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4 Cancer

Executive summary

Cancer is a leading cause of morbidity and mortality and a contributor to health inequalities nationally and locally. Many cancers are preventable.

Cancer risk is affected by increasing age, ethnicity, gender and family history. Important modifiable risk factors for cancer include smoking, alcohol consumption and excess body weight. Socio-economic disadvantage is associated with an increase in some modifiable risk factors.

The *incidence* of all cancer types in Hackney and the City is similar to other areas in London and nationally, however the estimated *prevalence* is significantly lower than the London and national averages. In general, men are more likely to develop cancer than women, and cancer is more common with advancing age.

More cancers are diagnosed at stages 2 and 3 in Hackney and the City than in other areas in London. This is particularly the case for lung and colorectal cancer, most cases of which are diagnosed at later stages when they are more likely to have spread and may be less amenable to treatment. Overall, the local cancer mortality rate is similar to other comparable areas. One year cancer survival in Hackney and the City is relatively low compared to other areas.

There is good evidence to suggest some cancers can be prevented through modifying certain risk factors, for example stopping smoking, which is a leading risk factor for developing lung cancer. In addition, cervical cancer can be prevented through vaccination against Human Papillomavirus (HPV). Infection with certain types of HPV, which can be sexually transmitted, is a major cause of cervical cancer, with two strains (16 and 18) responsible for over 70% of cervical cancer cases nationally.

Early detection of cancer is key to early diagnosis and treatment, and can lead to enhanced patient experience, lower risk of complications and improved cancer outcomes. A number of local and national campaigns have been implemented aiming to raise awareness of cancer signs and symptoms.

Currently, there are three national cancer screening programmes available to people in Hackney and the City, as elsewhere, for breast, colorectal and cervical cancers. Uptake is relatively high for breast screening and relatively low for colorectal screening.

In general, people with suspected cancer should be assessed by a multidisciplinary team within two weeks; the faster diagnosis standard, where people have a diagnosis of cancer within 28 days of referral, will be implemented by 2020. Treatment for cancer differs depending on type and stage. Common treatments include surgery, chemotherapy and radiotherapy, often in combination.

In Hackney and the City, cancer diagnosis and treatment is provided by cancer centres at Homerton Hospital and St Bartholomew's Hospital working in partnership with other local cancer centres. Due to the availability of best practice pathways

locally, people in Hackney and the City have good access to a wide range of diagnostics and cutting edge treatments.

For people living with and beyond cancer, support locally is offered by Macmillan Cancer Support, including some elements of best practice pathways such as stratified follow up and the Recovery Package.

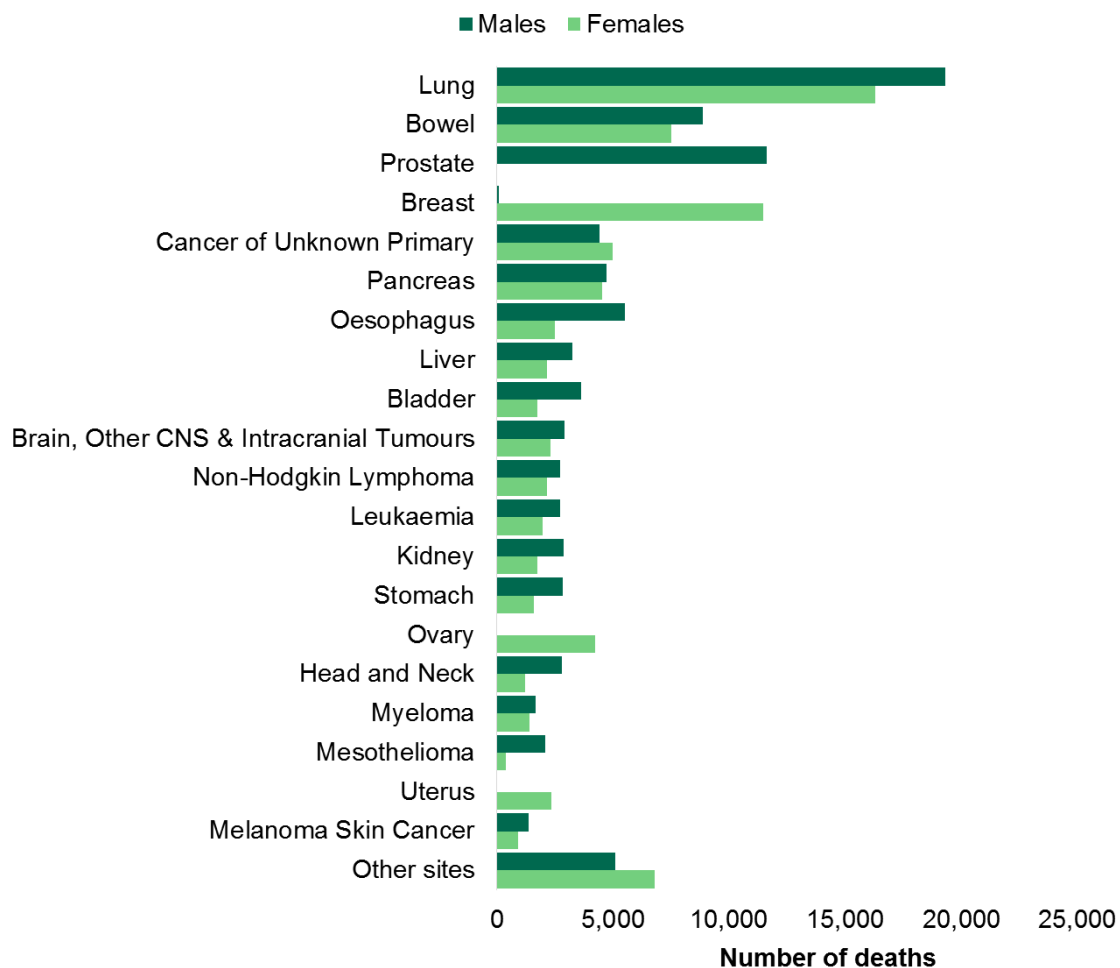
A number of innovative approaches locally, including Multidisciplinary Diagnostic Centres and an Early Diagnosis Centre, are expected to improve early diagnosis and treatment of cancer by 2020.

4.1 Introduction

Cancer contributes to a significant proportion of mortality and morbidity both nationally and locally, much of which is preventable. There is a strong correlation between cancer mortality and socio-economic deprivation, with the disease contributing to significant health inequalities. [1]

According to the Office for National Statistics (ONS), cancer accounted for just under 29% of all deaths registered in 2016 in England and Wales. [2] Lung, colorectal (also known as bowel cancer), breast and prostate cancers were in the top four for the number of deaths (Figure 1). In the same year, over 303,000 new cancer cases were registered nationally. Over a half of these cases were attributed to breast, colorectal, lung and prostate cancers.

Figure 1: Cancer deaths from 20 most common cancer types in the UK (2016)



Source: Cancer Research UK. [3]

Local statistics mirror the national picture, with around a third of all deaths in Hackney and the City attributed to cancer. Breast, colorectal, lung and prostate cancers account for the largest number of cancer deaths and are the four types of cancer with the highest incidence. Given the high burden of disease from these four cancer types, they are the main focus of this JSNA section. Cervical cancer is also

covered in part, reflecting the potential for prevention (through immunisation) and early intervention (through the national screening programme).

Definitions used throughout this section are presented in Table 1.

Table 1: Definitions used in this section [4] [5] [6] [7] [8] [9] [10]

Indicator	Definition
All cancers	'All cancers' includes any malignant tumours.
Breast cancer	Breast cancer occurs when malignant tumours develop in the breast. Tumours can affect different parts of the breast. The most common breast cancer types include ductal (originating in the ducts that carry milk to the nipple) and lobular (originating in glands that make breast milk). Breast cancer affects mainly women, but around 1% of breast cancers develop in men.
Cervical cancer	Cervical cancer originates in the cervix, which is the lower part of the uterus (womb). There are two main types of cervical cancer: squamous cell carcinoma (the most common), which develops from flat cells that cover the outer surface of the cervix at the top of the vagina; and adenocarcinoma, which develops from glandular cells that line the cervical canal (the endocervix). The main cause of cervical cancer is long-lasting (persistent) infection with human papillomavirus (HPV), most commonly types 16 and 18.
Colorectal (bowel) cancer	Colon cancer and rectal cancer are types of cancer that originate in the colon or the rectum. They are often grouped together as colorectal cancer because they have many features in common. Most colorectal cancers begin as a growth called a polyp on the inner lining of the colon or rectum; however, not all polyps develop into cancer. The two main types of polyps are: adenomas; and hyperplastic and inflammatory polyps. Adenomas sometimes change into cancer, while the latter, in general, do not.
Incidence	The incidence of a disease is the rate at which new cases occur in a population during a specified period.
Lung cancer	Cancer that begins in the lungs is called primary lung cancer. There are two main types of primary lung cancer, classified by the type of cells in which the cancer originates. Non-small-cell lung cancer is the most common type, accounting for more than 80% of cases. Small-cell lung cancer is a less common type that usually spreads faster than non-small-cell lung cancer. Secondary lung cancer is when cancer that originated somewhere else in the body spreads to the lungs. Commonly, this occurs with breast, colorectal, kidney, testicular, bladder, bone, soft tissue and some skin cancers.

Metastasis	Metastasis describes the spread of cancer from the part of the body where it originated to another part of the body. Generally, a cancer that has metastasised is more advanced.
Mortality	Mortality is the incidence of death from a disease.
Prevalence	The prevalence of a disease is the proportion of a population that are cases at a point in time. Prevalence is affected by the number of new cases of a disease, as well as survival rates.
Prostate cancer	Prostate cancer originates in the prostate gland. Tumours in the prostate often grow slowly, and cancer symptoms often only become apparent when the prostate is large enough to affect the urethra. Localised or early prostate cancer usually causes no symptoms; however, some men may develop cancer that is more likely to spread, and some prostate cancer types can grow and spread rapidly. An uncontrolled, non-cancerous growth of cells in the prostate gland, which are not a tumour and do not spread (a condition called benign prostatic enlargement), is common in older men.
Screening coverage	Screening coverage refers to the proportion of eligible people who were screened over a certain period of time.
Screening uptake	Screening uptake refers to the proportion of eligible people who were invited for screening in the previous 12 months and screened within six months of invitation.
Survival rate	This relates to the percentage of people in a study or treatment group who are still alive for a certain period of time after they were diagnosed with, or started treatment for, a disease such as cancer. The survival rate is often stated as a one-year survival rate, which is the percentage of people in a study or treatment group who are alive one year after their diagnosis or the start of treatment.
Cancer stages	Staging is a way of describing the size of a cancer and how far it has grown. There are two main types of staging systems for cancer: the TNM (tumour, node, metastasis) system and the number system. The number system is used here. In the number system, stage 1 means that a cancer is relatively small and contained within the organ in which it originated. In stage 2, the tumour is larger, but the cancer normally has not yet spread into the surrounding tissues. Stage 3 indicates that cancer may have started to spread into surrounding tissues and the lymph nodes in the area. In stage 4, the cancer has spread from where it originated to another body organ, becoming secondary or metastatic cancer. Unstageable cancer refers to a cancer for which a stage cannot be determined despite appropriate tests.

A note on the data used in this section: local statistics on cancer incidence and mortality reported throughout this section have recently been updated. A data update of this section will be published in early 2019 to reflect this new evidence.

4.2 Causes and risk factors

The risk of developing cancer depends on many factors, including non-modifiable risk factors such as age, ethnicity and genetics.

Generally, the risk of cancer increases with age; however, the peak age varies depending on cancer type. For example, while breast cancer can affect younger women, most diagnoses tend to be in women who are over 50. [5] More than half of the cervical cancer cases in the UK each year are diagnosed in women under the age of 45. [8] Colorectal cancer is most frequently diagnosed in adults aged 60 and above, while lung and prostate cancers are most commonly diagnosed in people aged 70 and over. [11] [12] [13]

In terms of ethnicity, studies show that the risk of breast cancer is higher in White women, while prostate cancer is more common among people from African-Caribbean or African descent. [5] [13] The risk of colorectal cancer, and the prevalence of faults in the BRCA1 and BRCA2 genes (which predispose to breast cancer – see below), is higher in people from an Ashkenazi Jewish background. [11]

Cancer risk is also higher in people with a familial history of cancer, especially when diagnosed among first degree relatives¹ and at younger ages. [5] [11] [12] [13] Faults in the BRCA1 and BRCA2 genes increase the risk of breast and prostate cancers, but account for only a small number of these cancers. [5] [13]

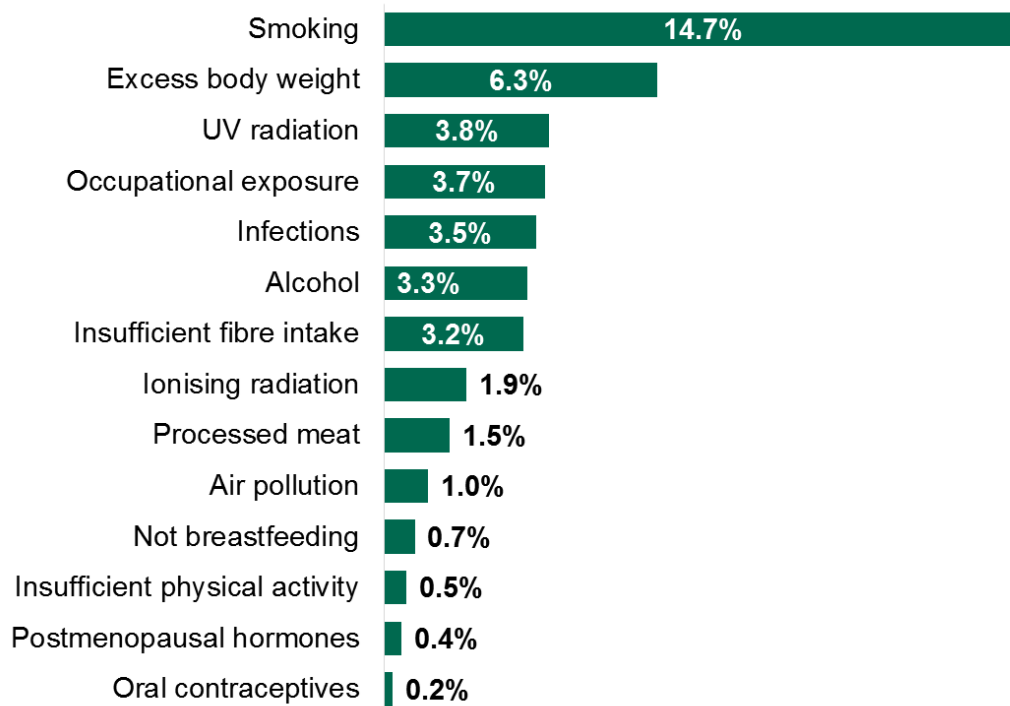
HPV is a major cause of cervical cancer: two strains of HPV, 16 and 18, cause around 70% of cervical cancers. However, risk factors such as having other sexually transmitted infections (STIs), smoking and using the contraceptive pill for more than five years also increase the risk. [8]

It is estimated that four in 10 cancers in the UK could be prevented if modifiable risk factors were eliminated – this equates to more than 135,000 new cancer cases each year. [14] Cancer Research UK suggests that these cases could have been prevented through the following actions: quitting smoking; maintaining a healthy weight; abstaining from alcohol; eating plenty of fruit, vegetables and fibre; avoiding red processed meat; cutting down on salt; being physically active; and avoiding excess ultraviolet (UV) radiation from sunlight and sunbeds. Figure 2 presents the proportion of all cancer cases that could be attributed to modifiable risk factors.

The proportion of cases that are preventable is higher for males. This is mainly because lifestyle risk factors such as smoking, occupational and dietary factors are generally higher in males than females. [15]

¹ First-degree relatives include parents, siblings, or children. [87]

Figure 2: Percentage of new cancer cases in England attributable to modifiable risk factors (all ages, 2015)



Source: Brown et al. [15]

Table 2 presents the list of modifiable risk factors that contribute to cancer morbidity by cancer type, as well as the proportion of cancers that are preventable. To date, no clear link between prostate cancer and modifiable risk factors has been identified. [13]

Table 2: Modifiable risk factors contributing to cancer morbidity by type of cancer

Risk factor	Breast	Colorectal	Lung
Smoking		✓	✓
Diet		✓	
Excess body weight	✓	✓	✓
Alcohol	✓	✓	
Occupational exposures	✓		✓
Radiation	✓	✓	✓
Not breastfeeding	✓		
Inactive lifestyle	✓	✓	
Hormone replacement therapy	✓		
Proportion preventable	27%	54%	89%

Source: Cancer Research UK. [14]

4.3 Local data and unmet need

This section describes local data on recorded cancer incidence, prevalence, staging, mortality, survival and screening.

4.3.1 Incidence

A total of 3,945 new cancer cases were diagnosed in Hackney and the City over the course of 2010–14. The age-standardised five-year rolling incidence rate was 613 per 100,000 population (Table 3). Out of the four major cancer types, prostate cancer had the highest incidence rate and colorectal cancer had the lowest incidence rate.

Table 3: Number of new cancer cases and five-year rolling age-standardised cancer incidence rates in Hackney and the City by type (all ages, 2010–14)

Type of cancer	Number of new cancer diagnoses	Age-standardised incidence per 100,000
Breast	581	143
Colorectal	371	64
Lung	528	97
Prostate	539	204
All cancers	3,945	613

Source: Public Health England.

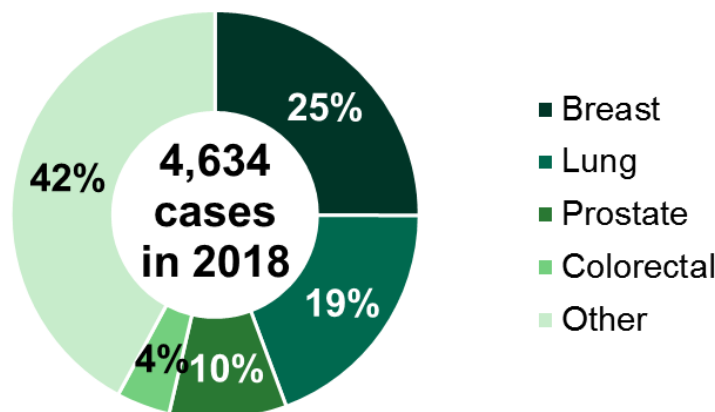
Note: Standardised rates were available for all age groups only; inclusion of younger age groups is expected to have a negligible impact on the rates of the four major cancer types, as they are adult cancers.

4.3.2 Prevalence – GP-recorded cancer cases

Data on prevalence reported throughout this section are based on the number of adults (age 18 and over) recorded with a diagnosis of cancer on GP records. This is the only source of cancer prevalence available that allows analysis of inequalities (see Section 4.4.2). However, the prevalence rates reported here should be interpreted with some caution; they do not reflect the underlying prevalence of cancer in the local adult population. Cancer prevalence collected from this source may be subject to potential variation in diagnostic outcomes between practices. [16]

In 2017, a total of 4,634 Hackney and the City residents were recorded as having cancer. Breast, prostate, colorectal and lung cancers combined accounted for 58% of all registered cancer cases (Figure 3). Breast cancer was the most prevalent type, accounting for about a quarter of all registered cases.

Figure 3: GP-diagnosed cancer cases in Hackney and the City, by cancer type (age 18+, 2017)



Source: Extracted from the local GP register by Clinical Effectiveness Group (CEG), Blizard Institute, April 2017. Data cover residents of Hackney and the City registered with a GP in Hackney, the City of London, Tower Hamlets and Newham.

Table 4 presents an estimated crude prevalence of cancer by type among Hackney and the City residents. In both Hackney and the City, breast cancer was the most prevalent type, while lung cancer was the least prevalent of the main cancer types in Hackney. The number of City residents currently living with lung cancer was too small to calculate prevalence.

Table 4: GP-recorded cancer prevalence in Hackney and the City (age 18+, 2017)

Type of cancer	Hackney	City of London
Breast	0.5%	0.9%
Colorectal	0.2%	0.5%
Lung	0.1%	-
Prostate	0.4%	0.7%
All cancers	2.0%	3.5%

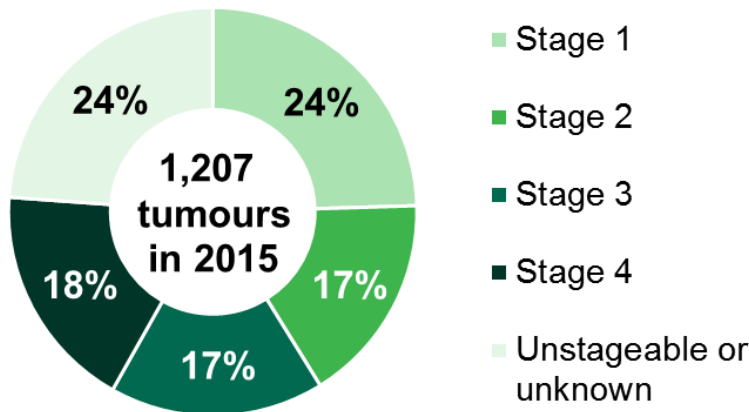
Source: Extracted from the local GP register by CEG, Blizard Institute, April 2017. Data cover residents of Hackney and the City registered with a GP in Hackney, the City of London, Tower Hamlets and Newham.

Note: Breast cancer prevalence includes female data only.

4.3.3 Staging

Figure 4 presents a breakdown of the number of all new tumours diagnosed in 2015 by stage of tumour at diagnosis. Around a quarter of all tumours were stage 1 at diagnosis and a quarter were either unstageable or unknown.

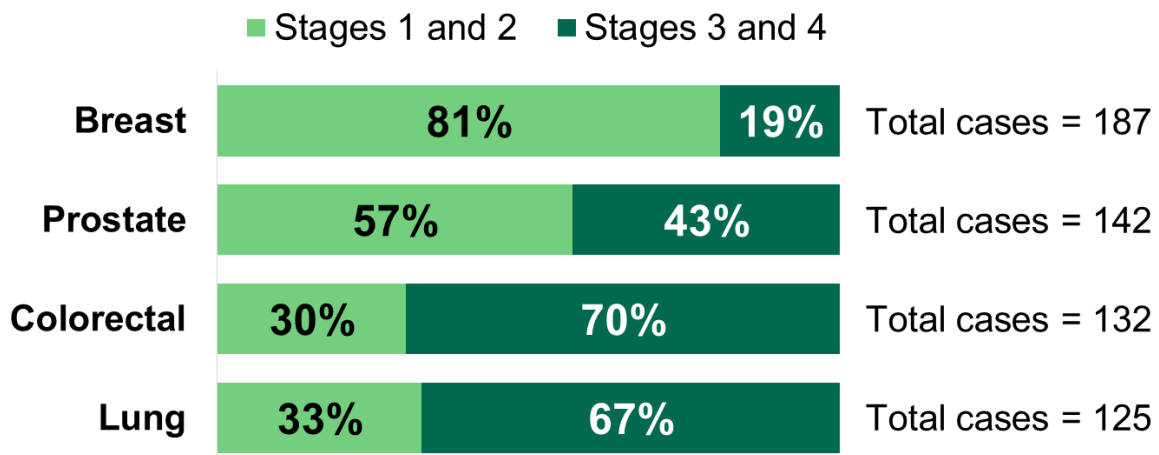
Figure 4: All new invasive tumours registered in Hackney and the City, by stage at diagnosis (all ages, 2015)



Source: Public Health England cancer outcomes and services dataset.

Figure 5 presents a breakdown of the number of new cancer tumours diagnosed in 2015 by type and stage of tumour. Most new breast and prostate cancer tumours were diagnosed at early stages (stages 1 and 2), while most lung and colorectal cancer tumours were diagnosed at later stages (stages 3 and 4).

Figure 5: New invasive cancer tumours registered in Hackney and the City, by cancer type and stage at diagnosis (all ages, 2015)



Source: Public Health England cancer outcomes and services dataset.

4.3.4 Mortality

A total of 1,579 cancer deaths occurred in Hackney and the City over the course of 2010 to 2014. The age-standardised five-year rolling cancer mortality rate was 285 per 100,000 population (Table 5). Out of the four major cancer types, lung cancer

had the highest mortality rate, while colorectal and breast cancers had the lowest mortality rates.

Table 5: Number of cancer deaths and age-standardised cancer mortality rates in Hackney and the City, by cancer type (all ages, 2010–14)

Type of cancer	Number of deaths	Age-standardised mortality per 100,000
Breast	100	30
Colorectal	154	29
Lung	382	71
Prostate	89	40
All cancers	1,579	285

Source: Public Health England.

Note: Standardised rates were available for all age groups only; inclusion of younger age groups is expected to have a negligible impact on the rates of the four major cancer types, as they are adult cancers.

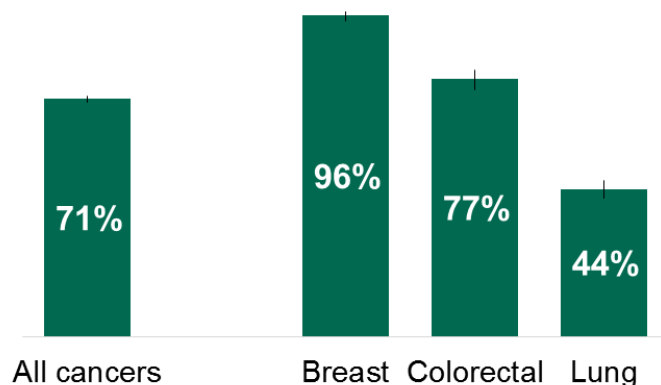
4.3.5 Survival

The one-year survival index represents the proportion of people who are still alive one year after cancer diagnosis. According to the Office for National Statistics (ONS), the 2015 one-year cancer survival index for all cancer types in Hackney and the City was 71% (Figure 6). Due to differences in typical stage at diagnosis and characteristics of growth and spread, one-year survival generally varies widely between cancer types. One-year survival is highest for breast cancer, and lowest for lung cancer.

National estimates suggest that 94% of men survive prostate cancer for at least one year (local data not available). [17]

Local data on five and ten year cancer survival are not available. National data for 2010-11 show that just over half (around 54%) of patients survived five years after diagnosis, slightly higher than ten-year survival (50%). [18]

Figure 6: One-year cancer survival index in Hackney and the City, by cancer type (age 15–99, 2015).



Source: Office for National Statistics one-year cancer survival, 2015. [19]

Note: Local prostate cancer survival data not available.

4.3.6 Screening

Screening is the process of identifying people who appear healthy but may be at increased risk of a disease or condition. [20] Currently, three cancer screening programmes exist in the UK: breast, cervical and colorectal. There are no national screening programmes for lung or prostate cancer (for more information on prostate cancer screening see Section 0). Table 6 presents the eligibility criteria for these three cancer screening programmes.

Table 6: Screening eligibility criteria by cancer type and frequency of invitation for screening

Type of cancer	Gender	Age group	Frequency
Breast	Females	50-70	3 years
Colorectal	Males and females	60-74*	2 years
Cervical	Females	25-49	3 years
		50-64	5 years

Source: GOV.UK, population screening programmes. [21]

*Note: Following recommendations from the UK National Screening Committee (UK NSC) in 2018, the colorectal screening programme is being extended to include people from the age of 50. For more information on colorectal screening see Section 0.

Local screening uptake and coverage data for the three national cancer screening programmes are presented in Table 7 (for comparative data, see Section 4.5.6). For definitions, please see Table 1.

Table 7: Cancer screening uptake and coverage in Hackney and the City, by cancer type (2016/17)

Type of cancer	Screening uptake		Screening coverage	
	Number	Rate	Number	Rate
Breast	4,760	64%	15,026	61%
Colorectal	4,985	43%	10,189	45%
Cervical	No data		64,033	66%

Source: Public Health England cancer outcomes and services dataset.

Note: Public Health England data on cervical and colorectal screening coverage include an extra six months to allow for the time people need to make an appointment; the Public Health England coverage periods are 3.5 and 5.5 years for cervical cancer, and 2.5 years for colorectal cancer.

4.3.7 Unmet need

From a research perspective, there are several areas of unmet need in cancer diagnostics and care. These include: limited improvements over time in survival from several types of cancer; poor understanding of cancer aetiology in older populations; and a significant gap in survival and access to treatment in certain population groups. [22]

Research among cancer survivors indicates that unmet needs in this population include problems with physical health and activities of daily living, and financial, relationship and emotional problems, as well as information and communication needs. [23]

One American study found a higher prevalence of unmet needs among breast cancer survivors compared with other cancer types. Problems with personal control – for example, the ability to maintain sexual function or ability to make social plans – were the most frequent type of unmet need among male cancer survivors, and for prostate cancer in particular. [23] The same study also found that cancer survivors aged over 65 identified fewer unmet needs on average than younger survivors. [23]

Locally, unmet need frequently manifests as unplanned care, including emergency hospital admissions. These are often related to a lack of support for the practical or personal needs of cancer patients, and may indicate poor access to primary and secondary care services, treatment adherence or complications. [24] In 2016/17, there were 1,071 emergency cancer admissions for patients registered with Hackney and the City GPs. [10]

Low screening uptake and late diagnosis also reflect unmet need in relation to cancer services. While the majority of breast and prostate cancer cases are being diagnosed early, most lung and colorectal cancer cases in Hackney and the City are diagnosed at stages 3 or 4 (see Section 4.3.3). National data show that the chances of survival are lower if cancer is diagnosed at later stages [19]. In general, cancer screening uptake and coverage in Hackney and the City are relatively low locally compared to London and nationally (see Section 4.5.6).

Lastly, in relation to unmet need, preventable mortality rates in people under 75 could indicate that more effort needs to be dedicated to earlier intervention. Between 2014 and 2016, there were 319 cancer deaths considered preventable in Hackney residents under the age of 75. [25] Data for the City of London are not available due to small numbers.

4.4 Inequalities

This section describes specific inequalities in relation to cancer incidence, prevalence, staging, mortality, survival and screening.

4.4.1 Incidence

Gender

Trends over time show that Hackney and the City cancer incidence rates for males have been consistently and significantly higher compared with females – for all cancer types combined, as well as for colorectal and lung cancers specifically. [26] Table 8 presents cancer incidence rates by type and gender for the period 2010–14.

Table 8: Number of new cancer cases and five-year rolling age-standardised cancer incidence rates in Hackney and the City, by gender and cancer type (all ages, 2010–14)

Type of cancer	Males		Females	
	Number of new cancer diagnoses	Incidence per 100,00 population	Number of new cancer diagnoses	Incidence per 100,00 population
Colorectal	208	77	163	50
Lung	320	123	208	70
All cancers	2,066	715	1,879	512

Source: Public Health England.

Note: Standardised rates were available for all age groups only; inclusion of younger age groups is expected to have a negligible impact on the rates of the four major cancer types, as they are adult cancers.

Breast and prostate cancer are gender-related and incidence data are presented in Section 4.33.

Age

On the whole, cancer incidence increases with age, with the highest rates observed in residents aged 80 and over, and the lowest rates in residents under 25 (Table 9).

Prostate cancer incidence rates differ slightly in that they peak in the 70–79 age group, with lower rates among those aged 80+. Trends over time show a significant increase in incidence rates in men aged 50–59, which may be linked to awareness-raising campaigns. [26]

Table 9: Five-year rolling age-standardised cancer incidence rates in Hackney and the City, by age and cancer type (per 100,000 population, 2010–14)

Type of cancer	Age group				
	25–49	50–59	60–69	70–79	80+
Breast	61	240	312	347	469
Colorectal	6	54	117	227	404
Lung	4	65	218	390	525
Prostate	5	170	478	1,035	619
All cancers	115	627	1,299	2,233	2,692

Source: Public Health England.

Ethnicity

Local data on incidence of cancer in different ethnic groups were not available for this section. Across London as a whole, evidence suggests that compared to White men, Black men are significantly more likely to develop colorectal and prostate cancers. [27] Data describing incidence for cancer between ethnic groups are based on small numbers of cancer cases, and should be interpreted with caution.

Socio-economic disadvantage

Research shows that many of the key modifiable risk factors for cancer (such as smoking and excess body weight) are more prevalent among people from more deprived backgrounds. [28] This in turn can lead to higher incidence of cancer in more deprived populations. This is confirmed in national data, which show a clear socio-economic gradient in all cancer incidence – rates are higher in the most deprived compared to the least deprived groups. [29] Local data on socio-economic disadvantage and cancer incidence are not available.

4.4.2 Prevalence – GP-recorded cancer cases

Gender

Local data reveal no statistically significant gender differences in cancer prevalence (Table 10).

Table 10: GP-recorded cancer prevalence in Hackney and the City, by gender (age 18+, 2017)

Type of cancer	Males		Females	
	Number of cancer cases	Crude prevalence (%)	Number of cancer cases	Crude prevalence (%)
Colorectal	239	0.2%	192	0.2%
Lung	100	0.1%	97	0.1%
All cancers	2,169	2.0%	2,465	2.1%

Source: Extracted from the local GP register by CEG, Blizard Institute, April 2017. Data cover residents of Hackney and the City registered with a GP in Hackney, the City of London, Tower Hamlets and Newham.

Breast and prostate cancer are gender-related and prevalence data are presented in Section 4.33.

Age

Similar to cancer incidence (Section 4.4.1), prevalence of all cancer types – with the exception of lung cancer – increases with age, with the highest prevalence recorded in residents aged 85 and over (Table 11). Lung cancer prevalence peaks among adults aged 65–74 and is linked to poorer survival rates (see Section 4.3.5).

Table 11: GP-recorded cancer prevalence in Hackney and the City, by age and cancer type (age 18+, 2017)

Type of cancer	Age group						
	18–24	25–39	40–54	55–64	65–74	75–84	85+
Breast	-	0.1%	1.0%	2.9%	4.6%	4.9%	5.7%
Colorectal	-	0.0%	0.1%	0.3%	1.0%	1.8%	2.5%
Lung	-	-	0.0%	0.2%	0.7%	0.6%	0.6%
Prostate	0	0	0.1%	1.2%	4.9%	12.4%	12.7%
All cancers	0.2%	0.4%	1.4%	4.3%	9.7%	14.7%	16.0%

Source: Extracted from the local GP register by CEG, Blizard Institute, April 2017. Data cover residents of Hackney and the City registered with a GP in Hackney, the City of London, Tower Hamlets and Newham.

Note: '-' denotes that it was not possible to calculate the prevalence due to too few cancer cases on record; '0' denotes that no cases were recorded.

Ethnicity

GP-recorded all cancer prevalence is significantly higher in residents from Black and White ethnic backgrounds compared with other groups (Table 12). This pattern is observed across most of the four main cancers, although prostate cancer is much more common among Black than White ethnic groups.

Table 12: GP-recorded cancer prevalence in Hackney and the City, by ethnicity and cancer type (age 18+, 2017)

Type of cancer	Ethnic group					
	White	Black	Asian	Mixed	Other	Unknown
Breast	1.1%	1.1%	0.8%	-	0.7%	0.5%
Colorectal	0.2%	0.2%	0.2%	-	0.1%	0.1%
Lung	0.1%	0.1%	-	0	0.1%	0.0%
Prostate	0.6%	1.9%	0.3%	-	0.3%	0.3%
All cancers	2.3%	2.5%	1.3%	0.6%	1.5%	1.1%

Source: Extracted from the local GP register by CEG, Blizard Institute, April 2017. Data cover residents of Hackney and the City registered with a GP in Hackney, the City of London, Tower Hamlets and Newham.

Notes: '-' denotes that it was not possible to calculate the prevalence due to too few cancer cases on record; '0' denotes that no cases were recorded. Unknown ethnicity included all not stated, unclassified or blank values. Around 5% (254) of all cancer cases did not have an ethnicity record.

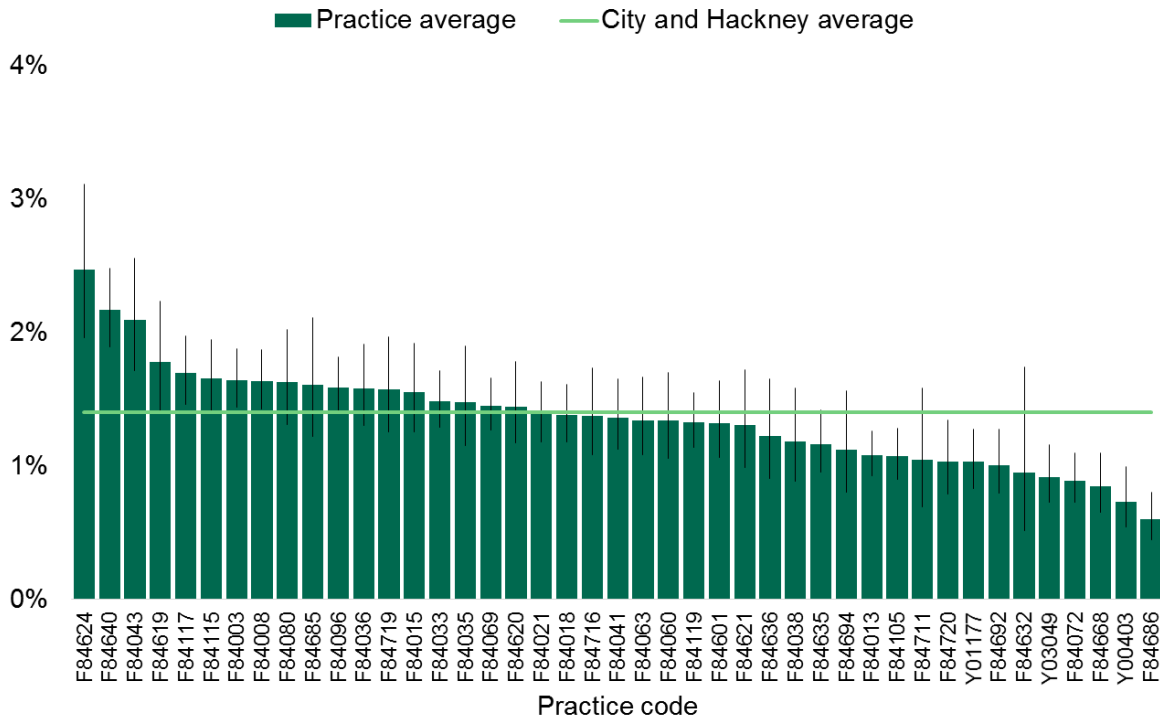
Socio-economic disadvantage

Local data reveal no clear association between area deprivation and cancer prevalence. Given the well-documented and strong links between poor cancer outcomes and deprivation, it is likely that this finding is related to poorer survival in lower socio-economic groups.

Location within Hackney and the City

According to NHS Digital Quality and Outcomes Framework (QOF) data for 2016/17, there was a large variation in recorded cancer prevalence across Hackney and the City GP practices (Figure 7). [30] Cancer prevalence was significantly higher compared with the Hackney and the City average in nine out of 43 practices, and significantly lower than average in 10 practices.

Figure 7: Cancer prevalence in Hackney and the City by general practice (all ages, 2016/17)



Source: NHS Digital, Quality Outcomes Framework 2016/17.
 Note: Cancer prevalence available for all age groups only.

Please note, since this is a crude prevalence the differences might reflect the size and age structure of practice lists.

4.4.3 Staging

Data describing the stage at which different cancers are diagnosed in Hackney and the City are only available by age group.

Age

Stage 3 and 4 tumours represent advanced cancer and cancer that has metastasised to other tissues and organs. For each age group, around a third of all cancers in Hackney and the City are either stage 3 or 4 (Table 13). Older age groups are most likely to be diagnosed with stage 4 tumours, with around a fifth (22%) of all invasive tumours in patients aged 65+ being stage 4. [31]

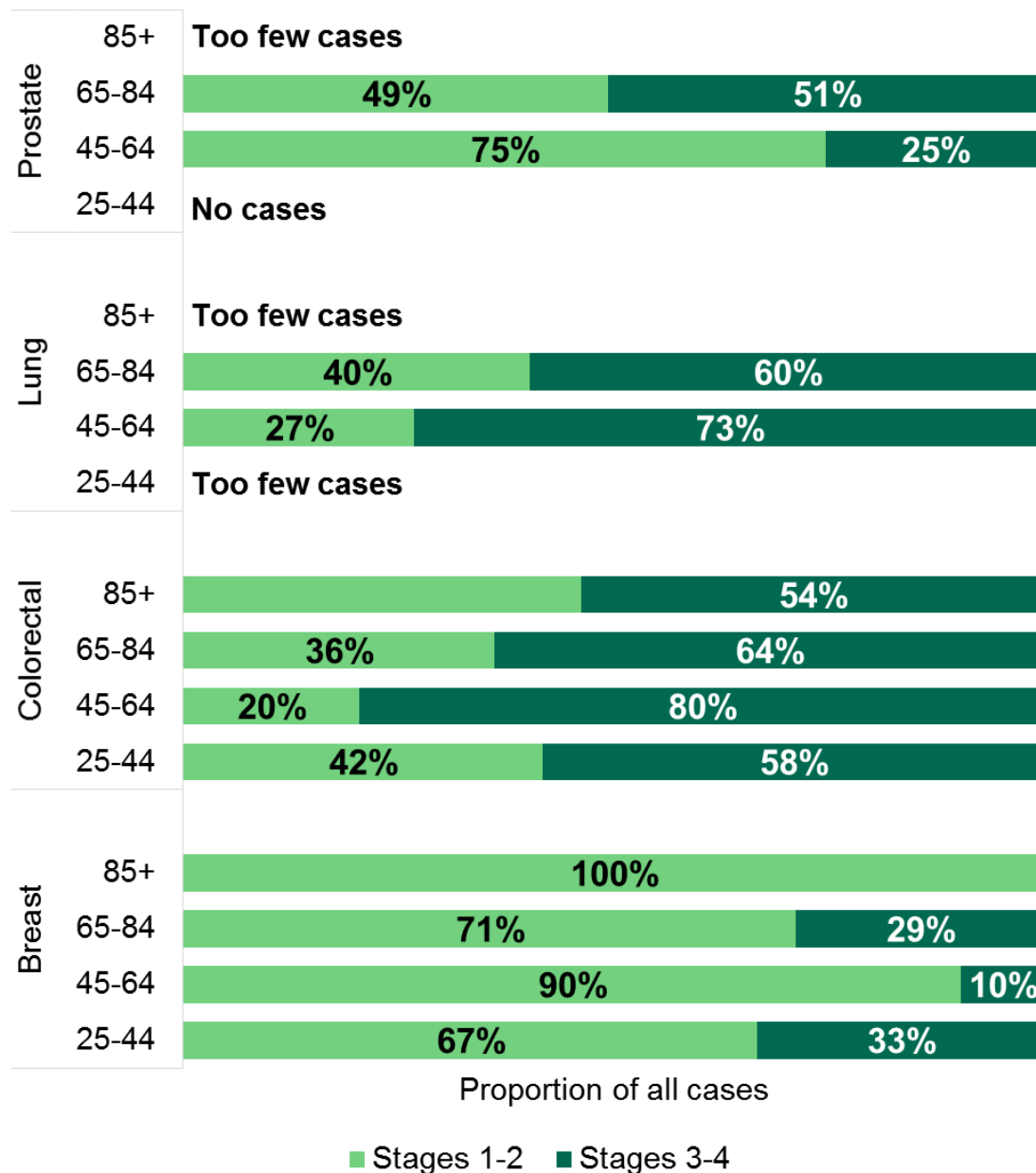
Table 13: Number and proportion of all invasive tumours diagnosed in Hackney and the City by age group and stage (2015)

Age group	All stages (% of all tumours)	Stage 1-2 (% of all tumours)	Stage 3-4 (% of all tumours)
25–44	169 (100%)	117 (69%)	52 (31%)
45–64	457 (100%)	309 (68%)	148 (32%)
65–84	491 (100%)	294 (60%)	197 (40%)
85+	74 (100%)	49 (66%)	25 (34%)

Source: Public Health England cancer outcomes and services dataset.

Figure 8 presents the proportion of tumours diagnosed in 2015 by age group, stage and type. For all age groups, most breast cancer cases were diagnosed at earlier stages (either 1 or 2), while most colorectal and lung cancer cases were diagnosed at later stages (either 3 or 4). The likelihood of late prostate cancer diagnosis increases with age.

Figure 8: Proportion of all invasive tumours diagnosed in Hackney and the City, by age group, stage and type (2015)



Source: Public Health England cancer outcomes and services dataset.

4.4.4 Mortality

Gender

In 2010–14 male all-cancer and lung cancer mortality rates were significantly higher compared to females (Table 14). However, while male lung cancer mortality rates have been going down, female mortality rates have been increasing since 2001–04. This trend is likely to reflect changes in smoking behaviours among men and

women. [32] Colorectal cancer mortality rates were also substantially higher in males compared to females, with this difference being borderline statistically significant.

Table 14: Number of cancer deaths and age-standardised mortality rates in Hackney and the City, by gender and cancer type (all ages, 2010–14)

Type of cancer	Males		Females	
	Number of deaths	Rate per 100,000	Number of deaths	Rate per 100,000
Colorectal	86	35	68	22
Lung	225	88	157	55
All cancers	881	345	698	225

Source: Public Health England.

Notes: Standardised rates were available for all age groups only; inclusion of younger age groups is expected to have a negligible impact on the rates of the four major cancer types, as they are adult cancers.

Breast and prostate cancer are gender-related and mortality data are presented in Section 4.33.

Age

Without exception, cancer mortality rates increase with age for all cancer types (Table 15).

Table 15: Age-standardised cancer mortality rates in Hackney and the City, by type and age (per 100,000 population, 2010–14)

Type of cancer	Age group				
	25–49	50–59	60–69	70–79	80+
Breast	5	39	53	97	163
Colorectal	1	14	41	97	249
Lung	2	43	137	298	448
Prostate	-	-	33	134	464
All cancers	20	180	474	1,085	2,025

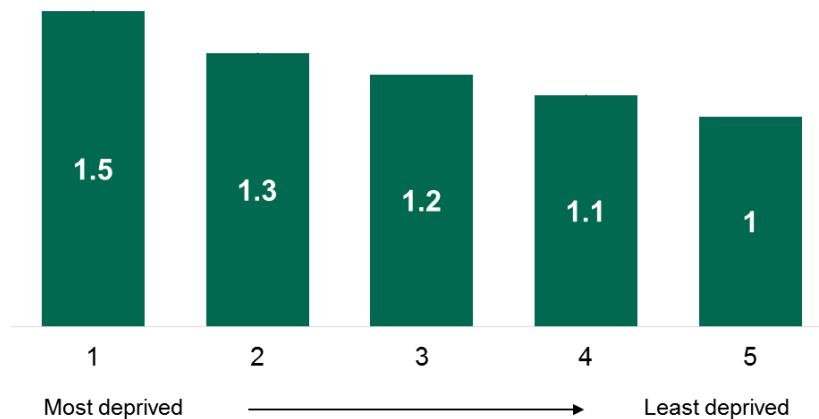
Source: Public Health England.

Note: '-' denotes that it was not possible to calculate mortality due to too few cancer cases on record.

Socio-economic disadvantage

Local data on socio-economic disadvantage and cancer incidence are not available. National data show a strong correlation between cancer mortality rates and deprivation (Figure 9).

Figure 9: Rate ratio for age-standardised all-cancer mortality in England, by deprivation quintile (2007–11)



Source: Cancer Research UK deprivation gradient for cancer incidence. [33]

Note: Deprivation is defined using the Index of Multiple Deprivation (IMD). IMD is a measure of relative deprivation for small areas that combines 37 separate indicators, each reflecting a different aspect of deprivation experienced by individuals living in an area. Deprivation groupings are reported from 1 (most deprived) to 5 (least deprived). No confidence intervals were available for these data.

4.4.5 Survival

Gender

Local statistics on cancer survival by gender are not available. National trends show that all cancer survival is higher in females compared to males. There are two main factors underlying these observed trends. Firstly, for most individual cancer types survival is generally higher for women compared to men. Secondly, the cancers that are most common in women have higher survival than the cancers that are most common in men. [34]

Age

National statistics show that (with the exception of breast, colorectal and prostate cancers, where survival is highest in middle age) cancer survival is generally highest in people under the age of 40. [34]

Hackney and the City one-year cancer survival data are available separately for age groups 55–64 and 75–99 only. One-year survival is significantly lower in the 75–99 age group compared to 55–64 year olds. Trends over time show a substantial improvement in the one-year cancer survival index for both of these age groups – increasing from 63% to 78% between 2000 and 2015 for 55–64 year olds, and from 42% to 59% over this same period for 75–99 year olds. [35]

Socio-economic disadvantage

Inequalities in cancer survival have been well-documented since the 1970s. [18] The push to reduce the gap in survival resulted in the introduction of the NHS Cancer

Plan in 2000. [36] This in turn has led to an improvement in cancer survival; however, for most cancer types the improvement has been greatest among the least deprived population groups. [37] Recent research suggests that the gap in one-year cancer survival between the most affluent and most deprived groups of patients remains unchanged for most cancers. [38]

Local statistics on cancer survival and socio-economic disadvantage are not available.

4.4.6 Screening

This section summarises data on inequalities in screening coverage for colorectal, breast and cervical cancer in Hackney and the City. Data presented here for cervical cancer have been extracted from GP registers, and are therefore from a different source to screening data presented elsewhere in this section. There is no reliable source of data on which to base a robust assessment of local coverage of colorectal or breast cancer screening for different genders, age groups, deprivation quintiles, ethnic groups or for people with learning disability; however, national data are presented where available.

Gender

Due to the nature of gender-related cancers, such as breast and cervical, it is not possible to compare the differences in coverage of these cancers between males and females. National evidence suggests no significant differences in colorectal cancer screening coverage between males and females. [1] There is no reliable source of data on which to base a robust assessment of local coverage of colorectal cancer screening for different genders.

Age

Nationally, cervical screening coverage is lowest in the youngest eligible age group. [1] Local GP data show that, in line with this, cervical screening coverage in Hackney and the City is lowest among 24–29 year olds (Table 16).

According to 2016/17 data from NHS Digital for Hackney and the City, the highest breast screening coverage was among women aged 55–59 (62.1%), followed by those aged 60–64 (61.6%), 65–69 (59.7%) and 50–54 (39.5%). Nationally, colorectal screening coverage is similar across eligible age groups. [1]

Table 16: GP-recorded cervical cancer screening coverage in Hackney and the City, by age (2017)

Age group	Cervical cancer screening coverage
24–29	51%
30–34	66%
35–39	67%
40–44	67%
45–49	68%
50–54	78%
55–59	73%
60–64	68%

Source: Extracted from the local GP register by CEG, Blizard Institute, April 2017. Data cover residents of Hackney and the City registered with a GP in Hackney, the City of London, Tower Hamlets and Newham.

Socio-economic disadvantage

According to national research, the gap in breast cancer screening between most and least deprived areas has been closing over the past few years, but significant differences remain. [39] [40] Similarly, cervical screening coverage is higher in the least deprived communities, although the differences are not as pronounced as in breast cancer screening. [39] Locally, no significant differences were recorded in cervical cancer screening by local area deprivation (Table 17).

Table 17: GP-recorded cervical cancer screening coverage in Hackney and the City, by deprivation quintile (2017)

Deprivation quintile	Cervical cancer screening coverage
1 (most deprived)	65%
2	66%
3	65%
4	64%
5 (least deprived)	64%

Source: Extracted from the local GP register by CEG, Blizard Institute, April 2017. Data cover residents of Hackney and the City registered with a GP in Hackney, the City of London, Tower Hamlets and Newham.

Note: Deprivation is defined using the Index of Multiple Deprivation (IMD). IMD is a measure of relative deprivation for small areas that combines 37 separate indicators, each reflecting a different aspect of deprivation experienced by individuals living in an area. Deprivation groupings are reported from 1 (most deprived) to 5 (least deprived). No confidence intervals were available for these data.

Ethnicity

Evidence from the literature suggests that migrant communities are less likely to attend screening programmes. The barriers to screening include lack of knowledge, low perceived risk of illness, fear of stigmatisation, language difficulties, embarrassment, and negative past experiences with screening or the NHS, as well as transport and time constraints. [41] [42] [43] [44]

National data on breast and cervical cancer screening coverage for different ethnic groups are not available. Locally, cervical cancer screening coverage is highest among Black females, followed by White females (

Table 18).

Table 18: GP-recorded cervical cancer screening coverage in Hackney and the City, by ethnicity (2017)

Age group	Cervical cancer screening coverage
White	66%
Mixed	62%
Asian	60%
Black	70%
Other	57%
Unknown	50%

Source: Extracted from the local GP register by CEG, Blizard Institute, April 2017. Data cover residents of Hackney and the City registered with a GP in Hackney, the City of London, Tower Hamlets and Newham.

Disability

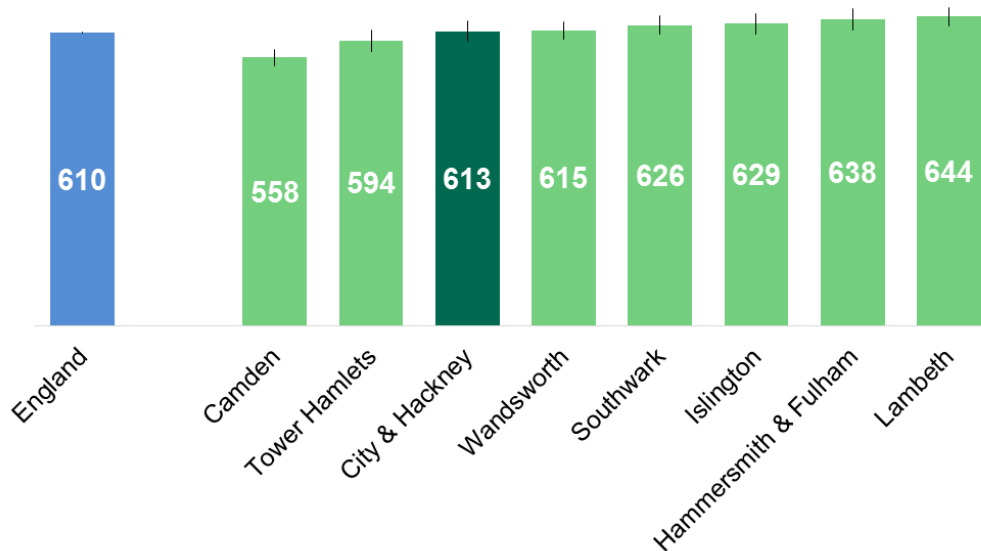
People with learning disability are generally less likely to attend screening programmes, including cancer screening. [45] More information on cancer screening coverage, including available data for cervical screening, for people with learning disability in Hackney and the City is provided in the adult learning disability needs assessment. [46]

4.5 Comparisons with other areas and over time

4.5.1 Incidence

Cancer incidence in Hackney and the City is comparable to similar areas (statistical peers), as well as for England overall (Figure 10).

Figure 10: Age-standardised cancer incidence rates in Hackney and the City and statistical peers (per 100,000 population, all ages, 2010–14)



Source: Public Health England.

Note: Standardised rates were available for all age groups only.

According to 2010–14 data, there were no statistically significant differences between breast and colorectal cancer incidence rates in Hackney and the City compared with other similar areas (Table 19). However, local incidence rates are significantly lower than the England average.

Lung cancer incidence in Hackney and the City is also similar to most of Hackney's statistical peers, with the exception of Wandsworth (lower) and Tower Hamlets (higher). Lung cancer incidence rates in Hackney and the City are significantly higher than national rates.

Prostate cancer incidence in Hackney and the City is relatively high when compared with similar areas, with only Lambeth recording higher incidence rates. Locally, prostate cancer incidence rates are significantly higher than England.

Table 19: Age-standardised cancer incidence rates, by cancer type (all ages, per 100,000 population, 2010–14)

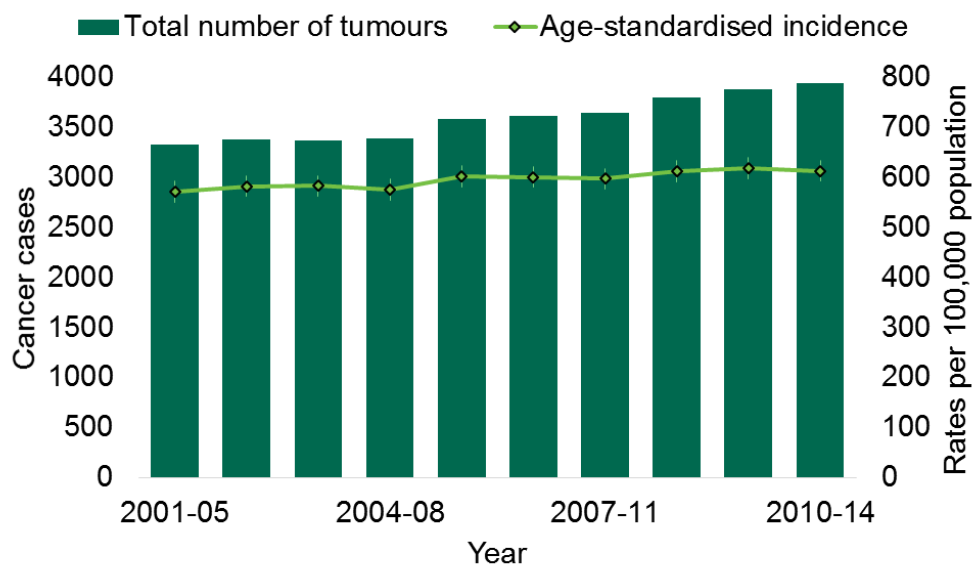
Area	Type of cancer			
	Breast	Colorectal	Lung	Prostate
Camden	162	58	84	142
City and Hackney	143	64	97	204
Hammersmith and Fulham	159	74	95	196
Islington	160	68	111	155
Lambeth	158	70	92	246
Southwark	137	69	103	202
Tower Hamlets	133	55	120	145
Wandsworth	156	73	80	189
England	168	74	79	179

Source: Public Health England.

Note: Standardised rates were available for all age groups only; inclusion of younger age groups is expected to have a negligible impact on the rates of the four major cancer types, as they are adult cancers.

Figure 11 presents the number of cancer cases and the age-standardised incidence rates as five-year rolling statistics. Between 2001–05 and 2010–14, the number of new cancer cases in Hackney and the City increased by 20%, from 3,327 to 3,945. The incidence rate has risen from 571 per 100,000 in 2001–05 to 614 per 100,000 in 2010–14.

Figure 11: Number of new cancer cases and age-standardised cancer incidence rates in Hackney and the City (all ages, 2001–05 to 2010–14)

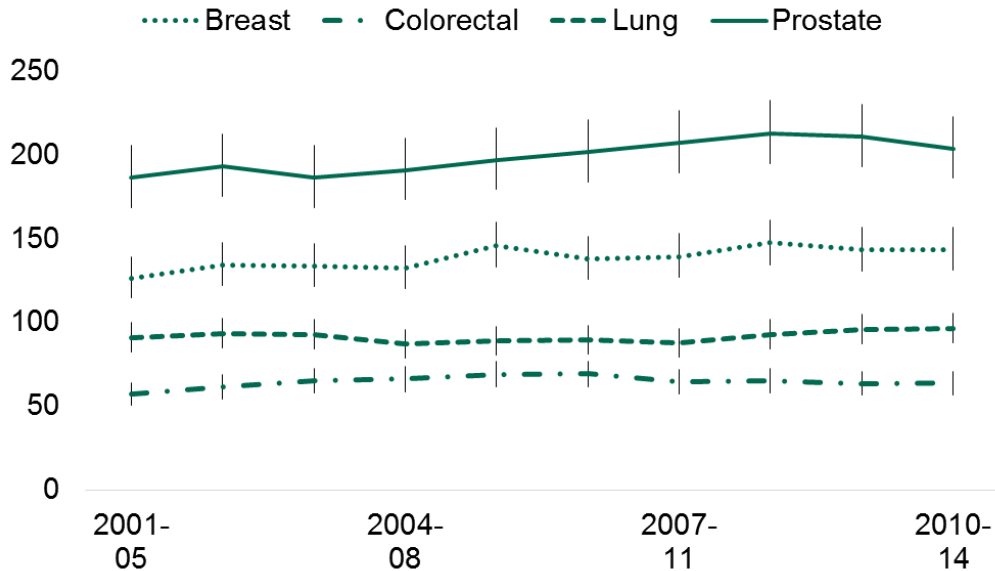


Source: Public Health England.

Note: Standardised rates were available for all age groups only; inclusion of younger age groups is expected to have a negligible impact on the rates of the four major cancer types, as they are adult cancers.

Figure 12 presents Hackney and the City cancer incidence rates by cancer type. Incidence rates for all cancer types increased between 2001–05 and 2010–14; however, none of these differences was statistically significant.

Figure 12: Trends in age-standardised cancer incidence rates in Hackney and the City, by cancer type (all ages, five-year rolling rates per 100,000 population, 2001–05 to 2010–14)



Source: Public Health England.

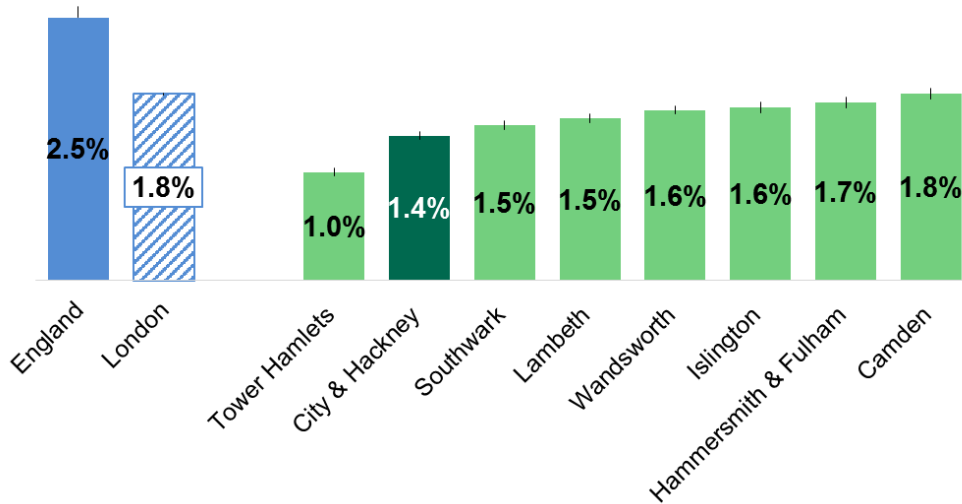
Note: Standardised rates were available for all age groups only; inclusion of younger age groups is expected to have a negligible impact on the rates of the four major cancer types, as they are adult cancers.

4.5.2 Prevalence

Please note that, to enable comparisons to be made with other areas and over time, the source of data on prevalence used below is not the same as that used previously in this section. Figures for Hackney and the City reported here are not comparable with earlier reported figures.

Cancer prevalence in Hackney and the City is significantly below the national and London averages as well as below the prevalence in Lambeth, Wandsworth, Islington, Hammersmith and Fulham, and Camden (Figure 13). The only borough with significantly lower rates than Hackney and the City was Tower Hamlets.

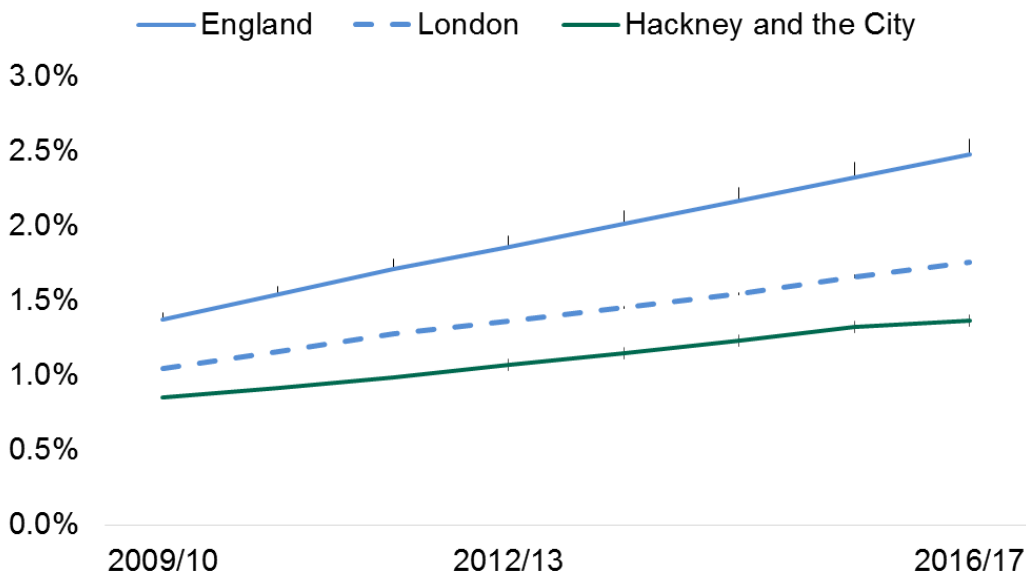
Figure 13: GP-recorded cancer prevalence (all ages, 2016/17)



Source: Public Health England cancer services profile. [10]
 Note: Cancer prevalence was available for all age groups only.

Cancer prevalence in Hackney and the City was significantly lower compared to the London and England averages across the whole time period from 2009/10 to 2016/17 (Figure 14). Comparative data on cancer prevalence by cancer type were not available.

Figure 14: Trends in GP-recorded cancer prevalence (all ages, 2009/10 to 2016/17)

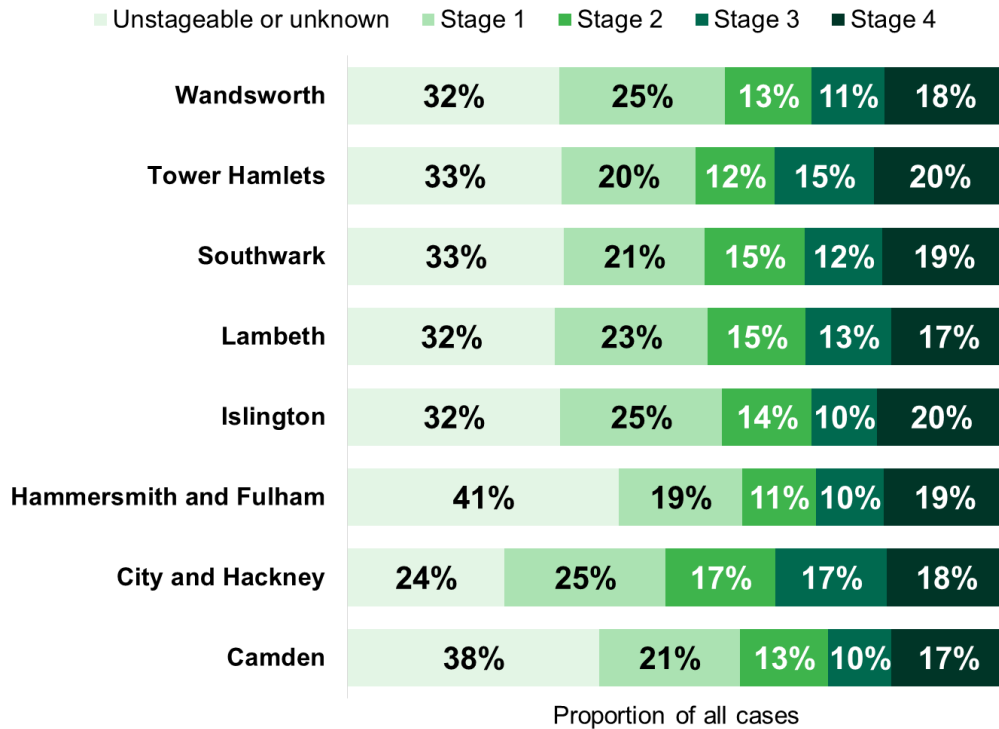


Source: Public Health England cancer services profile. [10]
 Notes: Cancer prevalence was available for all age groups only.

4.5.3 Staging

Figure 15 shows all tumours diagnosed in 2015 in Hackney and the City by stage, alongside data for Hackney’s statistical peers. Compared to these peers, Hackney and the City had the lowest proportion of tumours for which the stage was recorded as unstageable or unknown, and the highest proportion of tumours diagnosed at stages 2 and 3.

Figure 15: All invasive tumours diagnosed, by stage at diagnosis (all ages, 2015)

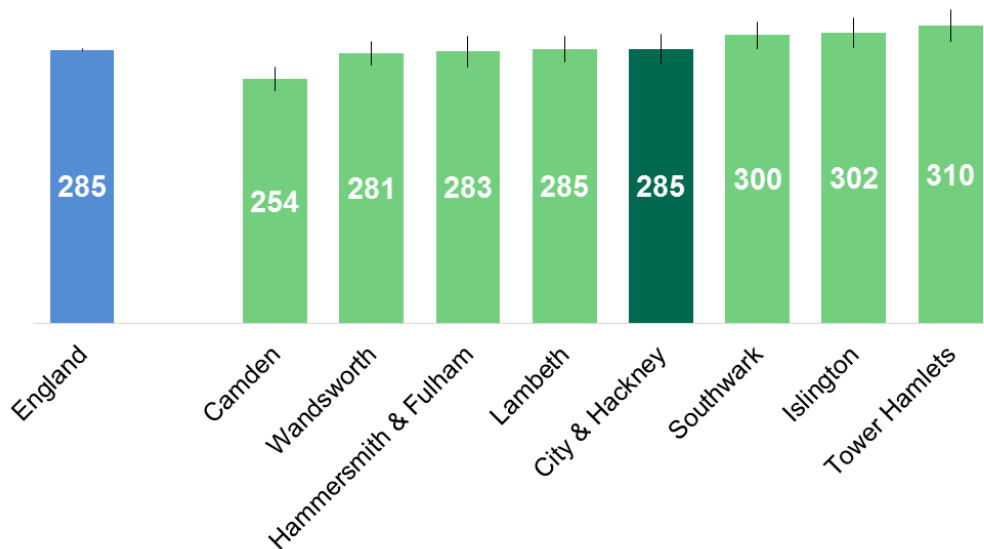


Source: Public Health England cancer outcomes and services dataset.

4.5.4 Mortality

According to 2010–14 data, cancer mortality rates in Hackney and the City are similar to most similar areas and the same as England (Figure 16).

Figure 16: Age-standardised cancer mortality rates (all ages, per 100,000 population, 2010–14)



Source: Public Health England.

Notes: Standardised rates were available for all age groups only.

Table 20 presents cancer mortality rates by type in Hackney and the City, similar areas and nationally. For all cancer types, mortality rates are similar in Hackney and the City compared to Hackney's statistical peers. Locally, breast cancer mortality rates are lower than England, while lung cancer mortality rates are higher.

Table 20: Age-standardised cancer mortality rates, by cancer type (all ages, per 100,000 population, 2010–14)

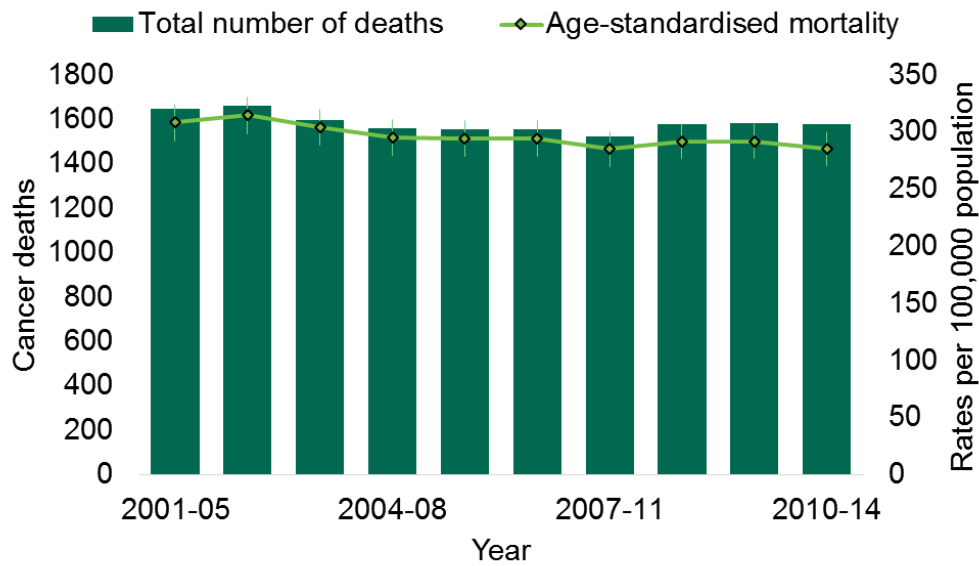
Area	Type of cancer			
	Breast	Colorectal	Lung	Prostate
Camden	30	26	60	38
City and Hackney	30	29	71	40
Hammersmith and Fulham	31	32	71	39
Islington	32	28	84	43
Lambeth	33	27	68	57
Southwark	34	30	75	41
Tower Hamlets	27	26	88	32
Wandsworth	34	29	59	50
England	36	28	62	47

Source: Public Health England.

Note: Standardised rates were available for all age groups only; inclusion of younger age groups is expected to have a negligible impact on the rates of the four major cancer types, as they are adult cancers.

Overall, the number of deaths from cancer and cancer mortality rates in Hackney and the City fell between 2001–05 and 2010–14 (Figure 17).

Figure 17: Number of cancer deaths and age-standardised cancer mortality rates in Hackney and the City (all ages, 2001–05 to 2010–14)

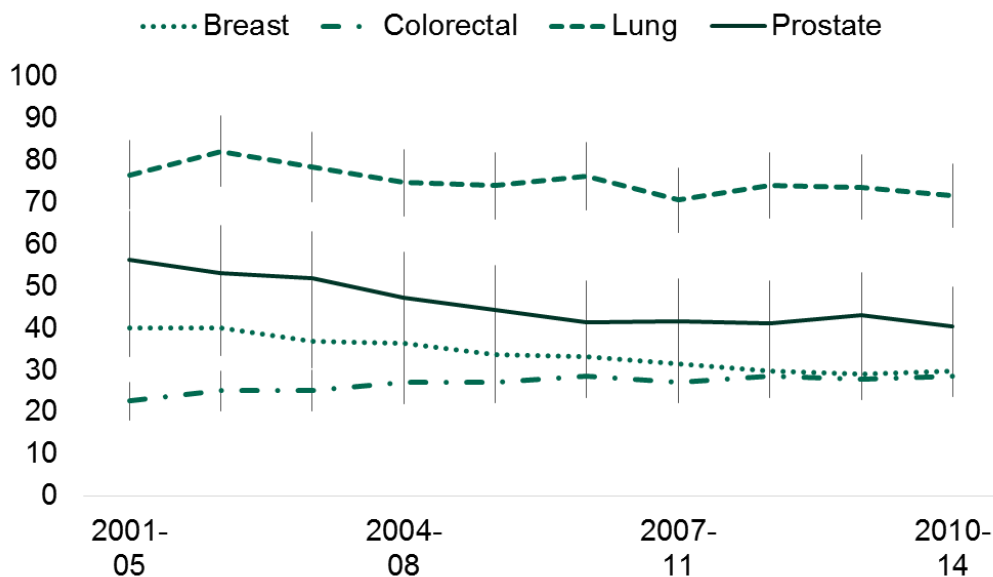


Source: Public Health England.

Note: Standardised rates were available for all age groups only.

Figure 18 shows a reduction in breast cancer and prostate cancer mortality rates between 2001–05 and 2010–14, but a slight increase in mortality rates for colorectal cancer. None of the changes in trends are statistically significant. Lung cancer mortality rates have remained relatively stable over this period.

Figure 18: Trends in age-standardised cancer mortality rates in Hackney and the City, by cancer type (all ages, five-year rolling rates per 100,000 population, 2001–05 to 2010–14)



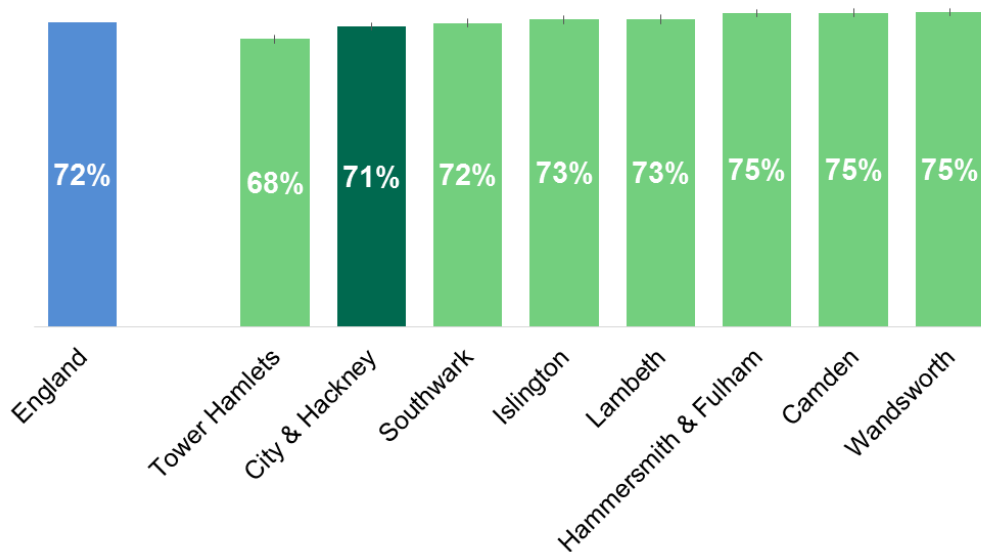
Source: Public Health England.

Note: Standardised rates were available for all age groups only; inclusion of younger age groups is expected to have a negligible impact on the rates of the four major cancer types, as they are adult cancers.

4.5.5 Survival

Despite being similar to the national average, the one-year cancer survival index in Hackney and the City is towards the lower end of Hackney’s statistical peers (Figure 19).

Figure 19: One-year cancer survival index (age 15–99, 2015)



Source: National Cancer Registration and Analysis Service.

Table 21 shows that one-year breast and lung cancer survival in Hackney and the City is similar to similar areas and the England averages. One-year colorectal cancer survival, however, is significantly below national rates as well as a number of Hackney’s statistical peers (namely, Hammersmith and Fulham, Wandsworth and Lambeth).

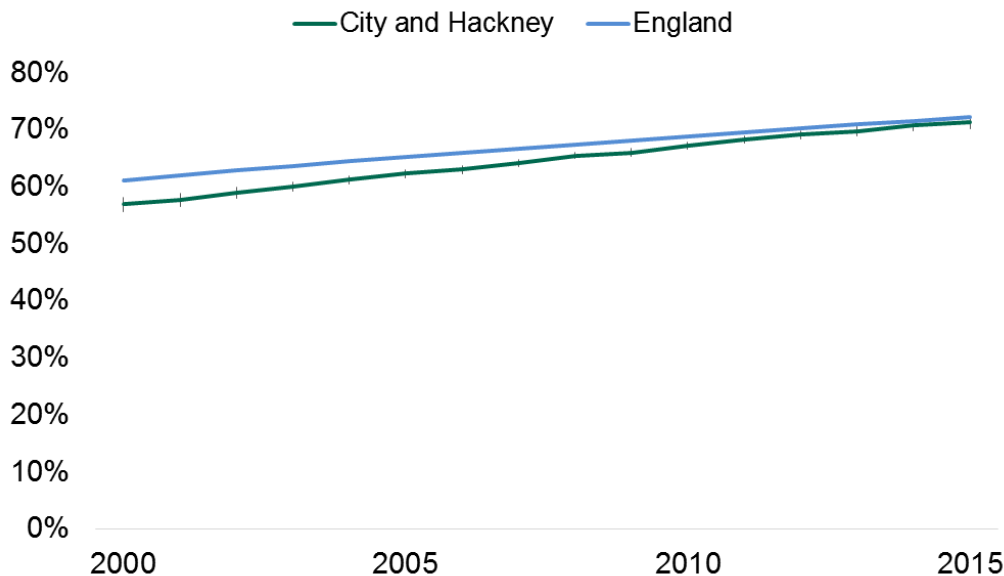
Table 21: One-year cancer survival in Hackney and the City (age 15–99, 2015)

Area	Type of cancer		
	Breast	Colorectal	Lung
Camden	97%	81%	48%
Hackney and the City	96%	77%	44%
Hammersmith and Fulham	98%	84%	48%
Islington	94%	82%	47%
Lambeth	95%	83%	48%
Southwark	96%	78%	44%
Tower Hamlets	96%	71%	41%
Wandsworth	97%	83%	47%
England	97%	80%	41%

Source: National Cancer Registration and Analysis Service.

One-year cancer survival has increased significantly over the past 15 years. In 2000, Hackney and the City's one-year cancer survival index, a measure of the net one year survival rates for all cancers, was 57%, lower than the national average of 61% (Figure 20). By 2015, the local one-year cancer survival index had increased significantly, reaching 71% (similar to the national average).

Figure 20: Trends in one-year cancer survival index (age 15–99, percentage surviving one year after diagnosis, 2000 — 2015)



Source: National Cancer Registration and Analysis Service.

Note: London data were not available for this indicator.

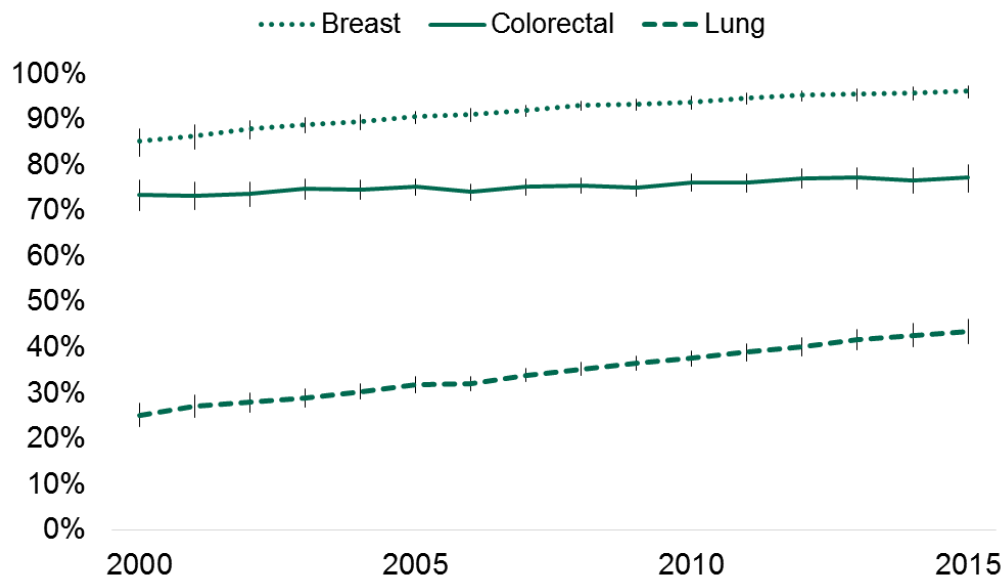
Figure 21 presents trends in one-year cancer survival by cancer type. Over a 15-year period, breast cancer survival in Hackney and the City improved significantly, from 85% in 2000 to 96% in 2015 (similar to the national average of 97%).

One-year lung cancer survival in Hackney and the City has also increased significantly, from 25% in 2000 to 44% in 2015, higher than the national average (41%).

While national colorectal cancer survival rates have increased significantly over the same 15-year period, there has been no equivalent improvement locally. In 2015, one-year colorectal cancer survival was 77% in Hackney and the City, significantly below the national average (80%).

Local prostate cancer survival data are not available. Statistics for England and Wales indicate that one-year age-standardised survival for prostate cancer has increased from 90% in 2000/01 to 94% in 2010/2011. [17]

Figure 21: Trend in one-year cancer survival in Hackney and the City, by cancer type (age 15–99, 2000–2015)



Source: National Cancer Registration and Analysis Service.

4.5.6 Screening

Screening uptake

Table 22 shows that breast cancer screening uptake in Hackney and the City was among the highest of Hackney's statistical peers; colorectal screening uptake was towards the lower end of the range. Comparator and trend data for cervical cancer uptake were not available. For the definition of screening uptake please see Table 1.

Table 22: One-year breast and colorectal cancer screening uptake (2016/17)

Area	Type of cancer	
	Breast	Colorectal
Camden	42%	47%
Hackney and the City	64%	43%
Hammersmith and Fulham	58%	42%
Islington	62%	46%
Lambeth	62%	43%
Southwark	61%	43%
Tower Hamlets	65%	40%
Wandsworth	58%	49%
London	65%	No data
England	71%	59%

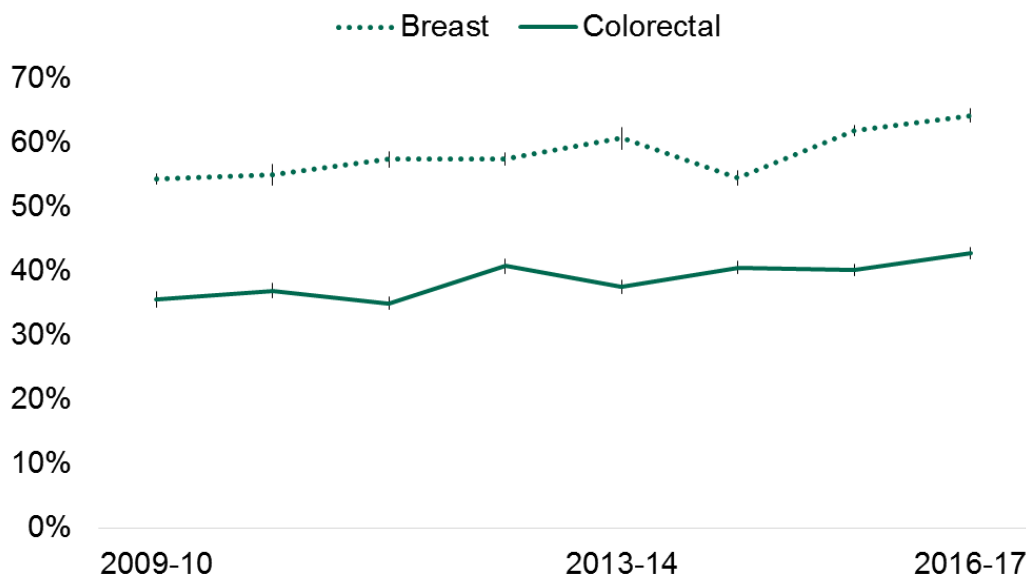
Source: National Cancer Registration and Analysis Service; NHS cancer screening programmes.
Note: Age groups eligible for screening are 25–64 for breast cancer and 60–74 for colorectal cancer; breast cancer screening data include females only.

The gap between breast screening uptake locally and uptake across London is closing. As Table 22 shows, in 2016/17 uptake in Hackney and the City was very similar to the London average (64% and 65%, respectively). Despite these improvements, local breast screening uptake remains significantly below the national average (71%).

Again despite recent improvements, Table 22 shows that colorectal cancer screening also uptake remains significantly below the national rate (43% compared with 59%).

Figure 22 presents time trends for one-year screening uptake for breast and colorectal cancer. Screening uptake for both these cancers has been increasing over time, but remains much lower for colorectal cancer.

Figure 22: Trends in one-year breast and colorectal cancer screening uptake in Hackney and the City (proportion of those invited who were screened, 2009/10 to 2016/17)



Source: National Cancer Registration and Analysis Service; NHS cancer screening programmes.
Note: Age groups eligible for screening are 25–64 for breast cancer and 60–74 for colorectal cancer; breast cancer screening data include females only.

Screening coverage

Table 23 reveals that breast and cervical cancer screening coverage in Hackney and the City is towards the upper end of the range among Hackney's statistical peers; colorectal screening coverage is towards the lower end. In general terms, screening coverage performance is relatively poor locally and across London when compared with national data. For the definition of screening coverage please see Table 1.

Table 23: One-year breast, cervical and colorectal cancer screening coverage (2016/17)

Area	Type of cancer		
	Breast	Colorectal	Cervical
Camden	42%	47%	56%
Hackney and the City	64%	43%	66%
Hammersmith and Fulham	58%	42%	57%
Islington	62%	46%	63%
Lambeth	62%	43%	66%
Southwark	61%	43%	66%
Tower Hamlets	65%	40%	62%
Wandsworth	58%	49%	67%
London	65%	No data	66%
England	71%	59%	71%

Source: National Cancer Registration and Analysis Service; NHS cancer screening programmes.
 Note: Age groups eligible for screening are 25–64 for breast cancer and 60–74 for colorectal cancer; breast cancer screening data include females only.

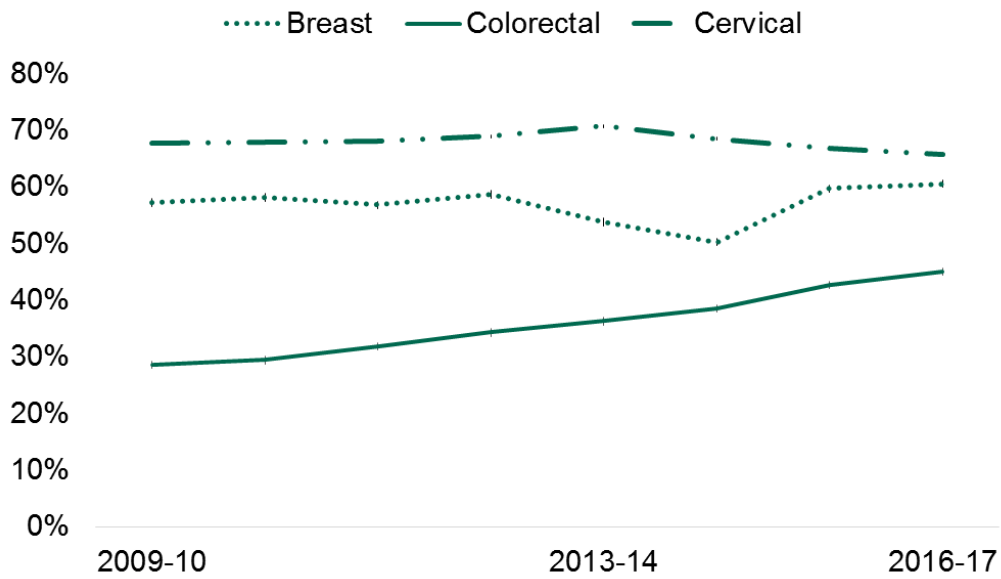
Figure 23 presents time trends in breast, colorectal and also cervical cancer screening coverage in Hackney and the City. Although colorectal screening coverage rates have been increasing year on year, they remain significantly below coverage rates for breast and cervical screening.

Breast cancer screening coverage in Hackney and the City has been on an upward trend since 2009/10, but remains significantly below the national average (Table 23).

Similarly, colorectal cancer screening coverage has increased significantly in Hackney and the City over 17 years, but again remains below the national rate. London data are not available.

Trends over time show a decline in cervical screening coverage in Hackney and the City, as well as across London and nationally. Both the London and local coverage rates are significantly below the national average.

Figure 23: Trends in breast, cervical and colorectal cancer screening coverage in Hackney and the City (proportion of eligible population who were screened, 2009/10 to 2016/17)



Source: National Cancer Registration and Analysis Service; NHS cancer screening programmes.
 Note: Age groups eligible for screening are 25–64 for breast cancer and 60–74 for colorectal cancer; breast cancer screening data include females only.

4.6 Evidence and good practice

4.6.1 Cancer – general

Prevention

Risk factors for developing cancer are outlined in Section 4.22. Evidence-based approaches to reducing some of the key modifiable risk factors – for example smoking, diet, physical inactivity and alcohol use – are described in the ‘Lifestyle and behaviour’ chapter of the JSNA. Obesity, an important risk factor for some cancers, is covered elsewhere in this ‘Adult health’ chapter.

The European Code against Cancer is a preventative tool providing information for individuals on ways to reduce their cancer risk. [47] The 12 recommendations are described in Box 1.

Box 1: Twelve recommendations to help reduce cancer risk [47]

1. Do not smoke. Do not use any form of tobacco.
2. Avoid second-hand smoke. Support smoke-free policies.
3. Maintain a healthy body weight.
4. Undertake physical activity in everyday life.
5. Eat a healthy diet:
 - eat plenty of whole grains, pulses, vegetables and fruits
 - limit high-calorie foods (foods high in sugar or fat) and avoid sugary drinks
 - avoid processed meat; limit red meat and foods high salt.
6. Limit alcohol consumption.
7. Avoid too much exposure to ultraviolet radiation:
 - use sun protection
 - do not use sunbeds.
8. Avoid cancer-causing agents at the workplace (such as exposures to sun, gases chemicals and radioactive substances).
9. Reduce exposure to high levels of radon.
10. For women:
 - encourage breastfeeding
 - limit the use of hormone replacement therapy.
11. Participate in organised vaccination programmes:
 - hepatitis B for newborns
 - HPV.
12. Participate in organised screening programmes for colorectal cancer, breast cancer, and cervical cancer.

Identification and early intervention

Early detection of cancer is key to early diagnosis and treatment, and can lead to enhanced patient experience, lower risk of complications and improved cancer outcomes. Generally, there is consensus that delays in patients recognising signs and symptoms or seeking assessment play an important role in delaying cancer diagnosis. Greater public awareness of symptoms may therefore have a role in early diagnosis. [48]

National campaigns, such as Be Clear on Cancer, aim to raise public awareness of signs and symptoms of cancer. [49] These campaigns have been shown to be effective for some cancers. [50] [51]

Systematic population screening programmes provide opportunities to identify cancers early in their development or detect abnormalities that suggest a cancer might develop in the future. Specific national screening programmes are outlined in detail below.

When cancer is suspected, the case should be reviewed by a multi-disciplinary team to establish a diagnosis and commence initial management. The National Institute for Health and Care Excellence (NICE) referral guidelines for suspected cancer recommend that a patient should not have to wait more than two weeks from referral to be seen by a multi-disciplinary team. [52]

While diagnosing a specific type of cancer can take weeks or sometimes months, the NHS is committed to delivering faster diagnosis of cancer. By April 2020, all providers will need to deliver the faster diagnosis standard, whereby individuals will know whether or not they have cancer within 28 days of referral. [53] [54]

Treatment, care and support

Treatment for cancer is dependent on a variety of factors, such as type of cancer, location and size, as well as a person's overall health. Chemotherapy, radiotherapy and surgery are common treatments available, and may be used in combination. In most cases, decisions about appropriate treatment should be made by the multi-disciplinary team together with the patient.

NHS England has set national standards for cancer treatment waiting times: initial treatment should start within 31 days of a decision to treat, and within 62 days from an urgent suspected cancer referral by a GP. [55]

For people who have been diagnosed with cancer, and in particular those who survive for at least five years after diagnosis, NHS England has made a number of recommendations for appropriate care and support (summarised in *Box 2*). [56] The Independent Cancer Taskforce has recommended that, by 2020, all people diagnosed with cancer have access to appropriate pathways for follow-up care, through a stratified self-management programme, plus a 'recovery package'. [57]

Box 2: NHS England recommendations for care and support for cancer survivors [56]

NHS England recommends the following approaches to care and support for cancer survivors:

- The Recovery Package, which includes:
 - a holistic needs assessment, developed with patients, to determine which supportive services they need
 - a health and wellbeing event to educate and inform patients, their families and carers, including psychosocial and financial advice.
- Cancer type-specific follow-up pathways based on stratification of risk of disease recurrence or complications and ability to self-manage.

- Services to deliver cancer-specific complication care, including:
 - physical inactivity
 - lymphoedema
 - pelvic radiation disease
 - sexual dysfunction.
- A cancer care review by a GP within six months of notification to the patient's GP practice of their cancer diagnosis.

NICE has produced a range of clinical guidelines for the management of specific cancers; however, these are not summarised here.² The remainder of this section focuses on evidence and good practice for the prevention and early identification of breast, colorectal, lung, prostate and cervical cancer.

4.6.2 Breast cancer

Prevention

Physical activity is linked to breast cancer: studies have shown that women who are the most physically active have a 12% lower risk of developing breast cancer compared those who are the least active. It is estimated that for every two hours a week a woman spends doing moderate to vigorous activity, their risk of breast cancer falls by 5%. [58]

Maintaining a healthy diet can also reduce the risk of breast cancer. [58]

As alcohol consumption and being overweight (the latter in post-menopausal women only) are linked to increased cancer risk (see Section 4.22), behaviour change to reduce alcohol intake and maintain a healthy body weight are likely to be protective.

There is also evidence to suggest women who breastfeed have a decreased risk of breast cancer, although the reasons for this are not fully understood. [58] [59]

Women who are considered at a higher risk of developing breast cancer, for example those with a family history of breast cancer or who have specific gene mutations (see Section 4.22), may be able to reduce their risk through the use of certain medications, including anastrozole, raloxifene or tamoxifen. [58]

Identification and early intervention

The NICE quality standard on breast cancer (QS12) highlights the importance of early diagnosis to enable prompt treatment and improved outcomes. [60] In line with NICE guidance, the NHS breast screening programme invites women aged between 50 and 70 for screening mammography every three years. [61] It is estimated that every year 1,300 lives are saved through breast screening. [62] Breast screening also carries risks, including false negative results (where screening does not find a cancer that is there) and over-diagnosis (when screening identifies tumours that would not normally be harmful) leading to over-treatment. An independent review of

² NICE guidance for specific cancers can be accessed from <https://www.nice.org.uk/guidance/conditions-and-diseases/cancer>.

the benefits and harms of breast cancer screening in the UK has concluded the national programme provides significant benefit and should continue, stressing the need to communicate the possible benefits and harms to women. [63]

For women outside the ages eligible for screening, the focus of early identification is on awareness of early signs and symptoms and recognising those at high risk. Box 3 outlines appropriate investigations for suspected breast cancer based on recognising symptoms. NICE recommends that people with suspected breast cancer referred to specialist services are offered a triple diagnostic assessment in a single hospital visit.³ [60]

Box 3: NICE guideline for suspected breast cancer [52]

- Refer people using a suspected cancer pathway referral (for an appointment within two weeks) for breast cancer if they are:
 - aged 30 and over and have an unexplained breast lump, with or without pain
 - aged 50 and over with any of the following symptoms in one nipple only:
 - discharge
 - retraction
 - other changes of concern.
- Consider a suspected cancer pathway referral (for an appointment within two weeks) for breast cancer in people:
 - with skin changes that suggest breast cancer
 - who are aged 30 and over with an unexplained lump in the axilla.⁴
- Consider non-urgent referral in people aged under 30 with an unexplained breast lump, with or without pain.

4.6.3 Colorectal cancer

Prevention

Addressing lifestyle-related risk factors is key to reducing the risk of colorectal cancer. These include reducing dietary intake of processed food and red meat, increasing dietary fibre, stopping smoking, reducing alcohol intake, being physically active and maintaining a healthy weight. [64]

Identification and early intervention

Colorectal cancer screening provides an opportunity to identify either early stage cancer or the presence of polyps (non-cancerous growths that may become cancer if not removed). Currently, under the national colorectal (bowel) cancer screening programme, individuals are invited for screening using the faecal occult blood test (FOBT) every two years from ages 50 to 74, although those aged 75 or over can access the test on request. In addition, one-off bowel scope screening should be offered to individuals at age 55. [65]

³ This consists of clinical assessment, mammography and/or ultrasound imaging, and fine needle aspiration or core biopsy.

⁴ The axilla is commonly referred to as the underarm.

Following recommendations from the UK National Screening Committee (UK NSC) in 2018, the colorectal screening programme will begin using quantitative faecal immunochemical testing (quantitative FIT), a test that identifies microscopic amounts of blood in a person's stool, instead of FOBT, and will offer screening from the age of 50, although a strategy for implementing these changes has not been published. [66] These changes will be expected to support earlier identification of colorectal cancer in a larger number of lower-risk individuals in Hackney and the City.

The use of quantitative FIT by GPs to rule out colorectal cancer in those with unexplained symptoms who do not meet criteria for suspected cancer referral will be rolled out to primary care from April 2019 to support decision making. The use of this test is expected to reduce the number of people in Hackney and the City having to undergo unnecessary specialist investigations, such as colonoscopy.

In addition to potential cases identified through screening,

Box 4 outlines appropriate investigations for suspected colorectal cancer based on recognition of signs and symptoms.

Box 4: NICE guideline for suspected colorectal cancer [52] [67]

- Refer people using a suspected cancer pathway referral (for an appointment within two weeks) for colorectal cancer if:
 - they are aged 40 and over with unexplained weight loss and abdominal pain
 - they are aged 50 and over with unexplained rectal bleeding
 - they are aged 60 and over with:
 - iron-deficiency anaemia
 - changes in their bowel habits
 - tests show occult blood in their faeces.
- Consider a suspected cancer pathway referral (for an appointment within two weeks) for colorectal cancer in adults with rectal or abdominal mass.
- Consider a suspected cancer pathway referral (for an appointment within two weeks) for colorectal cancer in adults aged under 50 with rectal bleeding and any of the following unexplained symptoms or findings:
 - abdominal pain
 - changes in bowel habit
 - weight loss
 - iron-deficiency anaemia.

NICE recommends quantitative FIT to guide referral for people without obvious rectal bleeding but who do have unexplained symptoms and do not meet any of the above criteria for suspected cancer pathway referral.

4.6.4 Lung cancer

Prevention

Over 85% of lung cancer cases are caused by tobacco use, therefore smoking prevention strategies will reduce lung cancer risk. For more information on smoking prevention strategies, please see the 'Lifestyle and behaviour' chapter of the JSNA.

Identification and early intervention

NICE recommends the use of coordinated public awareness campaigns to raise awareness of signs and symptoms of lung cancer to enable early identification. [68]

Box 5 outlines appropriate investigations for suspected lung cancer.

Box 5: NICE guidelines for investigating suspected lung cancer [68]

- Refer people using a suspected cancer pathway referral (for an appointment within two weeks) for lung cancer if they:
 - have a chest X-ray finding that suggests lung cancer
 - are aged 40 and over with unexplained haemoptysis (blood in phlegm).
- Offer an urgent chest X-ray (to be performed within two weeks) to assess for lung cancer in people aged 40 and over if they have two or more of the following unexplained symptoms, or if they have ever smoked and have one or more of the following unexplained symptoms:
 - cough
 - fatigue
 - shortness of breath
 - chest pain
 - weight loss
 - appetite loss.
- Consider an urgent chest X-ray (to be performed within two weeks) to assess for lung cancer in people aged 40 and over with any of the following:
 - persistent or recurrent chest infection
 - finger clubbing (changes to shape of fingers and fingernails)
 - supraclavicular lymphadenopathy or persistent cervical lymphadenopathy (evidence of swollen lymph nodes in the neck)
 - signs on examination of the chest consistent with lung cancer
 - thrombocytosis (a high platelet count in the blood).

4.6.5 Prostate cancer

Prevention

There is currently no available evidence to support preventative action against prostate cancer through modifiable risk factors.

Identification and early intervention

Currently, the only available test for prostate screening to identify those at increased risk is the prostate specific antigen (PSA) test. Although evidence suggests population prostate screening may reduce prostate cancer deaths by up to 21%, the PSA test is not sufficiently accurate for reliable use in screening due to likelihood of false positive results and subsequent risk of harm from over-treatment. [69] The NHS Prostate Cancer Risk Management Programme (PCRMP) provides guidance on

PSA testing more generally, which is currently available to men aged over 50 on request. [70] In addition to the PCRMP guidance, consensus statements developed by Prostate Cancer UK recommend PSA testing is also made available to men aged 45–49 with increased risk. [71]

As with other cancers, raising awareness of the signs and symptoms of prostate cancer is key to early identification and treatment, particularly in those with a family history of the disease and those of Black African or Caribbean descent.

Box 6 outlines appropriate investigations for suspected prostate cancer.

Box 6: NICE guideline for suspected prostate cancer [52]

- Refer people using a suspected cancer pathway referral (for an appointment within two weeks) for prostate cancer if their prostate feels malignant on digital rectal examination.
- Consider a PSA test and digital rectal examination to assess for prostate cancer in men with:
 - any lower urinary tract symptoms, such as nocturia (needing to urinate frequently during the night), urinary frequency (needing to urinate more often), hesitancy (difficulty starting urinating), urgency or retention (unable to pass urine)
 - erectile dysfunction
 - visible haematuria (blood in urine).
- Refer men using a suspected cancer pathway referral (for an appointment within two weeks) for prostate cancer if their PSA levels are above the age-specific reference range.

4.6.6 Cervical cancer

Prevention

Most cases of cervical cancer are linked to HPV (see Section 4.22). The HPV vaccine currently in use in the UK protects against four types of HPV, including two strains (16 and 18) that are responsible for at least 70% of cervical cancers. Currently, girls aged 12 and 13 are offered the vaccine under the childhood immunisation programme. [72] The vaccine is not currently available to boys under the national immunisation programme, although there is an HPV immunisation programme for men who have sex with men. Plans to extend HPV vaccine coverage to boys aged between 12 and 13 were announced by the Government in 2018. [73]

As HPV can be transmitted through unprotected sex, increasing correct use of condoms may have a role in prevention of cervical cancer. [74]

Identification and early intervention

Cervical cancer screening relies on identifying pre-cancerous changes and offering treatment to those deemed to be at risk before cancer develops. Abnormal changes in the cervix, known as cervical intraepithelial neoplasia (CIN), may indicate a risk of cancer developing; the nature of further investigation, treatment and follow-up offered depends on the grade of this CIN.

It is estimated that cervical screening prevents at least 2,000 deaths each year in the UK. [75] Currently, under the national NHS cervical screening programme, women are invited for cervical screening every three years between the ages of 25 and 49, and every five years between the ages of 50 and 64. Women aged over 64 who have not been screened since they were 50 can access screening but will not be invited. Women aged over 64 who have had abnormal results in their previous three screenings are offered ongoing screening until they have three negative results, or a negative HPV test. Screening is offered regardless of whether the woman has been vaccinated for HPV, as this vaccine cannot offer full protection against cervical cancer. [76]

The UK NSC has recommended the use of HPV testing as part of the national cervical cancer screening programme: a woman who has a negative test for high-risk HPV is unlikely to develop cervical cancer for at least five years. [77] Public Health England (PHE) announced in 2017 that HPV testing would become available as part of the screening programme from 2019. [78]

4.7 Services and support available locally

4.7.1 Cancer – general

Prevention

Services and support available locally to reduce the impact of key modifiable risk factors for cancer are described elsewhere in the JSNA: obesity in this ‘Adult health’ chapter, and smoking, diet, physical inactivity and alcohol use in the ‘Lifestyle and behaviour’ chapter.

Cervical cancer prevention in Hackney and the City is based on prevention of HPV transmission and infection. For more information on HPV vaccination in Hackney and the City please refer to the ‘Children and young people’ JSNA chapter. Condom distribution programmes in Hackney and the City include Come Correct, a free condom distribution and education service for all under-25 year olds, and The Free Condom Project, which facilitates condom distribution for targeted groups of over-25 year olds at risk of HIV transmission.

Breastfeeding may be protective against developing breast cancer. A number of services in Hackney and the City are available to support breastfeeding, including drop-in groups provided by the Breastfeeding Network, health visiting and the Breastfeeding Welcome Scheme.

The remainder of this section focuses on services and support available in Hackney and the City for identification, early intervention, treatment, care and support for cancer in general and specifically for breast, colorectal, lung, prostate and cervical cancers.

Identification and early intervention

A number of national and local campaigns are currently active in Hackney and the City that aim to improve identification and early intervention for cancer. Public Health England (PHE), in partnership with NHS England and the Department of Health and Social Care, is leading a Be Clear on Cancer campaign aimed at raising public awareness of the signs and symptoms of different types of cancer. This initiative has included the following campaign themes: [49]

- breast cancer
- colorectal cancer
- lung cancer
- blood in urine (as a symptom of bladder and kidney cancer)
- oesophago-gastric and ovarian cancers.

In 2014, PHE ran a local pilot campaign in six London boroughs, including Hackney, to raise awareness of the increased risk of prostate cancer for Black men. The campaign used face-to-face activity within targeted locations, community-based events and community messaging. PHE is continuing to evaluate the impact of this campaign. Locally, the 'small c' campaign, coordinated by the University College London Hospitals NHS Foundation Trust (UCLH) Cancer Collaborative, aims to raise awareness of signs and symptoms of colorectal cancer ('Deflate Cancer') and train healthcare staff and community groups in recognising signs and symptoms of cancer ('Highlight Cancer') in collaboration with Cancer Research UK. [79]

To support GPs with early diagnosis of cancer, City and Hackney CCG is trialling C the Signs, a digital decision support tool. An online training resource, GatewayC, is also now available to practices across Hackney and the City to support local decision making for GPs.

Hackney and the City form part of the UCLH Cancer Collaborative (the cancer alliance for north and east London), which brings together hospital trusts, GPs, health service commissioners, local authorities and patients to improve early cancer diagnosis, outcomes and care. London Cancer, part of the alliance, coordinates pathway boards for different cancers to improve pathways across different providers.

For people in Hackney and the City with suspected cancer, diagnostic services are provided through local cancer centres at Homerton Hospital in Hackney and St Bartholomew's Hospital, which is geographically closer to the City. People are referred by their GP and seen within two weeks for specialist assessment. In 2017/18, both Homerton University Hospital NHS Foundation Trust and Barts Health NHS Trust achieved over the national standard target of 93% of people referred for suspected cancer assessed by a specialist within two weeks of referral. [80]

Direct access by GPs in Hackney and the City to computerised tomography (CT) scanning is also available from Homerton Hospital. Homerton Hospital provides a largely diagnostic service, although under existing cancer pathways the multi-disciplinary teams at the Homerton Hospital and St Bartholomew's Hospital cancer centres work in partnership to provide an integrated service. For some cancers, specialist assessment or treatment for Hackney and the City patients will be undertaken at Barts Health or UCLH services. As a result, people in Hackney and the City have good access to best-practice diagnostic services and a wide range of cutting-edge treatments.

Treatment, care and support

The Homerton Hospital and St Bartholomew's Hospital cancer centres consist of a number of cancer-specific multi-disciplinary teams that work with patients to make decisions on their care and treatment plans. Treatment pathways vary for different cancers, and are outlined in each section below. Homerton Hospital also provides an acute oncology service to support people admitted to hospital due to complications with cancer treatment.

Support, including information and advice, for people living with and beyond cancer in Hackney and the City is offered by Macmillan Cancer Support at the local cancer centres. The Macmillan Integrated Cancer Programme, part of the UCLH Cancer Collaborative, is working with City and Hackney CCG and the cancer centres to implement the Recovery Package (see Box 2 in Section 0). For people who have been diagnosed with cancer in Hackney and the City, local provision currently includes the offer of at least two elements of the Recovery Package: a cancer care review by GPs and a health and wellbeing event. [79]

Macmillan also offers a social prescribing service, which gives individuals an opportunity to discuss their wellbeing and enables them to find local activities and resources to help achieve their goals. In addition, Macmillan offers a welfare advice service, in partnership with the local Toynbee Hall community advice service. Macmillan also provides dedicated men's and women's cancer support groups, based at St Joseph's Hospice in Hackney.

Homerton Health and Cancer Information Service, or 'Homerton Health Shop', is a drop-in service run by Homerton Hospital. It offers:

- free and confidential information about health and health services in Hackney
- practical advice and support for people with cancer, their families and friends
- leaflets, factsheets, and audio and video information on cancer diagnosis and treatments
- access to a welfare rights advisor through Derman, a voluntary organisation primarily for the Turkish/Kurdish speaking community.

Other services available in Hackney and the City offering support to those diagnosed with cancer, their families and their carers include:

- a lymphoedema service based at St Leonard's Hospital
- an information and support service for those with life-limiting cancer, based at St Joseph's Hospice and including outreach services
- living well with cancer charity Penny Brohn UK, which hosts a support group at Homerton Hospital.

4.7.2 Breast cancer*Identification and early intervention*

The Central and East London Breast Screening Service, part of the national NHS breast screening programme, offers breast cancer screening to women aged over 50 in Hackney and the City. This service is based at a number of static and mobile

screening sites in the region, including one at Homerton Hospital. Women in the City are invited to attend screening at Homerton Hospital, Mile End Hospital or Whittington Hospital.

The Homerton Hospital breast service provides a fully integrated diagnostic and specialist treatment service for breast cancer through a multi-disciplinary team. The service offers diagnostic clinics for suspected breast cancer for men and women.

Treatment, care and support

The Homerton Hospital breast service offers surgical treatments and follow-up for Hackney and the City patients with breast cancer. The multi-disciplinary team also provides surgery, chemotherapy and radiotherapy in partnership with Barts Health.

4.7.3 Colorectal cancer

Identification and early intervention

Screening for colorectal cancer is delivered locally through the North East London bowel cancer screening centre based at Homerton Hospital. This service coordinates screening for residents of Hackney and the City, alongside residents of other boroughs across North East London.

Bowel scope screening, offered as a one-off test to individuals at age 55, is being rolled out in Hackney and the City. Roll-out commenced in November 2016, and a further phase is expected to start in early 2019.

Diagnostic colorectal cancer services are provided by Homerton Hospital, including direct access colonoscopy and flexible sigmoidoscopy services, for patients referred by their GPs with unexplained symptoms who do not meet the criteria for an urgent referral for suspected cancer.

Treatment, care and support

The Homerton Hospital colorectal cancer service offers surgical treatments and follow-up for Hackney and the City patients with colorectal cancer. The multi-disciplinary team also provides surgery, chemotherapy and radiotherapy in partnership with Barts Health. Stratified follow-up for colorectal cancer, under which some residents are followed up as part of a supported self-management programme, is available in Hackney and the City.

4.7.4 Lung cancer

Identification and early management

The lung cancer clinic at Homerton Hospital provides care for Hackney and the City patients with suspected or diagnosed lung cancer. Diagnostic facilities are offered at Homerton Hospital, with some specialist tests offered at St Bartholomew's Hospital. The Homerton team offers the National Optimal Lung Cancer Pathway, a pathway for initiating treatment of lung cancer within 49 days of referral. [81]

Treatment, care and support

Surgery, chemotherapy and radiotherapy are offered through Barts Health for Hackney and the City patients.

4.7.5 Prostate cancer

Identification and early management

Consistent with the national Prostate Cancer Risk Management Programme (PCRMP), prostate specific antigen (PSA) testing is available to men in Hackney and the City aged over 50, or on request to men aged over 45 with risk factors. [82]

Diagnosis and initial treatment for prostate cancer is offered by the urology cancer service at Homerton Hospital.

Treatment, care and support

Treatment for men in Hackney and the City with prostate cancer is offered by Homerton Hospital in partnership with St Bartholomew's Hospital and UCLH.

4.7.6 Cervical cancer

Identification and early intervention

Jo's Cervical Cancer Trust, a charity dedicated to women affected by cervical cancer, is working in collaboration with UCLH Cancer Collaborative to run an awareness campaign aimed at increasing cervical screening uptake in Hackney and the City.

Cervical cancer screening in Hackney and the City is delivered in primary care. For patients with abnormal screening results, or who otherwise have suspected cervical cancer, Homerton Hospital provides a diagnostic colposcopy service.

Treatment, care and support

The gynaecological cancer service at Homerton Hospital consists of a multi-disciplinary team based at Homerton Hospital and St Bartholomew's Hospital. Surgery for cervical cancer is offered at St Bartholomew's Hospital.

Jo's Cervical Cancer Trust provides information plus a range of support services, including a helpline, online forum and support groups for those affected by cervical cancer.

4.8 Service gaps and opportunities

Early diagnosis of cancer remains a challenge in Hackney and the City. Cancer screening uptake in Hackney and the City is relatively low compared with London and nationally. A number of actions are underway to address this, as described below. The use of multi-disciplinary diagnostic centres (MDCs) to assist early diagnosis of cancer in those referred by their GP with non-specific symptoms is being trialled in North East London. A commissioned MDC, which will be available for people in Hackney and the City, is planned from 2019, based at the Royal London Hospital. [83] An early diagnosis centre (EDC), based at Mile End Hospital, is planned to open in December 2019. The EDC will improve early diagnosis for patients with conditions that increase their risk of developing cancer, as well as monitoring patients with early-stage cancer who do not need treatment right away. [84]

The new Hackney and the City integrated commissioning system provides an opportunity to bring a more joined-up approach to the prevention, detection and management of cancer. A key focus of the new system is to shift activity and resources towards prevention, and the redesign of health and services to support people to better manage their own health and provide care closer to home.

Opportunities and service developments relevant to some of the specific cancers covered in this section are summarised below.

- For people with **breast cancer**, stratified follow-up (when patients are supported to self-manage following treatment) will be implemented in Hackney and the City from 2019, providing an opportunity for improved outcomes and patient experience. [85]
- A programme of interventions has been planned locally for 2018/19 to improve **colorectal cancer** screening uptake and raise awareness of signs and symptoms. This includes an awareness-raising pilot in community pharmacies and advertising colorectal screening in a range of widely spoken languages.
- Homerton Hospital has been an early adopter of the National Optimal Lung Cancer Pathway, which provides an opportunity for earlier diagnosis and improved survival for people in Hackney and the City with **lung cancer**. This will also support delivery of the new NHS faster diagnosis standard for implementation in 2019/20 (see Section 0).
- New and improved methods for diagnosis of **prostate cancer** present opportunities for early detection and better prostate cancer outcomes. Multi-parametric magnetic resonance imaging (mpMRI) is a technique for prostate imaging that can identify possible tumours more easily and with more accuracy than existing techniques. A trial published in 2017 has shown that using mpMRI to triage which individuals require a biopsy (and allow biopsy for those individuals on the same day) could improve identification of high-risk cancer and reduce unnecessary biopsies. [86] Local pilots are underway in London to support future roll-out of this system, which will be a required component for achieving the faster diagnosis standard for prostate cancer (see Section 0).
- The **cervical cancer** screening programme in Hackney and the City will adopt primary HPV testing from December 2019, when cervical smear samples are

tested for HPV prior to testing for abnormal cells. This will offer a more accurate, simplified screening process.

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