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10 Mortality

10.1 Introduction

In Hackney, 0.4% of the resident population (just over 1,000 people) die each year; in the City of London, about 0.5% of the resident population die each year (around 30 people).

In Hackney, life expectancy in males is 78.7, and in females it is 82.8; in the City, it is 86.1 in males and 89.0 in females (based on 2010–14 data). [1] This compares to 80.2 in males and 84.1 in females nationally.

Life expectancy (see Box 1 for definition) is considered to be a key indicator of health in a population. It is affected by many factors, including social determinants (such as poverty and poor housing), lifestyle risk factors (including smoking, diet and physical activity), and genetic predisposition to disability and disease, as well as access to good quality health and social care.

Box 1: Definitions

Amenable (to healthcare) mortality – deaths that may have been avoided by good quality healthcare; for example, leukaemia in under-45s, and many respiratory and cardiovascular diseases in under-75s.

Avoidable mortality – a combination of all deaths that are either 'preventable' or 'amenable' or both. Examples of deaths that would be considered to be both preventable and amenable include all deaths occurring during surgery, and those caused by tuberculosis or HIV/AIDS.

Death in usual place of residence (DiUPR) – proportion of deaths registered in each area where the place of death is recorded as home, care home or religious establishment (excluding deaths from external causes). Considered to be a proxy indicator for good quality end of life care.

End of life care – the part of palliative care (see below) that includes support for people who are nearing the end of life, including treatment and additional support, such as legal assistance.

Healthy life expectancy – the average number of years a person would expect to live in good health, based on current mortality rates and population prevalence of self-reported good health.

Life expectancy at birth – the average number of years a child born in an area would expect to live based on the current local mortality rates.

Palliative care – the healthcare and support that is provided to a person who has a terminal condition.

Premature mortality – deaths that occur before a person reaches a certain age. The Office for National Statistics (ONS) generally uses age 75.

Preventable mortality – deaths that may have been avoided by public health intervention (for example, those caused by lung cancer, alcohol-related disease or deep vein thrombosis with pulmonary embolism in under-75s; or at any age due to traffic accidents).

Preventable years of life lost (PYLL) – an estimate of the combined number of years that people would have lived if they had not died prematurely due to preventable causes of death.

While continued improvement in life expectancy is positive, it should be noted that this trend has not generally been associated with an increased length of life lived in good health – that is, there has been an increase in the amount of time people are living with illness or disability. [2] This therefore contributes to an ongoing increase in demand for health and care services.

Rates of avoidable and premature mortality (see Box 1 for definition) are strongly associated with socio-economic deprivation, and are therefore high in Hackney – with similar trends likely to be observed in parts of the City of London. For more information on this, see the ‘Living standards’ section of the ‘Society and environment’ chapter of the JSNA. There is, therefore, significant opportunity for further improvements in life expectancy locally.

Identifying people who are likely to die soon, and providing them with high-quality services at the end of their life (palliative care), is an important role of local health and care organisations. A 2008 national survey suggested that 74% of people in England would prefer to die at home. [3] However, in 2014, almost half (47%) of all deaths in England occurred in hospital, and there were 54% hospital deaths in London and 55% in Hackney and the City, despite a downward trend over the past 10 years.

A note on the data

Much of the data presented in this section come from the NHS Digital Primary Care Mortality Database. This includes information about deaths in residents of Hackney and the City, as well as non-resident deaths occurring in the local authority areas. It includes demographic information and the causes of death recorded on statutory death registrations.

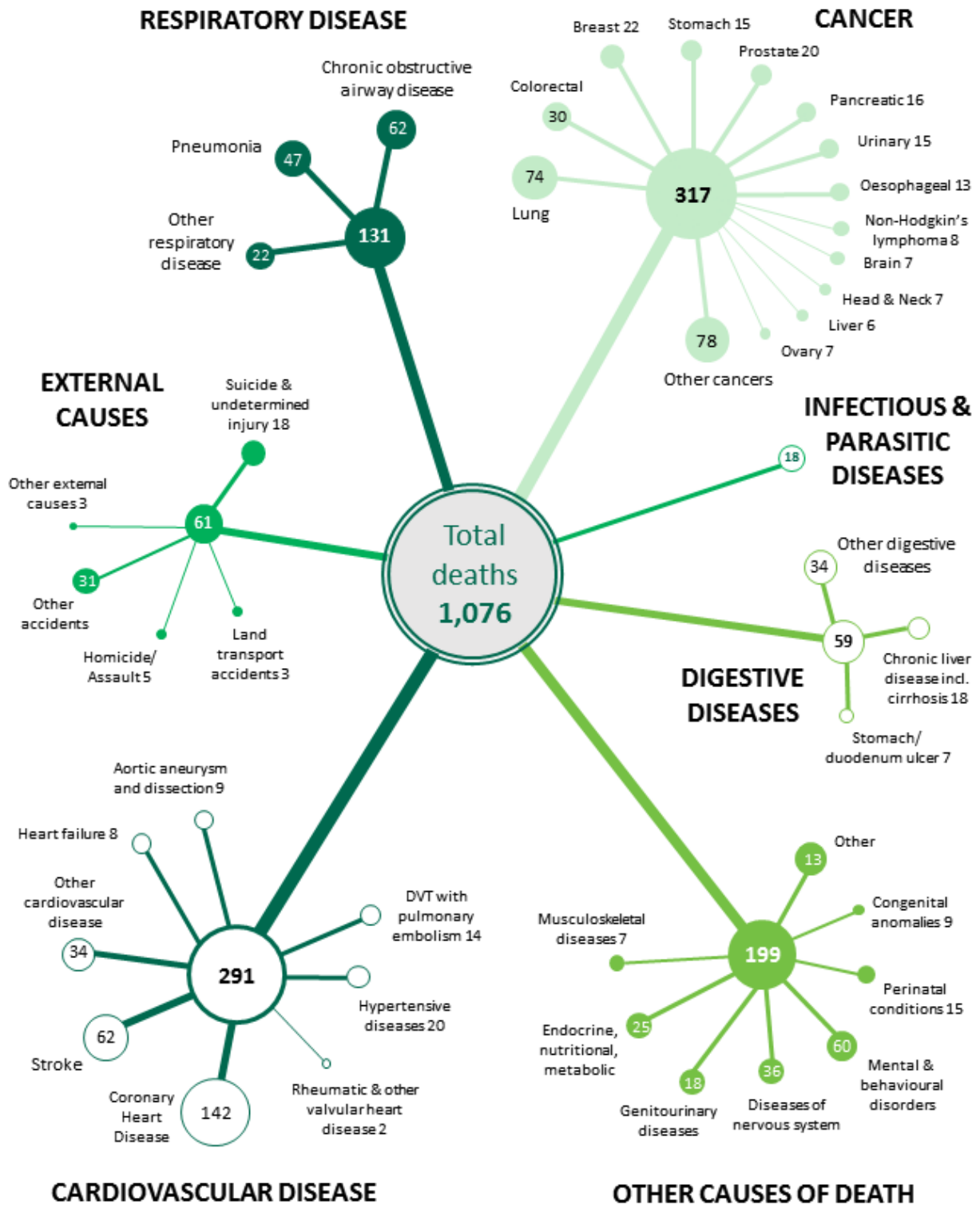
Research published in 2012 by the Office for National Statistics (ONS) found that, out of 5,000 cases reviewed in detail, in 22% of death certificates a medical examiner changed the underlying cause of death. [4] In 12% of cases, this included changing the broad category of cause of death. These corrections increased the proportion of deaths ascribed to cancer by 1% and to cardiovascular disease by 6%, and reduced the proportion ascribed to respiratory conditions by 7%. Following this research, reforms to the death certification process are expected in 2018/19 that will improve the accuracy of the data – however, due to the selection of cases in this ONS study it would not be possible to assume that these overall differences will be reflected in the local figures.

10.2 Causes and risk factors

As nationally, in both Hackney and the City of London the largest recorded causes of death are cancer and cardiovascular disease, which each cause over a quarter of all deaths (see Figure 1 and Figure 2). Respiratory disease is the next most common cause of death. The greatest reductions nationally in recent years have been in deaths due to cardiovascular disease, though rates locally remain relatively high (for more information, see the section on cardiovascular disease in this JSNA chapter).

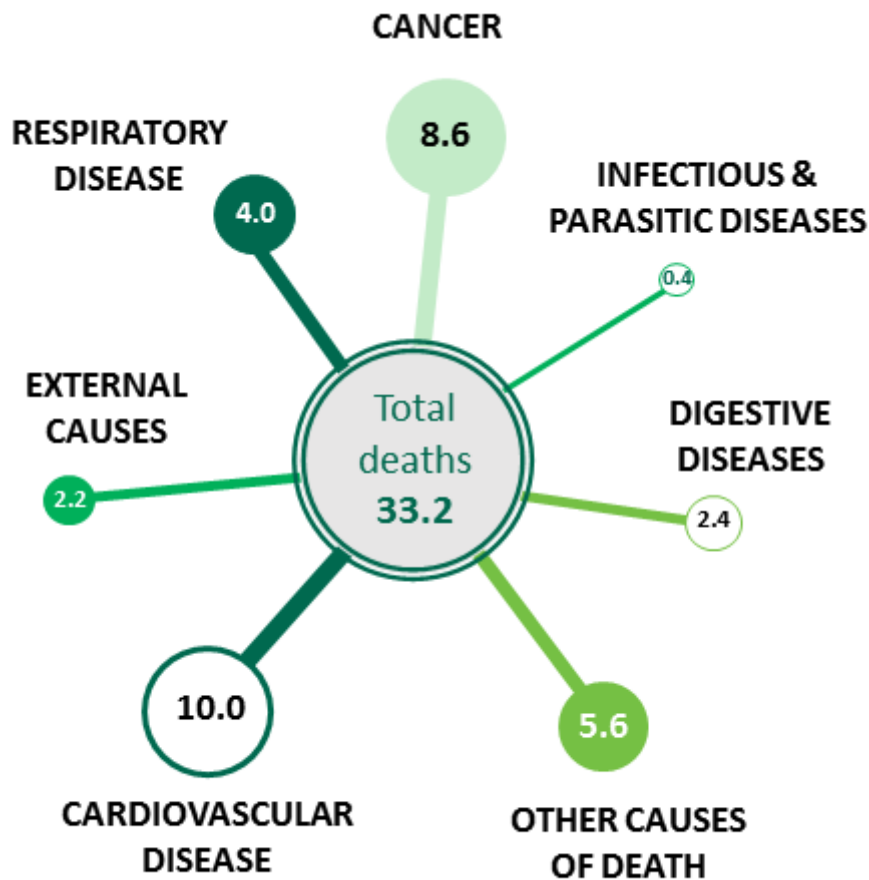
Other major causes of death are also discussed in detail elsewhere in the JSNA. For example, this chapter includes sections on cancer and respiratory disease; suicide is discussed in the 'Mental health and substance misuse' chapter; child deaths and infant mortality are discussed in the 'Children and young people' chapter; and road traffic accidents are discussed under 'Transport and travel' in the 'Society and environment' chapter.

Figure 1: Average annual number of deaths by main recorded cause in Hackney residents (all ages, 2012–16)



Source: Primary Care Mortality Database

Figure 2: Average annual number of deaths by main recorded cause in City of London residents (all ages, 2012–16)

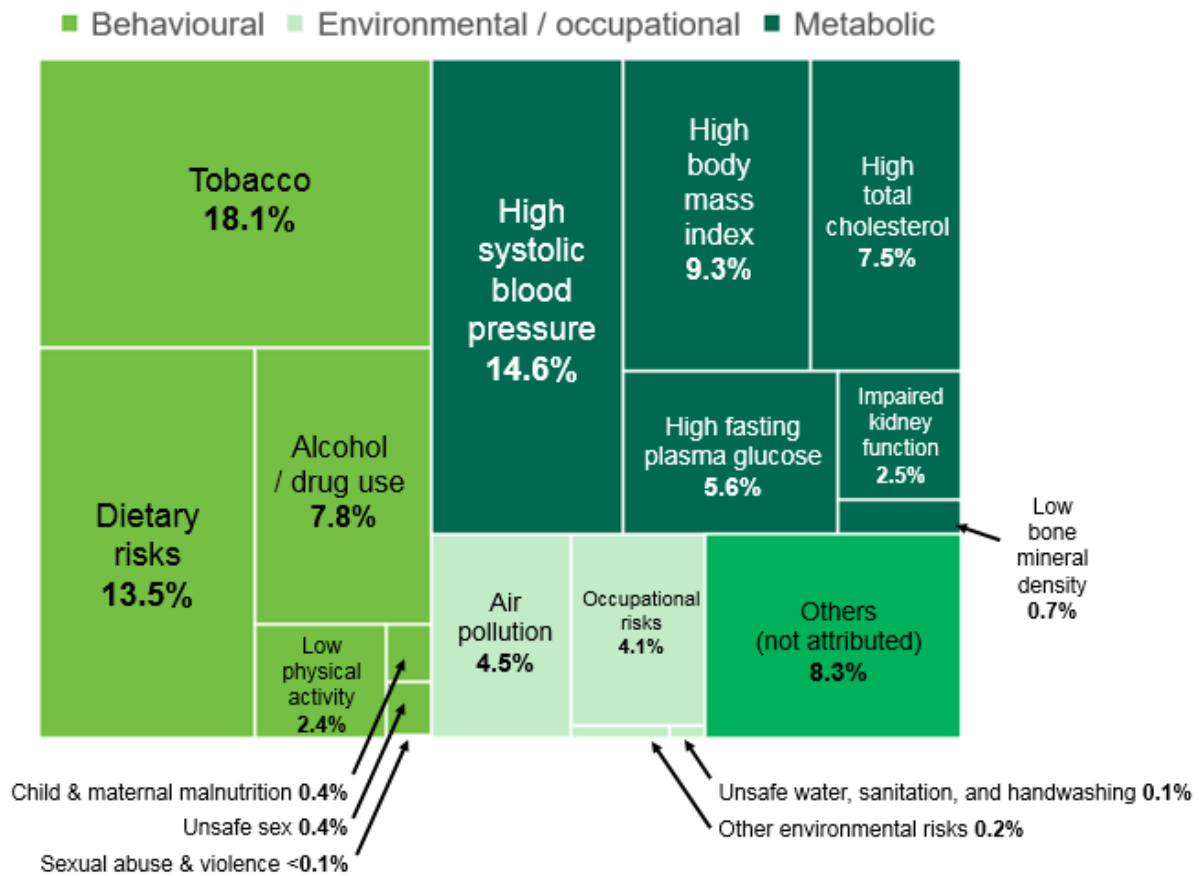


Source: Primary Care Mortality Database

Beyond the immediate cause of death recorded on the death certificate, the internationally respected Global Burden of Disease Study identifies the underlying factors to which deaths in Greater London can be attributed (see Figure 3). This shows, for example, that tobacco is responsible for almost 20% of deaths in London, and substance use around 8%. Dietary risks, low physical activity and related metabolic factors (such as high body mass index and high blood pressure, high cholesterol, and high fasting plasma glucose), are among the biggest underlying causes of death. Environmental and occupational (i.e. job-related) factors are responsible for almost 10% of deaths. Other chapters of the JSNA ('Lifestyle and behaviour' and 'Society and environment') cover these various underlying risk factors in more detail.

Risk factors for poor-quality end of life care include late identification, poorly coordinated or culturally insensitive services. [5]

Figure 3: Underlying attributable factors leading to death in Greater London (all ages, 2016)



Source: Global Burden of Disease Study [6]

10.3 Local data and unmet need

10.3.1 Mortality numbers affected

As described in the introduction, 0.4% of the resident Hackney population (on average 1,076 people) die each year; in the City of London, about 0.5% of the resident population die each year (33 people).

Table 1 shows that 345 non-residents also die each year in the Hackney area and 275 in the City of London. In the case of Hackney, these are mainly patients at St Joseph’s Hospice (70%), as well as Homerton Hospital (24%). In the City of London, these deaths are primarily in patients at St Bartholomew’s Hospital (97%). Small numbers of non-residents also die in other places – this includes deaths occurring outdoors, such as those caused by accidents, crime, suicide and some cases of myocardial infarction (‘heart attack’).

Non-residents who die in Hackney and the City are not included in published mortality rates for the local areas, and are not generally included in the rest of the data presented in the JSNA.

Table 1: Average annual number of deaths in Hackney and the City, by place of death including the largest health and care institutions (all ages, 2012–16)

	Residents – who die anywhere				Non-residents – who die in the area			
	Hackney		City of London		Hackney		City of London	
	Number	%	Number	%	Number	%	Number	%
Care home	94	9%	3	8%	4	1%	0	
<i>Mary Seacole</i>	41		–		–			
<i>Acorn Lodge</i>	29		–		–			
<i>Beis Pinchas</i>	6		0		–			
Home	251	23%	7	22%	0		0	
Hospice	105	10%	4	11%	241	70%	0	
<i>St Joseph's</i>	103		3		241			
Hospital	595	55%	18	53%	83	24%	266	97%
<i>Homerton</i>	396		–		83			
<i>Royal London</i>	88		7					
<i>St.Bartholomew's</i>	25		2				266	
<i>University College</i>	16		4					
Other places*	31	3%	2	5%	17	5%	9	3%
TOTAL	1,076		33		345		275	

Source: Primary Care Mortality Database

Note: Percentages are rounded and may not add up to 100%. Small numbers that may potentially identify individuals are marked with a dash (–). * 'Other places' includes outdoors and commercial premises.

10.3.2 Premature and avoidable mortality – unmet need

Despite long-term improvements in mortality rates, both locally and nationally, there remain large numbers of deaths that could be prevented. The ONS produces statistics showing the proportion of deaths that may be 'avoidable', 'amenable to healthcare' and 'preventable' in light of current knowledge¹ (see Box 1 for definitions). These are mainly, though not exclusively, a subset of 'premature deaths', i.e. those occurring before the age of 75.

Men and women born in Hackney can expect to spend the first 59 and 61 years of their lives respectively in good health. [7] By age 55, most Hackney residents have at least one long-term health condition – for more information, see the 'Multimorbidity' section of this JSNA chapter.

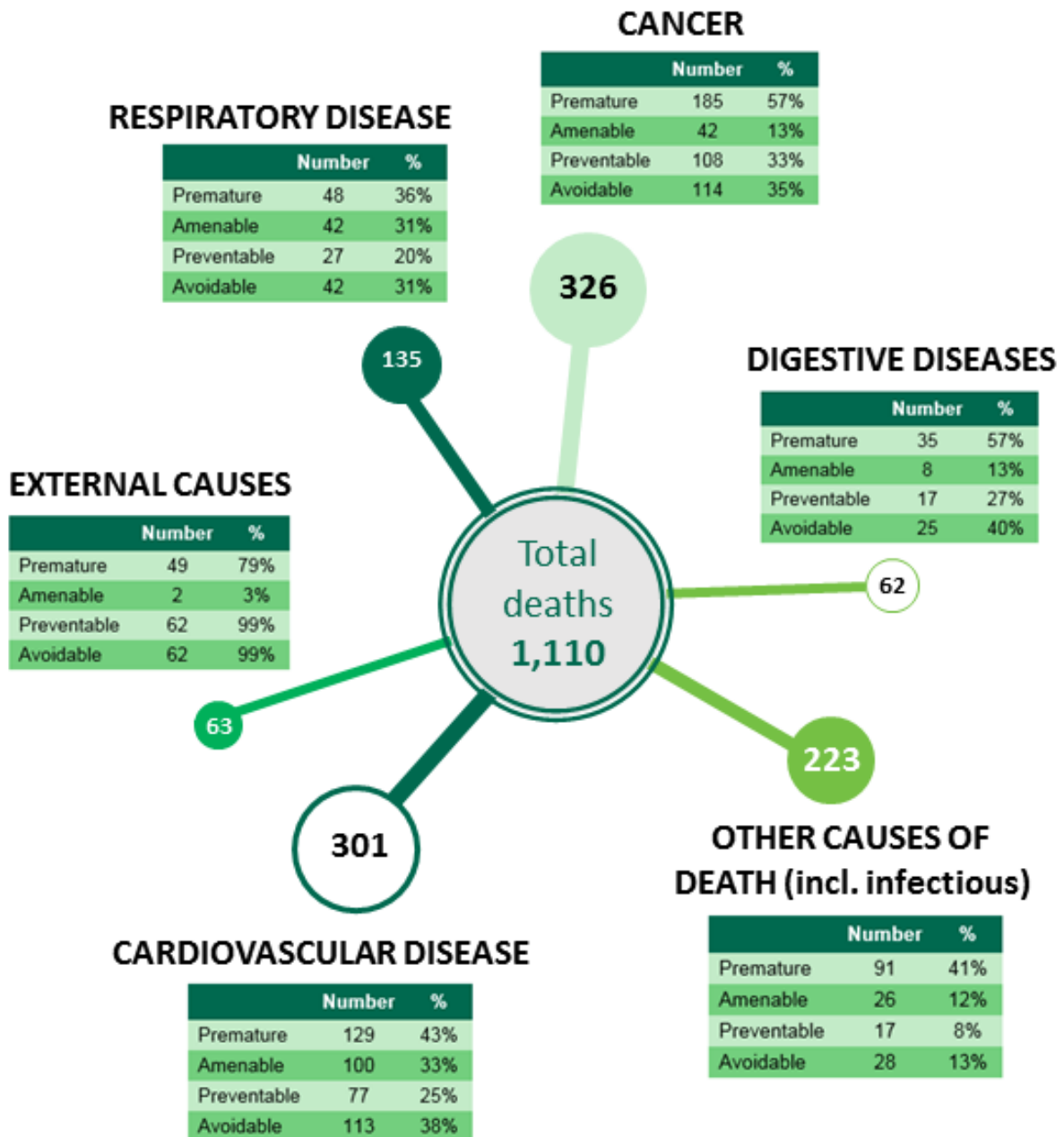
Figures for healthy life expectancy in the City of London are not available.

¹ These definitions were updated following an expert review in 2015 – a full list of the conditions and age bands covered was published. [8] A full list of healthcare and public health interventions that may have potentially avoided/prevented deaths occurring are referred to in a review carried out by the Nuffield Trust in 2004. [58]

Figure 4 shows that the highest numbers of premature deaths locally are caused by cancer; the largest numbers of deaths considered to be preventable are also caused by cancer. The largest numbers of deaths that may be amenable to healthcare are caused by cardiovascular disease. The highest percentage of deaths considered to be premature, preventable or avoidable are those from external causes (including suicide and accidents).

The NHS Outcomes Framework publishes the age standardised rate of potential years of life lost (PYLL – see Box 1 for definition) due to causes amenable to good quality healthcare. In 2014 in Hackney and the City, this rate was 3,377 per 100,000 population – significantly above the regional and national rates.

Figure 4: Average annual number of deaths in residents of Hackney and the City of London that are premature, amenable, preventable or avoidable, by cause of death (all ages, 2012–16)



Source: Primary Care Mortality Database

Note: Definitions from ONS. [8] Percentages are rounded and may not add up to 100%.

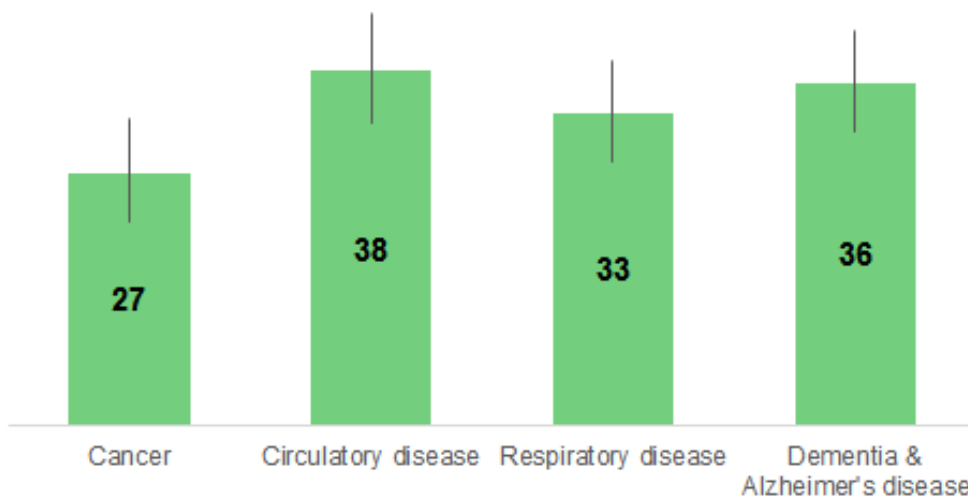
10.3.3 End of life care – numbers affected

While it is sometimes difficult to identify when people are approaching the end of their life (particularly patients who have conditions other than cancer), early identification of these people improves access to services, and provides greater opportunities for them to express their wishes about where and how they want to be cared for – all of which increases the likelihood of better quality of end of life care.

GP practices actively identify patients who may be in their last year of life, in order to assess their support needs and proactively plan their care. This is incentivised nationally by NHS England through the Quality and Outcomes Framework (QOF) and locally through the City and Hackney Clinical Commissioning Group (CCG) end of life care contract (see Section 10.7). In April 2017, there were 970 patients recorded as receiving palliative care in Hackney and 16 in the City.² Of these patients, 36% had cancer.

Data published by Public Health England (PHE) show that, in 2015, 353 out of 1,100 (32%) deaths in residents of Hackney and the City occurred in their usual place of residence. [9] There is some variation evident among the major causes of death nationally, though this is less evident locally due to smaller numbers (and therefore wider confidence intervals) – see Figure 5.

Figure 5: Percentage of deaths in residents of Hackney and the City occurring in usual place of residence (DiUPR), by condition (all ages, 2015)



Source: Public Health England end of life care profiles [10]

Note: Usual place of residence includes homes, care homes and religious establishments. Deaths due to external causes are excluded from the denominator.

10.3.4 End of life care – unmet need

A review of data on recent deaths across England suggests that 69–82% of people who die need palliative care. [11]

From an international perspective, the UK is considered to have good quality palliative care due to universal NHS services, a long-established hospice movement, and relatively good community engagement with the issue. [12] However, there is still considerable unmet need in relation to end of life care.

² Data extracted from the GP register by Clinical Effectiveness Group (CEG), Blizard Institute, April 2017. Data cover Hackney and the City residents registered with a GP in Hackney, the City of London, Tower Hamlets and Newham.

A national survey conducted in 2008 suggested that 74% of people in England would prefer to die at home. [3] However, in 2014 almost half (47%) of all deaths nationally occurred in hospital – local data show that over 2012–16, this figure was 55% in Hackney residents and 53% in residents of the City of London. [10]

Hospice services are mainly used by cancer patients, while patients with respiratory and digestive conditions in particular are at increased risk of dying in hospital (see Table 2). This suggests an opportunity to improve access to hospices and other community services for these patients to support greater choice of place of death, while also optimising the quality of care in the hospital setting.

Of those residents of Hackney and the City who died during 2015, 135 had at least three emergency hospital admissions in their last year of life – indicating an opportunity to better plan services for these patients.

In 2015/16, the number of people receiving palliative care from GPs in Hackney and the City was 67% of the number of deaths recorded in the year. This is much higher than the national figure (40%), and that for London (45%), which suggests that local services are broadly identifying the majority of patients in need of palliative care. [13]

Table 2: Recorded place of death in residents of Hackney and the City of London, by underlying cause of death (all ages, 2012–16)

	Care home	Home	Hospice	Hospital	Other places	NUMBER (average annual)
Cancer	10%	17%	27%	45%	2%	326
CVD	9%	32%	2%	55%	2%	301
Digestive	0%	21%	3%	75%	0%	62
External causes	0%	35%	0%	40%	24%	63
Respiratory	5%	21%	3%	69%	1%	223
Other	14%	19%	4%	60%	2%	135

Source: Primary Care Mortality Database

10.4 Inequalities

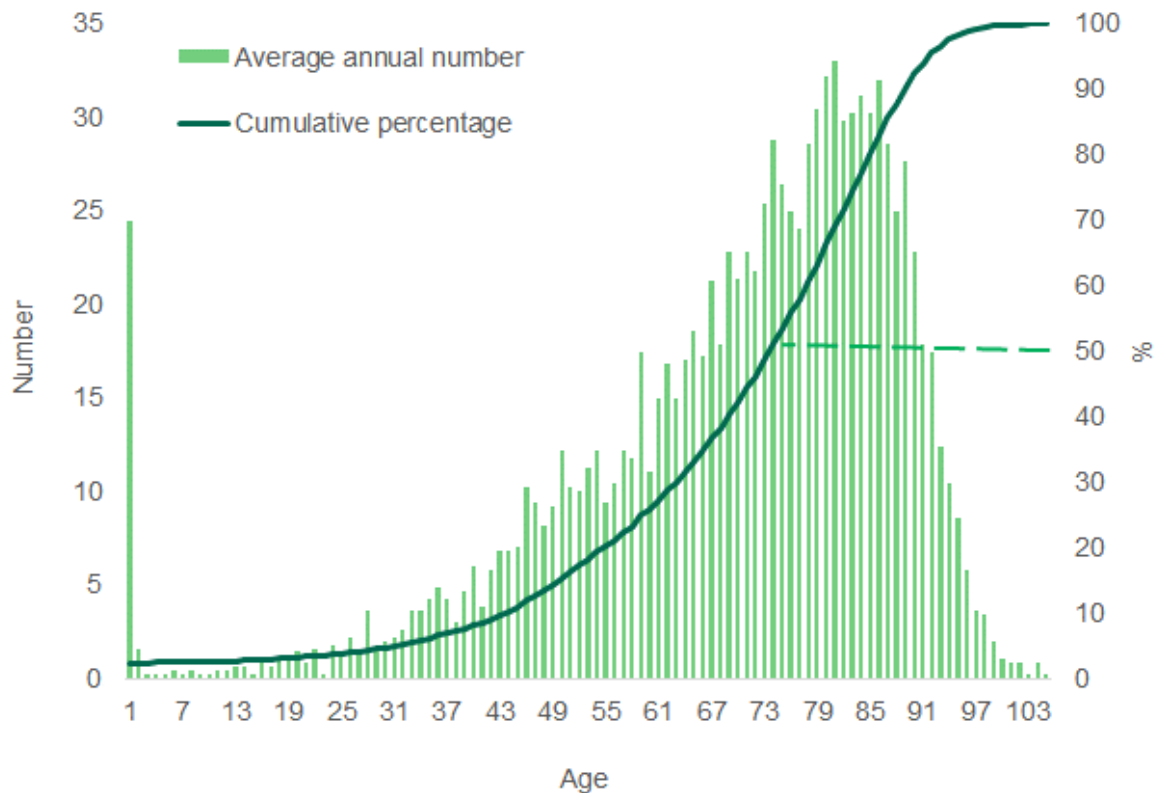
10.4.1 Age

Premature and avoidable mortality

Figure 6 shows the average annual number of deaths in local residents by age, and the cumulative percentage of deaths at each age. Half of local residents die prematurely, that is before the age of 75. The highest number of deaths each year occurs around age 80. Only a few residents live to beyond 100 years old.

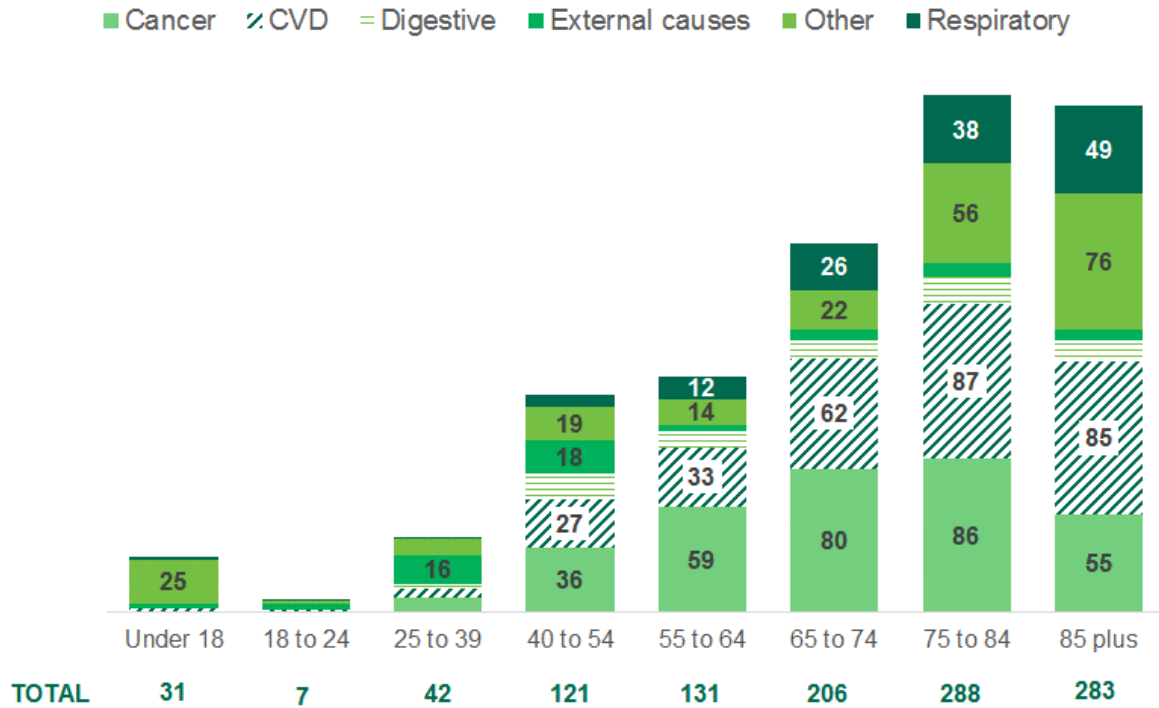
The pattern of causes of premature mortality differs from causes of death in older people (see Figure 7). In 18 to 39 year olds, external causes are the most prevalent; from 40 to 74, cancer is the most common cause of death; and among those aged 75+, cardiovascular disease is the most common cause. The number of deaths from digestive disease remain broadly stable beyond the age of 40, while respiratory conditions become increasingly important as a cause of death over the life course. 'Other' causes of death are more common than average in 55 to 84 year olds – this includes mental health and neurological conditions, including dementia.

Figure 6: Average annual number of deaths in residents of Hackney and the City of London, by age (all ages, 2012–16)



Source: Primary Care Mortality Database

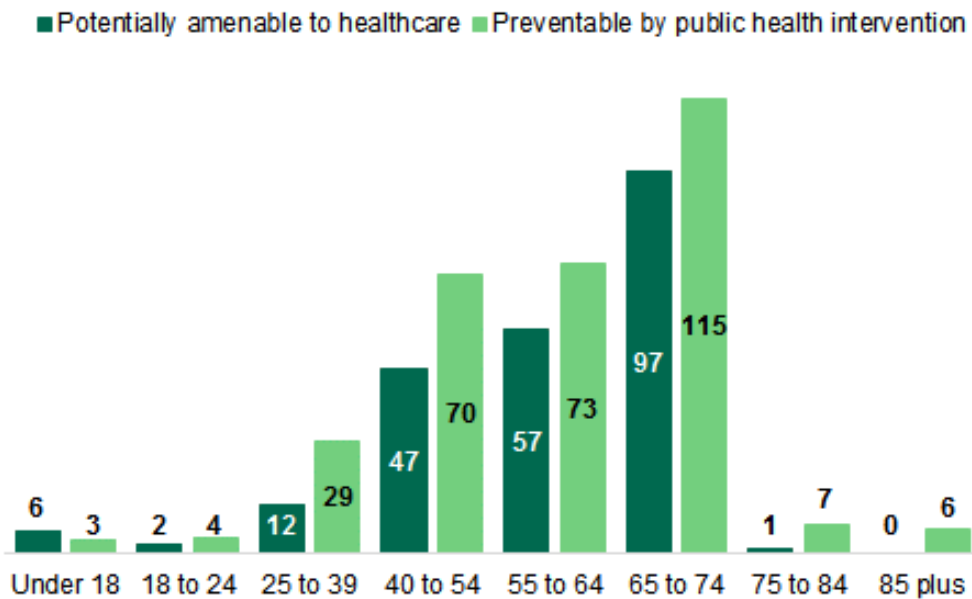
Figure 7: Average annual number of deaths in Hackney and City of London residents, by age and cause of death (all ages, 2012–16)



Source: Primary Care Mortality Database

Figure 8 shows that the vast majority of deaths considered to be avoidable (i.e. potentially preventable by public health intervention or amenable to better healthcare) occur in the 40 to 74 age bands.

Figure 8: Average annual number of deaths in Hackney and City of London residents that are ‘amenable’ and ‘preventable’, by age (all ages, 2012–16)

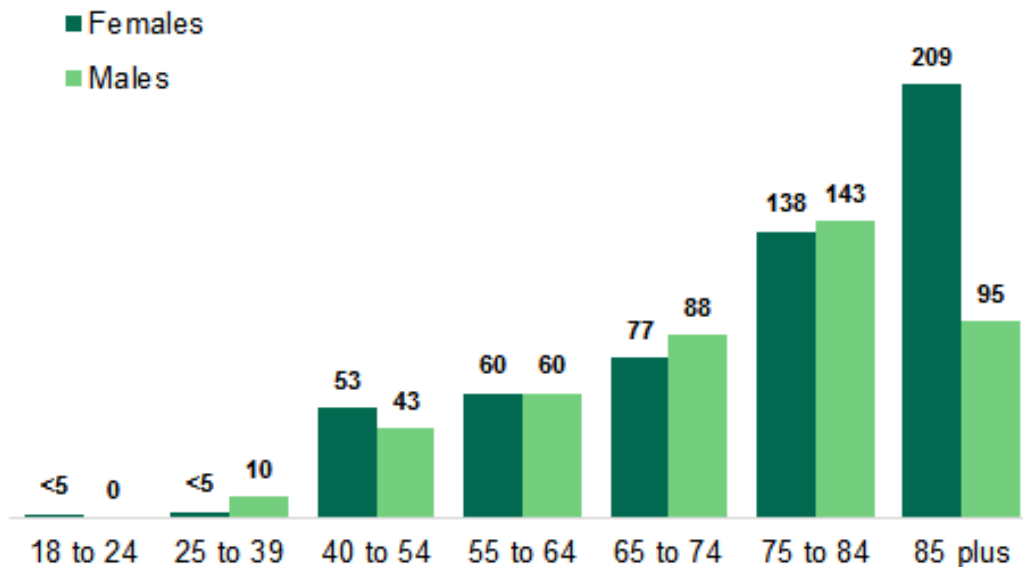


Source: Primary Care Mortality Database

End of life care

Figure 9 shows that most adults receiving palliative care locally are in older age groups. More than 10% of those aged 85 years and older are receiving palliative care. Note that the lower number of males aged over 85 is likely due to their lower life expectancy (see Section 10.4.2).

Figure 9: Number of adults recorded by their GP as receiving palliative care in Hackney and the City, by age and gender (age 18+, April 2017)



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

Local data show a similar proportion of people dying in their usual place of residence across age groups in Hackney and the City (see Figure 30).

10.4.2 Gender

Premature and avoidable mortality

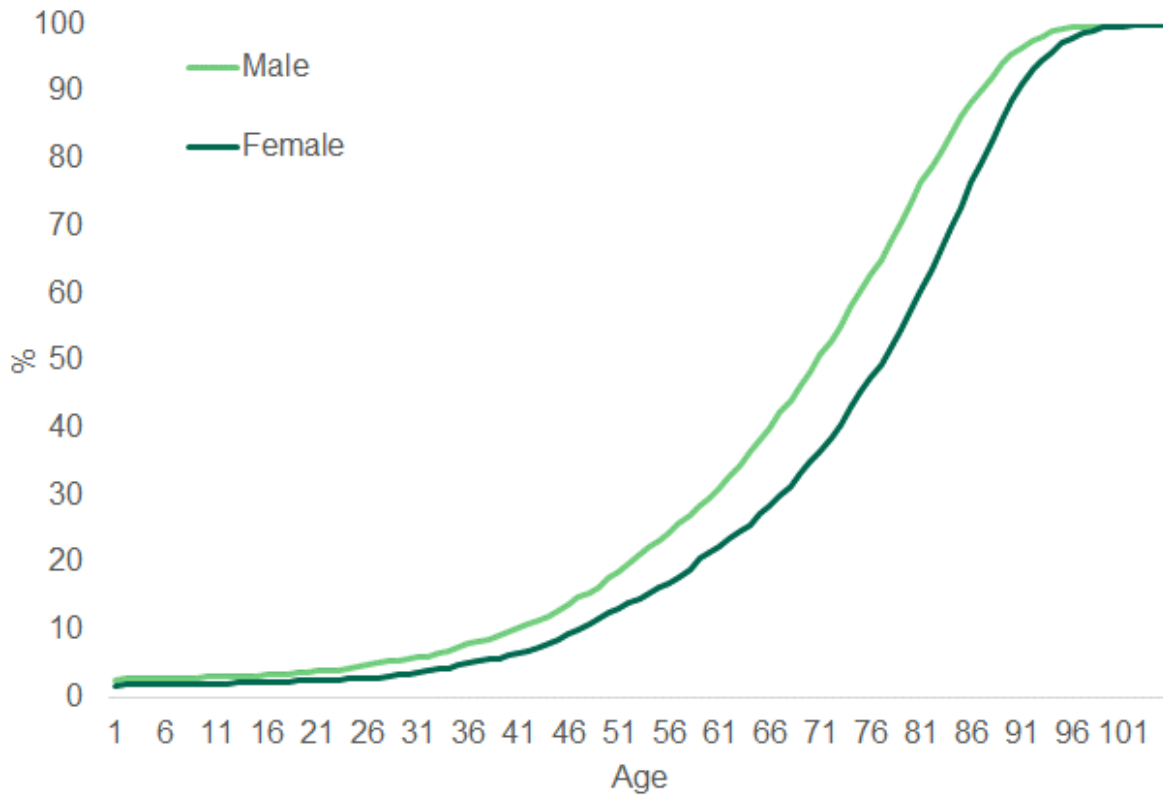
In Hackney, life expectancy in males is 78.7, and in females it is 82.8 (2013–15). In the City, it is 86.1 in males and 89.0 in females (2010–14). [1] The life expectancy gap between men and women is consistent internationally, historically and across the life course. [14] [15]

Lower life expectancy among men has been attributed to numerous factors, including tobacco, manual work and risk-taking behaviours, as well as other biological causes. [16] [17] [18] [19] [20] Cardiovascular disease is the main source of the gap in life expectancy between men and women in residents of Hackney and the City of London.

Figure 10 shows the cumulative percentage of deaths in men and women in Hackney and the City of London – death rates are higher among men than women throughout the life course.

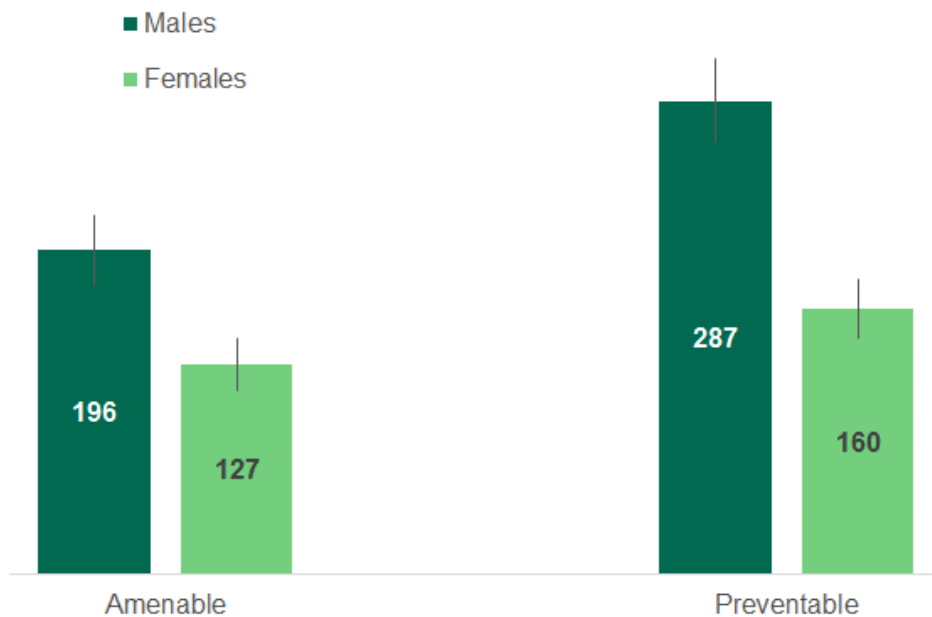
There are similar, significant gender differences in the rate of deaths that may be considered avoidable in Hackney (i.e. preventable or amenable to healthcare) – see Figure 11. Comparable figures for the City of London are not available.

Figure 10: Cumulative percentage of deaths in Hackney and the City of London, by age and gender (all ages, 2012–16)



Source: Primary Care Mortality Database

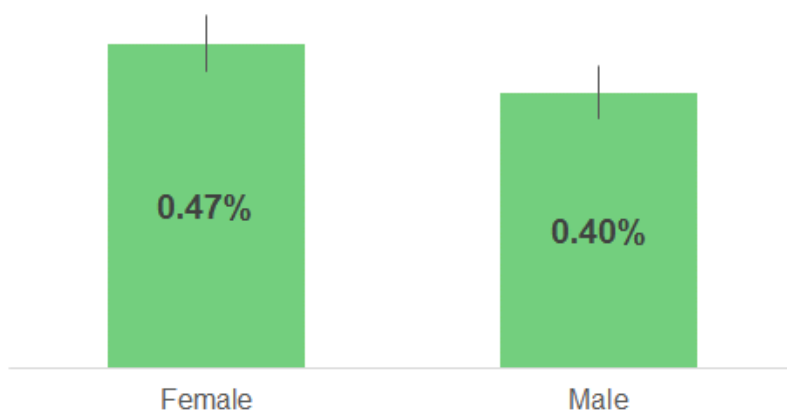
Figure 11: Rate of preventable and amenable mortality per 100,000 population in Hackney, by gender (all ages, 2014–16)



Source: Office for National Statistics
End of life care

In Hackney and the City, a similar proportion of males and females are recorded by their GP as receiving palliative care (see Figure 12).

Figure 12: Percentage of adults recorded by their GP as receiving palliative care in Hackney and the City, by gender (18+, 2017)

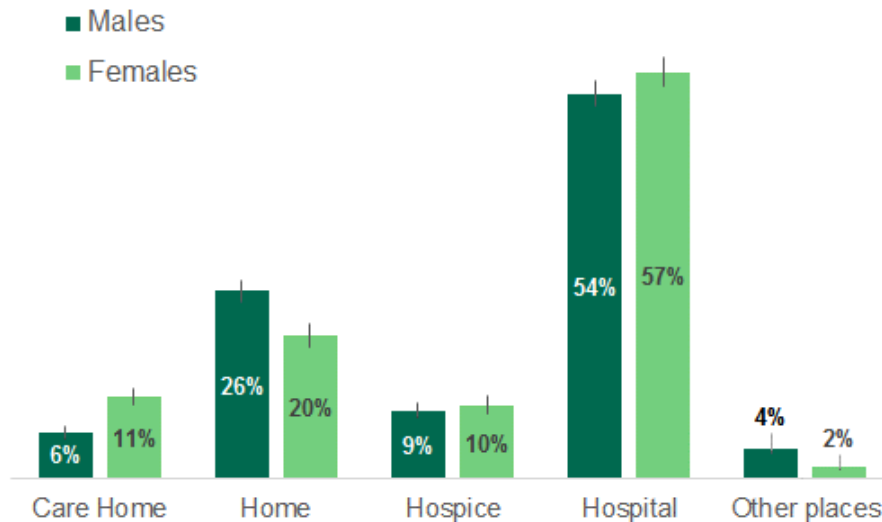


Source: Extracted from the GP register by CEG, Blizard Institute, April 2017. Data cover Hackney and the City residents registered with a GP in Hackney, the City of London, Tower Hamlets and Newham.

Figure 13 reveals some gender differences in place of death locally. In particular, females are more likely to die in care homes, while males are more likely to die at

home. This may be explained by males dying at younger ages overall, and by different causes of death by gender.

Figure 13: Percentage of deaths in residents of Hackney and the City of London, by place of death and gender (all ages, 2012–16)



Source: Primary Care Mortality Database

10.4.3 Ethnicity, country of birth and religion

Premature and avoidable mortality

Understanding local inequalities in mortality related to ethnicity is difficult due to the lack of available data on death certificates.³

Country of birth information is, however, available on local death records. These data show that the proportion of premature deaths is lower overall in residents who were born overseas. This is likely to be reflecting the ‘healthy migrant effect’ – i.e. increased likelihood of people who move countries to be in better health – or associated with people in poorer health returning to their country of origin (and thus being missed in death records).

Locally, death rates in older people who were born overseas are higher than the UK-born population (see Figure 14). This may be due to relatively poorer socio-economic status, barriers to accessing services, or adoption of unhealthy lifestyles (such as a poor diet) following migration. It may also reflect different waves of migration or the long-term impact of people’s experiences before or during migration.

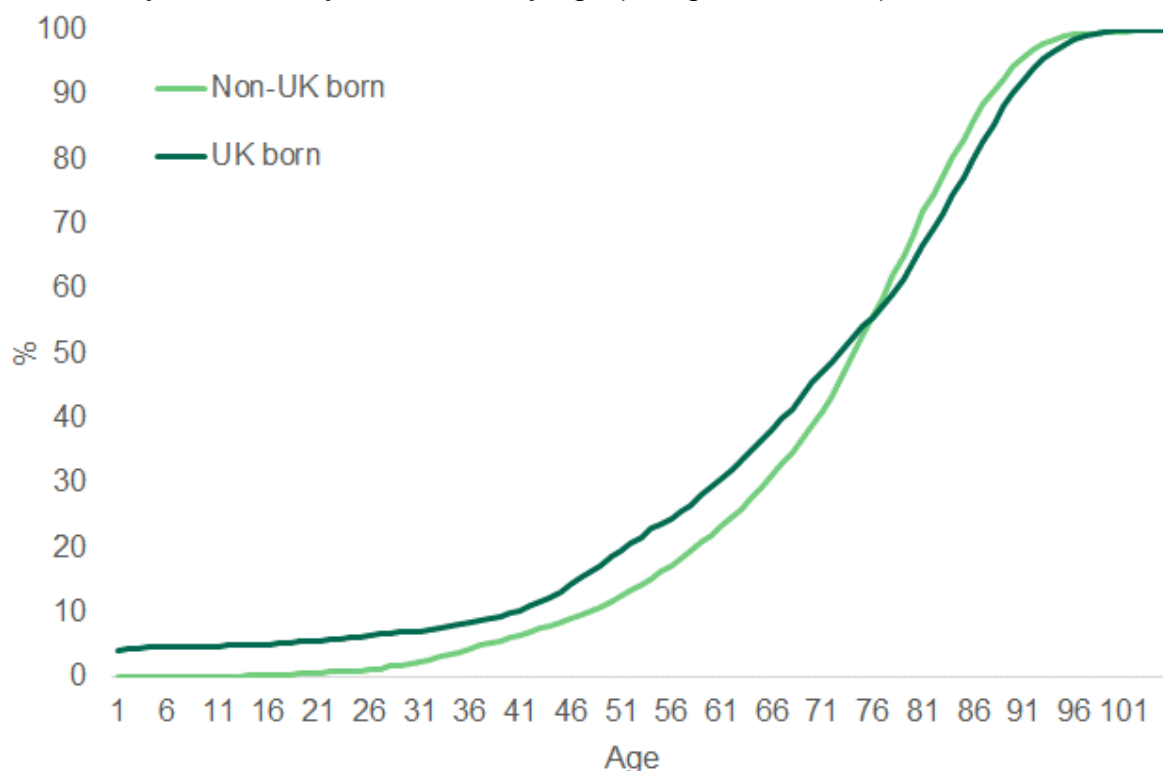
Similar overall trends can be seen in national data for long-term illness, with generally lower rates in those born overseas than in the UK born population, but higher rates among older people not born in the UK. [21]

³ The required linkage studies are complex, though research has been published nationally. Self-reported ethnicity has been considered difficult to collect as it would be required to complete this information before death. However, since 2011 ethnicity has been successfully recorded on death certificates in Scotland, with almost all informants supplying the requested information. [54]

National research suggests that life expectancy among White and Asian ethnic groups are generally similar overall, but lower among Black ethnic groups – which may in part reflect patterns of socio-economic disadvantage. [22]

In 2017, qualitative research was carried out to explore the reasons for low uptake of services at St Joseph’s Hospice by Black, Asian and Minority Ethnic (BAME) communities – in particular, among Turkish, Charedi and Polish residents. The research highlighted a number of issues around conflicting ideologies and differing views on end of life care and a lack of knowledge of services in these communities, as well as language barriers. [23]

Figure 14: Cumulative percentage of deaths in UK born and non-UK born residents of Hackney and the City of London, by age (all ages, 2012–16)



Source: Primary Care Mortality Database

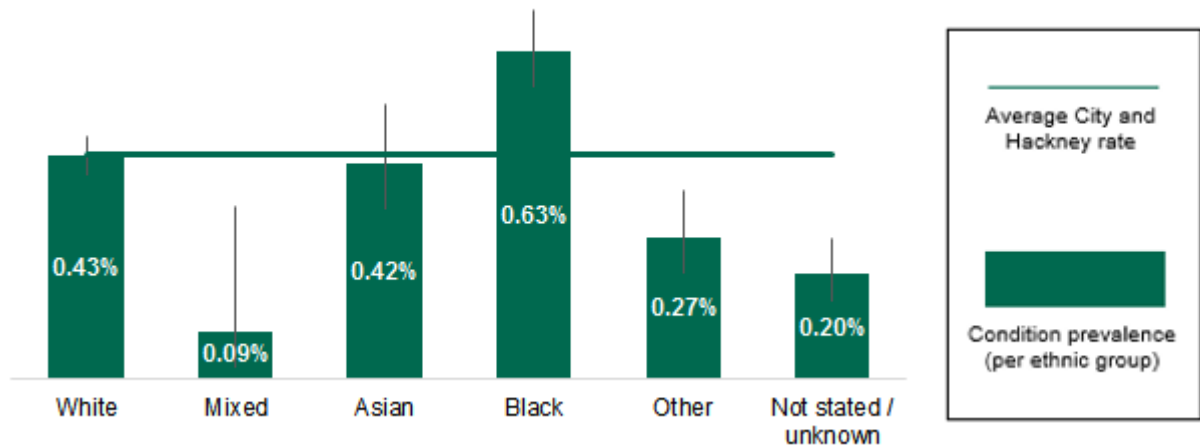
End of life care

Ethnicity and culture are key factors in how end of life care is approached by patients, families, carers and professionals. [24] National evidence also indicates variations in experience of end of life services, with higher levels of dissatisfaction in Black, Asian and Minority Ethnic (BAME) communities and some services being perceived as culturally inappropriate. [25]

Over half (53%) of adults receiving palliative care locally are of White ethnic origin, with 31% of Black ethnicity. However, a higher than average proportion of people of Black ethnicity are receiving palliative care, as Figure 175 shows. This may be linked

to higher levels of socio-economic deprivation (see Section 10.4.6) and/or other factors such as cause of death.

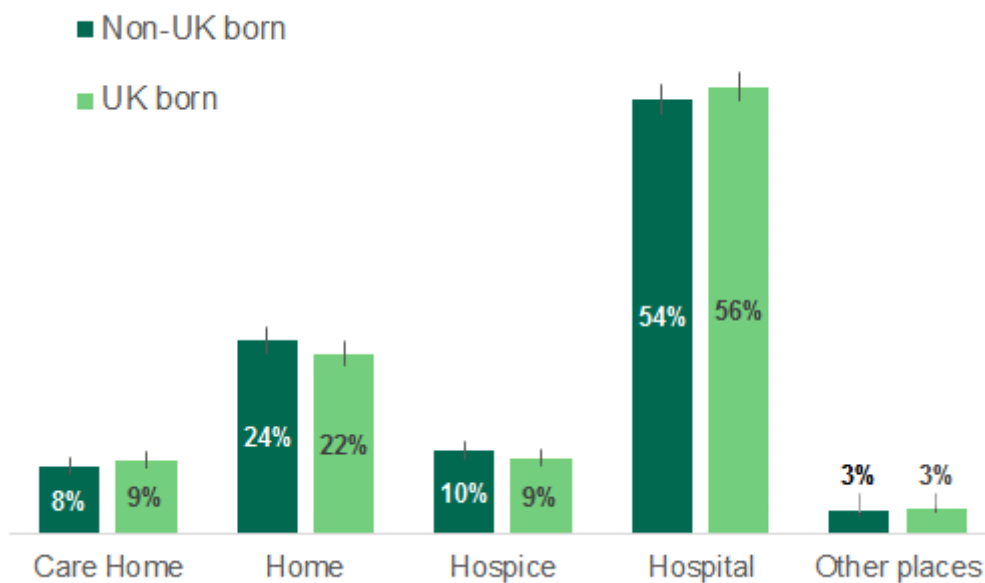
Figure 15: Percentage of adults recorded by their GP as receiving palliative care in Hackney and the City, by ethnic group (all ages, 2017)



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.

As mentioned previously, it is not possible to analyse place of death as recorded on death certificates by ethnicity. However, analysis based on country of birth suggests that there is little overall variation in the place of death proportions recorded in UK born and non-UK born local residents (Figure 16).

Figure 16: Percentage of deaths in residents of Hackney and the City of London, by place of death and place of birth (all ages, 2012–16)



Source: Primary Care Mortality Database

Research highlights the particular importance of understanding the religious beliefs of patients and practitioners in delivering end of life care. [26] This was confirmed in a recent study that examined palliative care services for the Charedi community in the Stamford Hill area of Hackney. [27] It is not possible to reliably identify the Charedi community in death records as the majority are UK born.

10.4.4 Disability

Premature and avoidable mortality

Life expectancy in people with disabilities is often shorter than average, due to the higher burden of ill health in these populations. [2] In the case of people with severe mental illness, this can largely be attributed to smoking-related diseases. For more information, see the 'Mental health and substance misuse' JSNA chapter.

While local data on mortality rates among disabled people are not available, patterns are likely to reflect the major health conditions, lifestyle and wider health determinants associated with premature mortality (see Section 10.2) – many of these are discussed in other sections and chapters of the JSNA.

End of life care

As people with disabilities are more likely than the general population to experience a range of health conditions (see other sections of this JSNA chapter), and to be living in more deprived circumstances (see 'Society and environment' JSNA chapter), this will have an impact on their end of life care needs.

Out of 1,041 patients recorded by their GP as receiving palliative care in Hackney and the City (as of April 2017), 11 had learning disabilities, 46 had severe mental illness, 74 were registered blind or with low vision, and 31 were deaf or profoundly deaf. [28]

10.4.5 Sexuality

Premature and avoidable mortality

Death rates in lesbian, gay, bisexual, transgender and other sexual and gender minority (LGBT+) people are not available, as this information is not recorded on death certificates. However, given the relatively high levels of smoking and alcohol use (see 'Smoking' and 'Alcohol' sections of the 'Lifestyle and behaviour' JSNA chapter) and comparatively high incidence of some long-term conditions in this population, it is likely that they experience relatively higher rates of avoidable and premature death on average. [29]

End of life care

The Department of Health's *End of Life Care Strategy Equality Impact Assessment* identifies sexual orientation and gender identity as the most likely cause of inequality

and discrimination to occur in end of life care. One of the key areas reported was that LGBT+ relationships may be concealed, with the consequence that practitioners and staff may exclude important individuals from involvement in a person's care. [30]

Though data are not routinely collected, research suggests that there are particular barriers to accessing end of life services among LGBT+ people. [29]

10.4.6 Socio-economic disadvantage

Premature and avoidable mortality

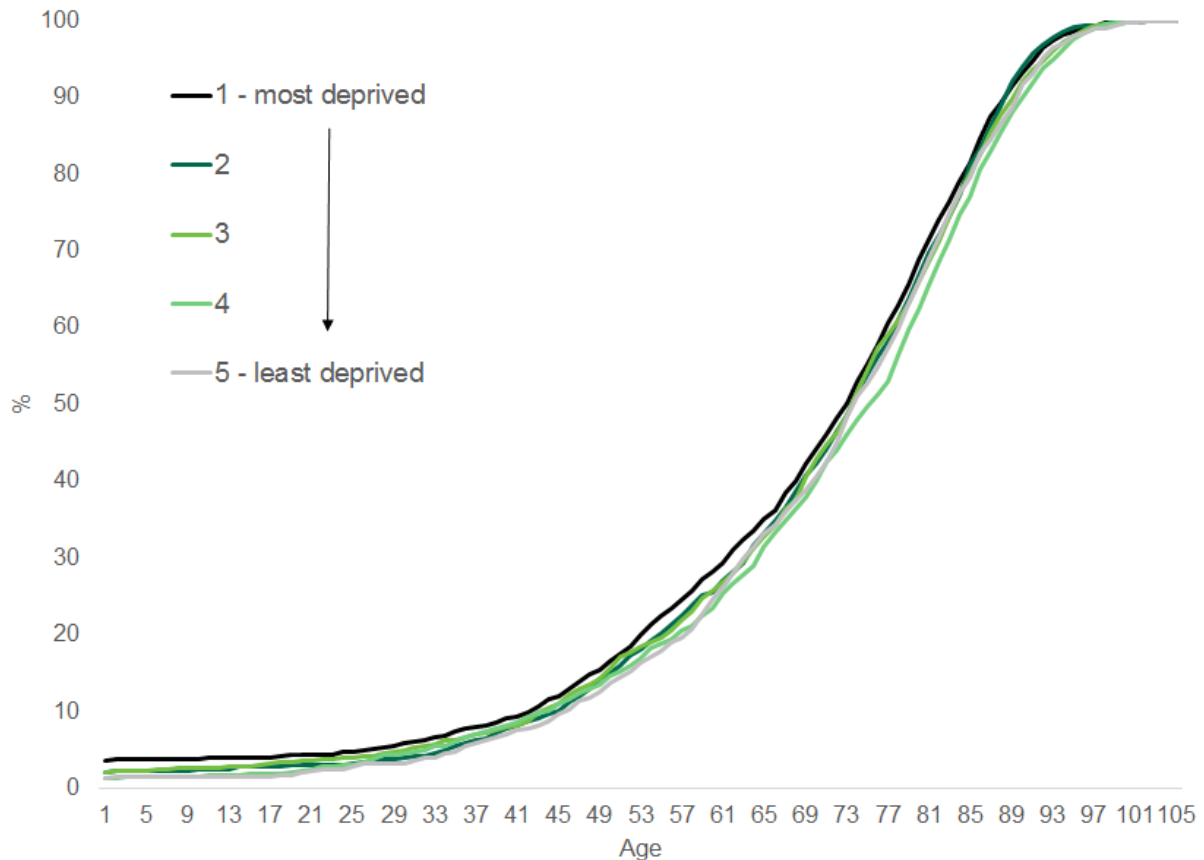
Socio-economic deprivation is a key determinant of life expectancy nationally. [31] There is a significant social gradient in premature death, with life expectancy in more socio-economically deprived populations being lower than the levels seen in wealthier groups. This gap widened significantly between 2001 and 2015. Examining the different facets of socio-economic deprivation using the different domains of the Index of Multiple Deprivation (IMD), it was found that income was the main factor contributing to this inequality. [31]

Female life expectancy in Hackney, despite it being among the most socio-economically deprived local authorities in the country, is now similar to the national average, but life expectancy remains significantly lower in males (see Section 10.5.1).

Also of interest, given the relatively high levels of socio-economic deprivation in Hackney, is that the 'slope index of inequality' (that is, the difference in life expectancy between the wealthiest and poorest areas) is relatively low. [7] This is likely to reflect the fact that, unlike some other local authorities, the borough has not been historically highly 'zoned' from a socio-economic perspective, and instead residents from a wide mix of backgrounds have lived alongside each other. Nevertheless, Figure 17 reveals that residents living in more deprived neighbourhoods locally tend to die at a younger age on average – the cumulative percentage of deaths is highest at most ages in the most deprived areas, in particular up to the age of 75.

It is expected that inequality in life expectancy within the local area will grow over time as social inequality grows – for example, as happened among men in neighbouring Islington between 2010–12 and 2014–16. [7]

Figure 17: Cumulative percentage of deaths in residents of Hackney and the City of London, by deprivation quintile (all ages, 2012–16)



Source: Primary Care Mortality Database

Note: Deprivation is defined using the Index of Multiple Deprivation 2015 (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). [32]

Though these local data show some of the socio-economic disparity in Hackney and the City, they mask the experience of some particularly disadvantaged groups. For example, rough sleepers have significantly lower life expectancy than the general population, and are more likely to be affected by external causes of death and conditions related to alcohol and substance misuse (in particular, liver disease). This is evident in data covering people who were registered with The Greenhouse practice in Hackney, which offers specialist services for homeless people, as shown in Table 3.

Research covering the population of The Greenhouse practice, along with a similar one in Tower Hamlets, highlights the lower cause-specific age of death overall, as well as the high numbers of deaths related to substance misuse. [33] For more information on the health of rough sleepers, see the 'Housing and homelessness' section of the 'Society and environment' JSNA chapter.

Table 3: Cause of death in patients registered with The Greenhouse practice compared with all Hackney residents (all ages, 2012–16)

	Hackney residents	Greenhouse registered
Cancer	29%	17%
CVD	27%	4%
Digestive*	5%	35%
External causes	6%	30%
Respiratory	20%	13%
Other (incl. Infectious)	12%	17%
Number	5,380	23

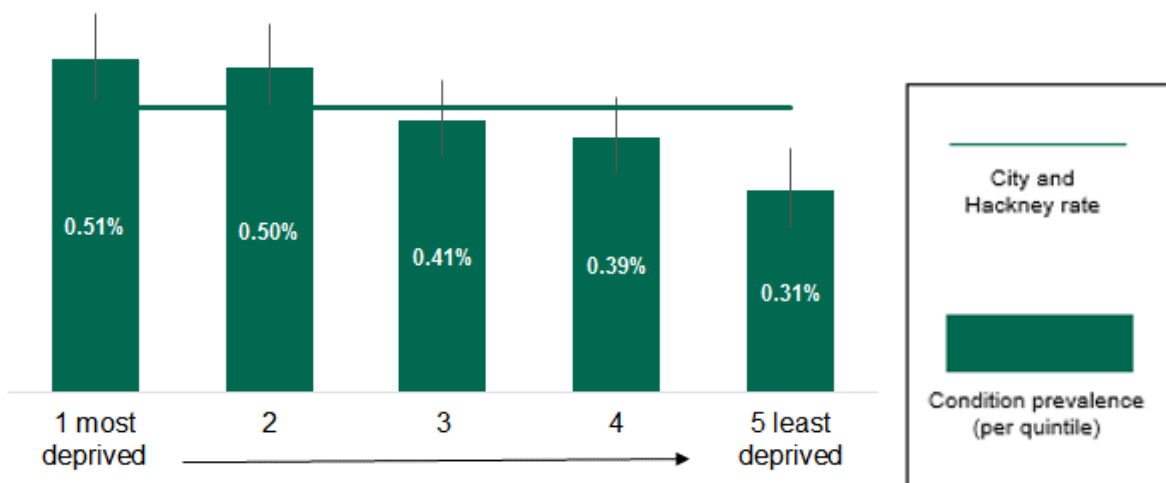
Source: Primary Care Mortality Database

Note: The Greenhouse practice provides specialist services for single homeless people – people registered here are likely to reflect this population. This group includes very small numbers of children and older people. * Includes liver disease.

End of life care

Figure 18 shows that the proportion of residents recorded as receiving palliative care locally is higher among those living in the more deprived parts of the borough compared to those living in more affluent areas. This may in part be associated with shorter life expectancy in these areas.

Figure 18: Percentage of adults recorded by their GP as receiving palliative care in Hackney and the City, by deprivation quintile (18+, 2017)



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. [28]

Note: Deprivation is defined using IMD2015. 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). [32] Deprivation quintiles are calculated by ranking the scores of all small areas (known as lower super output areas or LSOAs) in England from highest to lowest, then dividing areas into five equal groups based on their scores. This results in five groups in rank order from the most to least deprived. It is a relative measure of deprivation compared to other areas in England.

Nationally, people who live in more deprived areas are less likely to die in their usual place of residence than those who live in more affluent areas. [9] However, there were no clear differences in place of death by social deprivation observed in local data for Hackney and the City.

There is also likely to be a particular need for palliative care services among homeless people, who are likely to die at a younger age and experience multiple health conditions. The Greenhouse practice in Hackney, which offers specialist services to single homeless people and rough sleepers, recorded six patients (0.6%) receiving palliative care – a similar prevalence to the local average (0.3%). [34] However, these patients are more likely to die from conditions that are less likely to involve palliative care. The small numbers mean that we cannot draw any conclusions from these data.

10.4.7 Location within Hackney and the City

Premature and avoidable mortality

The Hackney health and wellbeing ward profiles present the age-standardised rate of premature mortality across the borough over the period 2010–14. Though based on small numbers, these data show that the lowest rates of premature mortality are in relatively wealthy parts of the borough, including the Cazenove, Stoke Newington, De Beauvoir and Clissold wards. The highest rates are in Hoxton East and Shoreditch, Hackney Central, Hackney Wick and Woodberry Down. See Figure 19 for the ward locations.

Ward-level data are not currently available for the City of London.

End of life care

The Hackney health and wellbeing ward profiles also identify some geographical variation within Hackney in the proportion of deaths occurring in hospital, during the period 2013–15. The lowest proportion of deaths occurring in hospital was in the Lea Bridge and Hoxton East and Shoreditch wards, where residents of the Mary Seacole Nursing Home and the Acorn Lodge Care Centre accounted for a relatively high proportion of deaths. The highest rate was in Homerton ward, which may reflect the proximity of Homerton Hospital to many people living in this area. See Figure 19 for the ward locations.

Ward-level data are not currently available for the City of London.

Figure 19: Location of local authority boundaries and electoral wards in Hackney (2018)



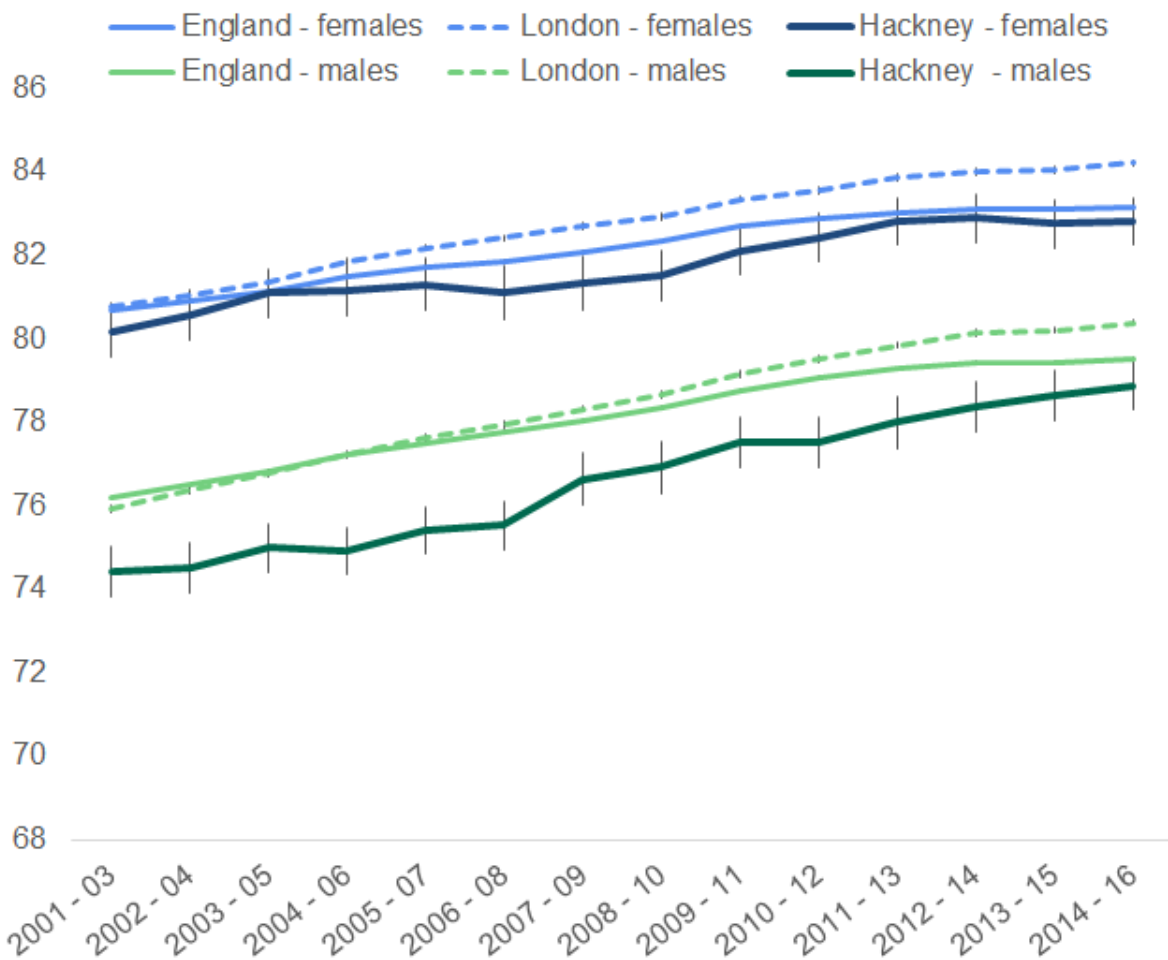
10.5 Comparisons with other areas and over time

10.5.1 Premature and avoidable mortality

Life expectancy has steadily increased across the country, both locally and nationally, although the recent improvement in Hackney (associated with significant population change) has been particularly notable. As described in Section 10.4.6, despite being among the most socio-economically deprived local authorities in the country, female life expectancy in Hackney is now similar to the national average, but it remains significantly lower in males (see Figure 20). Life expectancy for males and females in the City of London is higher than the national average. [1]

Since 2010, the rate of improvement in life expectancy nationally has slowed down. Studies have attributed this trend to austerity and reduced funding of health and care services following the global banking crisis in 2007/08, with older people in particular adversely affected by reductions in social care spending. [35] [36] If these national trends continue, they are likely to become evident in local data.

Figure 20: Life expectancy at birth by gender in Hackney, London and England (all ages, 2001–03 — 2014–16)

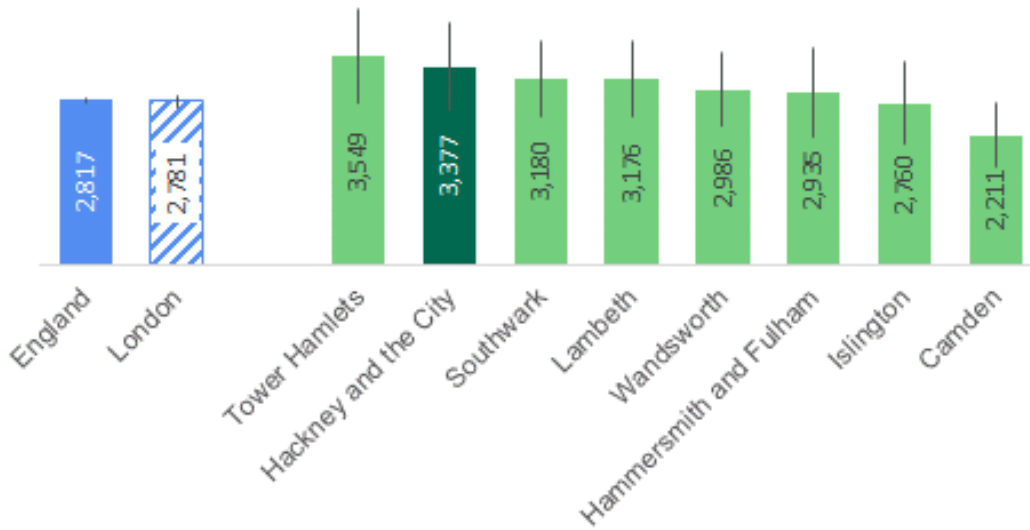


Source: Office for National Statistics

In Hackney and the City in 2014, the age-standardised rate of potential years of life lost (PYLL) was 3,377 per 100,000 population – significantly higher (worse) than the regional and national rates, but similar to Hackney’s statistical peers (see Figure 21).

Separate data for Hackney and the City are not available.

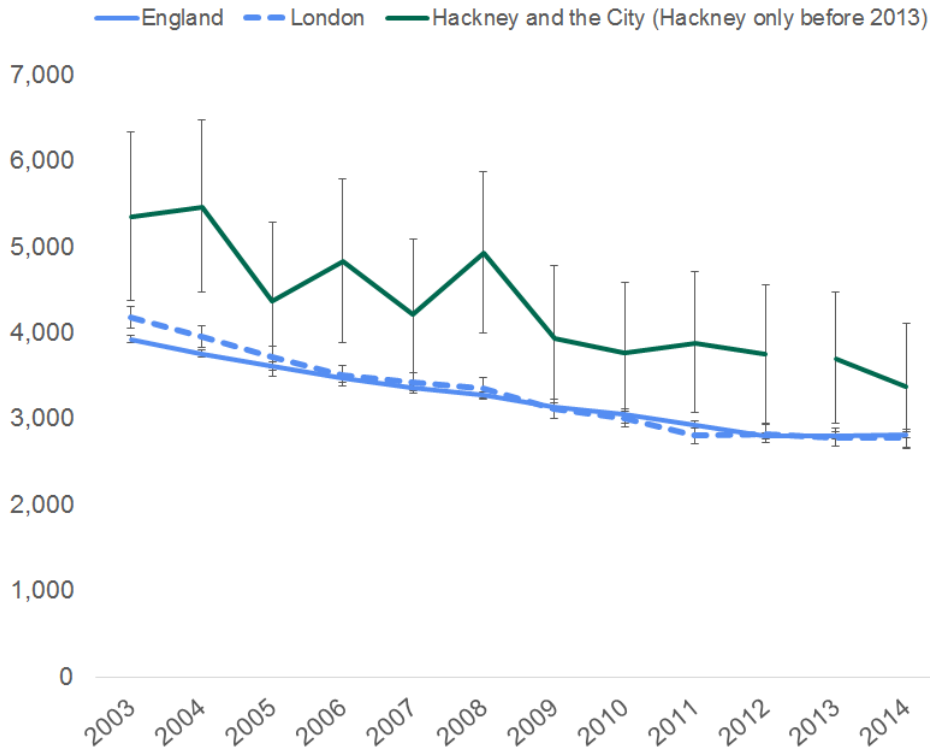
Figure 21: Age-standardised rate of potential years of life lost (PYLL) from causes considered amenable to healthcare per 100,000 population (age 18+, 2014)



Source: NHS Digital

The long-term time trend shows an ongoing decline in the PYLL rate up to 2014 (latest available data) – see Figure 22.

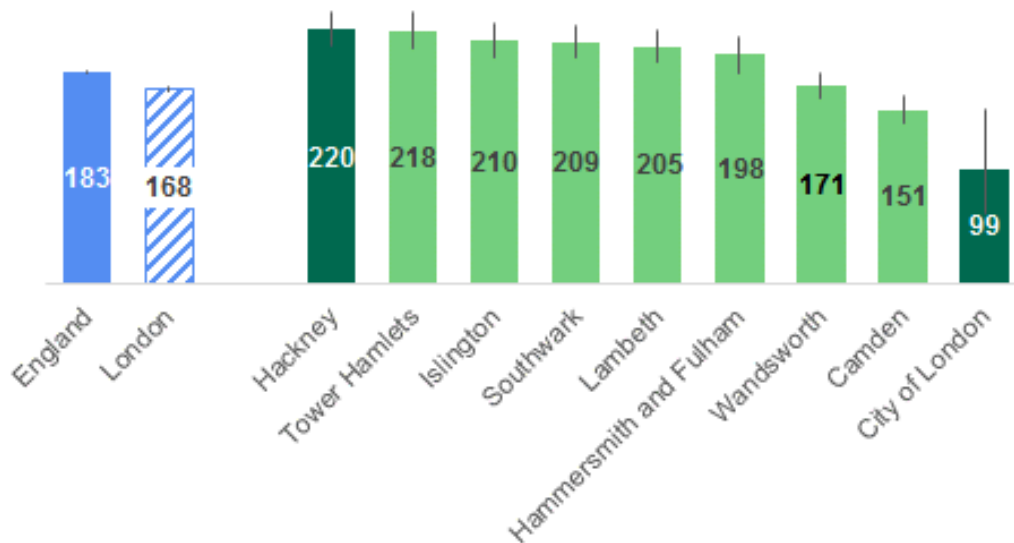
Figure 22: Age-standardised rate of PYLL from causes considered amenable to healthcare per 100,000 population (18+, 2003 – 2014)



Source: NHS Digital

The rate of preventable deaths in Hackney is also high compared to national and regional comparators, as well as some of Hackney’s statistical peers – see Figure 23. The rate of preventable deaths in the City of London is lower than the national average.

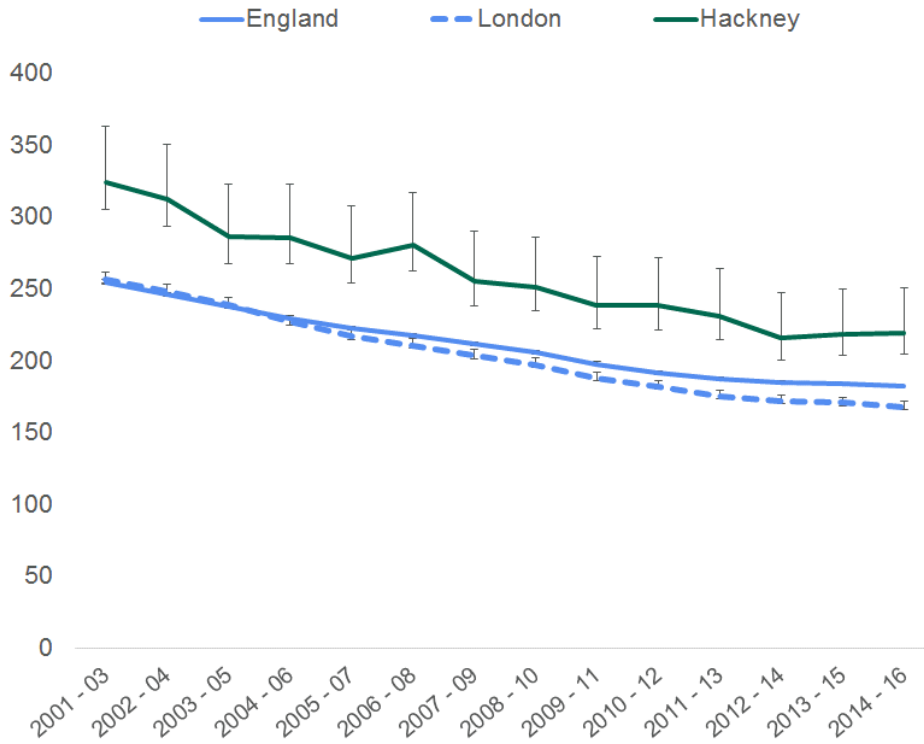
Figure 23: Age-standardised rate of mortality from causes considered preventable per 100,000 population (all ages, 2014–16)



Source: Public Health England

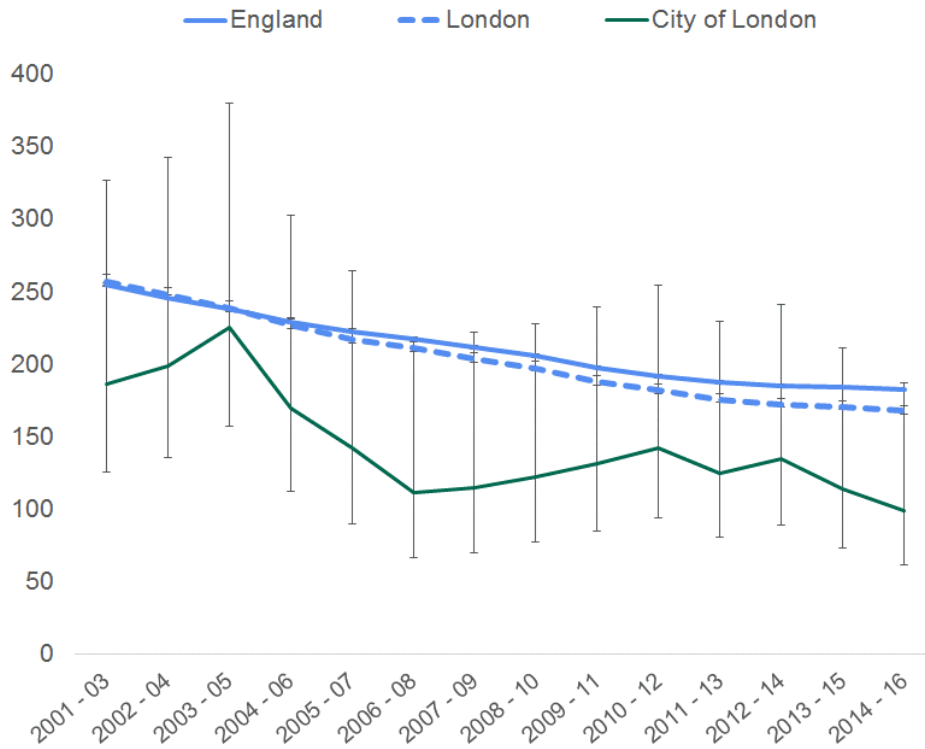
The rate of preventable deaths in Hackney, as elsewhere, has declined in recent years (see Figure 24). Figure 25 shows that while the rate in the City of London has also declined, small numbers make it difficult to be certain about this trend (as indicated by the wide confidence intervals).

Figure 24: Age-standardised rate of mortality from causes considered preventable per 100,000 population (all ages, 2001–03 — 2014–16)



Source: Public Health England

Figure 25: Age-standardised rate of mortality from causes considered preventable per 100,000 population (all ages, 2001–03 — 2014–16)

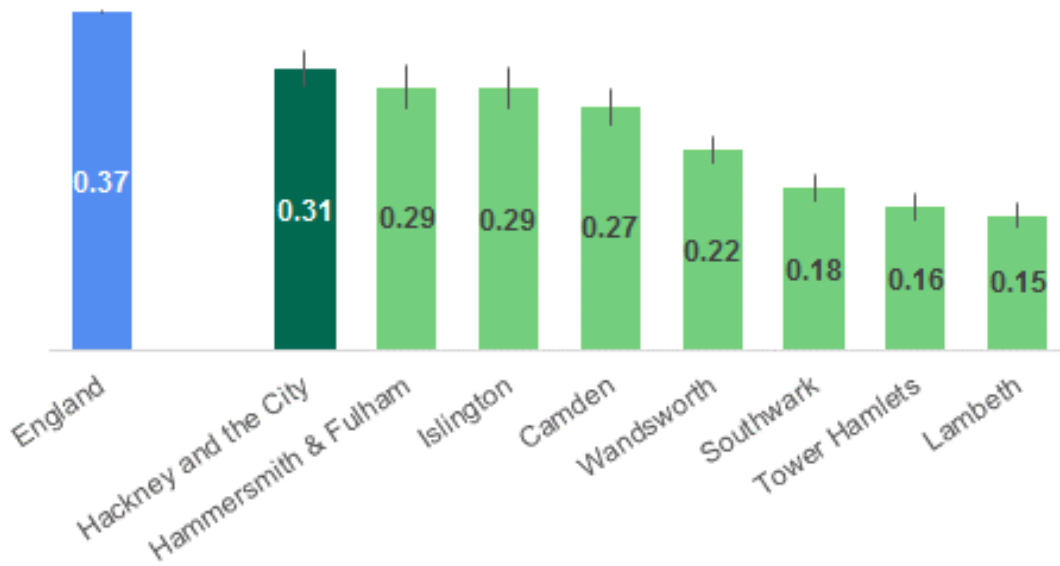


Source: Public Health England

10.5.2 End of life care

The proportion of the total population receiving palliative care is relatively low in Hackney and the City compared to the England average, but higher than most of Hackney’s statistical peers (Figure 26). Lower than average proportions of people receiving palliative care in Hackney’s statistical peer group is likely due at least in part to the comparatively young resident populations.

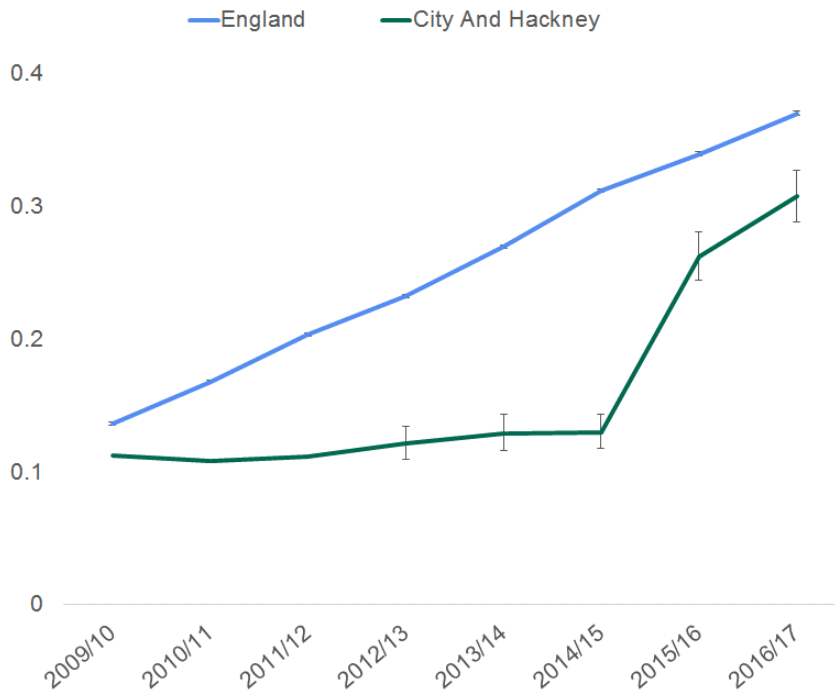
Figure 26: Proportion of GP-registered patients currently receiving palliative care or support (all ages, 2016/17)



Source: Quality and Outcomes Framework

Figure 27 reveals the positive impact of the introduction in 2015/16 of a local contract that incentivised Hackney and the City GPs to improve identification of people approaching end of life, and place them on a palliative care register.

Figure 27: Proportion of registered patients currently receiving palliative care or support (all ages, 2009/10 — 2016/17)

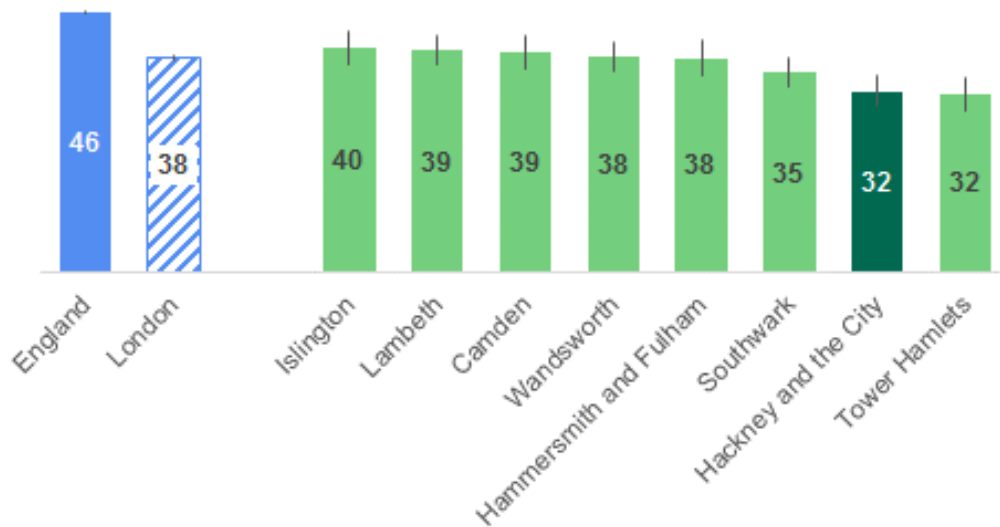


Source: Quality and Outcomes Framework

Note: Confidence intervals not available for data prior to 2012/13

The proportion of deaths occurring in the usual place of residence is relatively low in London compared to England. Among its statistical peers, Hackney and the City has some of the lowest rates – see Figure 28.

Figure 28: Percentage of deaths in usual place of residence (DiUPR) (all ages, 2015)

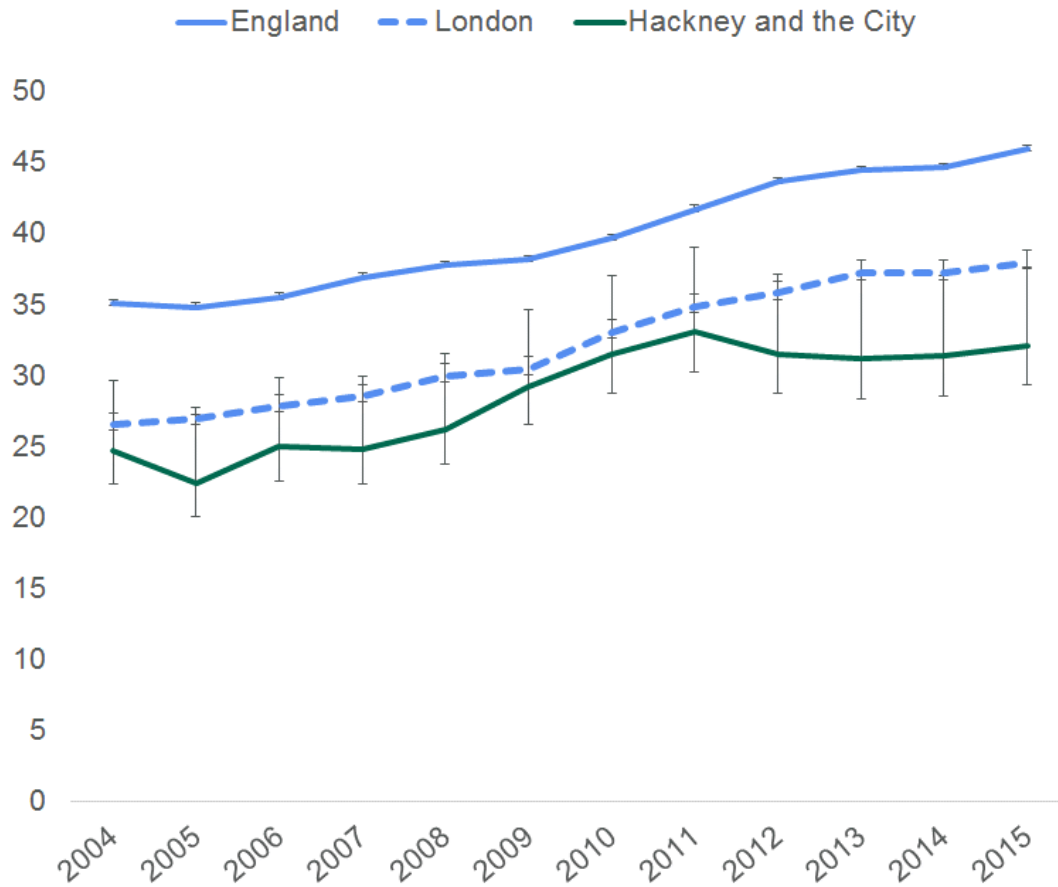


Source: Public Health England

Note: Usual place of residence includes people’s homes, care homes and religious establishments. Deaths due to external causes are excluded from the denominator.

Over the period 2004 to 2015, there has been an increase in the proportion of deaths occurring in the usual place of residence locally. However, local performance remains below the national average, as shown in Figure 29.

Figure 29: Percentage of deaths in usual place of residence (DiUPR) (all ages, 2004 — 2015)

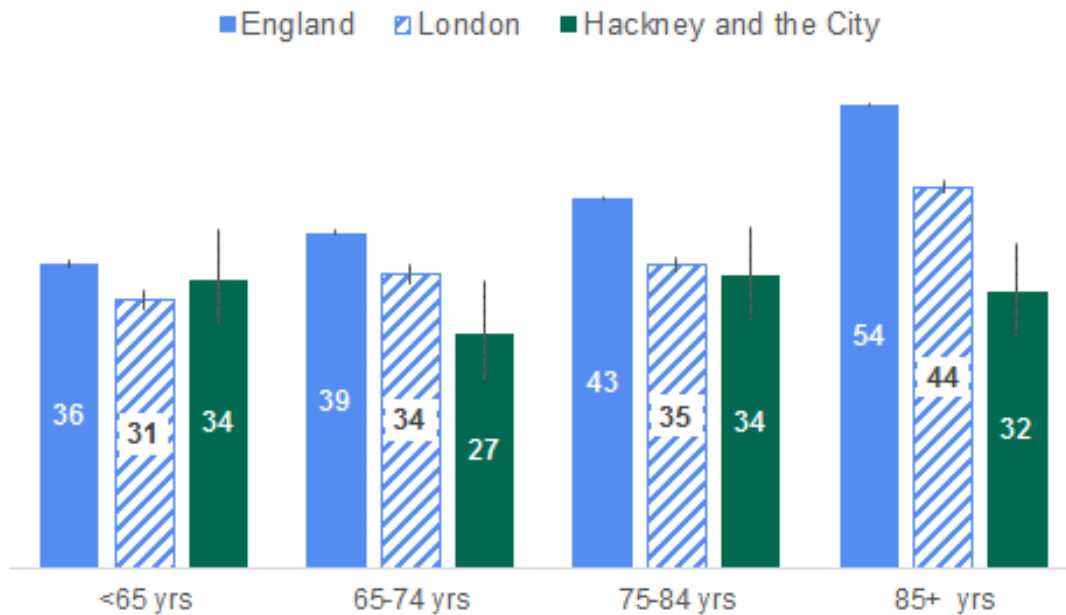


Source: Public Health England

Note: Usual place of residence includes people’s homes, care homes and religious establishments. Deaths due to external causes are excluded from the denominator.

Evidence suggests that a similar proportion of people die in their usual place of residence across age groups in Hackney and the City (see Figure 30). Nationally, older age groups are more likely to die in their usual place of residence.

Figure 30: Percentage of deaths occurring in usual place of residence (DiUPR), by age (all ages, 2015)

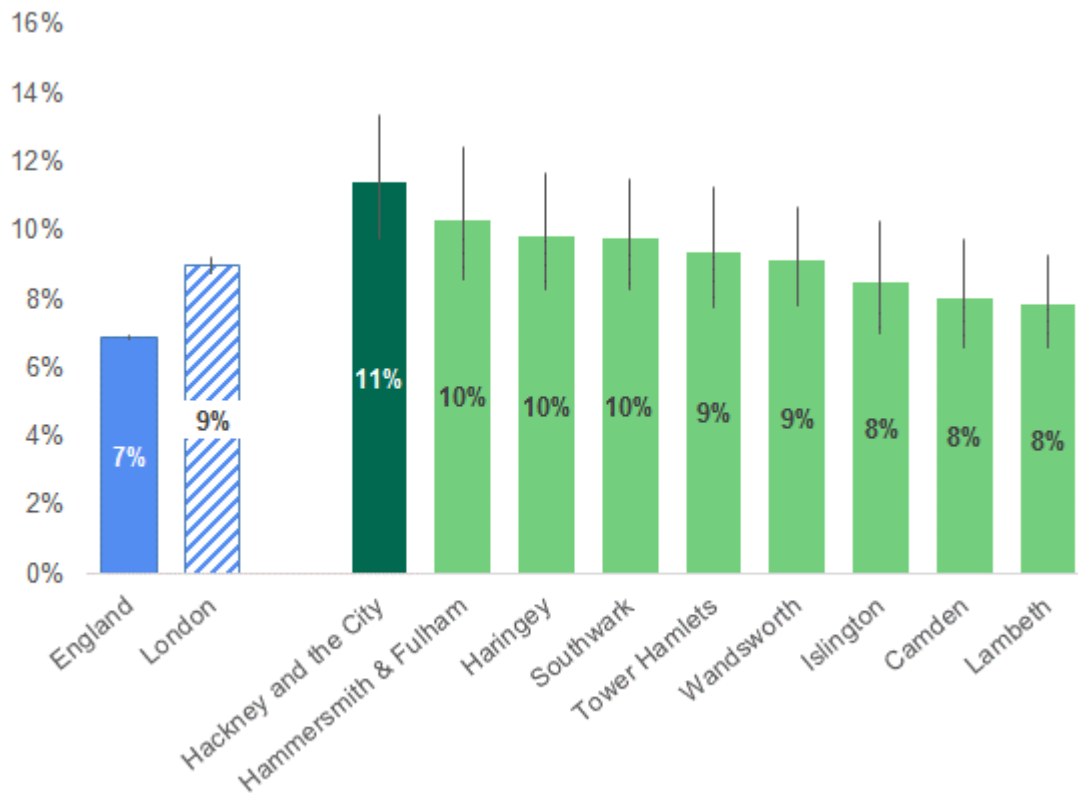


Source: Public Health England

Note: Usual place of residence includes people's homes, care homes and religious establishments. Deaths due to external causes are excluded from the denominator.

Figure 31 shows that people from Hackney and the City who died in 2015 had one of the highest rates of emergency hospital admissions in the last 90 days of life of all Hackney's statistical peers – significantly higher than the London and England averages.

Figure 31: Percentage of patients dying who had three or more emergency admissions in last 90 days of life (all ages, 2015)



Source: Public Health England

10.6 Evidence and good practice

10.6.1 Reducing premature and avoidable mortality

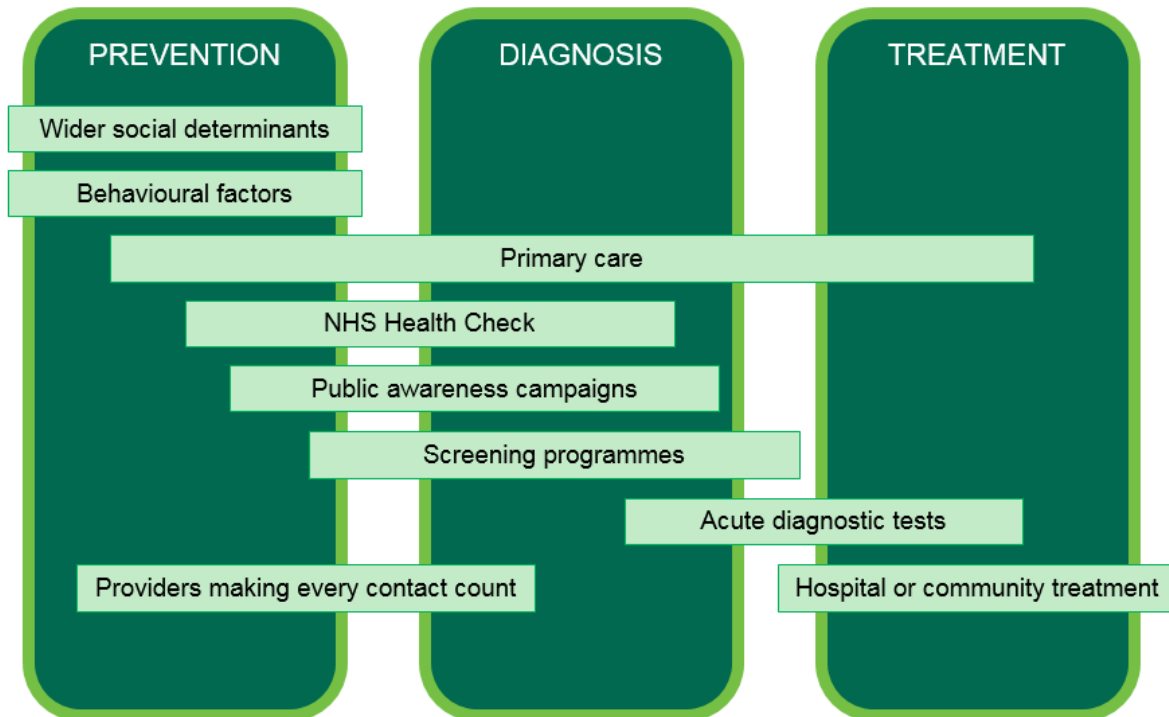
Figure 32 provides an overview of recommended action to reduce premature and avoidable mortality, as described in the 2013 Department of Health report, 'Living well for longer'. [37]

Evidence and good practice for reducing exposure to key social and environmental risk factors for premature and avoidable mortality are described in the 'Society and environment' chapter of the JSNA, which includes sections on housing and homelessness, living standards and employment, among other things.

Evidence-based approaches to tackling the major behavioural factors associated with premature and avoidable mortality are discussed in the 'Lifestyle and behaviour' chapter of the JSNA – these include smoking, physical activity, diet and alcohol misuse. Other substance use is covered in the 'Mental health and substance misuse' JSNA chapter.

Evidence and best practice in health and care services relevant to the prevention, early identification and effective management of the major causes of premature and avoidable mortality are covered elsewhere in the JSNA – in particular, this chapter on adult health covers cardiovascular disease, cancer and respiratory disease.

Figure 32: An overview of action that can be taken across health and care systems to reduce avoidable mortality [37]



The National Institute for Health and Care Excellence (NICE) has published guidance specifically for local government on actions authorities can take to tackle the causes of premature mortality. [38] These actions are grouped under six main areas of work, as described in Box 2. NICE advises that a 'proportionate universal' approach best ensures that everyone can receive basic support, while those in greatest need receive the most resources. There is also a NICE quality standard (QS167) covering the prevention of premature mortality in BAME people. [39]

Box 2: Tackling the causes of premature mortality [38]

- NICE recommends local government action across the following six areas.
1. Adopt a population-wide approach to tackling premature mortality (e.g. through strong local partnerships, using the JSNA to inform policy and practice).
 2. Develop policies to prevent premature mortality (e.g. using procurement levers to influence healthy behaviours, ensuring provision of accessible leisure services, supporting staff health and wellbeing).
 3. Commission services to prevent premature mortality (including stop smoking services, weight management services, the NHS Health Check, and 'very brief advice' training for frontline staff).
 4. Help people into work.
 5. Take action in schools (raising awareness of healthy lifestyles and delivering preventative services in school settings).
 6. Awareness-raising to prevent premature mortality (including eligibility for welfare benefits, advice services, and health promotion campaigns).

The influential Marmot Review also provides a framework for tackling the ‘social gradient’ in health and reducing inequalities in premature mortality. [31] The review highlighted disadvantages that start before birth and accumulate over the life course. The following overarching policy objectives are recommended:

- giving every child the best start in life
- enabling all children, young people and adults to maximise their capabilities and have control over their lives
- creating fair employment and good work for all
- ensuring a healthy standard of living for all
- creating and developing sustainable places and communities
- strengthening the role and impact of ill-health prevention.

10.6.2 End of life care

Palliative care is defined by the World Health Organization (WHO) as: [40]

‘An approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual.’

WHO goes further in describing that palliative care should:

- provide relief from pain and other distressing symptoms
- affirm life and regard dying as a normal process
- intend neither to hasten nor postpone death
- integrate the psychological and spiritual aspects of patient care
- offer a support system to help patients live as actively as possible until death
- offer a support system to help the family cope during the patient’s illness and in their own bereavement
- use a team approach to address the needs of patients and their families, including bereavement counselling if indicated
- enhance quality of life and also positively influence the course of illness
- be applicable early in the course of illness, in conjunction with other therapies that are intended to prolong life (such as chemotherapy or radiation therapy), and include those investigations needed to better understand and manage distressing clinical complications.

Internationally, the UK is considered to have relatively good quality palliative care services, due to universal services in the NHS, a long-established hospice movement, and relatively good community understanding of the issues. [12] Until 2015, the Liverpool Care Pathway (LCP) was used to inform the provision of good end of life care in the UK. It was withdrawn following widespread criticism and a subsequent government review that found failings in several areas. [41]

NICE has subsequently produced a series of new guidelines to replace the LCP. Clinical care for adults in the last two or three days of life is covered by NICE guideline NG31 and NICE quality standard QS144. NICE recommendations cover the following areas: [42] [43]

- recognising when people are entering the last few days of life
- communicating and shared decision-making
- clinically assisted hydration
- medicines for managing pain, breathlessness, nausea and vomiting, anxiety, delirium, agitation, and noisy respiratory secretions
- anticipatory prescribing.

NICE quality standard QS13 covers care for adults who are approaching the end of their life. This includes: people who are likely to die within 12 months; people with advanced, progressive, incurable conditions; and people with life-threatening acute conditions. It covers a wide range of areas beyond immediate clinical care provided by health and social care staff in different settings – including support for families and carers, religious provision, care for the body, and bereavement support. [44]

There are considerable benefits from identifying patients who may be in their last year of life. These patients can be prioritised and their needs anticipated, in order to provide the best health and social care to both patients and families and avoid crises. Identifying patients in need of palliative care, assessing their needs and preferences and proactively planning their care, are key elements in the general practice provision of high-quality care at the end of life. [5]

In 2015, the National Palliative and End of Life Care Partnership published its framework for local action and delivery. Person-centred care is a key theme of the report, and there is a strong focus on improving care for the individual and those around them. The framework includes six positive ambitions and eight underlying foundations intended to achieve these, summarised in Table 4.

Table 4: The national ambitions for end of life care and their foundations [5]

Ambitions	Foundations
Each person is seen as an individual	Personalised care planning
Each person gets fair access to care	Shared records
Maximising comfort and wellbeing	Evidence and information
Care is coordinated	Leadership
All staff are prepared to care	Education and training
Each community is prepared to help	24/7 access
	Co-design
	Involving, supporting and caring for those important to the dying person

In 2016, London Clinical Networks published guidance concerning the practical aspects of services supporting the management of medications for the last days of life, including: provision of information to the dying person and carers; supply of medications including pre-emptive subscribing and access in urgent situations; and disposal of unused medications. [45]

Several organisations, including Compassion in Dying and the Dying Matters Coalition, have also produced guidance to support advance care planning, including bereavement and financial planning. [46] [47] [48] The wider benefits of advance care planning are discussed in a study by Mullick et al (2013). [49]

There is a range of other guidance for specific population groups. For example, St Mungo's homeless charity has produced an information pack offering guidance on end of life care for staff who work with homeless people. [50] And an NHS Improving Quality report covers a range of recommendations with respect to LGBT+ people. [51]

10.7 Services and support available locally

10.7.1 Reducing premature and avoidable mortality

Local services and other interventions that help to prevent the causes of poor health and early death, as well as to prolong life through good quality care, are discussed elsewhere in the JSNA, as described below.

- The 'Society and environment' chapter covers local action to reduce exposure to key social and environmental risk factors – including housing and

homelessness, living standards, work and worklessness, transport and travel, among other things.

- The 'Lifestyle and behaviour' chapter covers approaches to tackling the major behavioural risk factors associated with premature and avoidable mortality – these include smoking, physical activity, diet and alcohol misuse. Other substance use is covered in the 'Mental health and substance misuse' chapter.
- Other sections in this adult health chapter cover local health and care services relevant to the early identification and effective management of major causes of premature and avoidable mortality – in particular, cardiovascular disease, cancer and respiratory disease.

10.7.2 End of life care

End of life care is commissioned locally by the two local authorities and City and Hackney Clinical Commissioning Group (CCG). Care is provided by both specialist and non-specialist services, with all services using the Coordinate My Care database, including:

- hospitals – acute, intensive care units, elderly care, oncology, respiratory and cardiac medicine
- primary care – GPs, district nurses, nursing homes and care homes, Marie Curie nurses
- specialist palliative care – in hospitals, within communities and in hospice settings
- social care and additional health care – social care packages, health and wellbeing initiatives, and support from the voluntary and community sector (VCS), in particular Macmillan nurses.

The Quality and Outcomes Framework (QOF) is an incentive programme to reward the provision of high-quality primary care. It is a voluntary scheme, introduced as part of the GP contract in 2004. QOF awards practices with achievement points for maintaining a palliative care register and for carrying out multi-disciplinary reviews of patients on the register at least every three months.

Through the local Palliative Care contract, City and Hackney CCG also incentivises GP practices to identify patients in need of palliative care, offering an opportunity to produce an advance care plan that is subsequently recorded on the Coordinate My Care system.

Specialist palliative care advice is available to local GPs 24 hours a day, seven days a week, by phone from St Joseph's Hospice. In addition, clinical nurse specialists from the hospice attend monthly GP practice meetings to discuss palliative care patients. A hospice consultant provides liaison with the renal team for advice on renal patients approaching the end of life. For COPD patients, the CCG's clinical lead for end of life care provides specialist palliative care input to the Adult Cardiorespiratory Enhanced and Responsive service (ACERs) service at Homerton Hospital (see the 'Respiratory conditions' section of this JNSA chapter for more information on the ACERs team).

In addition, St Joseph's offers a wide range of palliative care services, such as:

- nursing and medical care
- emotional support
- practical advice
- physical and psychological therapies
- spiritual care (as needed)
- social and creative activities.

The hospice offers inpatient and respite services, day services from a community team, and a 24-hour advice and support line. St Joseph's also provides a bereavement support service to residents of Hackney and the City. In addition, the hospice's Compassionate Neighbours programme aims to alleviate loneliness in terminally ill people, and has trained over 400 volunteers to support its delivery.

During 2017/18, the hospice received 750 Hackney and the City referrals. A breakdown of the type of services provided in the first three months of 2018 is reported in Table 5. Note that this does not include speech and language, dietetics, or voluntary services provided in the community.

Table 5: Number of Hackney and the City referrals to St Joseph's Hospice, by type of service (January to March 2018) [52]

	Referrals
Inpatient unit	23
Inpatient unit – planned respite	12
Community palliative care team	140
Day hospice	12
Physiotherapy	9
Complementary therapies	1
Social work (including benefits advisor)	12
Occupational therapy	0
Psychological therapies (includes bereavement and counselling)	38
TOTAL	247

At Homerton Hospital, palliative care services include specialist nursing teams, home carers and care homes. In addition, Marie Curie offers a home night-sitting service.

The *National Bereavement Survey (VOICES)* is undertaken annually by the Office for National Statistics on behalf of the Department of Health and Social Care. [52] City and Hackney CCG commissioned an additional local VOICES survey in 2015 to evaluate end of life care through the eyes of relatives and carers, and to provide evidence on the quality of local services and care. The results reported below are based on the 358 carers/family members invited to participate in the survey,

following deaths that took place between 1 April 2015 and 31 March 2016. There was a 30% response rate.

- 80% described the overall quality of care across all services as good, excellent or outstanding (the overall quality of healthcare that dying patients received was rated above the national average).
- Overall pain management in Hackney and the City was scored lower than the national average. Pain management was more successful in inpatient care than in community and home care settings (in line with national results). For those cared for at home, 18% reported pain relief all of the time and 56% reported pain relief some of the time or partially. Pain relief was most likely to be complete in a hospice setting.
- 73% reported that their GP always showed dignity and respect, which is above the national average (70%). 74% found it fairly easy or very easy to arrange a home visit from their GP in the last three months of life.
- 68% of patients accessed 'out of hours' services in the last three months of life, and 49 patients frequented out of hours services 92 times. Of these patients, 60% received care or advice at home (which suggests that an admission to hospital may have been avoided). 31% felt that care provided by out of hours GPs was excellent (higher than nationally).
- 65% felt that district and community nursing staff always showed dignity and respect (lower than national average). Overall quality of care was felt to be lower for community nursing care than in the national survey.
- For those at home, 41% thought that healthcare services definitely worked well together and a further 47% felt the services worked well together to some extent.
- Almost all respondents felt that patients and carers were treated with dignity and respect during the last two days of life. 57% of family members and carers felt that they got all the help they needed, which is higher than the national average (46%). Almost all participants were happy with their level of care involvement and decision making. 70% of family members/carers responded that they were either there at the time or given enough notice of the impending death.
- 49% of patients had stated a preferred place of death that had been recorded (higher than nationally). Fewer people died at home than expected when compared with preferred place of death, and more people died in a hospice or in hospital than their preferred place of death. However, 86% of carers/next of kin felt that the person had died in the right place.
- 47% of those who did not access bereavement support would have liked to. The provision of information about bereavement services is limited across most care providers.

10.8 Service gaps and opportunities

Both Hackney and the City are characterised by significant population change and growth, and (as elsewhere) an ageing population. All of this has significant implications for future trends in life expectancy, mortality and demand for end of life care.

The new Hackney and the City integrated commissioning system provides an opportunity to bring a fresh approach to the prevention, detection and management of the causes of, and risk factors for, premature mortality. A major focus of the new system is to shift activity and resources towards prevention, and redesign health and care services to support people to better manage their own health. Improvements to end of life care and bereavement support continue to be local priorities within the new system, with greater opportunities to improve coordination between the many agencies involved.

Opportunities have also been highlighted to provide a more inclusive hospice service, which is used by a wider cross-section of BAME residents.

Following the 2015 local VOICES survey, City and Hackney CCG made the following specific commitments in relation to end of life care:

- to continue work with Homerton Hospital and community staff to improve access to training and support on having difficult conversations and perceptions of dignity and respect
- to improve information provided around bereavement services
- to commission a new service to improve access to medicines, particularly pain relief, both in hours and out of hours (already implemented)
- to expand St Joseph's Hospice community palliative care team to provide more support on end of life care to care homes, primary care staff and community nursing
- to improve coordination of services by working with new delivery models to ensure appropriate input from palliative care teams
- to consider a new programme of work to upskill home carers in end of life care issues.

Following a review in 2016, a local service to increase access to end of life medicines has been established in Hackney and the City of London. This service is commissioned by the CCG and provided by City and Hackney Local Pharmaceutical Committee, and includes a courier service that operates out of hours.

10.9 References

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