

Health Equity in Primary Care in East London and the City:

Data analysis to inform Joint Strategic Needs Assessment

2011-12

**This document is a product of a collaborative piece of work between the public health teams in City and Hackney, Newham and Tower Hamlets; the NHS East London and the City Public Health Intelligence Unit; and the Clinical Effectiveness Group. A list of the members of the project’s working group can be found in Appendix 1.**

**Author: Flora Ogilvie, Public Health Registrar**

**Contact: Siva Chandrasekaran, Public Health Intelligence Manager, schandrasekaran1@nhs.net**

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# Executive summary

Tackling health inequalities is a key public health priority in NHS East London and the City (ELC), a Primary Care Trust (PCT) cluster, with a resident population characterised by high levels of deprivation and ethnic diversity. Within public health the process of Joint Strategic Needs Assessment (JSNA) is used to analyse the health and well-being needs of the local population, in order to shape local commissioning priorities. Information on disease prevalence and management in different population groups allows needs to be better identified and resources to be targeted more effectively.

In East London and the City, primary care data is recorded using the electronic patient record system EMIS. Public health strategists can access this information by making ad-hoc data requests to the Clinical Effectiveness Group (CEG), a multi-disciplinary team of clinical leads, data analysts and researchers who have access to the local EMIS data. There is however currently no systematic process of extraction and analysis of health equity data. The aim of this project was to develop a consistent set of conditions and disease management indicators across the three ELC PCTs, for which data can be regularly extracted, by a variety of equity dimensions.

Analysis of crude disease prevalence across the three PCTs provides each PCT with information on disease areas in which they may wish to focus their resources. Where the data shows wide discrepancies in prevalence between the PCTs, it is possible that these are due to differences in disease identification or recording practices, and further exploration is warranted.

Analysis of selected chronic diseases by gender shows that the main burden of chronic disease falls on the male population in East London and the City, with the exception of obesity, which is higher in women in all three PCTs. Analysis by age group shows increasing disease prevalence with increasing age, highlighting the importance of early interventions to prevent disease risk-factors from accumulating. Analysis by ethnicity shows that for many chronic diseases, particularly smoking associated diseases, prevalence is highest in the White population, with diabetes more prevalent in the Asian population, and hypertension, obesity and serious mental illness more prevalent in the Black population. Prevalence of the majority of chronic diseases investigated is seen to be higher in those with learning disabilities; serious mental illness; those are deaf-affected, registered blind or housebound.

Analysis of selected disease management indicators for patients with diabetes and stroke show few differences between equity groups, due to the small number of patients involved. However the proportion of patients with diabetes and stroke in whom disease management indicators are met is lower amongst young and middle aged patients, than amongst older patients, suggesting opportunities for early interventions to prevent secondary complications of disease are being missed.

It is recommended that this project is followed up with the development of an easy to use interface that will allow public health staff to directly access and analyse subsets of the data relevant to their work streams. Primary care data should continue to be extracted from EMIS records on an annual basis, to inform future needs assessments and service commissioning, and to allow the health equity effects of current and future interventions to be evaluated over time.

# Background

## Health equity

Tackling health inequalities is a key function of public health, both nationally and locally. The recent Marmot Review ‘Fair Society, Healthy lives’, was commissioned nationally to provide a strategic review of health inequalities in England. Its publication in 2010 revealed that in England, those living in the most deprived neighbourhoods die, on average, seven years earlier than those in the least deprived neighbourhoods, and that the average difference in disability-free life expectancy between these two groups is 17 years.[[1]](#footnote-1) The Review also identified the social and economic benefits to wider society of reducing these inequalities. The findings from the Marmot Review have shaped the current government’s public health white paper ‘Healthy Lives, Healthy People’;[[2]](#footnote-2) the proposed Public Health Outcomes Framework for England;[[3]](#footnote-3) and locally in East London and the City, the Primary Care Trust cluster’s corporate objectives.[[4]](#footnote-4)

## NHS East London and the City

NHS East London and the City (ELC) is a cluster of Primary Care Trusts comprising NHS City and Hackney, NHS Newham and NHS Tower Hamlets. The resident population is characterised by high levels of deprivation, with Hackney being the second, Tower Hamlets being the third and Newham being the sixth most deprived borough’s in the UK, yet there are also pockets of wealth, particularly within the City of London. There is great ethnic diversity with East London and the City, with over half of all residents having a minority ethnic background. The population is relatively young, with around a third being aged under 20, and the area is characterised by rapid population growth, with the population or around 773,000 in 2010/11 expected to rise to over 869,000 by 2021.

## Joint strategic needs assessment

The process of Joint Strategic Needs Assessment (JSNA) is a key public health tool, used to provide a comprehensive analysis of the health and well-being needs of local populations. Analysis is then used to shape local commissioning priorities. The availability of more detailed information about burden of disease, for example by different equity dimensions, allows need to be better identified, and resources to be targeted more effectively, to address unmet need, and health inequalities.

## Primary care data and the Clinical Effectiveness Group

General practices in East London and the City currently record patient information using the electronic patient record system EMIS. The Clinical Effectiveness Group (CEG), based Queen Mary University of London, are a multi-disciplinary team of general practise clinical leads, data analysts and researches. They have access to the primary care data recorded on EMIS, and are commissioned by NHS ELC to promote equality of access to effective primary care through the use of evidence based guidelines, practice facilitation, audit, service development and research. Public health strategists can access this information by making ad-hoc data requests to the CEG. There is however currently no systematic process of extraction and analysis of health equity data. The aim of this project was to develop a consistent set of conditions and disease management indicators across the three ELC PCTs, for which data can be regularly extracted, by a variety of equity dimensions.

# Aim and objectives

**Aim**

To improve access to information on disease prevalence and management by equity dimensions in East London and the City, in order to better inform clinical commissioning.

**Objectives**

1. To provide access to practice level prevalence of the following chronic conditions, for all general practice populations in East London and the City:
* Asthma
* Atrial fibrilation
* Cancer
* Cataracts
* Chronic kidney disease
* CHD
* COPD
* Dementia
* Depression
* Diabetes
* Epilepsy
* Glaucoma
* Heart failure
* HIV
* Hypertension
* Learning disabilities
* Motor neurone disease
* Multiple sclerosis
* Muscular dystrophy
* Osteoporosis
* Palliative Care
* Parkinson’s disease
* Retinopathy
* Rheumatoid arthritis
* Senile macular degeneration
* Serious mental illness
* Spinal cord injury
* Stroke
1. To provide access to borough level prevalence of the following sub-set of chronic conditions by equity dimensions of: gender; age; ethnicity; deprivation; learning disability; serious mental illness; deaf affected; profoundly deaf; registered blind; housebound for all boroughs in East London and the City:
* Asthma
* Cancer
* CHD
* COPD
* Diabetes
* Hypertension
* Learning disabilities
* Obesity
* Serious mental illness
* Smoking
* Stroke
1. To provide access to borough level prevalence of the following disease management indicators by equity dimensions of: gender; age; ethnicity; deprivation; learning disability; serious mental illness; deaf affected; profoundly deaf; registered blind; housebound for all boroughs in East London and the City:
* Diabetes:
	+ HbA1c <7.5mmol/l
	+ BP <140/80mmHg
	+ Retinopathy screening attended
* Stroke:
	+ Cholesterol <5mmol/l
	+ BP <140/90mmHg

# Methods

**Choice of clinical conditions, disease management indicators and equity dimensions**

The clinical conditions were chosen by a working group of public health and clinical staff from City and Hackney, Newham and Tower Hamlets. The subset of conditions and disease management indicators for which prevalence was provided by equity dimension were selected by public health staff, in conjunction with the CEG team. Conditions with low prevalence were not broken down by equity dimension, as it was likely that the small numbers involved would prevent any meaningful analysis. Details of the EMIS codes used to extract the data can be found in Appendix 1.

**Choice of categories for equity dimensions**

**Age group categories:** These were chosen following discussion with Public Health Intelligence staff, as representing age groups for which information is commonly requested by public health staff.

**Ethnicity group categories:** The EMIS patient record system uses its own ethnicity categories, however a standardised system of mapping these to the UK census ethnicity categories has been devised. For the purpose of this project, aggregated categories from the UK census were used.

**Deprivation score categories:** The EMIS patient record system records Townsend deprivation scores, based on patients’ residential postcodes. The postcodes themselves are not made available to CEG analysts, so it was not possible to use these to generate deprivation scores based on the English Indices of Multiple Deprivation. For the purpose of this project, deprivation scores were initially grouped into quintiles based on the national distribution of scores, however this resulted in around 80% of ELC residents falling into the ‘most deprived’ category, and prevented analysis of trends. ELC-specific Townsend score quintiles were therefore calculated and used instead.

**Search dates**

CEG analysts ran the data searches between October 2011 and March 2012, however searches were constructed to identify disease prevalence rates as they would have been recorded on 1 April 2011, to provide a snapshot picture of disease prevalence on that date.

**Data analysis**

Data was analysed using Microsoft Excel, and results are reported as being ‘statistically significantly different’ where 95% confidence intervals do not overlap. No formal statistical testing was performed. In line with information governance guidance, where numerator data consisted of numbers of 5 or less (20 or less in the case of HIV data), prevalence has not been shown, and in some cases prevalence data in neighbouring cells has also been supressed, to prevent recalculation of the small-number numerators.

Throughout this report, colour coding has been used to indicate where prevalence is statistically significantly ‘worse’ than the total population (red), statistically significantly ‘better’ than the total population prevalence (green), or not statistically significantly different from the total population prevalence (grey). For the disease prevalence data, high prevalence is considered ‘worse’, while for the disease management indicator data, low proportions meeting the target is considered ‘worse’.

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|   | **Statistically significantly ‘worse’ than the total population prevalence** |
|   | **Statistically significantly ‘better’ than the total population prevalence** |
|   | **Not statistically significantly different from total population prevalence** |
| - | **Numerator is 5 or less so prevalence not shown** |

# Results

## Crude disease prevalence

The table below shows the crude prevalence of disease recorded in primary care for the whole of East London and the City (ELC), and the three Primary Care Trusts (PCTs). The data is also available at practice-level. The use of crude prevalence, rather than age-standardised prevalence means diseases that are more common in old age will be more prevalent in populations with a high proportion of elderly people. All three PCTs in ELC however have a relatively similar age-composition, so the use of crude prevalence should not affect the ability to make comparisons between these areas.

It should be noted that some discrepancies, for example the 8-fold increased prevalence of cataracts in Tower Hamlets compared with the figures for City and Hackney and Newham; and the 2-fold increased prevalence of depression in City and Hackney and Tower Hamlets compared with Newham; may be due to differences in disease identification and recording, rather than true differences in prevalence.

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| **Table 1: Crude prevalence per 1000 population by Primary Care Trust** |
| **Disease** | **East London and the City** | **City and Hackney** | **Newham** | **Tower Hamlets** |
| **Asthma** | **44.5** | **44.3** | **44.4** | **44.8** |
| **Atrial Fibrilation** | **5.2** | **6.3** | **4.3** | **5.1** |
| **Cancer** | **11.2** | **13.7** | **9.2** | **11.6** |
| **Cataracts** | **6.2** | **2.3** | **1.9** | **15.9** |
| **Chronic Kidney Disease** | **13.5** | **13.8** | **13.6** | **13.2** |
| **Chronic Obstructive Pulmonary Disease** | **8.9** | **8.7** | **7.7** | **10.8** |
| **Coronary Heart Disease** | **17.0** | **16.0** | **17.5** | **17.3** |
| **Dementia** | **2.1** | **1.9** | **2.4** | **1.7** |
| **Depression** | **16.3** | **22.5** | **9.1** | **19.8** |
| **Diabetes** | **45.7** | **38.9** | **51.7** | **45.0** |
| **Epilepsy** | **2.6** | **2.3** | **2.5** | **2.8** |
| **Glaucoma** | **9.7** | **11.2** | **10.4** | **7.2** |
| **Heart Failure** | **4.5** | **5.2** | **4.4** | **3.9** |
| **HIV** | **2.9** | **3.8** | **2.5** | **2.5** |
| **Hypertension** | **88.6** | **88.3** | **97.7** | **77.1** |
| **Learning Disabilities** | **2.9** | **3.2** | **2.8** | **2.8** |
| **Motor Neurone Disease** | **0.1** | **0.1** | **0.1** | **0.1** |
| **Multiple Sclerosis** | **0.8** | **1.0** | **0.6** | **0.8** |
| **Muscular Dystrophy** | **0.2** | **0.2** | **0.2** | **0.2** |
| **Osteoporosis** | **6.5** | **7.3** | **6.1** | **6.1** |
| **Palliative Care** | **1.2** | **1.5** | **0.9** | **1.3** |
| **Parkinson’s Disease** | **0.9** | **0.9** | **0.9** | **1.0** |
| **Retinopathy** | **10.4** | **9.5** | **12.3** | **8.9** |
| **Rheumatoid Arthritis** | **4.7** | **4.5** | **4.8** | **4.7** |
| **Senile Macular Degeneration** | **2.9** | **3.5** | **2.9** | **2.3** |
| **Serious Mental Illness** | **7.2** | **7.9** | **5.9** | **8.2** |
| **Spinal Cord Injury** | **0.02** | **-** | **-** | **0.1** |
| **Stroke** | **5.4** | **5.8** | **5.0** | **5.6** |

## Disease prevalence by equity dimensions

### Gender

The tables below show the crude prevalence of disease by gender in City and Hackney; Newham; and Tower Hamlets. While there are some differences between the PCTs, there is a consistent pattern of increased prevalence of chronic obstructive pulmonary disease (COPD); coronary heart disease (CHD); learning disabilities; serious mental illness; and smoking, in males compared to females, and increased prevalence of obesity and morbid obesity in females compared to males. It is possible that some of the differences, for example higher prevalence of asthma and hypertension in females than males in City and Hackney may be due to different healthcare-seeking behaviours in the two genders, with females being more likely to attend primary care services and be subsequently investigated and diagnosed.

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| **Table 2.1a: Crude prevalence per 1000 population by gender in City and Hackney** |
| **Disease** | **All** | **Male** | **Female** |
| **Asthma** | **44.1** | **39.5** | **48.6** |
| **Cancer** | **13.7** | **12.9** | **14.6** |
| **Chronic Obstructive Pulmonary Disease** | **8.8** | **9.7** | **7.9** |
| **Coronary Heart Disease** | **16.0** | **20.3** | **11.8** |
| **Diabetes** | **39.7** | **40.9** | **38.5** |
| **Hypertension** | **91.3** | **84.0** | **98.4** |
| **Learning Disabilities** | **3.2** | **3.8** | **2.6** |
| **Obesity (BMI>30kg/m2)** | **133.1** | **106.1** | **159.7** |
| **Morbid Obesity (BMI>40kg/m2)** | **16.9** | **8.8** | **24.8** |
| **Serious Mental Illness** | **8.9** | **10.0** | **7.7** |
| **Smoking** | **185.8** | **222.3** | **150.0** |
| **Stroke** | **5.8** | **5.9** | **5.7** |

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| **Table 2.1b: Crude prevalence per 1000 population by gender in Newham** |
| **Disease** | **All** | **Male** | **Female** |
| **Asthma** | **44.1** | **44.1** | **44.1** |
| **Cancer** | **9.3** | **8.4** | **10.0** |
| **Chronic Obstructive Pulmonary Disease** | **7.6** | **8.8** | **6.6** |
| **Coronary Heart Disease** | **17.5** | **24.1** | **11.7** |
| **Diabetes** | **51.4** | **59.5** | **44.4** |
| **Hypertension** | **97.2** | **100.7** | **94.2** |
| **Learning Disabilities** | **2.7** | **3.5** | **2.1** |
| **Obesity (BMI>30kg/m2)** | **134.0** | **119.1** | **146.8** |
| **Morbid Obesity (BMI>40kg/m2)** | **15.4** | **9.7** | **20.2** |
| **Serious Mental Illness** | **6.5** | **7.5** | **5.7** |
| **Smoking** | **152.9** | **228.3** | **88.2** |
| **Stroke** | **5.0** | **6.0** | **4.1** |

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| **Table 2.1c: Crude prevalence per 1000 population by gender in Tower Hamlets** |
| **Disease** | **All** | **Male** | **Female** |
| **Asthma** | **44.4** | **44.3** | **44.4** |
| **Cancer** | **11.2** | **10.7** | **11.5** |
| **Chronic Obstructive Pulmonary Disease** | **10.4** | **12.1** | **9.0** |
| **Coronary Heart Disease** | **17.0** | **23.9** | **10.7** |
| **Diabetes** | **44.4** | **47.9** | **41.2** |
| **Hypertension** | **75.9** | **75.7** | **76.1** |
| **Learning Disabilities** | **2.8** | **3.5** | **2.1** |
| **Obesity (BMI>30kg/m2)** | **104.0** | **93.9** | **113.1** |
| **Morbid Obesity (BMI>40kg/m2)** | **12.1** | **8.2** | **15.6** |
| **Serious Mental Illness** | **8.3** | **9.9** | **6.8** |
| **Smoking** | **201.4** | **278.0** | **132.2** |
| **Stroke** | **5.3** | **6.2** | **4.5** |

### Age Group

The tables below show the crude prevalence of disease by age group in City and Hackney; Newham; and Tower Hamlets. These show a consistent pattern of increasing chronic disease prevalence with increasing age. This highlights the importance of early interventions to prevent risk-factor accumulation, and the importance of promoting health and well-being and access to health care interventions across the life course.

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| **Table 2.2a: Crude prevalence per 1000 population by age group in City and Hackney** |
| **Disease** | **All** | **0-4** | **5-15** | **16-18** | **19-24** | **25-39** | **40-49** | **50-64** | **65-74** | **75-84** | **85+** |
| **Asthma** | **44.1** | **7.2** | **45.7** | **45.2** | **33.8** | **35.9** | **50.5** | **66.6** | **81.4** | **79.8** | **62.5** |
| **Cancer** | **13.7** | **-** | **-** | **1.9** | **1.3** | **3.2** | **10.6** | **30.8** | **84.8** | **123.3** | **133.3** |
| **Chronic Obstructive Pulmonary Disease** | **8.8** | **-** | **-** | **-** | **-** | **0.4** | **3.7** | **22.8** | **68.5** | **91.8** | **78.9** |
| **Coronary Heart Disease** | **16.0** | **-** | **-** | **-** | **-** | **0.3** | **5.0** | **39.4** | **118.6** | **189.2** | **204.0** |
| **Diabetes** | **39.7** | **0.3** | **1.1** | **2.3** | **3.9** | **7.8** | **37.9** | **118.1** | **235.4** | **257.9** | **176.8** |
| **Hypertension** | **91.3** | **-** | **0.3** | **-** | **1.5** | **10.9** | **88.2** | **270.7** | **544.3** | **662.3** | **642.2** |
| **Learning Disabilities** | **3.2** | **0.4** | **2.7** | **5.1** | **5.5** | **2.8** | **3.7** | **4.5** | **2.4** | **-** | **-** |
| **Obesity (BMI>30)** | **133.1** | **1.8** | **9.5** | **50.7** | **79.1** | **105.1** | **214.4** | **290.4** | **320.7** | **271.5** | **164.5** |
| **Morbid Obesity (BMI>40)** | **16.9** | **0.8** | **1.8** | **6.3** | **11.7** | **13.0** | **27.6** | **38.6** | **36.8** | **24.6** | **10.8** |
| **Serious Mental Illness** | **8.9** | **-** | **-** | **-** | **3.5** | **7.9** | **15.9** | **17.4** | **23.6** | **16.0** | **8.2** |
| **Smoking** | **185.8** | **0.3** | **1.6** | **66.4** | **204.9** | **270.0** | **256.5** | **224.8** | **164.5** | **115.3** | **53.8** |
| **Stroke** | **5.8** | **0.3** | **0.3** | **0.7** | **0.4** | **0.4** | **2.8** | **10.8** | **38.8** | **75.2** | **77.9** |

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| **Table 2.2b: Crude prevalence per 1000 population by age group in Newham** |
| **Disease** | **All** | **0-4** | **5-15** | **16-18** | **19-24** | **25-39** | **40-49** | **50-64** | **65-74** | **75-84** | **85+** |
| **Asthma** | **44.1** | **11.3** | **60.4** | **52.8** | **27.8** | **25.9** | **49.7** | **73.3** | **105.3** | **113.6** | **78.3** |
| **Cancer** | **9.3** | **-** | **-** | **0.8** | **0.9** | **1.9** | **7.9** | **23.3** | **59.1** | **95.9** | **110.4** |
| **Chronic Obstructive Pulmonary Disease** | **7.6** | **-** | **-** | **-** | **-** | **0.3** | **3.2** | **18.5** | **67.4** | **101.5** | **90.3** |
| **Coronary Heart Disease** | **17.5** | **-** | **-** | **-** | **-** | **0.5** | **9.4** | **50.4** | **135.0** | **211.5** | **198.6** |
| **Diabetes** | **51.4** | **0.2** | **1.6** | **2.9** | **3.1** | **12.3** | **70.5** | **176.4** | **284.6** | **289.6** | **185.8** |
| **Hypertension** | **97.2** | **-** | **-** | **0.6** | **1.6** | **15.5** | **119.6** | **324.3** | **590.7** | **677.6** | **684.5** |
| **Learning Disabilities** | **2.7** | **0.5** | **2.8** | **4.1** | **4.6** | **2.2** | **2.7** | **3.4** | **3.6** | **-** | **-** |
| **Obesity (BMI>30)** | **134.0** | **2.0** | **9.1** | **43.7** | **68.5** | **120.0** | **242.1** | **300.1** | **318.5** | **254.5** | **144.7** |
| **Morbid Obesity (BMI>40)** | **15.4** | **0.8** | **1.9** | **5.9** | **8.1** | **12.1** | **28.5** | **38.6** | **34.7** | **21.4** | **12.0** |
| **Serious Mental Illness** | **6.5** | **-** | **-** | **-** | **2.6** | **6.0** | **13.5** | **13.9** | **15.5** | **13.8** | **5.6** |
| **Smoking** | **152.9** | **-** | **-** | **58.5** | **186.4** | **216.6** | **220.2** | **189.3** | **144.2** | **104.5** | **55.2** |
| **Stroke** | **5.0** | **-** | **-** | **-** | **0.3** | **0.5** | **2.9** | **11.6** | **35.1** | **63.9** | **80.1** |

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| **Table 2.2c: Crude prevalence per 1000 population by age group in Tower Hamlets** |
| **Disease** | **All** | **0-4** | **5-15** | **16-18** | **19-24** | **25-39** | **40-49** | **50-64** | **65-74** | **75-84** | **85+** |
| **Asthma** | **44.4** | **7.9** | **63.1** | **61.4** | **29.8** | **30.9** | **54.8** | **75.9** | **93.9** | **93.1** | **71.9** |
| **Cancer** | **11.2** | **0.2** | **0.8** | **0.9** | **1.1** | **3.0** | **10.2** | **32.7** | **73.0** | **111.0** | **123.5** |
| **Chronic Obstructive Pulmonary Disease** | **10.4** | **-** | **-** | **-** | **-** | **0.2** | **4.7** | **32.7** | **98.2** | **135.2** | **115.1** |
| **Coronary Heart Disease** | **17.0** | **-** | **-** | **-** | **-** | **0.5** | **12.1** | **56.3** | **150.5** | **192.2** | **189.2** |
| **Diabetes** | **44.4** | **-** | **-** | **2.9** | **3.6** | **11.8** | **65.5** | **166.8** | **283.6** | **278.8** | **161.1** |
| **Hypertension** | **75.9** | **-** | **-** | **1.0** | **1.5** | **11.3** | **90.2** | **279.9** | **527.4** | **643.8** | **659.7** |
| **Learning Disabilities** | **2.8** | **-** | **-** | **4.7** | **4.2** | **2.4** | **3.5** | **3.9** | **2.5** | **-** | **-** |
| **Obesity (BMI>30)** | **104.0** | **4.4** | **10.8** | **54.6** | **60.4** | **85.3** | **186.0** | **256.8** | **278.8** | **234.2** | **149.9** |
| **Morbid Obesity (BMI>40)** | **12.1** | **1.8** | **2.9** | **7.7** | **7.2** | **8.7** | **22.9** | **32.4** | **29.2** | **20.7** | **10.1** |
| **Serious Mental Illness** | **8.3** | **-** | **-** | **0.8** | **3.8** | **7.6** | **17.2** | **20.4** | **17.8** | **12.6** | **10.7** |
| **Smoking** | **201.4** | **0.5** | **2.4** | **96.0** | **236.8** | **250.8** | **293.8** | **286.8** | **230.9** | **168.0** | **92.1** |
| **Stroke** | **5.3** | **-** | **-** | **-** | **-** | **0.5** | **3.1** | **13.6** | **45.0** | **66.7** | **91.0** |

### Ethnicity

The tables below show the crude prevalence of disease by ethnicity in City and Hackney; Newham and Tower Hamlets. In Newham and Tower Hamlets the White population has a prevalence of disease higher than the total population for all conditions except diabetes, learning disabilities and severe mental illness. In City and Hackney the prevalence of diabetes in the Asian and Black populations is more than double that in the White population, with a similar pattern seen in Newham and Tower Hamlets. In all three PCTs the prevalence of obesity is highest in the Black and White populations; and the prevalence of serious mental illness in the Black population is around double that in the total population. Smoking prevalence and the prevalence of cancer and COPD, which are closely associated with smoking, is higher in the White population in all three PCTS. Differences in disease prevalence by ethnicity are likely to be affected by a combination of lifestyle and healthcare-seeking behaviours. Higher disease prevalence in the White population is likely to be partly due to there being a higher proportion of elderly people within the White population in East London and the City.

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| **Table 2.3a: Crude prevalence per 1000 population by ethnicity in City and Hackney** |
| **Disease** | **All** | **White** | **Asian** | **Black** | **Other** |
| **Asthma** | **44.1** | **52.4** | **65.9** | **50.3** | **27.6** |
| **Cancer** | **13.7** | **17.8** | **7.4** | **14.2** | **10.0** |
| **Chronic Obstructive Pulmonary Disease** | **8.8** | **15.6** | **6.3** | **3.3** | **2.9** |
| **Coronary Heart Disease** | **16.0** | **21.7** | **27.8** | **11.4** | **13.9** |
| **Diabetes** | **39.7** | **33.3** | **80.4** | **68.0** | **36.9** |
| **Hypertension** | **91.3** | **87.7** | **97.1** | **161.6** | **68.0** |
| **Learning Disabilities** | **3.2** | **3.5** | **3.7** | **3.4** | **3.7** |
| **Obesity (BMI>30)** | **133.1** | **124.6** | **116.5** | **225.6** | **108.0** |
| **Morbid Obesity (BMI>40)** | **16.9** | **16.1** | **12.7** | **29.7** | **12.8** |
| **Serious Mental Illness** | **8.9** | **8.7** | **6.9** | **15.4** | **8.3** |
| **Smoking** | **185.8** | **248.1** | **136.3** | **137.7** | **144.7** |
| **Stroke** | **5.8** | **6.3** | **5.8** | **8.8** | **3.8** |

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| **Table 2.3b: Crude prevalence per 1000 population by ethnicity in Newham** |
| **Disease** | **All** | **White** | **Asian** | **Black** | **Other** |
| **Asthma** | **44.1** | **51.6** | **46.6** | **46.8** | **33.5** |
| **Cancer** | **9.3** | **19.0** | **5.1** | **9.4** | **7.5** |
| **Chronic Obstructive Pulmonary Disease** | **7.6** | **22.5** | **3.1** | **2.1** | **2.9** |
| **Coronary Heart Disease** | **17.5** | **28.2** | **19.2** | **8.7** | **8.7** |
| **Diabetes** | **51.4** | **43.6** | **66.5** | **56.2** | **39.0** |
| **Hypertension** | **97.2** | **128.5** | **82.6** | **136.8** | **76.4** |
| **Learning Disabilities** | **2.7** | **3.5** | **2.6** | **2.4** | **0.9** |
| **Obesity (BMI>30)** | **134.0** | **180.0** | **98.7** | **204.2** | **93.0** |
| **Morbid Obesity (BMI>40)** | **15.4** | **25.9** | **7.4** | **24.9** | **8.9** |
| **Serious Mental Illness** | **6.5** | **8.1** | **5.0** | **10.9** | **4.0** |
| **Smoking** | **152.9** | **266.2** | **116.7** | **101.1** | **141.9** |
| **Stroke** | **5.0** | **7.8** | **4.2** | **5.5** | **3.3** |

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| **Table 2.3c: Crude prevalence per 1000 population by ethnicity in Tower Hamlets** |
| **Disease** | **All** | **White** | **Asian** | **Black** | **Other** |
| **Asthma** | **44.4** | **53.1** | **47.2** | **56.5** | **24.3** |
| **Cancer** | **11.2** | **20.2** | **4.8** | **12.3** | **6.5** |
| **Chronic Obstructive Pulmonary Disease** | **10.4** | **21.2** | **4.9** | **4.9** | **2.8** |
| **Coronary Heart Disease** | **17.0** | **24.1** | **17.9** | **10.6** | **5.2** |
| **Diabetes** | **44.4** | **35.4** | **68.7** | **57.4** | **21.5** |
| **Hypertension** | **75.9** | **102.0** | **66.9** | **124.3** | **41.0** |
| **Learning Disabilities** | **2.8** | **3.0** | **3.2** | **3.0** | **0.9** |
| **Obesity (BMI>30)** | **104.0** | **135.7** | **81.8** | **182.7** | **58.2** |
| **Morbid Obesity (BMI>40)** | **12.1** | **18.8** | **6.0** | **24.0** | **4.6** |
| **Serious Mental Illness** | **8.3** | **9.1** | **8.0** | **18.2** | **4.2** |
| **Smoking** | **201.4** | **264.4** | **172.0** | **160.5** | **147.0** |
| **Stroke** | **5.3** | **7.3** | **4.8** | **7.4** | **2.6** |

### Deprivation

The tables below show the crude prevalence of disease by Townsend deprivation quintile in City and Hackney; Newham and Tower Hamlets. As the majority of the local population fall into the most deprived national quintile, quintiles were derived using the East London and the City population for this piece of work. Quintile 1 is the least deprived, and quintile 5 is the most deprived. In all three PCTS, disease prevalence for the majority of diseases is seen to be higher amongst those in the most deprived quintiles, with the exception of cancer, where in City and Hackney and Tower Hamlets, the reverse trend is seen. This may be due to the fact that cancer is more prevalent amongst older people, and there is likely to be a greater proportion of older people within less deprived populations.

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| **Table 2.4a: Crude Prevalence per 1000 population by ELC Townsend deprivation quintile in City and Hackney** |
| **Disease** | **All** | **Q1** | **Q2** | **Q3** | **Q4** | **Q5** |
| **Asthma** | **44.1** | **41.6** | **41.3** | **43.7** | **46.3** | **45.8** |
| **Cancer** | **13.7** | **17.0** | **13.0** | **12.7** | **14.7** | **12.1** |
| **Chronic Obstructive Pulmonary Disease** | **8.8** | **5.9** | **7.1** | **7.8** | **11.2** | **10.2** |
| **Coronary Heart Disease** | **16.0** | **15.2** | **13.7** | **15.2** | **18.8** | **16.2** |
| **Diabetes** | **39.7** | **33.9** | **33.1** | **37.5** | **44.6** | **45.1** |
| **Hypertension** | **91.3** | **81.4** | **79.3** | **82.9** | **100.6** | **104.0** |
| **Learning Disabilities** | **3.2** | **2.5** | **3.2** | **3.3** | **3.4** | **3.4** |
| **Obesity (BMI>30)** | **133.1** | **108.1** | **114.9** | **123.1** | **146.7** | **156.9** |
| **Morbid Obesity (BMI>40)** | **16.9** | **11.4** | **14.3** | **15.8** | **19.3** | **20.9** |
| **Serious Mental Illness** | **8.9** | **6.8** | **8.3** | **9.1** | **9.0** | **10.3** |
| **Smoking** | **185.8** | **151.9** | **174.2** | **197.4** | **198.8** | **194.8** |
| **Stroke** | **5.8** | **5.0** | **4.4** | **5.6** | **6.9** | **6.3** |

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| **Table 2.4b: Crude Prevalence per 1000 population by ELC deprivation quintile in Newham** |
| **Disease** | **All** | **Q1** | **Q2** | **Q3** | **Q4** | **Q5** |
| **Asthma** | **44.1** | **43.0** | **42.4** | **46.6** | **46.4** | **45.1** |
| **Cancer** | **13.7** | **9.6** | **8.8** | **9.5** | **9.4** | **9.2** |
| **Chronic Obstructive Pulmonary Disease** | **8.8** | **5.9** | **7.0** | **9.3** | **9.2** | **9.2** |
| **Coronary Heart Disease** | **16.0** | **16.9** | **17.0** | **18.3** | **16.8** | **20.2** |
| **Diabetes** | **39.7** | **51.8** | **51.2** | **51.0** | **51.0** | **52.9** |
| **Hypertension** | **91.3** | **97.8** | **91.9** | **100.5** | **98.9** | **105.4** |
| **Learning Disabilities** | **3.2** | **2.0** | **2.9** | **3.1** | **3.4** | **2.8** |
| **Obesity (BMI>30)** | **133.1** | **129.9** | **125.8** | **141.3** | **144.3** | **145.1** |
| **Morbid Obesity (BMI>40)** | **16.9** | **13.2** | **13.6** | **17.7** | **18.8** | **18.4** |
| **Serious Mental Illness** | **8.9** | **4.2** | **6.3** | **7.6** | **8.2** | **10.0** |
| **Smoking** | **185.8** | **140.4** | **150.9** | **161.0** | **169.8** | **157.3** |
| **Stroke** | **5.8** | **4.2** | **4.8** | **5.5** | **5.3** | **6.4** |

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| **Table 2.4c: Crude Prevalence per 1000 population by ELC deprivation quintile in Tower Hamlets** |
| **Disease** | **All** | **Q1** | **Q2** | **Q3** | **Q4** | **Q5** |
| **Asthma** | **44.1** | **35.0** | **43.6** | **42.5** | **47.2** | **47.3** |
| **Cancer** | **13.7** | **12.8** | **14.0** | **10.5** | **11.3** | **9.9** |
| **Chronic Obstructive Pulmonary Disease** | **8.8** | **5.6** | **10.2** | **10.0** | **12.4** | **11.1** |
| **Coronary Heart Disease** | **16.0** | **10.7** | **16.7** | **16.6** | **19.2** | **18.2** |
| **Diabetes** | **39.7** | **22.4** | **36.0** | **40.4** | **48.7** | **55.1** |
| **Hypertension** | **91.3** | **58.2** | **75.7** | **73.6** | **80.5** | **82.0** |
| **Learning Disabilities** | **3.2** | **1.1** | **2.7** | **2.4** | **3.1** | **3.4** |
| **Obesity BMI>30** | **133.1** | **94.4** | **106.4** | **99.7** | **107.9** | **106.7** |
| **Morbid Obesity BMI>40** | **16.9** | **9.5** | **13.4** | **11.4** | **13.2** | **12.1** |
| **Serious Mental Illness** | **8.9** | **3.7** | **6.2** | **7.2** | **8.9** | **10.9** |
| **Smoking** | **185.8** | **158.2** | **199.7** | **202.2** | **211.3** | **211.6** |
| **Stroke** | **5.8** | **3.0** | **5.7** | **5.0** | **6.1** | **5.8** |

### Care Group

The tables below show the crude prevalence of disease by care group in City and Hackney; Newham and Tower Hamlets. Disease prevalence is higher in care group populations than the total population for the majority of conditions, in all three PCTs. This may partly be explained by the fact that care group populations, particularly those who are deaf, blind, or housebound, are likely to be older than the general population. However learning disability and serious mental illness are also prevalent among young and middle-aged people, so the high prevalence of chronic disease is in these groups is unlikely to be fully accounted for by an association with older age. Of particular note is the high prevalence of obesity and morbid obesity, in those with learning disability or serious mental illness, which is seen across the three PCTs.

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| **Table 2.5a: Crude disease prevalence per 1000 population by care group in City and Hackney** |
| **Disease** | **All** | **Learning Disability** | **Serious Mental Illness** | **Deaf Affected** | **Profoundly Deaf** | **Registered Blind** | **House-bound** |
| **Asthma** | **44.1** | **68.8** | **50.5** | **111.7** | **-** | **75.2** | **88.7** |
| **Cancer** | **13.7** | **9.5** | **19.7** | **62.0** | **-** | **82.7** | **110.1** |
| **Chronic Obstructive Pulmonary Disease** | **8.8** | **11.9** | **21.8** | **47.1** | **-** | **48.9** | **119.1** |
| **Coronary Heart Disease** | **16.0** | **13.0** | **25.7** | **111.7** | **-** | **109.0** | **226.8** |
| **Diabetes** | **39.7** | **85.4** | **135.6** | **109.2** | **-** | **334.6** | **299.1** |
| **Hypertension** | **91.3** | **116.3** | **187.0** | **265.5** | **152.5** | **496.2** | **631.9** |
| **Learning Disabilities** | **3.2** | **n/a** | **33.8** | **54.6** | **-** | **45.1** | **12.3** |
| **Obesity (BMI>30)** | **133.1** | **270.5** | **347.9** | **223.3** | **152.5** | **308.3** | **284.3** |
| **Morbid Obesity (BMI>40)** | **16.9** | **58.1** | **60.3** | **27.3** | **-** | **45.1** | **60.8** |
| **Serious Mental Illness** | **8.9** | **93.7** | **n/a** | **29.8** | **-** | **22.6** | **36.2** |
| **Smoking** | **185.8** | **168.4** | **473.7** | **153.8** | **169.5** | **105.3** | **149.5** |
| **Stroke** | **5.8** | **7.1** | **17.1** | **34.7** | **-** | **75.2** | **156.9** |

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| **Table 2.5b: Crude disease prevalence per 1000 population by care group in Newham** |
| **Disease** | **All** | **Learning Disability** | **Serious Mental Illness** | **Deaf Affected** | **Profoundly Deaf** | **Registered Blind** | **House-bound** |
| **Asthma** | **44.1** | **67.1** | **66.2** | **149.5** | **169.2** | **82.1** | **100.4** |
| **Cancer** | **9.3** | **15.3** | **17.9** | **52.3** | **-** | **66.7** | **96.5** |
| **Chronic Obstructive Pulmonary Disease** | **7.6** | **7.1** | **21.4** | **57.9** | **-** | **48.7** | **142.9** |
| **Coronary Heart Disease** | **17.5** | **-** | **21.4** | **143.9** | **-** | **169.2** | **235.5** |
| **Diabetes** | **51.4** | **64.1** | **167.0** | **160.7** | **-** | **400.0** | **298.3** |
| **Hypertension** | **97.2** | **88.5** | **178.6** | **377.6** | **138.5** | **502.6** | **668.9** |
| **Learning Disabilities** | **2.7** | **n/a** | **24.3** | **52.3** | **138.5** | **41.0** | **14.5** |
| **Obesity (BMI>30)** | **134.0** | **246.2** | **345.6** | **220.6** | **138.5** | **287.2** | **265.4** |
| **Morbid Obesity (BMI>40)** | **15.4** | **49.8** | **58.1** | **26.2** | **-** | **38.5** | **46.3** |
| **Serious Mental Illness** | **6.5** | **58.0** | **n/a** | **11.2** | **-** | **15.4** | **28.0** |
| **Smoking** | **152.9** | **95.6** | **381.5** | **127.1** | **92.3** | **102.6** | **103.3** |
| **Stroke** | **5.0** | **12.2** | **15.0** | **43.0** | **-** | **79.5** | **168.0** |

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| **Table 2.5c: Crude disease prevalence per 1000 population by care group in Tower Hamlets** |
| **Disease** | **All** | **Learning Disability** | **Serious Mental Illness** | **Deaf Affected** | **Profoundly Deaf** | **Registered Blind** | **House-bound** |
| **Asthma** | **44.4** | **80.5** | **67.7** | **118.8** | **134.3** | **72.3** | **101.4** |
| **Cancer** | **11.2** | **28.6** | **20.1** | **59.4** | **-** | **96.4** | **101.4** |
| **Chronic Obstructive Pulmonary Disease** | **10.4** | **-** | **30.2** | **66.8** | **-** | **72.3** | **190.0** |
| **Coronary Heart Disease** | **17.0** | **-** | **23.8** | **99.0** | **-** | **138.6** | **216.6** |
| **Diabetes** | **44.4** | **80.5** | **153.3** | **148.5** | **119.4** | **325.3** | **354.3** |
| **Hypertension** | **75.9** | **76.4** | **151.9** | **358.9** | **194.0** | **512.0** | **679.8** |
| **Learning Disabilities** | **2.8** | **n/a** | **26.5** | **76.7** | **-** | **-** | **10.7** |
| **Obesity (BMI>30)** | **104.0** | **238.7** | **307.1** | **232.7** | **209.0** | **216.9** | **275.3** |
| **Morbid Obesity (BMI>40)** | **12.1** | **55.9** | **42.6** | **27.2** | **-** | **-** | **52.3** |
| **Serious Mental Illness** | **8.3** | **79.1** | **n/a** | **17.3** | **-** | **-** | **39.5** |
| **Smoking** | **201.4** | **169.2** | **471.4** | **151.0** | **194.0** | **162.7** | **172.9** |
| **Stroke** | **5.3** | **12.3** | **13.7** | **34.7** | **-** | **84.3** | **195.3** |

## Disease management indicators by equity dimensions

### Gender

The tables below show the percentage of patients on the diabetes or stroke disease registers in whom the selected disease management indicators are met, by gender, in City and Hackney; Newham and Tower Hamlets. There were no significant differences by gender in City and Hackney; while in Newham and Tower Hamlets a greater proportion of females had good blood sugar control; and in Newham a greater proportion of males had attended retinopathy screening.

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| **Table 3.1a: Percentage of patients meeting disease management indicators by gender in City and Hackney** |
| **Disease** | **Disease Management Indicator** | **All** | **Male** | **Female** |
| **Diabetes** | **HbA1c < 7.5mmol/l** | **55.4%** | **53.5%** | **57.4%** |
| **BP <140/80** | **47.5%** | **46.4%** | **48.6%** |
| **Retinopathy screening attended** | **34.5%** | **35.1%** | **33.9%** |
| **Stroke** | **Cholesterol <5mmol/l** | **84.5%** | **85.1%** | **83.9%** |
| **BP <140/90** | **65.9%** | **66.1%** | **65.7%** |

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| **Table 3.1b: Percentage of patients meeting disease management indicators by gender in Newham** |
| **Disease** | **Disease Management Indicator** | **All** | **Male** | **Female** |
| **Diabetes** | **HbA1c < 7.5mmol/l** | **55.5%** | **53.5%** | **57.8%** |
| **BP <140/80** | **47.2%** | **46.1%** | **48.5%** |
| **Retinopathy screening attended** | **39.5%** | **41.5%** | **37.2%** |
| **Stroke** | **Cholesterol <5mmol/l** | **82.5%** | **83.6%** | **81.2%** |
| **BP <140/90** | **62.9%** | **62.4%** | **63.6%** |

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| **Table 3.1c: Percentage of patients meeting disease management indicators by gender in Tower Hamlets** |
| **Disease** | **Disease Management Indicator** | **All** | **Male** | **Female** |
| **Diabetes** | **HbA1c < 7.5mmol/l** | **50.3%** | **48.1%** | **52.6%** |
| **BP <140/80** | **56.8%** | **56.0%** | **57.6%** |
| **Retinopathy screening attended** | **33.0%** | **34.3%** | **31.7%** |
| **Stroke** | **Cholesterol <5mmol/l** | **79.5%** | **81.3%** | **77.2%** |
| **BP <140/90** | **69.3%** | **71.3%** | **66.9%** |

### Age Group

The tables below show the percentage of patients on the diabetes or stroke disease registers in whom the selected disease management indicators are met, by age group, in City and Hackney; Newham and Tower Hamlets. There is a consistent pattern across the three PCTs, whereby disease management indicators are achieved for a higher proportion of older patients, than for young and middle-aged patients. This suggests that opportunities for early secondary prevention interventions are being missed, with the risk that young and middle-aged patients will go on to develop disease complications in later life.

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| **Table 3.2a: Percentage of patients meeting disease management indicators by age group in City and Hackney** |
| **Disease** | **Disease Management Indicator** | **All** | **0-4** | **5-15** | **16-18** | **19-24** | **25-39** | **40-49** | **50-64** | **65-74** | **75-84** | **85+** |
| **Diabetes** | **HbA1c < 7.5mmol/l** | **55.4%** | **-** | **15.4%** | **-** | **28.6%** | **38.2%** | **47.1%** | **52.7%** | **62.5%** | **67.2%** | **69.6%** |
| **BP <140/80** | **47.5%** | **-** | **56.4%** | **57.9%** | **66.7%** | **49.6%** | **39.1%** | **44.1%** | **51.4%** | **55.5%** | **50.7%** |
| **Retinopathy screening attended** | **34.5%** | **-** | **-** | **-** | **26.2%** | **28.7%** | **30.2%** | **34.4%** | **36.4%** | **40.1%** | **37.1%** |
| **Stroke** | **Cholesterol <5mmol/l** | **84.5%** | **-** | **-** | **-** | **-** | **63.2%** | **73.3%** | **86.7%** | **89.2%** | **89.1%** | **83.6%** |
| **BP <140/90** | **65.9%** | **-** | **-** | **-** | **87.5%** | **68.4%** | **75.9%** | **69.1%** | **65.6%** | **65.8%** | **55.3%** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Table 3.2b: Percentage of patients meeting disease management indicators by age group in Newham** |
| **Disease** | **Disease Management Indicator** | **All** | **0-4** | **5-15** | **16-18** | **19-24** | **25-39** | **40-49** | **50-64** | **65-74** | **75-84** | **85+** |
| **Diabetes** | **HbA1c < 7.5mmol/l** | **55.5%** | **-** | **11.4%** | **-** | **24.4%** | **42.5%** | **50.5%** | **55.3%** | **61.9%** | **65.3%** | **65.0%** |
| **BP <140/80** | **47.2%** | **-** | **34.2%** | **64.9%** | **60.2%** | **53.4%** | **44.4%** | **45.1%** | **48.4%** | **51.8%** | **48.6%** |
| **Retinopathy screening attended** | **39.5%** | **-** | **-** | **16.2%** | **29.3%** | **26.6%** | **36.6%** | **41.8%** | **41.7%** | **43.9%** | **39.9%** |
| **Stroke** | **Cholesterol <5mmol/l** | **82.5%** | **-** | **-** | **-** | **53.8%** | **65.0%** | **75.0%** | **84.6%** | **84.7%** | **84.7%** | **84.0%** |
| **BP <140/90** | **62.9%** | **-** | **-** | **-** | **61.5%** | **71.7%** | **72.9%** | **62.9%** | **59.2%** | **64.6%** | **60.4%** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Table 3.2c: Percentage of patients meeting disease management indicators by age group in Tower Hamlets** |
| **Disease** | **Disease Management Indicator** | **All** | **0-4** | **5-15** | **16-18** | **19-24** | **25-39** | **40-49** | **50-64** | **65-74** | **75-84** | **85+** |
| **Diabetes** | **HbA1c < 7.5mmol/l** | **50.3%** | **-** | **12.5%** | **-** | **24.5%** | **40.8%** | **46.0%** | **49.2%** | **53.7%** | **60.9%** | **69.0%** |
| **BP <140/80** | **56.8%** | **-** | **37.5%** | **63.6%** | **59.4%** | **54.6%** | **54.6%** | **55.5%** | **59.5%** | **60.3%** | **61.0%** |
| **Retinopathy screening attended** | **33.0%** | **-** | **-** | **-** | **19.8%** | **21.9%** | **30.5%** | **36.3%** | **36.0%** | **34.0%** | **34.1%** |
| **Stroke** | **Cholesterol <5mmol/l** | **79.5%** | **-** | **-** | **-** | **-** | **58.5%** | **72.3%** | **82.7%** | **85.4%** | **81.4%** | **70.4%** |
| **BP <140/90** | **69.3%** | **-** | **-** | **-** | **-** | **71.7%** | **71.3%** | **71.8%** | **73.5%** | **68.4%** | **58.0%** |

### Ethnicity

The tables below show the percentage of patients on the diabetes or stroke disease registers in whom the selected disease management indicators are met, by ethnicity, in City and Hackney; Newham and Tower Hamlets. For the majority of disease management indicators, there are no statistically significant differences by ethnicity. Of note however, in Newham and Tower Hamlets, the proportion of diabetic patients with good blood sugar control is higher in White patients than in total diabetic population; in Newham the proportion of diabetic patients with good blood pressure control, and who have attended retinopathy screening is higher in the Asian population; and in all three PCTs the proportion of diabetic patients with good blood pressure control is lower in Black patients that in the total diabetic population.

|  |
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| **Table 3.3a: Percentage of patients meeting disease management indicators by ethnicity in City and Hackney** |
| **Disease** | **Disease Management Indicators** | **All** | **White** | **Asian** | **Black** | **Other** |
| **Diabetes** | **HbA1c < 7.5mmol/l** | **55.4%** | **56.5%** | **54.3%** | **53.8%** | **60.3%** |
| **BP <140/80** | **47.5%** | **51.6%** | **54.3%** | **40.7%** | **48.7%** |
| **Retinopathy screening attended** | **34.5%** | **33.1%** | **35.4%** | **36.6%** | **32.0%** |
| **Stroke** | **Cholesterol <5mmol/l** | **84.5%** | **91.7%** | **86.6%** | **77.9%** | **82.6%** |
| **BP <140/90** | **65.9%** | **72.5%** | **61.7%** | **61.6%** | **66.3%** |
|  |  |  |  |  |  |  |
| **Table 3.3b: Percentage of patients meeting disease management indicators by ethnicity in Newham** |
| **Disease** | **Disease Management Indicators** | **All** | **White** | **Asian** | **Black** | **Other** |
| **Diabetes** | **HbA1c < 7.5mmol/l** | **55.5%** | **57.9%** | **54.6%** | **55.2%** | **59.8%** |
| **BP <140/80** | **47.2%** | **44.5%** | **50.9%** | **40.5%** | **45.8%** |
| **Retinopathy screening attended** | **39.5%** | **33.6%** | **42.4%** | **38.0%** | **41.2%** |
| **Stroke** | **Cholesterol <5mmol/l** | **82.5%** | **82.5%** | **85.0%** | **79.4%** | **86.3%** |
| **BP <140/90** | **62.9%** | **64.2%** | **66.0%** | **55.8%** | **60.8%** |
|  |  |  |  |  |  |  |
| **Table 3.3c: Percentage of patients meeting disease management indicators by ethnicity in Tower Hamlets** |
| **Disease** | **Disease Management Indicators** | **All** | **White** | **Asian** | **Black** | **Other** |
| **Diabetes** | **HbA1c < 7.5mmol/l** | **50.3%** | **55.6%** | **47.0%** | **52.4%** | **56.4%** |
| **BP <140/80** | **56.8%** | **55.7%** | **58.7%** | **49.4%** | **59.9%** |
| **Retinopathy screening attended** | **33.0%** | **32.2%** | **34.0%** | **32.1%** | **32.0%** |
| **Stroke** | **Cholesterol <5mmol/l** | **79.5%** | **77.9%** | **83.7%** | **77.1%** | **81.6%** |
| **BP <140/90** | **69.3%** | **70.3%** | **68.9%** | **65.3%** | **78.9%** |

### Deprivation

The tables below show the percentage of patients on the diabetes or stroke disease registers in whom the selected disease management indicators are met, by Deprivation quintile, in City and Hackney; Newham and Tower Hamlets. Quintile 1 is the least deprived quintile, and quintile 5 is the most deprived. With the exception of good blood sugar control, which is achieved by a higher proportion of White patients in both Newham and Tower Hamlets, there are few statistically significant differences by deprivation quintile.

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| **Table 3.4a: Percentage of patients meeting disease management targets by ELC deprivation quintile in City and Hackney** |
| **Disease** | **Management Target** | **All** | **Q1** | **Q2** | **Q3** | **Q4** | **Q5** |
| **Diabetes** | **HbA1c < 7.5mmol/l** | **55.4%** | **57.9%** | **55.3%** | **55.1%** | **55.0%** | **54.8%** |
| **BP <140/80** | **47.5%** | **50.4%** | **45.9%** | **48.2%** | **47.1%** | **46.4%** |
| **Retinopathy screening attended** | **34.5%** | **34.6%** | **35.7%** | **35.1%** | **33.5%** | **34.4%** |
| **Stroke** | **Cholesterol <5mmol/l** | **84.5%** | **82.8%** | **89.9%** | **80.7%** | **85.4%** | **84.8%** |
| **BP <140/90** | **65.9%** | **67.4%** | **63.1%** | **67.1%** | **71.5%** | **60.0%** |
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| **Table 3.4b: Percentage of patients meeting disease management targets by ELC deprivation quintile in Newham** |
| **Disease** | **Management Target** | **All** | **Q1** | **Q2** | **Q3** | **Q4** | **Q5** |
| **Diabetes** | **HbA1c < 7.5mmol/l** | **55.5%** | **57.8%** | **55.0%** | **54.9%** | **54.5%** | **53.5%** |
| **BP <140/80** | **47.2%** | **48.3%** | **48.3%** | **46.3%** | **45.1%** | **44.7%** |
| **Retinopathy screening attended** | **39.5%** | **41.5%** | **41.3%** | **36.7%** | **36.8%** | **37.3%** |
| **Stroke** | **Cholesterol <5mmol/l** | **82.5%** | **86.4%** | **82.7%** | **78.3%** | **88.1%** | **76.4%** |
| **BP <140/90** | **62.9%** | **64.0%** | **62.1%** | **60.1%** | **64.2%** | **67.0%** |
|  |  |  |  |  |  |  |  |
| **Table 3.5c: Percentage of patients meeting disease management targets by ELC deprivation quintile in Tower Hamlets** |
| **Disease** | **Management Target** | **All** | **Q1** | **Q2** | **Q3** | **Q4** | **Q5** |
| **Diabetes** | **HbA1c < 7.5mmol/l** | **50.3%** | **56.5%** | **53.0%** | **50.7%** | **49.7%** | **49.1%** |
| **BP <140/80** | **56.8%** | **54.3%** | **59.0%** | **57.1%** | **56.7%** | **56.9%** |
| **Retinopathy screening attended** | **33.0%** | **33.6%** | **36.4%** | **33.5%** | **32.4%** | **32.8%** |
| **Stroke** | **Cholesterol <5mmol/l** | **79.5%** | **83.0%** | **78.1%** | **79.7%** | **81.8%** | **76.5%** |
| **BP <140/90** | **69.3%** | **64.0%** | **70.9%** | **72.0%** | **70.9%** | **67.3%** |

### Care group

The tables below show the percentage of patients on the diabetes or stroke disease registers in whom the selected disease management indicators are met, by care group, in City and Hackney; Newham and Tower Hamlets. The small numbers of patients with diabetes or stroke who are also in one of the ‘care groups’ meant that few differences were statistically significant. Of note however, in City and Hackney, the proportion of deaf affected and housebound diabetic patients with good blood sugar control was higher than the proportion in the total diabetic population. However in both City and Hackney and Tower Hamlets, the proportion of diabetic patients with serious mental illness who have attended diabetic retinopathy screening is lower than the proportion in the total diabetic population, suggesting additional targeted promotion of screening may be beneficial.

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| **Table 3.4a: Percentage of patients meeting disease management indicators by care group in City and Hackney** |
| **Disease** | **Disease Management Indicator** | **Total** | **Learning Disability** | **Serious Mental Illness** | **Deaf Affected** | **Profoundly Deaf** | **Registered Blind** | **House-bound** |
| **Diabetes** | **HbA1c < 7.5mmol/l** | **55.4%** | **52.8%** | **59.3%** | **72.7%** | **-** | **50.6%** | **62.4%** |
| **BP <140/80** | **47.5%** | **58.3%** | **46.4%** | **59.1%** | **-** | **40.4%** | **49.2%** |
| **Retinopathy screening attended** | **34.5%** | **23.6%** | **26.5%** | **22.7%** | **-** | **42.7%** | **37.6%** |
| **Stroke** | **Cholesterol <5mmol/l** | **84.5%** | **-** | **85.0%** | **85.7%** | **-** | **90.0%** | **81.2%** |
| **BP <140/90** | **65.9%** | **-** | **72.5%** | **64.3%** | **-** | **55.0%** | **62.3%** |
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| **Table 3.4b: Percentage of patients meeting disease management indicators by care group in Newham** |
| **Disease** | **Disease Management Indicator** | **Total** | **Learning Disability** | **Serious Mental Illness** | **Deaf Affected** | **Profoundly Deaf** | **Registered Blind** | **House-bound** |
| **Diabetes** | **HbA1c < 7.5mmol/l** | **55.5%** | **61.9%** | **57.8%** | **62.8%** | **-** | **52.6%** | **56.6%** |
| **BP <140/80** | **47.2%** | **55.6%** | **49.6%** | **48.8%** | **-** | **53.8%** | **41.7%** |
| **Retinopathy screening attended** | **39.5%** | **30.2%** | **35.3%** | **47.7%** | **-** | **53.2%** | **37.5%** |
| **Stroke** | **Cholesterol <5mmol/l** | **82.5%** | **-** | **71.4%** | **78.3%** | **-** | **87.1%** | **81.0%** |
| **BP <140/90** | **62.9%** | **-** | **71.4%** | **87.0%** | **-** | **67.7%** | **57.5%** |
|  |  |  |  |  |  |  |  |  |
| **Table 3.4c: Percentage of patients meeting disease management indicators by care group in Tower Hamlets** |
| **Disease** | **Disease Management Indicator** | **Total** | **Learning Disability** | **Serious Mental Illness** | **Deaf Affected** | **Profoundly Deaf** | **Registered Blind** | **House-bound** |
| **Diabetes** | **HbA1c < 7.5mmol/l** | **50.3%** | **40.7%** | **50.7%** | **46.7%** | **-** | **44.4%** | **56.0%** |
| **BP <140/80** | **56.8%** | **52.5%** | **61.5%** | **65.0%** | **-** | **57.4%** | **59.6%** |
| **Retinopathy screening attended** | **33.0%** | **25.4%** | **24.8%** | **31.7%** | **-** | **44.4%** | **36.4%** |
| **Stroke** | **Cholesterol <5mmol/l** | **79.5%** | **-** | **80.0%** | **85.7%** | **-** | **85.7%** | **78.1%** |
| **BP <140/90** | **69.3%** | **-** | **80.0%** | **-** | **-** | **71.4%** | **65.6%** |

# Limitations

As discussed throughout this report, there are a number of limitations, which mean findings need to be interpreted with caution. Firstly, the use of primary care record data means that information is only available about disease which is diagnosed and accurately coded on the electronic record system. The health-seeking behaviours of different population groups will affect the likelihood of their disease being diagnosed. For easy interpretation, the data has been colour-coded, with red signifying high prevalence, suggesting that this is ‘bad’ thing. However in some cases higher recorded prevalence may actually represent higher levels of case finding, which is beneficial as once disease is diagnosed, secondary prevention measures can be implemented.

A further limitation is the use of crude rather than age-standardised prevalence. This means that diseases that are more common in old age will be more prevalent in populations with a high proportion of elderly people. All three PCTs in ELC however have a relatively similar age-composition, so the use of crude prevalence should not affect the ability to make comparisons between these areas, however the ethnic groups; deprivation groups; and care groups will all have different age compositions, and so differences in disease prevalence by ethnicity, deprivation, and care group may be confounded by age.

Finally, the small number of patients on the diabetes and stroke registers means that the observed differences are no greater than the differences that could be expected to be seen due to chance. It is therefore not possible to tell whether there are in fact no differences in disease control by equity dimensions, or whether the numbers are simply too small to detect statistically significant differences.

# Conclusion

Analysis of crude disease prevalence across the three PCTs provides each PCT with information on disease areas in which they may wish to focus their resources. Where the data shows wide discrepancies in prevalence between the PCTs, it is possible that these are due to differences in disease identification or recording practices, and further exploration is warranted.

Analysis of selected chronic diseases by gender shows that the main burden of chronic disease falls on the male population in East London and the City, with the exception of obesity, which is higher in women in all three PCTs. Analysis by age group shows increasing disease prevalence with increasing age, highlighting the importance of early interventions to prevent disease risk-factors from accumulating. Analysis by ethnicity shows that for many chronic diseases, particularly smoking associated diseases, prevalence is highest in the White population, with diabetes more prevalent in the Asian population, and hypertension, obesity and serious mental illness more prevalent in the Black population. Prevalence of the majority of chronic diseases investigated is seen to be higher in those with learning disabilities; serious mental illness; those are deaf-affected, registered blind or housebound.

Analysis of selected disease management indicators for patients with diabetes and stroke show few differences between equity groups, due to the small number of patients involved. However the proportion of patients with diabetes and stroke in whom disease management indicators are met is lower amongst young and middle aged patients, than amongst older patients, suggesting opportunities for early interventions to prevent secondary complications of disease are being missed.

# Recommendations

* The initial work of this project should be followed up with the development of an easy to use interface that will allow public health staff to directly access and analyse data relevant to their work streams.
* Public health staff using the data should provide feedback on the ways in which data has been used to influence decision making, and should consider what additional information might be valuable in the future.
* There should be a structured process to allow public health staff to submit suggestions for additional data to be included in future standardised data sets, and for suggestions to be approved.
* Primary care data should continue to be extracted from EMIS records on an annual basis, with modifications made based on feedback and suggestions for the staff who make use of the data.
* Procedures and responsibility for management of the extracted data should be established, including the maintenance and up-dating of the proposed data-access interface.

# Appendices

## Appendix 1: Members of the working group

**Public Health**

Will Anderson, Public Health Consultant, City and Hackney

Vicky Hobbart, Public Health Consultant, City and Hackney

Suzanne Wood, Public Health Consultant, Newham

Somen Banerjee, Acting Director of Public Health, Tower Hamlets

Flora Ogilvie, Public Health Registrar, Tower Hamlets

**Public Health Intelligence**

Bethan George, Head of Health Intelligence and Informatics, NHS ELC

Siva Chandrasekaran, Public Health Intelligence Manager, NHS ELC

Ryan Meikle, Informatics Lead, NHS ELC

**Clinical Effectiveness Group**

Keith Prescott, Clinical Effectiveness Group Manager, CEG

Martin Sharp, Data Analyst, CEG

John Robson, Clinical Lead, CEG

## Appendix 2: Clinical conditions and corresponding EMIS codes

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Disease Area** | **Code Term** | **Code** | **Include Children** | **Excluded Children - Code Term** | **Code** | **Time** |
| **Asthma** | Asthma | H33 | TRUE |   |   | *Ever* |
|  | and |   |   |   |   |  |
|  | Salmeterol Xinafoate | c19.. |   |   |   | *27 months* |
|  | Adrenoceptor Stimulants | 3.1.1 |   |   |   | *15 months* |
|  | Anticholinergic Bronchodilators | 3.1.2 |   |   |   | *15 months* |
| **CHD** | Ischaemic heart disease | G3 | TRUE |   |   | *Ever* |
| **Diabetes** | Diabetes mellitus | C10 | TRUE |   |   | *Ever* |
| **Heart Failure** | Heart failure | G58 | TRUE |   |   | *Ever* |
|  | Rheumatic left ventricular failure | G1yz1 | TRUE |   |   |  |
| **SMI** | [X]Schizophrenia | Eu20 | TRUE |   |   | *Ever* |
|  | Schizophrenic disorders | E10 | TRUE |   |   |  |
|  | [X]Bipolar affective disorder | Eu31 | TRUE |   |   |  |
|  | Other and unspecified affective psychoses | E11z | FALSE |   |   |  |
|  | Unspecified affective psychoses NOS | E11z0 | TRUE |   |   |  |
|  | Other affective psychosis NOS | E11zz | TRUE |   |   |  |
|  | Manic disorder, single episode | E110 | TRUE |   |   |  |
|  | Recurrent manic episodes | E111 | TRUE |   |   |  |
|  | Bipolar affective disorder, currently manic | E114 | TRUE |   |   |  |
|  | Bipolar affective disorder, currently depressed | E115 | TRUE |   |   |  |
|  | Mixed bipolar affective disorder | E116 | TRUE |   |   |  |
|  | Unspecified bipolar affective disorder | E117 | TRUE |   |   |  |
|  | Other and unspecified manic-depressive psychoses | E11y | FALSE |   |   |  |
|  | Unspecified manic-depressive psychoses | E11y0 | TRUE |   |   |  |
|  | Atypical manic disorder | E11y1 | TRUE |   |   |  |
|  | Other and unspecified manic-depressive psychoses NOS | E11yz | TRUE |   |   |  |
|  | [X]Schizoaffective disorders | Eu25 | TRUE |   |   |  |
| **Stroke** | Intracerebral haemorrhage | G61 | TRUE | Intracerebral haemorrhage, intraventricular | G617 | *Ever* |
|  | Cerebral infarct due to thrombosis of precerebral arteries | G63y0 | TRUE |   |   |  |
|  | Cerebral infarction due to embolism of precerebral arteries | G63y1 | TRUE |   |   |  |
|  | Cerebral arterial occlusion | G64 | TRUE |   |   |  |
|  | Stroke and cerebrovascular accident unspecified | G66 | TRUE | Cerebral palsy, not congenital or infantile, acute | G669 |  |
|  | Cereb infarct due cerebral venous thrombosis, nonpyogenic | G6760 | TRUE |   |   |  |
|  | Cereb infarct due unsp occlus/stenos precerebr arteries | G6W | TRUE |   |   |  |
|  | [X]Other intracerebral haemorrhage | Gyu62 | TRUE |   |   |  |
|  | [X]Cerebrl infarctn due/unspcf occlusn or sten/cerebrl artrs | Gyu63 | TRUE |   |   |  |
|  | [X]Other cerebral infarction | Gyu64 | TRUE |   |   |  |
|  | [X]Occlusion and stenosis of other precerebral arteries | Gyu65 | TRUE |   |   |  |
|  | [X]Occlusion and stenosis of other cerebral arteries | Gyu66 | TRUE |   |   |  |
|  | [X]Intracerebral haemorrhage in hemisphere, unspecified | Gyu6F | TRUE |   |   |  |
|  | [X]Cereb infarct due unsp occlus/stenos precerebr arteries | Gyu6G | TRUE |   |   |  |
|  | [V]Personal history of circulatory system disease | ZV125 | TRUE |   |   |  |
| **Cataracts** | Cataract | F46 | TRUE |   |   | *12m* |
|  | O/E - Right cataract present | 2BT0 | TRUE |   |   |  |
|  | O/E - Left cataract present | 2BT1 | TRUE |   |   |  |
|  | O/E - cataract present | 22E5 | TRUE |   |   |  |
|  | Congenital cataract, unspecified | P330 | TRUE |   |   |  |
|  | Capsular and subcapsular cataract | P331 | TRUE |   |   |  |
|  | Cortical and zonular cataract | P332 | TRUE |   |   |  |
|  | Nuclear cataract - congenital | P333 | TRUE |   |   |  |
|  | Total and subtotal congenital cataract | P334 | TRUE |   |   |  |
|  | Other specified congenital cataract or lens anomaly | P33y | TRUE |   |   |  |
| **Glaucoma** | Glaucoma | F45 | TRUE |   |   | *Ever* |
| **HIV** | HTLV-3 antibody positive | 43C3 | TRUE |   |   | *Ever* |
|  | Acquired immune deficiency syndrome | A788 | TRUE |   |   |  |
|  | Human immunodef virus resulting in other disease | A789 | TRUE |   |   |  |
|  | [V]Asymptomatic human immunodeficency virus infection status | ZV01A | TRUE |   |   |  |
| **Motor Neurone Disease** | Motor neurone disease | F152 | TRUE |   |   | *Ever* |
| **Muscular Dystrophy** | Muscular dystrophies and other myopathies | F39 | FALSE |   |   | *Ever* |
|  | Congenital hereditary muscular dystrophy | F390 | TRUE |   |   |  |
|  | Hereditary progressive muscular dystrophy | F391 | TRUE |   |   |  |
|  | Muscular dystrophy | F39B | TRUE |   |   |  |
|  | Myopathy or muscular dystrophy NOS | F39z | TRUE |   |   |  |
| **Multiple Sclerosis** | Multiple sclerosis | F20 | TRUE |   |   | *Ever* |
| **Osteoporosis** | Osteoporosis | N330 | TRUE |   |   | *Ever* |
| **Parkinson's Disease** | Parkinson's disease | F12 | TRUE |   |   | *Ever* |
| **Retinopathy** | O/E- non-referable retinopathy | 2BBa | TRUE |   |   | *Ever* |
|  | O/E - right eye stable treated prolif diabetic retinopathy | 2BBk | TRUE |   |   |  |
|  | O/E - left eye stable treated prolif diabetic retinopathy | 2BBl | TRUE |   |   |  |
|  | O/E - right eye clinically significant macular oedema | 2BBm | TRUE |   |   |  |
|  | O/E - left eye clinically significant macular oedema | 2BBn | TRUE |   |   |  |
|  | O/E - sight threatening diabetic retinopathy | 2BBo | TRUE |   |   |  |
|  | O/E - right eye background diabetic retinopathy | 2BBP | TRUE |   |   |  |
|  | O/E - left eye background diabetic retinopathy | 2BBQ | TRUE |   |   |  |
|  | O/E - right eye preproliferative diabetic retinopathy | 2BBR | TRUE |   |   |  |
|  | O/E - left eye preproliferative diabetic retinopathy | 2BBS | TRUE |   |   |  |
|  | O/E - right eye proliferative diabetic retinopathy | 2BBT | TRUE |   |   |  |
|  | O/E - left eye proliferative diabetic retinopathy | 2BBV | TRUE |   |   |  |
|  | O/E - right eye diabetic maculopathy | 2BBW | TRUE |   |   |  |
|  | O/E - left eye diabetic maculopathy | 2BBX | TRUE |   |   |  |
|  | O/E - referable retinopathy | 2BBY | TRUE |   |   |  |
|  | Type 1 diabetes mellitus with retinopathy | C10E7 | TRUE |   |   |  |
|  | Type 2 diabetes mellitus with retinopathy | C10F6 | TRUE |   |   |  |
| **Rheumatoid Arthritis** | Rheumatoid arthritis and other inflammatory polyarthropathy | N04 | TRUE |   |   | *Ever* |
|  | Degeneration of macula and posterior pole | F425 | TRUE |   |   |  |
| **Spinal Cord Injury** | Spinal cord injury without evidence of spinal bone injury | SJ2 | TRUE |   |   | *12m* |
|  | Concussion and oedema of cervical spinal cord | SJ80 | TRUE |   |   |  |
|  | Concussion and oedema of thoracic spinal cord | SJ90 | TRUE |   |   |  |
|  | Concussion and oedema of lumbar spinal cord | SJA0 | TRUE |   |   |  |
|  | Nerve and spinal cord injury NOS | SJz | TRUE |   |   |  |

1. Marmot, M. Fair Society, healthy lives: Strategic review of health inequalities in England post-2010, 2010. [↑](#footnote-ref-1)
2. Department of Health. Healthy lives, healthy people: Our strategy for public health in England, 2010. [↑](#footnote-ref-2)
3. Department of Health. A public health outcomes framework for England, 2013-2016, 2012. [↑](#footnote-ref-3)
4. NHS East London and the City. Creating a healthier future for the people of east London and the City, 2011. [↑](#footnote-ref-4)