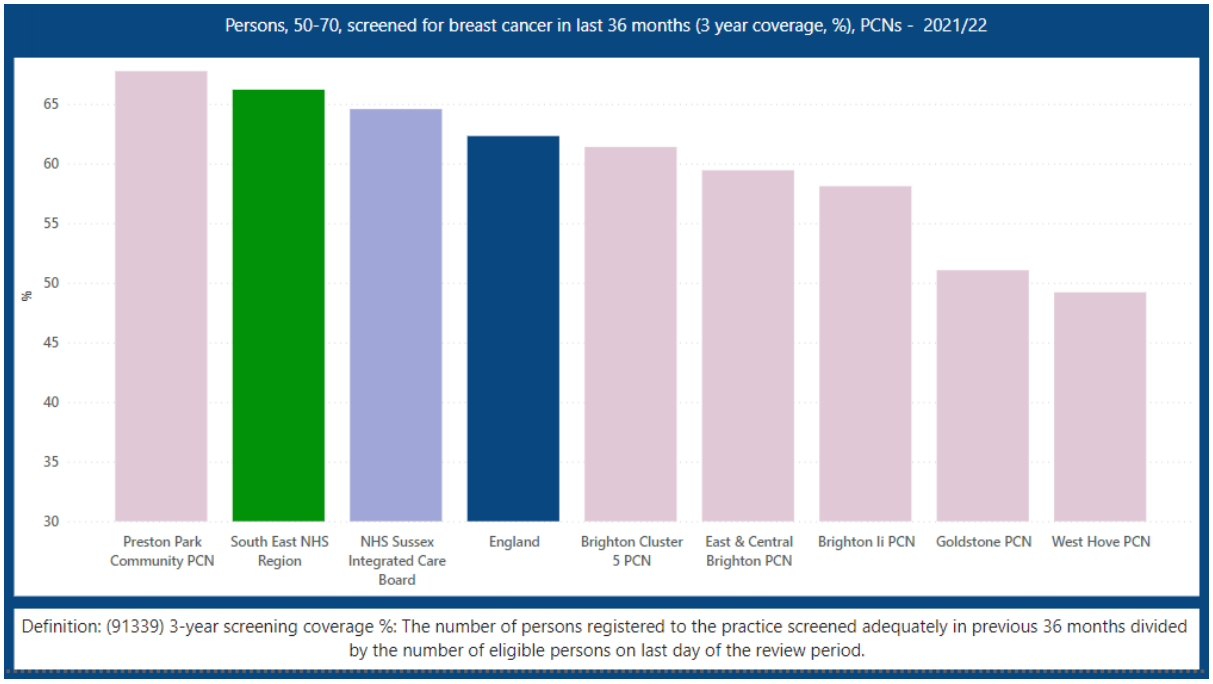
Figure 21: Breast cancer coverage% - CIPFA comparators 2021



Source: [Public health profiles - OHID (phe.org.uk)]

Figure 22 shows that four of the five PCNs in Brighton & Hove have breast screening levels below the England average (64%).

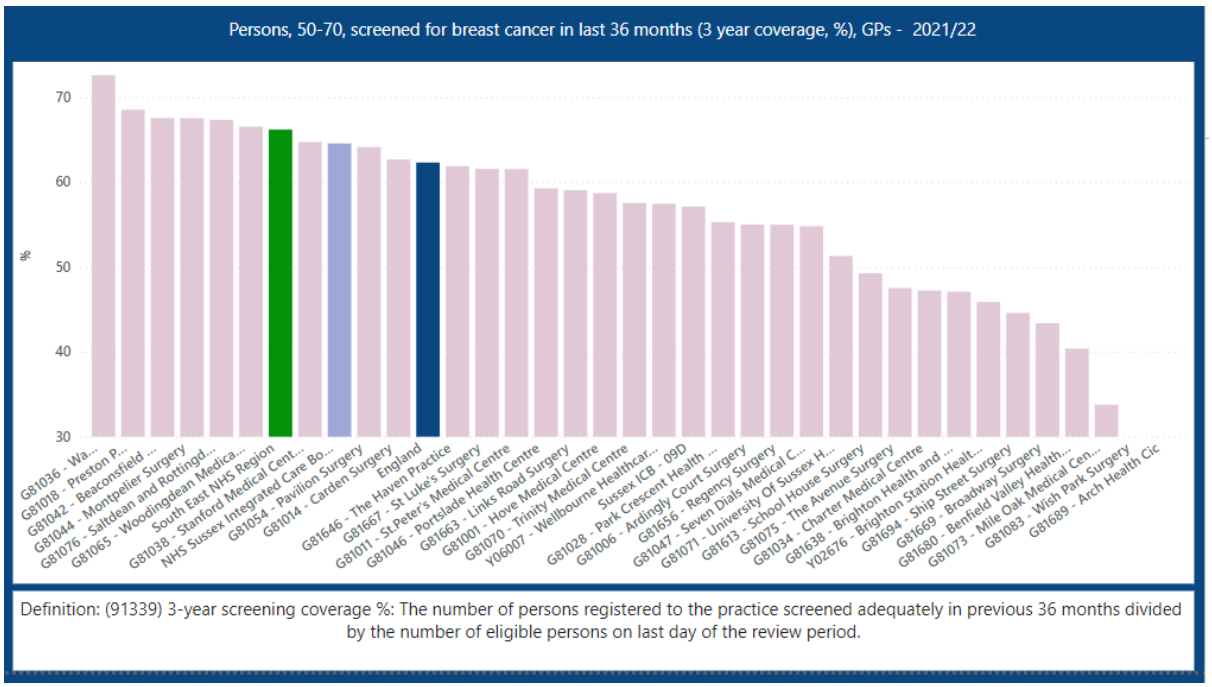
Figure 8: Percentage of People (50 to 70 yrs), with a record of breast screening in the last 36 months, Brighton & Hove PCNs, Sussex ICB, South East & England, 2021/22



Source: [(91339) Breast screening coverage: aged 50 to 70 years old]

Breast Screening records vary greatly across general practices from 23.8% to 72.6% reflecting practice demographic, deprivation and ease of access to the screening centre (Figure 23).

Figure 23: Percentage of People (50 to 70 yrs), with a record of breast screening in the last 36 months, Brighton & Hove GPs, Sussex ICB, South East & England, 2021/22



Source: **(91339)** Breast screening coverage: aged 50 to 70 years old

Breast cancer incidence rates for Brighton & Hove at 137 (per 100,000) are lower than East Sussex (142) and West Sussex (155.7) in 2020.[36] Over 80% of breast cancers are diagnosed early at stages 1 and 2.[37]

In a 2021 England-wide case-control study, mammography screening plays an important role in lowering the risk of dying from breast cancer by 38%. With those aged 65 years or over seeing a stronger and longer lasting benefit of screening compared to younger people.[38] When looking at annual data it should be noted that breast screening is operated on a 36 month round length i.e. the interval between the date of a person's previous screening mammogram and the date of their next first offered appointment. When reviewing performance data, the position in the current round may negatively identify localities where screening has not yet begun.

In 2020 in Brighton & Hove the mortality rate for breast cancer was 34.7 per 100,000 (n=39), lower than both East Sussex at 35/100,000 and West Sussex at 36/100,000.

7.4 Bowel screening

The national programme for bowel cancer screening invites everyone between the ages of 60 and 74 to take a Faecal Immunochemical test (FIT) test at home every

[36]Cancer Data 2023. NHS Digital. Incidence and Mortality [accessed 08/072022]. Available from: https://www.cancerdata.nhs.uk/incidence_and_mortality

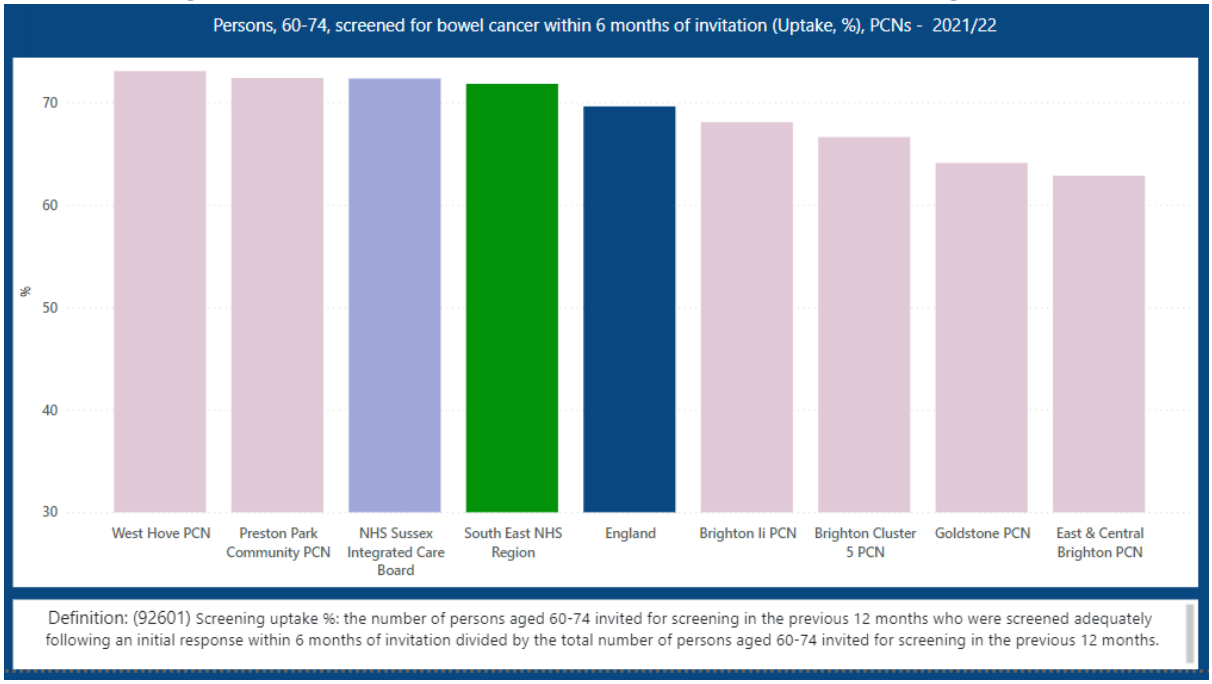
[37] Cancer Data 2023. NHS Digital. Stage at Diagnosis [accessed 08/07/2022]. Available from: https://www.cancerdata.nhs.uk/stage_at_diagnosis

[38]A case-control study to evaluate the impact of the breast screening programme on mortality in England 2020. Roberta Maroni, Nathalie J. Massat, Dharmishta Parmar, Amanda Dibden, Jack Cuzick, Peter D. Sasieni & Stephen W. Duffy; British Journal of Cancer volume 124, pages736–743 (2021) [accessed 08/07/2022].Available from: https://www.nature.com/articles/s41416-020-01163-2

two years (biennial).[39] The age range is lowering in a phased approach to those over the age of 56 years during 2022. The target is 60% of patients to complete the test, which was met in 2020 in Brighton & Hove.

As described in Figure 24 below, West Hove PCN had the highest uptake of bowel cancer screening in the city in 2021/22 (73.1%), higher than England (69.6%). East & Central Brighton PCN had the lowest uptake (62.9%). Further analysis is included in section 9.

Figure 24: Percentage of people with a record of bowel screening in the last 12 months, Brighton & Hove PCNs, Sussex ICB, South East & England, 2021/22



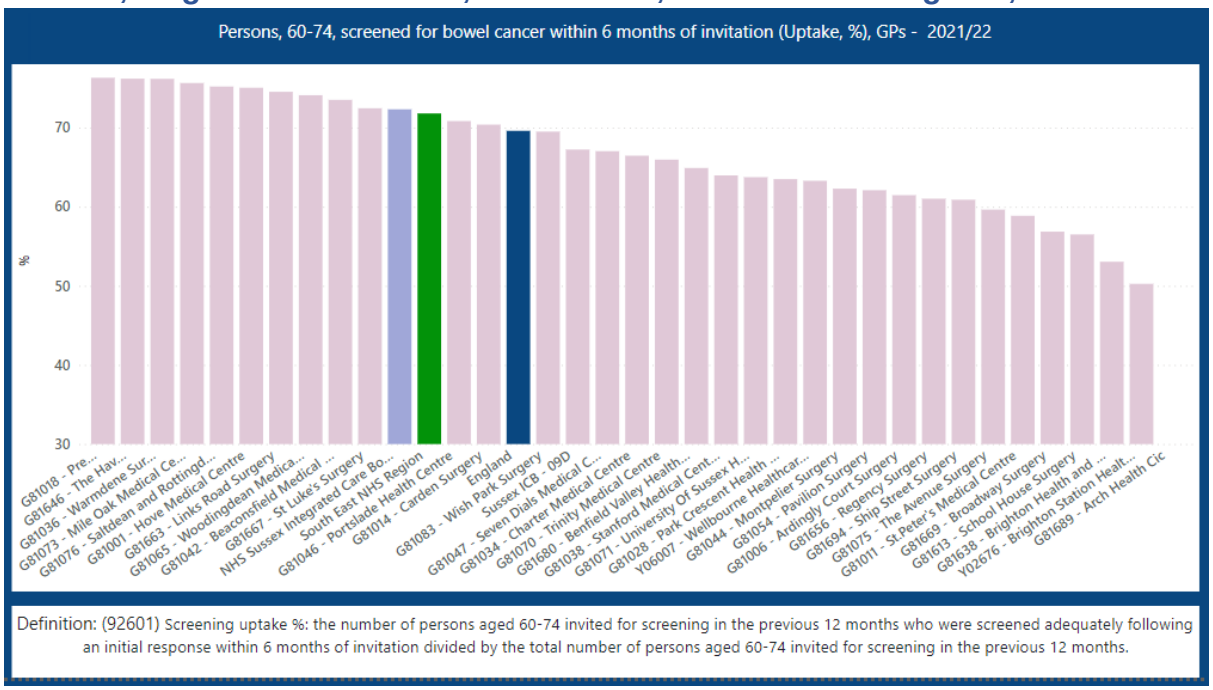
Source: [(92601) Bowel cancer screening uptake: aged 60 to 74 years old]

Figure 25 shows the percentage of people with a record of bowel screening in the last 12 months across the general practices and there is wide variation from 50.3% to 76.3%, excluding an outlier at 27.7% as this practice works mostly with the very vulnerable, homeless and travellers.

Over the last 6 years, bowel screening uptake has increased by nearly 10%, with a marked improvement since the introduction of the simpler FIT test. [40]

[39] The FIT test replaced the Faecal Occult Blood test (FOBt) which may be referenced in earlier data sets
[40] Surrey and Sussex Public Health Screening and Immunisation Team Screening performance report Oct 2022

Figure 95: Percentage of people with a record of bowel screening in the last 12 months, Brighton & Hove GPs, Sussex ICB, South East & England, 2021/22



Source: [(92601) Bowel cancer screening uptake: aged 60 to 74 years old]

In 2020 the age standardised incidence rate of bowel cancer in Brighton & Hove is 67.5 per 100,00 (n=149), this is higher than England (63.3) and East Sussex (58.6) and lower than West Sussex (67.9).[41]

The estimated incidence reduction for biennial FIT screening is 1 per 1,000 individuals.[42]

The age standardised morbidity rate from Bowel cancer in Brighton and Hove is 24.1 per 100,000 (n=51), lower than England (27.2), East (25.4) and West Sussex (26.3)[43].

7.5 National Targeted Lung Health Checks screening (TLHC)

Brighton & Hove is taking part in the third wave of the National Targeted Lung Health Checks Programme. This programme targets high risk people, aged 55 to 74 years, who may not yet have symptoms and offers an assessment, and where appropriate, a computerised tomography (CT) scan.

The age standardised lung cancer incidence rate in 2020 for Brighton & Hove is 68.4 per 100,000, similar to England at 68.7, East Sussex (56) and West Sussex (52.8)

[41] Cancer Data 2023. NHS Digital. Incidence and Mortality [accessed 08/072022]. This data set defines bowel cancer as Malignant neoplasm of colon and rectum, Bowel cancer affects the large bowel, which is made up of the colon and rectum and also called colorectal cancer. Available from: https://www.cancerdata.nhs.uk/incidence_and_mortality.

[42] Colorectal cancer screening with faecal immunochemical testing, sigmoidoscopy or colonoscopy: a microsimulation modelling study. BMJ 2019; 367 doi: https://doi.org/10.1136/bmj.l5383 (Published 02 October 2019) [accessed 08/07/2022]. Available from: https://www.bmj.com/content/367/bmj.l5383

[43]Cancer Data 2023. NHS Digital. Incidence and Mortality [accessed 08/072022]. Available from: https://www.cancerdata.nhs.uk/incidence_and_mortality

and all in the South East except Portsmouth (103).[44] Across all areas there is over a 10% difference between male and female rates.

In Brighton & Hove, based on 2019 data for 162 patients, 22% of lung cancers were diagnosed at stage 1 and 6% at stage 2, 18% were diagnosed at stage 3 and 43% at stage 4, and 11% with staging information missing.[45] The late stage of the diagnosis impacts on the survival rates.

6. Cancer risk factors and related cancers

Cancer Research UK estimates 38% of cancers may be preventable. Changes in health behaviour and environmental conditions can reduce the risk.[46] Examples of local initiatives to address risk factors are in Appendix 1. This JSNA has focussed on cancers addressed by the national screening programmes, those specifically related to the use of tobacco and alcohol, plus main cancer mortalities for the city. Risk factors related to food, diet, weight and physical activity are addressed in other JSNA summaries. Obesity, as the second highest risk factor for cancers to tobacco, needs separate focussed consideration.[47]

Figure 8 shows the proportional risks and protective factors, with smoking and (unhealthy) weight having the greatest impacts.

Figure 10: Cancer Research UK cancer risk and protective factors

Source: Statistics on preventable cancers | Cancer Research UK

[44]Cancer Data 2023. NHS Digital. Incidence and Mortality [accessed 08/072022]. Available from: https://www.cancerdata.nhs.uk/incidence_and_mortality

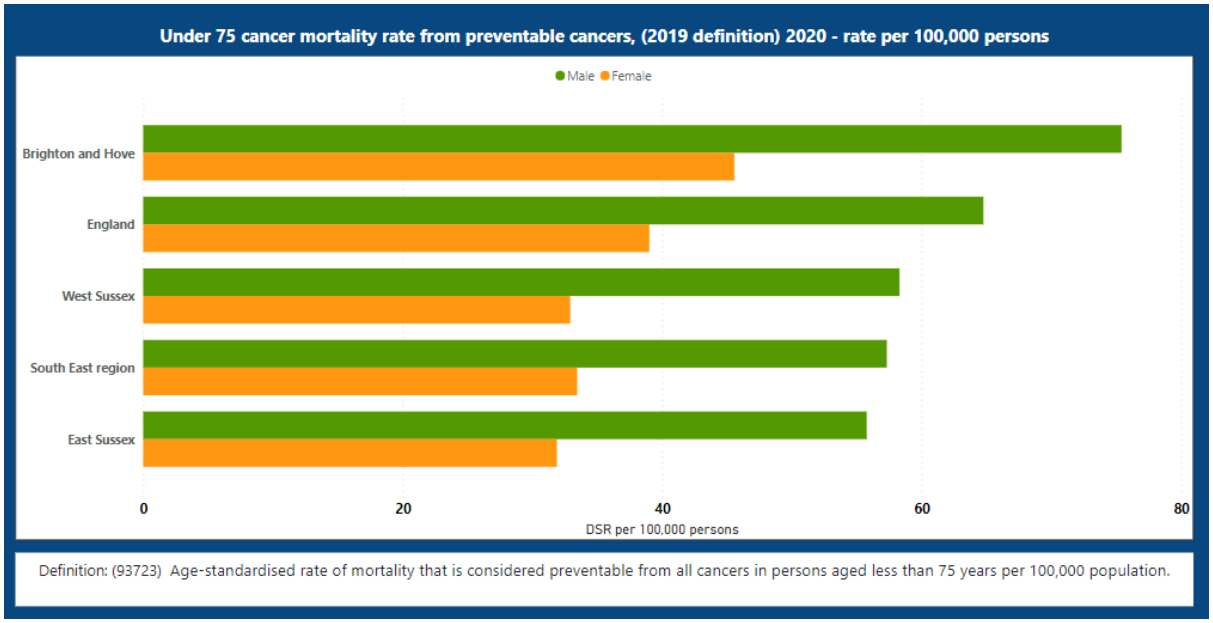
[45] Cancer Data 2023. NHS Digital. Incidence and Mortality [accessed 08/072022]. Available from: https://www.cancerdata.nhs.uk/incidence_and_mortality

[46]CRUK 2023.Preventable cancers by risk factors [accessed 30/01/2023]. Available from: https://www.cancerresearchuk.org/health-professional/cancer-statistics/risk/preventable-cancers#heading-Two

[47] Brighton and Hove City Council 2023.BHConnected summary JSNA healthy weight [accessed 31/01/2023]. Available from: https://www.brighton-hove.gov.uk/BHconnected-needs-assessments

Brighton & Hove had a higher mortality rate (60.4) for all persons under 75yrs for preventable cancer in 2020, than England (51.5) and the South East (45). The definition of preventable indicates that work can be done to reduce the risk factors. The city sits at the midpoint compared to its CIPFA nearest neighbours, where the range is from 52.2 to 77.7. However, there is a marked difference between the rates for males and females in England and the South East, but it is most significant in Brighton and Hove with males at 75.4 compared to females at 45.6 (Figure 9).

Figure 11: Under 75 mortality rate from cancer considered preventable by gender (age standardised per 100,000 people), comparison for Brighton & Hove, East & West Sussex, South East & England, 2020



Source: [(93723) Under 75 mortality rate from cancer considered preventable]

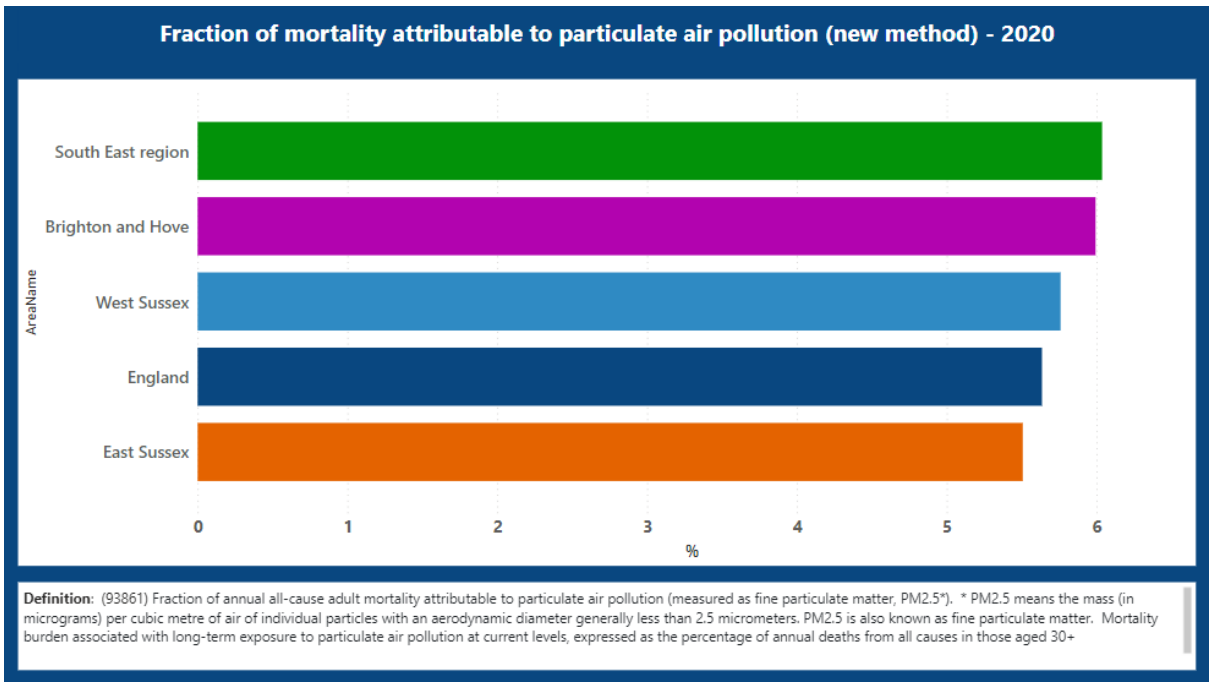
6.1 Air quality

Air quality is a significant public health issue and is an important aspect to consider within the context of cancer prevention and has a contributory role in overall mortality. [48] Figure 10 shows that Brighton and Hove and the South East (6%) have higher levels of mortality attributable to particulate air pollution than England as a whole (5.6%). Although air pollution can be harmful to everyone, it particularly affects people living in polluted areas, those who are exposed to higher levels of air pollution in their day to day lives, and those who are more susceptible to health problems caused by air pollution, thus widening health inequalities. [49]

[48] Gov.UK 2023. Guidance Improving outdoor air quality and health: review of interventions 2019. Available from: https://www.gov.uk/government/publications/improving-outdoor-air-quality-and-health-review-of-interventions
Air Pollution Evidence Review from Public Health England, 2019 Availbale from: https://www.gov.uk/government/news/public-health-england-publishes-air-pollution-evidence-review
Gov.UK 2023. Guidance Air pollution: applying All Our Health Updated 28 February 2022 [accessed 31/01/2023] Availble from: https://www.gov.uk/government/publications/air-pollution-applying-all-our-health/air-pollution-applying-all-our-health#the-health-impacts-of-air-pollution

[49] Gov.UK 2023 Guidance Health matters: air pollution 2018[accessed 30/01/2023]. Available from: https://www.gov.uk/government/publications/health-matters-air-pollution

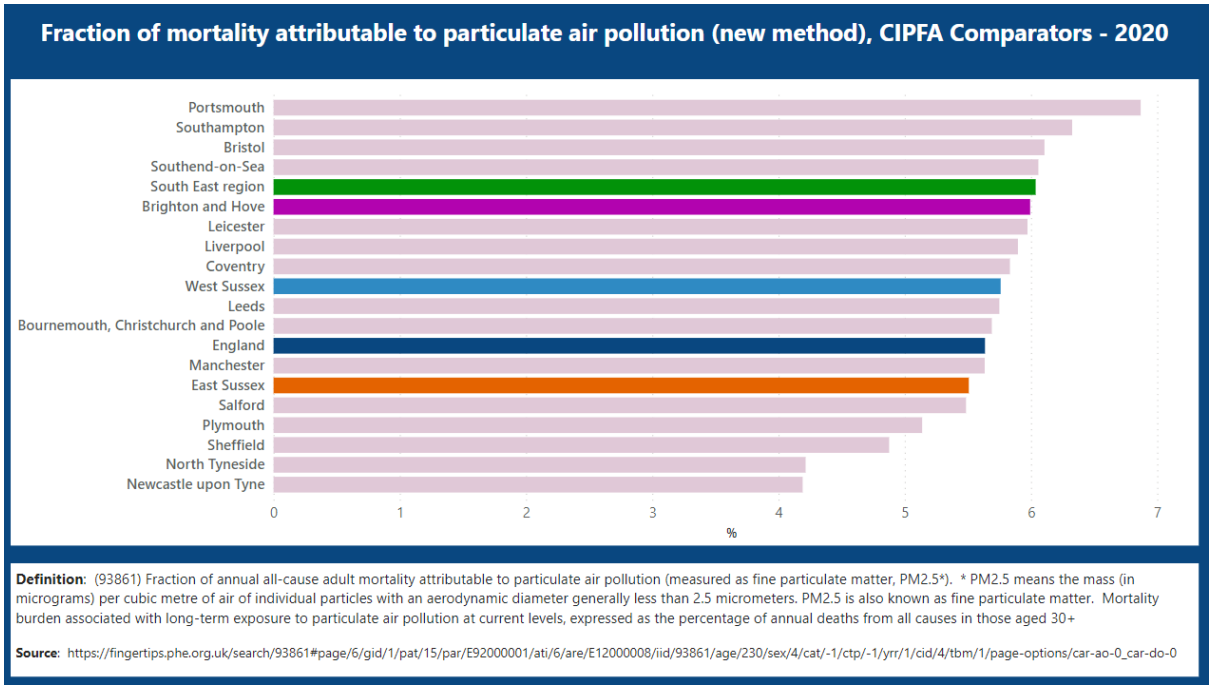
Figure 12: Percentage of mortality attributable to particulate air pollution, comparison for Brighton & Hove, East & West Sussex, South East & England, 2020



Source: [(93861) Fraction of mortality attributable to particulate air pollution]

Figure 11 compares Brighton and Hove to its CIPFA nearest neighbours some of which are also seaside urban environments, a better comparison than wider rural Sussex.

Figure 13: Percentage of mortality attributable to particulate air pollution, comparison for Brighton & Hove, East & West Sussex, South East, England and CIPFA comparators, 2020



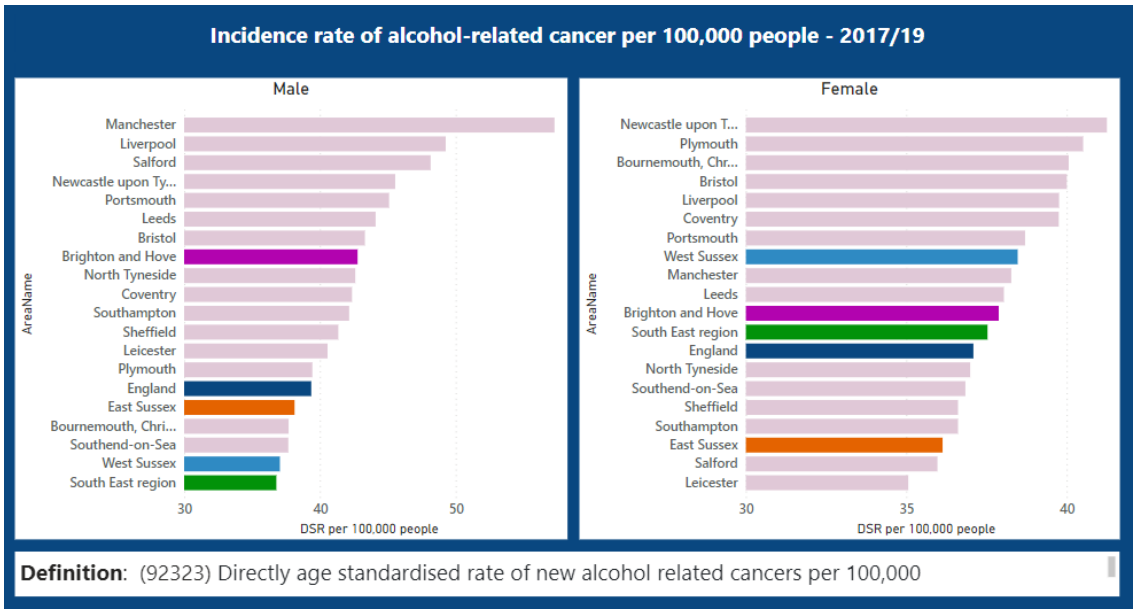
Source: [Fraction of mortality attributable to particulate air pollution]

6.2 Alcohol-related cancers

Alcohol consumption in Brighton and Hove is higher than the national average. Alcohol is classified as a Group 1 carcinogen that is causally linked to seven types of cancer, including oesophagus, liver, colorectal, and breast cancers. [50] Evidence is clear that even low levels of alcohol use can increase the cancer risk. [51] In 2017-2019 in Brighton & Hove, alcohol-related cancer incidence was higher amongst males than females. The male Direct Age Standardised Rate (DASR) was 43 per 100,000 people, higher than England (39), the South East (37) and eight nearest neighbours. For females the rate was 38 per 100,000, similar to England and the South East, and lower than nine of its nearest neighbours. (Figure 12)

Liver cancer is under consideration as part of the Sussex Liver Cancer Surveillance Pilot. Liver cancer incidence (11 per 100,000 people) is higher than the England average of 10, but mortality rates (9.5 per 100,000 people) are lower than England average 9.9. There are big differences in Liver cancer incident rates for males at 16.9, above England at 14.2. For females the incident rate is lower at 4.8 to England 6.5. Mortality rates, although lower than England, are very different for males 12.2 (England 13.2) and females 5.8 (England 7.1) [52]

Figure 14: Incidence rate of Alcohol Related Cancer for males & females, (Directly standardised per 100,000 people), comparison for Brighton & Hove CCG, East & West Sussex, South East, England and CIPFA comparators, 2017/19



Source: (92323) Incidence rate of alcohol-related cancer

[50] A review of human carcinogens—part E: tobacco, areca nut, alcohol, coal smoke, and salted fish Secretan B Straif K Baan R et al..Lancet Oncol. 2009; 10: 1033-1034 [Accessed 30/01/2023]

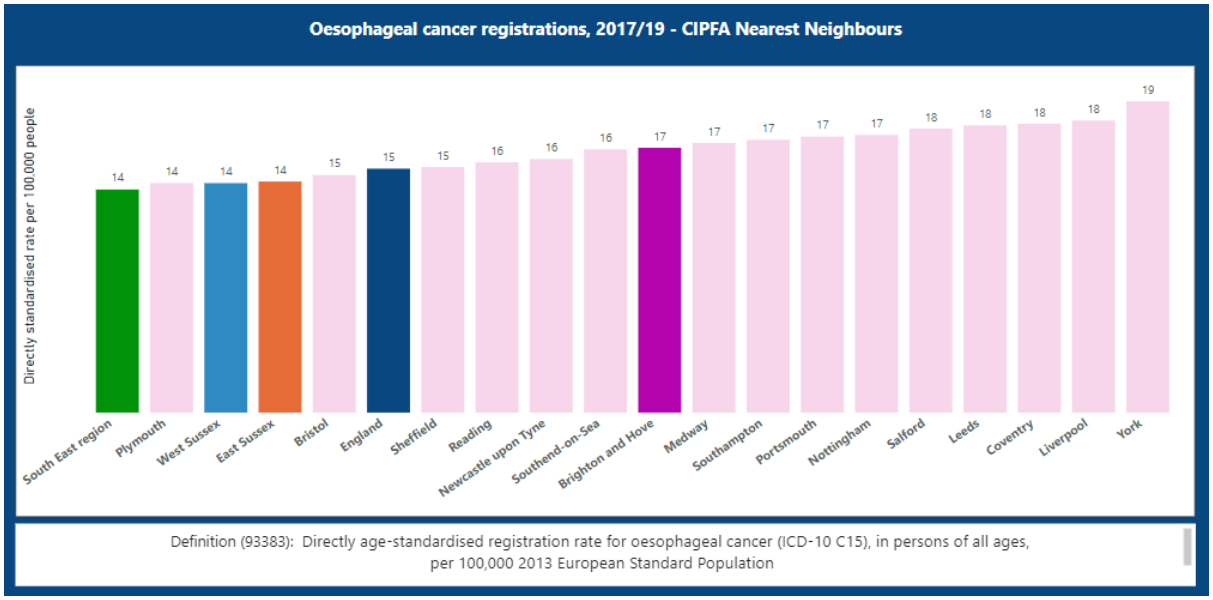
[51] Health and cancer risks associated with low levels of alcohol consumption. Benjamin O Anderson et al. Published:January, 2023 [accessed 30/01/2023] Available from: DOI:https://doi.org/10.1016/S2468-2667(22)00317-6

[52] Cancer Data 2023. NHS Digital. Incidence and Mortality [accessed 30/01/2023]. Available from: https://www.cancerdata.nhs.uk/incidence_and_mortality

6.3 Oesophageal cancer

Oesophageal cancer can be associated with smoking (34%) and drinking alcohol (13%). Cancer Research UK estimate 59% cases could be prevented.[53] In 2017-2019, the rate of oesophageal cancer registrations in Brighton & Hove was 17 per 100,000 people, this was higher than England (15) and the South East (14). (Figure 13).

Figure 15: Registrations of Oesophageal cancer, (Directly standardised per 100,000 people) comparison for Brighton & Hove CCG, East & West Sussex, South East, England and CIPFA comparators, 2017/19



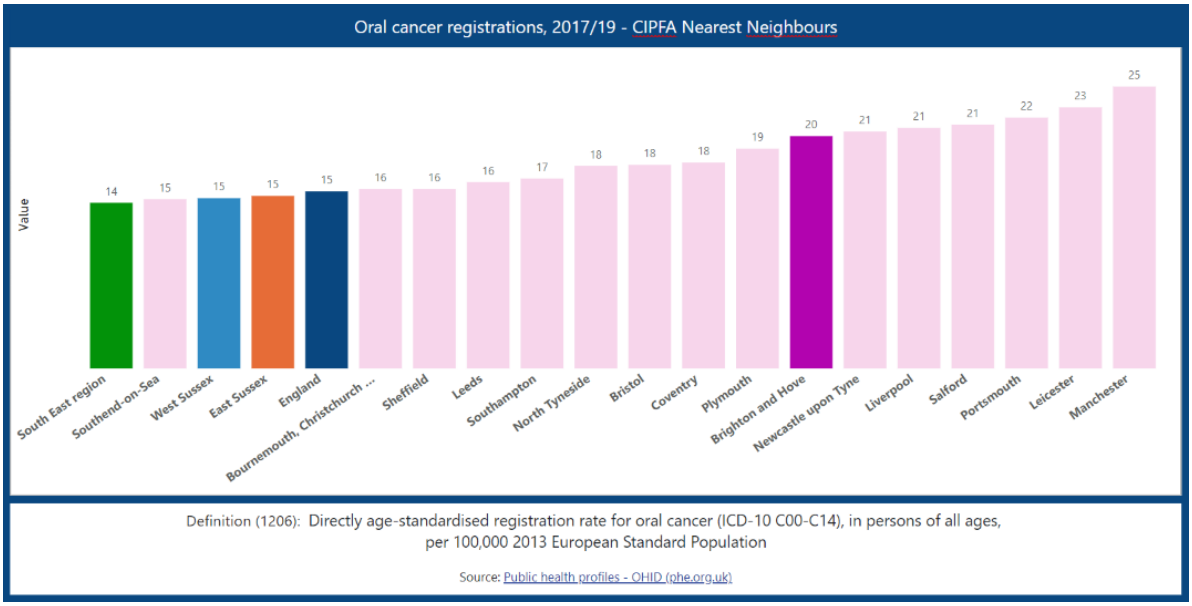
Source: [(93383) Oesophageal cancer registrations]

6.4 Oral cancer

Oral cancer can also be associated with tobacco use, alcohol consumption, sunlight and specific types of human papilloma virus (HPV).[54] Most oral cancers are triggered by tobacco and alcohol, which together account for 75% of cases.[55] There was an upward trend in oral cancer registrations since 2015/17. In 2017-2019 Brighton & Hove was in the second third of nearest neighbours for oral cancer registrations, with a rate of 20 per 100,000 people, higher than England (15) and the South East (14) (Figure 14).

[53] CRUK 2023.Cancer Research UK
[54] Department of Health and Social Care. Oral cancer Nov 2021 Available from: https://www.gov.uk/government/publications/delivering-better-oral-health-an-evidence-based-toolkit-for-prevention/chapter-6-oral-cancer#ref15
[55] Smoking and drinking in relation to oral and pharyngeal cancer. Blot WJ, McLaughlin JK, Winn DM et al Cancer Res 1988; 48: 3282-7

Figure 16: Registrations of Oral cancer, (Directly standardised per 100,000 people) comparison for Brighton & Hove CCG, East & West Sussex, South East, England and CIPFA comparators, 2017/19



Source: (1206) Oral cancer registrations

9. Inequalities

Cancer data is mostly only available by age and gender (female/male only), some analysis includes ethnicity and deprivation. There is a paucity of data capturing cancer screening, incidence and mortality by other protected characteristics.

Inequalities in the experience of cancer manifest themselves at any point and is especially evident in the screening programmes;

- screening cohort identification and invitations may exclude certain groups such as those not registered with a GP, trans people, or those with differing literacy
- provision of appropriate and accessible information about signs and symptoms, and the screening programmes
- access to screening services – in terms of both suitability and practicality
- differences in help seeking behaviour
- access to a GP, and further diagnostics
- accessible information about, and access to, treatment
- supportive onward referrals
- support for those living with and beyond cancer
- health outcomes.

9.1 Deprivation

There are higher incidence and mortality rates of cancer in areas with higher levels of deprivation. There are many drivers of this inequality. It is important to recognise the wider determinants of health that impact on the practicalities of accessing help such as transport, care responsibilities and paid time off work for appointments. Health literacy as well as the impact of other co-morbidities may influence awareness of signs and symptoms and understanding of results, all of which may

contribute to a lower uptake of screening, later help seeking and delayed diagnosis. [56] [57]

Cancer Research UK estimates that each year in England, around 14,300 cases of lung cancer, 540 cases of pancreatic cancer, 1,200 cases of oesophageal cancer 1,200 cases of liver cancer and 1,300 cases of stomach cancer are attributable to deprivation. Similarly, it has previously been estimated that over 13,000 cancer deaths could be avoided each year if mortality rates in the most deprived areas matched the least deprived areas. This does not include brain cancer as there is no evidence of an association between brain cancer deaths and deprivation in England. [58]

The top 12 GP Practices in the most deprived areas of the city have lower uptake for breast, bowel and cervical screening, with the exception of cervical screening for 50-64 year olds.(Figure 28) where uptake tends to be higher across all areas. Breast screening has a very mixed picture, potnetially still the data lag impact of the pandemic.

[56] Macmillan Cancer Support. Health inequalities: time to talk. 2019.[Accessed 03/01/2023] Available from: https://www.macmillan.org.uk/assets/health-inequalities-paper-april-2019.pdf

[57] Niksic, M. et al. Cancer symptom awareness and barriers to symptomatic presentation in England – are we clear on cancer? British Journal of Cancer. 113(3):533-42. 2015. [accessed 30/01/23]. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4522620/

[58] Levelling up: what does it mean for the less survivable cancers in England? MSD. Sept 2022. [Accessed 30/01/2023] Available from: https://www.msd-uk.com/wp-content/uploads/sites/43/2022/10/Levelling-up_What-does-it-mean-for-the-less-survivable-cancers-in-England.pdf

Figure 28: Cancer screening uptake by GP 2021/22 data and deprivation score IMD 2019

Area Name	Deprivation score (IMD 2019)	Females, 25-49, attending cervical screening within target period (3.5 year coverage %)	Females, 50-64, attending cervical screening within target period (5.5 year coverage %)	Females, 50-70, screened for breast cancer within 6 months of invitation (Uptake %)	Persons, 60-74, screened for bowel cancer within 6 months of invitation (Uptake %)
Broadway Surgery	46	66%	72%	33%	60%
Wellbourne Healthcare CIC	45	62%	71%	50%	65%
Arch Health Cic	41	51%	69%	14%	28%
The Avenue Surgery	37	63%	64%	62%	63%
Ardingly Court Surgery	34	57%	65%	40%	66%
Regency Surgery	33	56%	68%	29%	62%
Pavilion Surgery	31	62%	69%	52%	66%
School House Surgery	30	53%	60%	44%	59%
St.Peter's Medical Centre	28	59%	69%	43%	61%
Ship Street Surgery	26	53%	66%	33%	61%
Park Crescent Health Centre	25	64%	70%	40%	66%
Brighton Station Health Centre	24	46%	55%	36%	54%
Benfield Valley Healthcare Hub	23	73%	76%	57%	67%
Portslade Health Centre	23	74%	74%	60%	71%
Links Road Surgery	22	75%	78%	65%	75%
- England	**22**	**69%**	**75%**	**63%**	**70%**
Mile Oak Medical Centre	21	85%	80%	69%	74%
- Brighton & Hove ICB	**21**	**63%**	**73%**	**63%**	**69%**
Hove Medical Centre	20	72%	75%	69%	75%
Brighton Health & Wellbeing Centre	20	56%	63%	45%	57%
Stanford Medical Centre	20	62%	77%	66%	68%
University Of Sussex Health Centre	20	21%	62%	40%	65%
Montpelier Surgery	19	67%	77%	67%	67%
Woodingdean Medical Centre	17	72%	70%	61%	75%
Trinity Medical Centre	17	66%	73%	61%	68%
Seven Dials Medical Centre	16	62%	68%	33%	66%
Wish Park Surgery	16	74%	74%	74%	72%
Carden Surgery	16	70%	76%	55%	73%
Charter Medical Centre	15	69%	75%	58%	70%
Preston Park Surgery	14	74%	78%	68%	76%
The Haven Practice	12	76%	79%	17%	78%
Beaconsfield Medical Practice	11	77%	78%	79%	74%
Warmdene Surgery	11	83%	83%	73%	78%
Saltdean & Rottingdean Medical Practice	11	71%	75%	58%	75%
St Luke's Surgery	10	76%	74%	33%	72%

Source: OHID, Fingertips. 2021/22 Data, https://fingertips.phe.org.uk/

Specific analysis of bowel screening uptake by lower super output areas (LSOA) [59] within IMD decile 1 (most deprived 10%) shows lower uptake in these areas ranging from 36-47%. For deciles 8-10 (least deprived), uptake ranges from 60-71%.[60]

Oesophageal cancer incidence rates in England in females are 43% higher in the most deprived quintile compared with the least, and in males are 50% higher in the most deprived quintile compared with the least.[61]

Deprivation also has a marked effect on survival rates for which Lung cancer is a very clear example, those living in deprivation quintile (DQ) 1 (most deprived) have a

[59] *LSOAs (Lower-layer Super Output Areas) are small areas designed to be of a similar population size, approximately 1,500 residents or 650 households. Produced by the Office for National Statistics for the reporting of small area statistics.

[60] Sussex ICS Bowel Screening GIS analysis. South Central, West Commissioning Support Unit, [accessed 30/01/2023]. Available from: https://healthgis.scwcsu.nhs.uk/portal/apps/webappviewer/index.html?id=5fac19fcd31c46848ffb37cc241dccb0

[61] Cancer Research UK statistics 2023. Oesophageal cancer by deprivation [accessed 30/01/2023]

17% likelihood of 5 year survival, compared to those in DQ5 (least deprived) at 23.5%. [62]

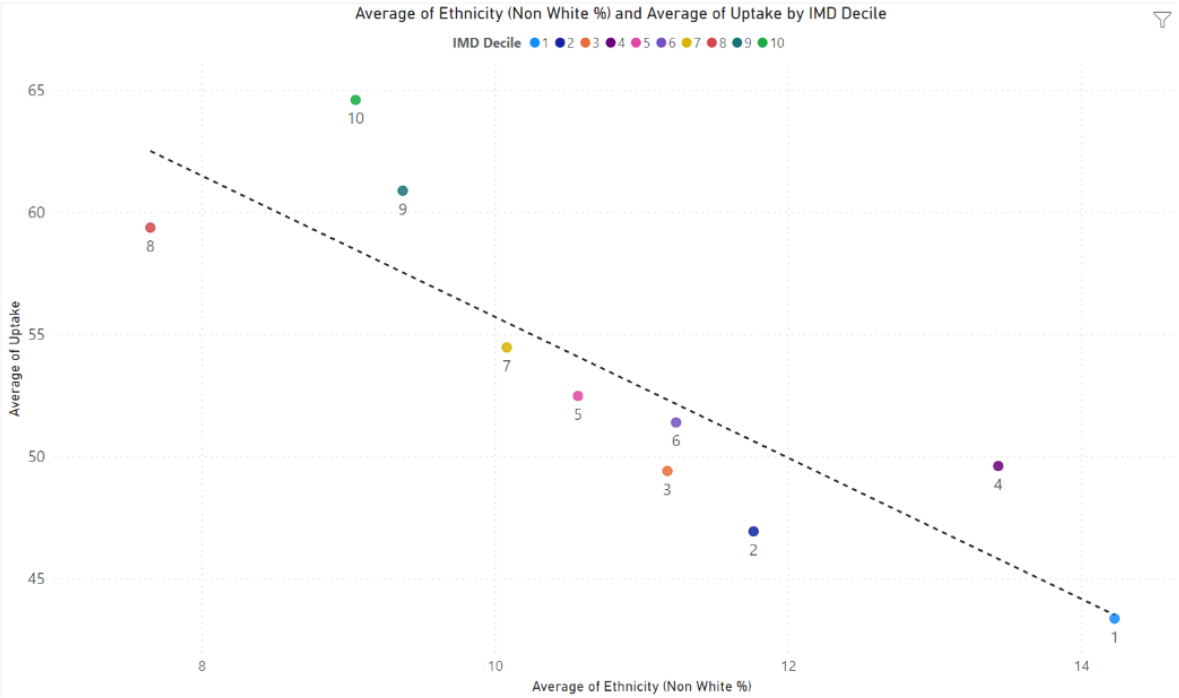
9.2 Ethnicity

There is very limited publicly available data on cancer and ethnicity, and ethnicity and screening uptake at Brighton & Hove level.

Surrey Sussex Cancer Alliance provide analysis at the Sussex level by ethnicity for routes to diagnosis for specific tumour sites, but not at Brighton & Hove level.

Specific analysis for Sussex has been done for bowel screening uptake at the Lower Super Output Area (LSOA) comparing uptake by ethnicity % population non-White[63] and Indices of Multiple Deprivation (IMD) decile. This demonstrates an association between both deprivation and uptake, and the % of the Black and racially minoritized populations and uptake.[64] Figure 29 shows a downward slope of inequity with bowel screening uptake lowest in areas with highest Black and racially minoritized populations.

Figure 29: bowel screening uptake, by IMD decile and % of Black and racially minoritized populations.



Source: NHS England Sussex Bowel Cancer Screening GIS mapping

It needs to be noted that the overarching % of Black and racially minoritized populations includes such a broad range of people with differing experiences that may influence people's access to screening and uptake. The above data is limited by

[62] Cancer Data 2023. NHS Digital. Index of survival [accessed 30/01/2023] Available from: https://www.cancerdata.nhs.uk/survival/indexofcancersurvival

[63] The is the term used by the NHS Health GIS data base therefore on the graph in Fig. 29, and replaced in body text.

[64] NHS SCWCSU. Sussex Bowel Cancer Screening GIS mapping 2023 [accessed 30/01/2023]. Available from: https://healthgis.scwcsu.nhs.uk/portal/apps/sites/#/sussex

how frequently ethnicity is recorded within GP practice systems and how suitable people consider the ethnic categories reflect self-identity.

National studies have found though that a small number of cancer sites have higher incidence rates in Black and racially minoritized populations, for the majority of cancer sites there is a lower incidence than the 'White' category. Prostate cancer incidence in Black and racially minoritized males compared with White males was 2.9 times higher in those aged 0–64 years, and 1.9 times higher in those aged 65–90+ years. Liver cancer incidence in Black and racially minoritized males compared with White males was 1.6 times higher in those aged 0–64 but around the same in those aged 65–90+.[65] A recent analysis shows that Black women from Caribbean and African backgrounds are up to two times more likely to receive a late-stage diagnosis for some cancers than white British women in England.[66] Differing prevalence of risk factors, and accessibility of health services is likely to contribute to this variation. Action to address key risk factors, provide information, access to screening, improve the cancer experiences and outcomes of people in Black and racially minoritized populations is vital. Improving the collection of ethnicity information in healthcare datasets will enable a better understanding of differences in patterns of cancers, inequalities experienced and inform improvements in the health services that can be made to address these.

Local qualitative research undertaken with people with differing ethnicities highlights the need for;[67]

- Accessible and culturally appropriate information in differing formats
- Culturally welcoming environments
- Peer support combined with learning opportunities to increase awareness and build trust
- Flexible transport options to screening and treatment venues.

9.3 Gender

Males have both higher overall cancers incidence rates and mortality rates than females.

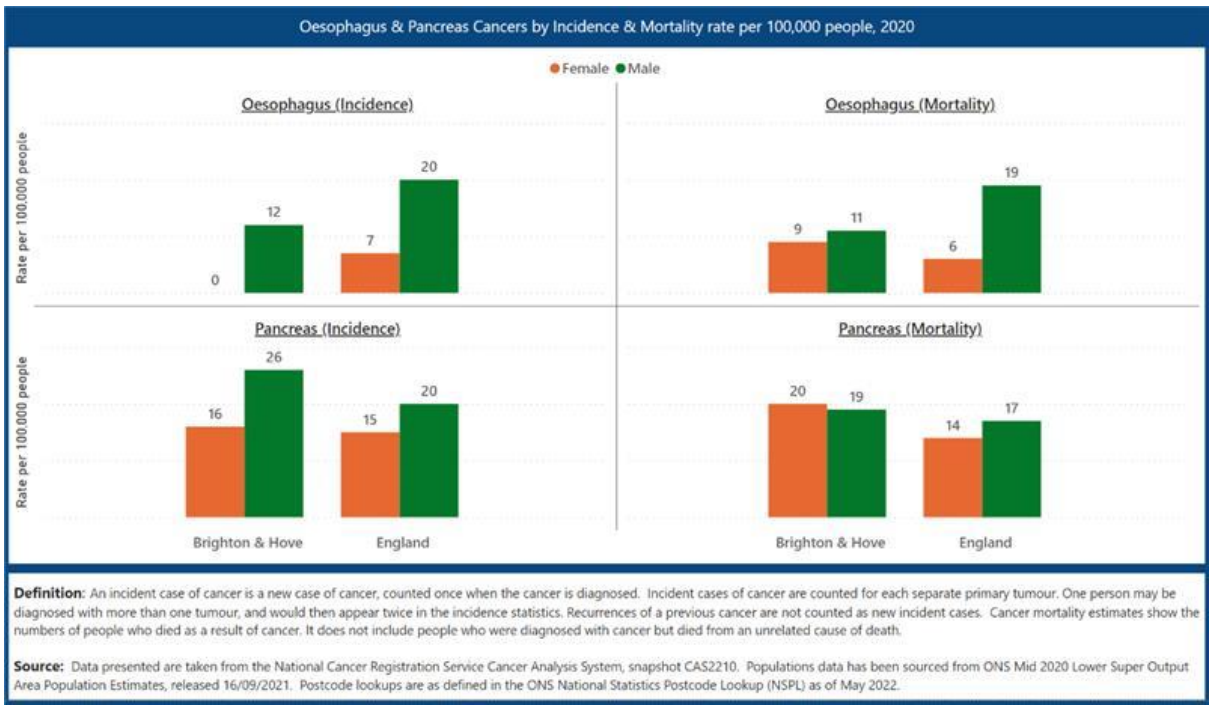
This is more notable in certain cancers such as lung (see Fig 36), pancreas and oesophagus. For oesophageal cancer both incidence and mortality are significantly higher in males both nationally and locally. For pancreatic cancer the incidence is a third higher in males locally, but not nationally as described in the Figure 30.

Figure 30: Incidence and mortality data for pancreatic and oesophageal cancers by male and female

[65]. Differences in cancer incidence by broad ethnic group in England, 2013–2017. Delon, C., Brown, K.F., Payne, N.W.S. et *al Br J Cancer* **126**, 1765–1773 (2022).
Available from: https://doi.org/10.1038/s41416-022-01718-5 [Accessed 08/07/2022]

[66] Black women in England are at greater risk of late cancer diagnosis than white women. Limb M. BMJ 2023; 380:p211(Published 27 January 2023) [Accessed 07/02/2023]. Available from: doi: https://doi.org/10.1136/bmj.p211

[67] Trust for Developing Communities and Hangleton and Knoll Project. Community Participation Action Research Cancer Screening 2021. [Accessed 30/01/2023]. Available from: https://www.trustdevcom.org.uk/what-we-do/research/



Cancer data is not available for people identifying as trans or non-binary as this is not currently included in the clinical coding options, making it difficult to understand cancer related health inequalities.

Access to appropriate cancer screening is a potential cause of health inequalities for trans people.[68] When a trans person's gender marker is changed on their GP record this will pass through to the national call and recall systems for gender-specific screening (cervical, breast screening[69]) and initiate routine invitations which by default excludes people. It is the responsibility of the GP in discussion with the patient, to agree the most appropriate system to ensure access to screening and notify the screening programmes.

9.4 Sexual Orientation

There is limited evidence available on cancer incidence, mortality and screening uptake by sexual orientation. Where evidence is available, it suggests that cancer screening coverage is lower in lesbian, gay and bisexual communities. Not attending screening ties into wider findings about reluctance to access healthcare due to fear of being discriminated against, and some misunderstandings about screening risks.[70] [71]

[68] Reducing cervical screening inequalities for trans people. PHE Screening Blog 2019.[accessed 07/08/2022]. Available from: https://phescreening.blog.gov.uk/2019/04/10/reducing-cervical-screening-inequalities-for-trans-people

[69] And abdominal aortic aneurysms

[70] Brighton and Hove Switchboard Spring 2018 – LGBTQ People Affected by Cancer. Available at https://www.switchboard.org.uk/what-we-do/health-and-inclusion-project/lgbt-hip-reports/ [Accessed 30/01/2023]

[71] Addressing inequalities in LGBT cancer screening coverage. PHE Screening Blog 2019 [Accessed 30/01/2023]. Available from: https://phescreening.blog.gov.uk/2019/03/15/addressing-inequalities-in-lgbt-cancer-screening-coverage/

10 Mortality

There continue to be great improvements in cancer survival especially when the cancer is diagnosed at early Stages 1 and 2. This is especially so for those detected through the screening programmes. However, there are certain cancers where little improvement has been made either due to lack of awareness of signs, fewer symptoms, difficulty in diagnosis, or few medical or treatment options, for example pancreatic and ovarian cancers [72].

Figure 31: Deaths registered by Deprivation Quintile (2021)

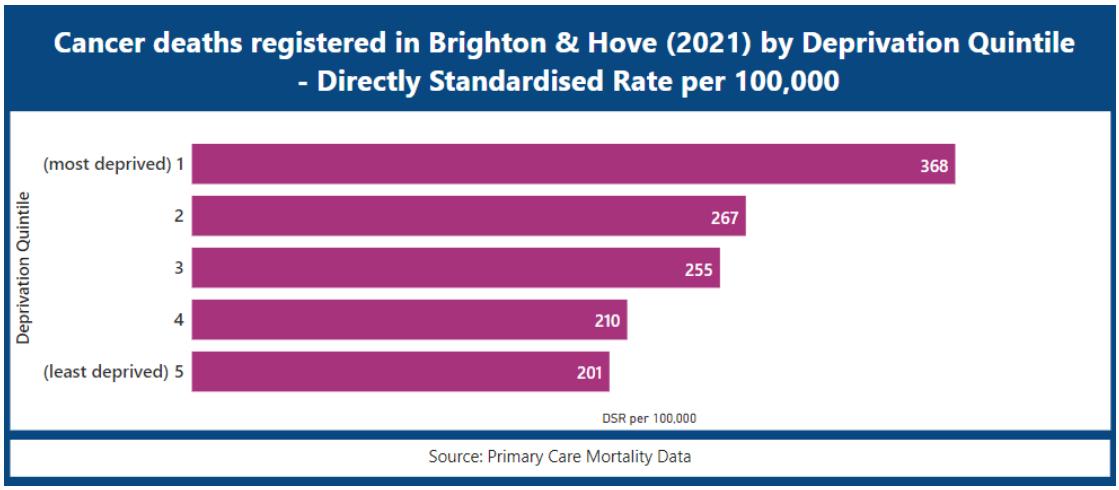
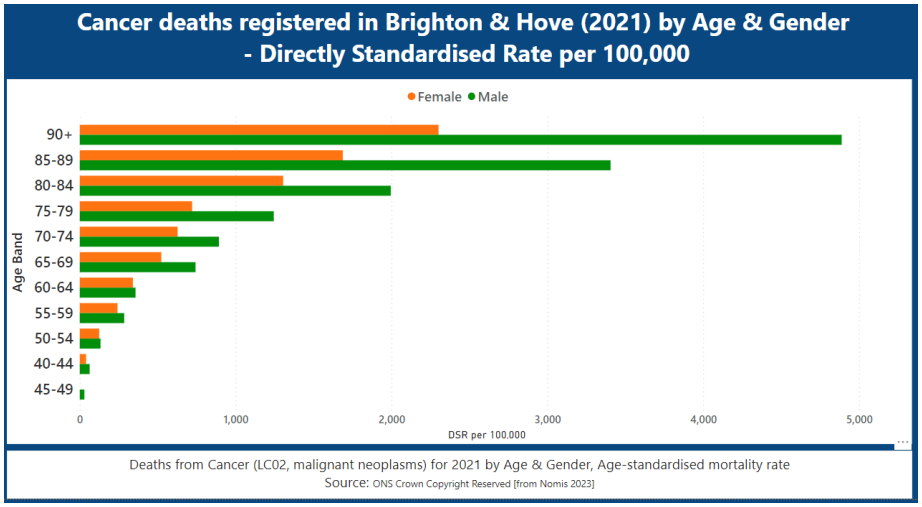


Figure 31 shows that in 2021 the cancer mortality rate per 100,000 was highest for those living in the most deprived quintile at 368/100,000 compared to the least deprived quintile at 201. This difference reflects national data. However, the deprivation effect is most starkly shown in Lung cancer mortality which was almost triple for people living in the most deprived areas when compared with the least deprived areas in England. [73]

Figure 32: Registered mortality, age & gender (2021) in Brighton and Hove.



[72]CRUK Cancer Statistics Available online at: https://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/pancreatic-cancer [Accessed 30/01/2023]

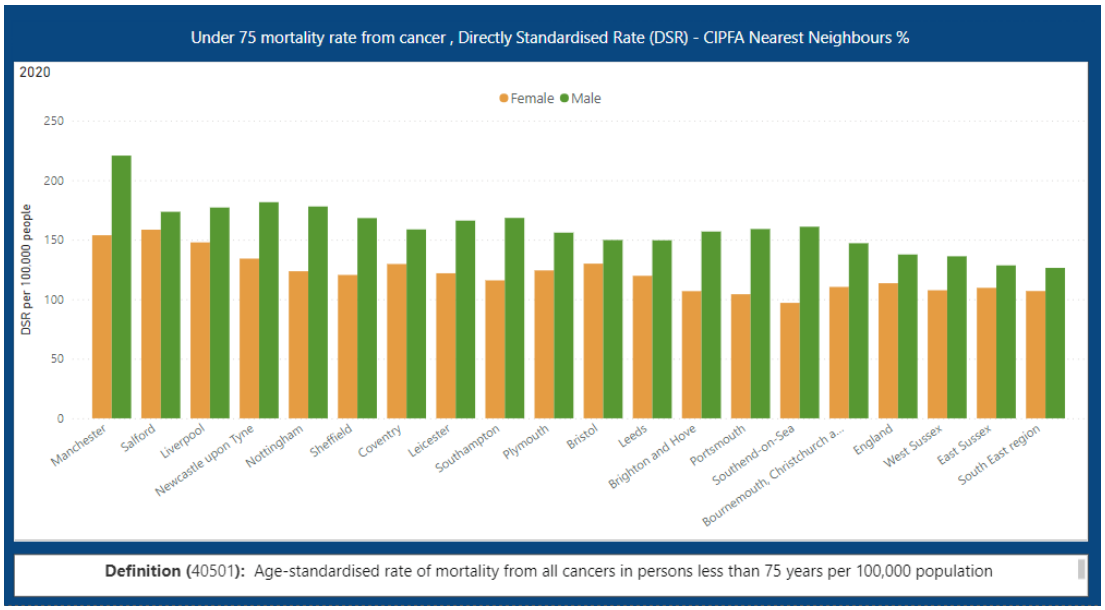
[73] NHS Digital Deaths from cancer increased with deprivation Age-standardised cancer mortality rates by deprivation in 2020 Published Oct 2022. [accessed 30/01/2023] Available from: https://digital.nhs.uk/data-and-information/publications/statistical/cancer-registration-statistics/england-2020/deaths-from-cancer-increased-with-deprivation

Figure 32 shows that the proportion of cancer deaths in Brighton & Hove increases with age. Reflecting the national trend, in Brighton and Hove more males than females die of cancer for all ages above 45, with the difference increasing to more than double the number of males dying of cancer at 85+.

10.1 Under 75 years cancer deaths

Deaths under 75 are considered premature. Brighton & Hove under 75 males had a higher mortality rate from cancer than females, and this is consistent across their CIPFA neighbours, the region and England in 2020 (Figure 33).

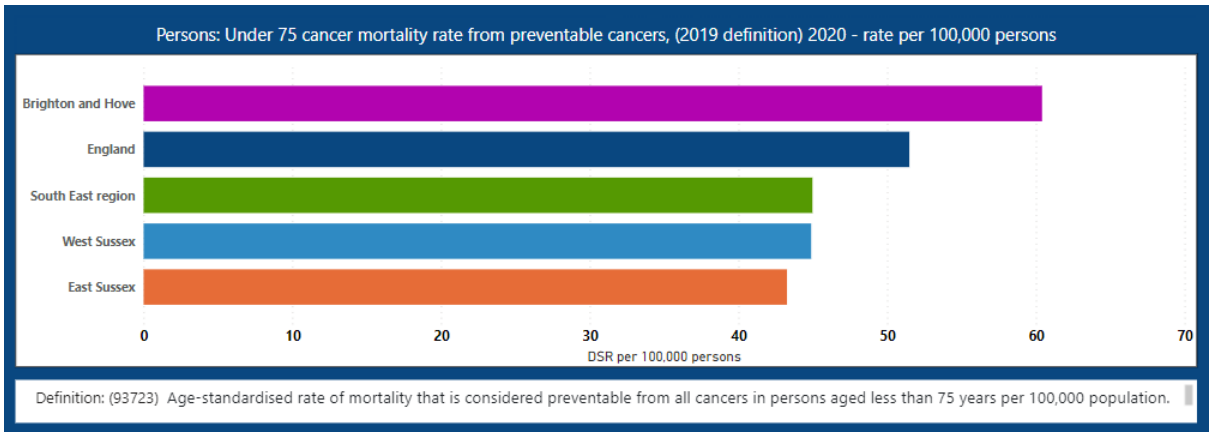
Figure 33: Under 75 mortality rate from cancer per 100,000 people, Brighton & Hove, CIPFA comparators by gender, 2020



Source: [(40501) Under 75 mortality rate from cancer]

Figure 34 shows that in 2020 Brighton and Hove had a significantly higher number of under 75s cancer deaths considered preventable (60 per 100,00) than England (51.5), East (43) and West Sussex (45) and the South East region (45).

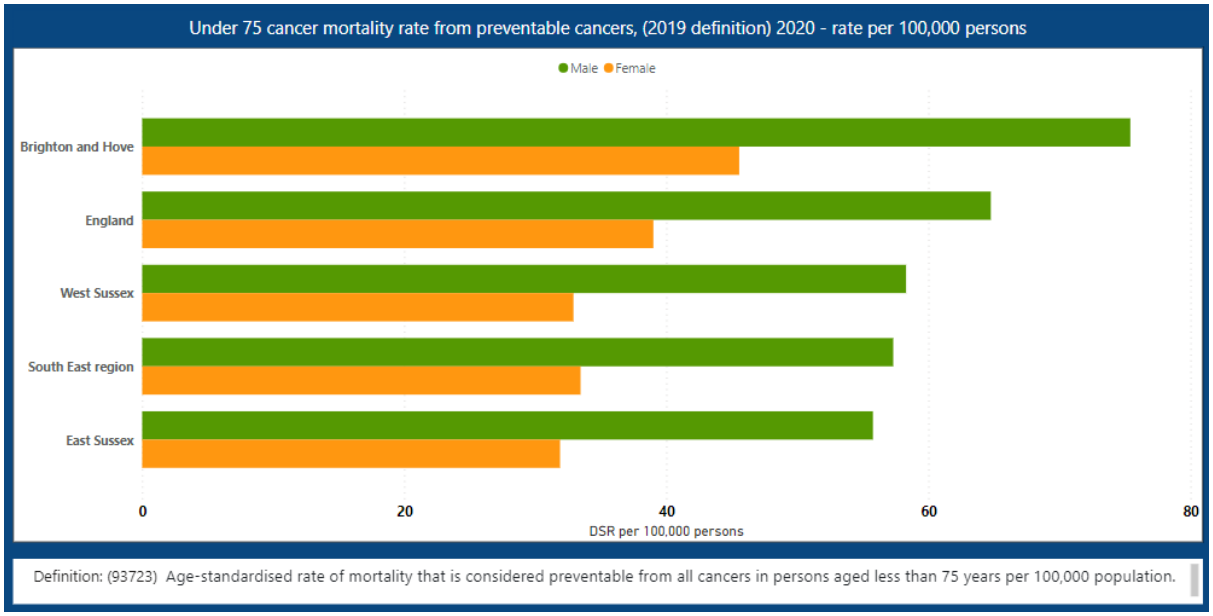
Figure 34: Under 75 cancer mortality rate from preventable cancers (2020) definition, England and Sussex comparisons



Source: [(93723) Under 75 mortality rate from cancer considered preventable]

Figure 35 shows a greater difference in preventable deaths between males at 75.4 per 100,000 and females at 45.6. This difference is more marked than for overall cancer deaths as in Figure 33 above.

Figure 35: Under 75 cancer mortality rate (per 100,000 persons) from preventable cancers, Brighton & Hove, East & West Sussex, South East, England and gender, 2020



Source: (93723) Under 75 mortality rate from cancer considered preventable

10.2 Male cancer deaths

Figure 36 shows the top five male cancer deaths in Brighton & Hove between 2016 and 2020 were:

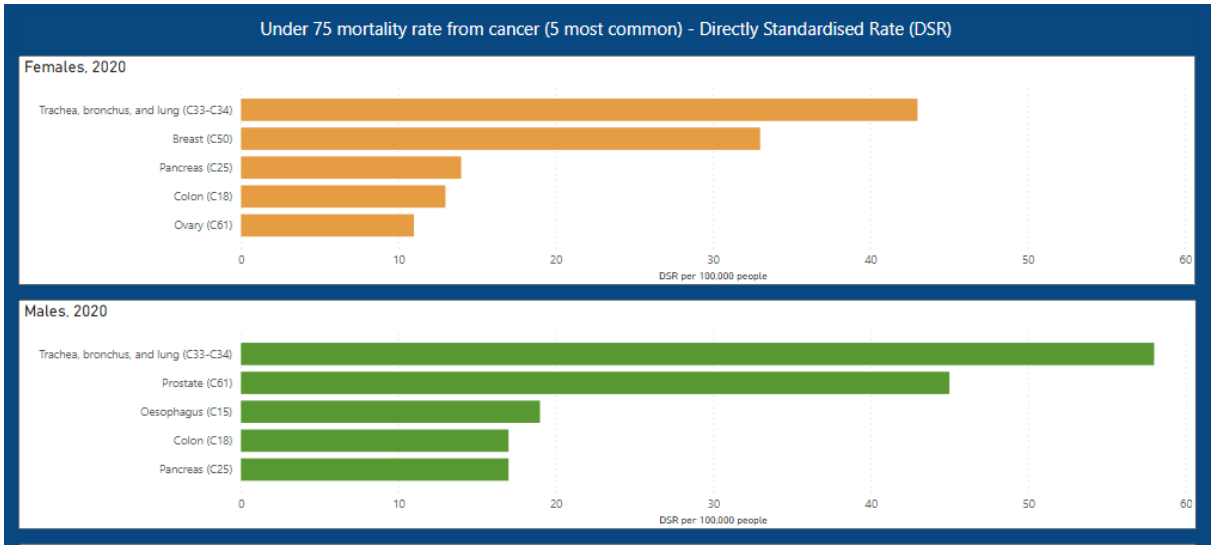
1. Lung
2. Prostate
3. Oesophagus
4. Colon
5. Pancreas.

10.3 Female cancer deaths

The top five female cancer deaths in Brighton & Hove between 2016 and 2020 were:

1. Lung
2. Breast
3. Pancreas
4. Colon
5. Ovary.

Figure 176: Under 75 mortality rate by gender – the five most common cancer deaths in Brighton & Hove, 2020



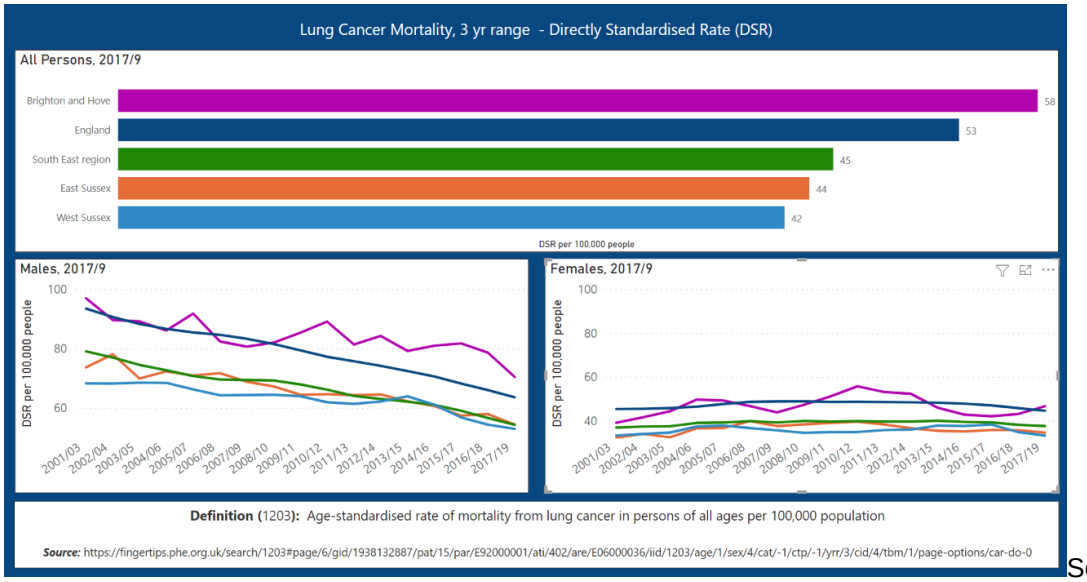
Source: Office of National Statistics, Deaths

10.4 Lung cancer mortality

Brighton & Hove has an overall higher mortality rate (58 per 100,000 people) for all persons from lung cancer than England (53) and the South East (45). If looking at the one-year survival rates for Brighton & Hove the one-year lung cancer survival is 46.5% compared to the England of 47.2%, from the 2019 data.

The mortality rate for males is also above England and the South East, but has been on a downward trajectory since 2017-2019. Females have a lower mortality rate from lung cancer than males, the rate is now slightly above England's and with an increasing trend over the last few years (Figure 37).

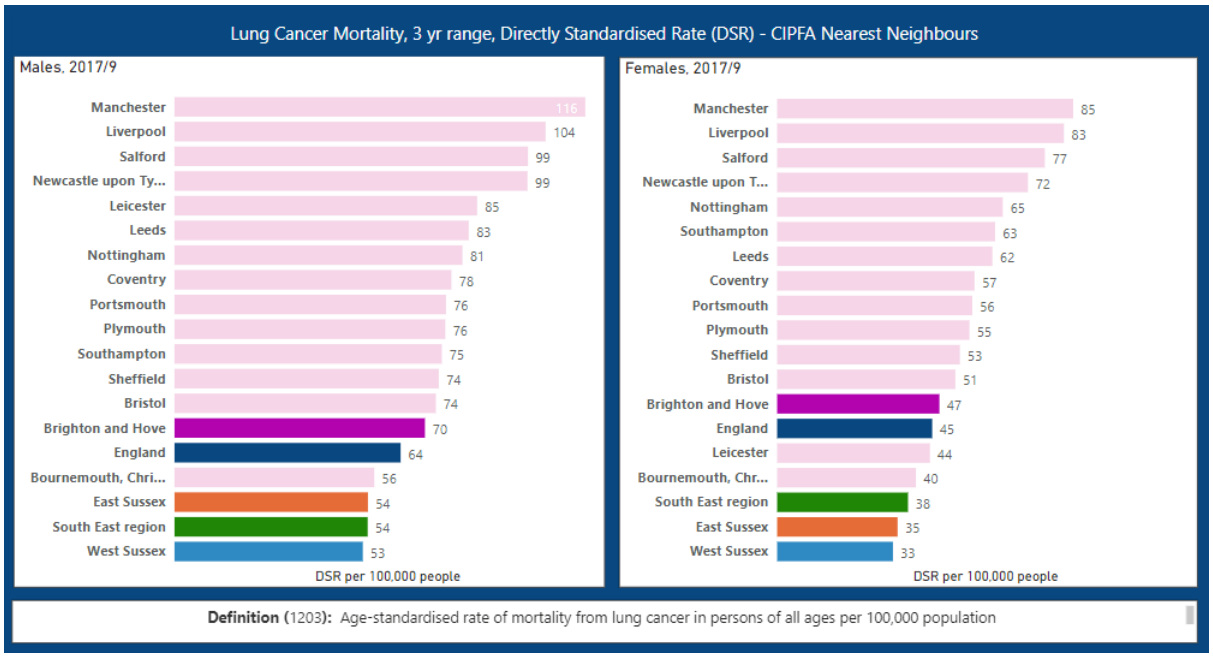
Figure 18: Lung cancer mortality per 100,000 people (3yr range) by Area (Brighton & Hove CCG, East & West Sussex, South East and England), 2017/19 and Area by Gender, 2001/03 to 2017/19



Source: (1203) Mortality rate from lung cancer

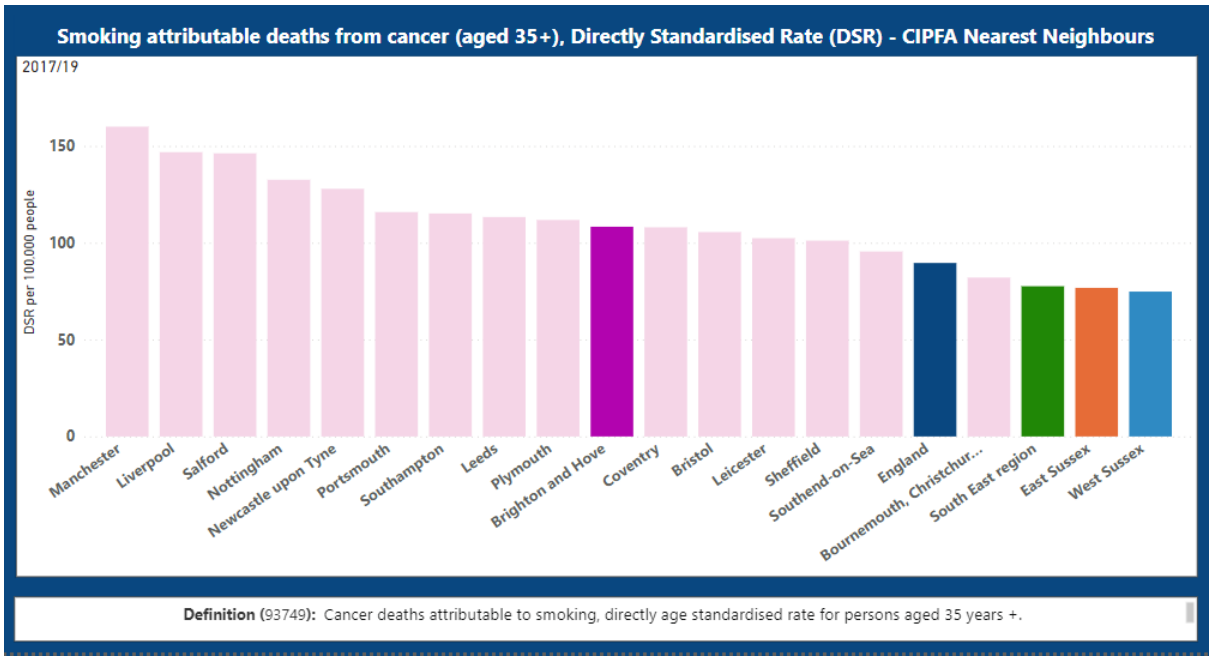
Figure 38 shows that Brighton & Hove has lower mortality rates for lung cancer for both males and females for 2017/19, than most CIPFA comparators.

Figure 38: Lung cancer mortality per 100,000 people (3yr range) by Brighton & Hove CCG, East & West Sussex, South East, England and CIPFA comparators by gender, 2020



Source: (1203) Mortality rate from lung cancer

Figure 39: Number of smoking attributable deaths from cancer (aged 35+) per 100,000 people, Brighton & Hove CCG, East & West Sussex, South East, England and CIPFA comparators, 2017/19



Source: (93749) Smoking attributable deaths from cancer

In 2017-2019, Brighton & Hove had a higher rate of death attributed to smoking in 35-year-olds (108 per 100,000 people) than England (90) and the South East (78). This rate was mid-point when compared to its nearest neighbours. (Figure 39)

10.5 Breast cancer mortality

The breast cancer age standardised mortality rate 2020 in Brighton & Hove was 32.8 per 100,000 people, this is similar to England at 32.4 and lower than both East Sussex at 33.8 and West Sussex at 34.[74]

10.6 Bowel cancer mortality

In 2020 the bowel cancer mortality age standardised rates are 22.8 per 100,000, lower than England (25.7), East (24) and West Sussex (25). However, these are very different for males at 27.1 and females at 19, reflecting the national differences of 31.9 and 20.8 respectively. This highlights the need to improve bowel screening rates in males. [75]

10.6 Prostate cancer mortality

Prostate cancer is the second highest cause of male mortality. Brighton & Hove data for 2020 show the age standardised incidence is 128.6 per 100,000, less than England (143.8), and East (178) and West (160) Sussex. When looking at mortality data, Brighton & Hove at 44.5 per 100,000 is similar to England at 44.8 and West Sussex (45.6) and lower than East Sussex (48.4). At present there is no reliable evidence-based population screening system for prostate cancer, so increasing awareness of signs and symptoms is key.[76] In 2019 over 50% of prostate cancers were diagnosed at stages 1 and 2.[77]

10.7 Pancreatic cancer mortality

In 2020, Brighton & Hove pancreatic cancer is one to the top five causes of cancer mortality for both males (19.3 per 100,000 people) and females (19.8), higher than England (17.1 and 13.7 respectively)[78]. Of the cancers that have staging information, only 21% are diagnosed stages 1 or 2, reducing treatment options and health outcomes, with less than 8% of people surviving beyond five years.[79] In 2021 in England, Pancreatic cancer accounted for the highest proportion of all cancers (57%) first seen as an inpatient in hospital as an emergency admission.[80] Whilst 50% are diagnosed in the over 75s, alcohol is by far the biggest risk factor in 70% of cases and smoking in 20%. Diabetes can also increase the risk.[81]

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[74] Cancer Data 2023. NHS Digital. Incidence and Mortality [accessed 30/01/2023]. Available from: https://www.cancerdata.nhs.uk/incidence_and_mortality

[75] Cancer Data 2023. NHS Digital. Incidence and Mortality [accessed 30/01/2023]. Available from: https://www.cancerdata.nhs.uk/incidence_and_mortality

[76] Oxford BioDynamics, Imperial College and University of East Anglia are researching the potential effectiveness of the Prostate Screening EpiSwitch (PSE) blood test as a screening tool. [Reported 08/02/2023] Available from: https://www.uea.ac.uk/news/-/article/the-new-prostate-cancer-blood-test-with-94-per-cent-accuracy

[77] Cancer Data 2023. NHS Digital. Incidence and Mortality [accessed 30/01/2023]. Available from: https://www.cancerdata.nhs.uk/incidence_and_mortality

[78] Cancer Data 2023. NHS Digital. Incidence and Mortality [accessed 30/01/2023]. Available from: https://www.cancerdata.nhs.uk/incidence_and_mortality

[79] Cancer Data 2023. NHS Digital. Incidence and Mortality [accessed 30/01/2023]. Available from: https://www.cancerdata.nhs.uk/stage_at_diagnosis 2019 most recent data

[80] Cancer Data 2023. NHS Digital. Emergency presentations [accessed 30/01/2023]. Available from: https://www.cancerdata.nhs.uk/emergencypresentations 2021

[81] CRUK 2023. Pancreatic Cancer [Accessed 30/01/23] Available from: https://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/pancreatic-cancer#heading-Zero

10.8 Oesophageal cancer mortality

The relative risks of cancers that can be caused by smoking lists oesophageal cancer as the third after lung cancer and head & neck cancers. The overall mortality is lower at 9.8 per 100,000 people than for England at 12, it is higher in males (11.4) than females (8.7) and this reflects the national difference between rates in male/female. In Brighton & Hove in 2019, 85% are diagnosed at Stages 3 and 4. [82]

10.9 Ovarian cancer mortality

In Brighton & Hove the age standardised incidence rate is 21.7, higher than England at 19.4 and lower than East and West Sussex, however the mortality rate is higher at 14.5, compared to England (11.5), both East (11.8) and West Sussex (13.5). 50% of ovarian cancers are diagnosed at stages 3 & 4. Ovarian cancer often has low levels of symptoms that can also be symptoms of other, less serious, conditions so people may delay attending their GP. [83] Ovarian cancer is most frequently diagnosed in the 75-79 age group, with mortality highest in the 85-89 year-olds [84]. Age, and being overweight or obese are the main risk factors.

10.10 Oral cancer mortality

In 2017-2019, Brighton & Hove had a significantly higher rate of oral cancer mortality, with a directly standardised rate that was highest in the region at 7.1 per 100,000 people compared to England at 4.7 and the South East at 4.1.[85] This is an upward trend. 75% of oral cancers are diagnosed at stage 3 and 4.

[82] Cancer Data 2023. NHS Digital. Incidence and Mortality [accessed 08/072022]. Available from: https://www.cancerdata.nhs.uk/incidence_and_mortality

[83]CRUK 2023. Ovarian Cancer [accessed 30/01/2023].Available from: https://www.cancerresearchuk.org/about-cancer/ovarian-cancer

[84] CRUK 2023. Ovarian Cancer statistics [accessed 30/01//2023]. Available from: https://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/ovarian-cancer#heading-One

[85] OHID fingertips. 2023. Oral Cancer Mortality2017-2019 , Available from: https://fingertips.phe.org.uk/search/oral%20cancer#page/3/gid/1938132887/pat/6/par/E12000008/ati/402/are/E06000043/iid/92953/age/1/sex/4/cat/-1/ctp/-1/yrr/3/cid/4/tbm/1/page-options/car-do-0

APPENDIX 1

Examples of local initiatives to address cancer risks, prevention, health inequalities, improving screening coverage and early diagnosis

Despite the Covid-19 related workforce challenges all partner organisations experienced over the last few years, there have been ongoing cancer related health promotion and prevention programmes, and support for those living with and beyond cancer.

Members of the NHS Sussex team work closely with the Surrey and Sussex Screening and Immunisation Team, as well as other system partners such as Cancer Research UK, Local Authorities through the place-based Cancer Action Group and Community Networks, to take direct action to improve access and uptake, especially in seldom heard groups and those living in areas of deprivation.

Examples of actions taken at local level include:

- A task and finish group set up with commissioning colleagues for Learning Disability and Autism to enable a focus on improving all cancer screening uptake to these groups
- Presented to the learning disability and supported living forums to engage staff and raise awareness of the Learning Disabilities Mortality Review (LeDeR) programme and their complementary role in improving screening awareness
- Transgender webinar in 2021 held with primary care colleagues and FAQs document produced to 'debunk' common assumptions and address key areas of need
- Deep dive by Community Researchers Community, Participation in Action Research in 2021-2022 by the Hangleton and Knoll Project and TDC [86]focusing on cervical screening uptake, undertaking critical path analysis and identifying case studies
- Working with the Screening and Immunisations Team to address errors in cervical screening and investigating/addressing areas of commonality – supported by the production of a Standard Operating Procedure to support practices to avoid common errors, resulting in a significant improvement in the sample rejection rate
- As part of the NHS Sussex "Help Us, Help You" campaign over winters 2021 and 2022, there were initiatives to raise awareness of the signs and symptoms of cancer e.g. awareness of the symptoms of abdominal, urological and lung cancer
- As part of the Tackling Neighbourhood Health Inequalities funding, in 2022 Primary Care Networks set in place initiatives such as proactive support for patients and outreach to improve screening uptake in their practice populations
- Responding to concerns about a lack of information about cancer services during Covid-19 in 2020 and 2021 lockdown, Healthwatch delivered a series of webinars for the public attended by local experts who answered their questions

[86] Community Participation Action Research: Cancer Screening. TDC and HKP 2021. Available from https://www.trustdevcom.org.uk/what-we-do/research/

- Sussex patient engagement includes a focus on prostate cancer. A dedicated video has been produced, with the Integrated Care System (ICS) and the Surrey and Sussex Cancer Alliance, to tell the stories of two survivors
- A range of tailored materials have been co-produced with and for people with learning disabilities, their carers and their services, to increase understanding and uptake of the cancer screening programmes
    - Breast cancer screening https://vimeo.com/769006029
    - Cervical cancer screening https://vimeo.com/769007467
    - Bowel cancer screening https://vimeo.com/769004795
- Working with the Screening and Immunisations Team to address the recommendations of the Healthwatch insight case study into Breast Screening services in West Sussex 2022 [87] within the Brighton and East Sussex.

Brighton & Hove City Council (BHCC) Public Health

The BHCC Public Health team commission and provide a number of health promoting services that will support health behaviours that directly help to prevent and reduce the risk of cancers.

- The Healthy Lifestyle Team (HLT) support people to make health behaviour changes on a one-to-one basis, in small groups and through communication campaigns. The referral system is a one stop shop for individuals and providers to provide support, advice, signposting and referrals to other services. This includes weight management, healthy eating, stopping smoking, reducing alcohol consumption, increasing physical activity and support for emotional health. In addition, the team supports communities, schools and workplaces to provide healthier environments. The HLT also provide support to people living with and beyond cancers [88]
- Awareness of signs and symptoms and promotion of cancer screening uptake is highlighted as part of public health commissioned services NHS Health Checks, Oral Health Promotion and the Ageing Well programme
- Stop smoking services are commissioned in general practice and community pharmacies. Targeted work is delivered through maternity services, Stop (smoking) before the Op, to young people through schools and youth projects, and underpinned by a comprehensive multi-agency Tobacco Control Programme
- Substance misuse and sexual health services include cancer awareness and prevention as part of their service delivery through support to stopping smoking related to drug use, support for reduction in alcohol consumption, treatment and support for hepatitis, liver disease and sexual transmitted infections
- The human papillomavirus (HPV) vaccination is actively promoted through young people services, although vaccination uptake was greatly reduced due to the impact of the Covid-19 pandemic [89]. In 2022 vaccination teams

[87] Internal report of a learning case study 09/02/2022
[88] Brighton & Hove City Council Support to improve your health [accessed 30/01/2023] Available from: https://www.brighton-hove.gov.uk/health-and-wellbeing/support-improve-your-health
[89] OHID Public Health Profiles, Population coverage HPV 202/21 [accessed 30/01/2023]. Available from: https://fingertips.phe.org.uk/search/hpv

restarted their HPV vaccinations including a catch-up programme for young people

- There is an active monthly multiagency Cancer Communications and Campaigns meeting to co-ordinate work across the city, for example using social media, community venues e.g. pharmacies and voluntary community sector services, to increase awareness of key cancer prevention related healthy behaviours, signs and symptoms, screening uptake and support during recovery.

Community initiatives

Cancer Awareness and Early Diagnosis Service

Commissioned by the Sussex ICB Brighton and Hove and Brighton and Hove City Council Public Health 2022, the Act on Cancer Together (ACT) service raises awareness of cancer, giving people the confidence and tools, they need to attend screening appointments, recognise the signs and symptoms of cancer and to overcome barriers to getting help when it is needed. It targets engagement in deprived communities and tailors communications to specific audiences to address health inequalities.

ACT is:

- Taking a citywide approach: outreaching to all who would benefit from cancer awareness, guided by data and local intelligence
- For priority neighbourhoods to develop community-led cancer action plans
- Overseen by a Steering Group of strategic stakeholders
- Involving 'peer-advocates' building on: TDC's successful peer-educator model that increased vaccine uptake with Black and Racially Minoritized communities and HKP's pilot cancer awareness project with Macmillan
- Manage and delivered by a team comprising: of a Health Equalities Manager, Co-ordinators, Peer Advocates, Volunteers and Communications Manager. Work with Macmillan to develop bespoke training and campaigns materials. Their campaigns calendar links with national campaigns.

Brighter Outlook

The Brighter Outlook programme commissioned by Sussex ICB supports anyone that has had a cancer diagnosis to prepare for, cope with, and recover from cancer treatments through offering tailored physical activity interventions, nutrition information, psychological support and relevant signposting.
It is designed to help people to feel better, physically and mentally, to take an active role in their cancer care, and live as well as possible with and beyond cancer.
Participant outcomes include:

- A decrease in fatigue score between baseline and 12 month follow up. Increased or maintained self-efficacy scores between baseline and 12 month follow up
- Reduction in experience of anxiety and depression.