

Document Control	
Name	Havering JSNA - Demographics Chapter
Creation date	January 2014
Authors	Seema Patel, Public Health Ade Abitoye, Public Health Gemma Andrews, Corporate Policy & Diversity/ Public Health Jo Sage, Corporate Policy & Diversity Mark Ansell, Public Health
Contributors	Hajra Patel, Public Health Intern Mohammed Lone, Public Health Intern
Project Manager and Editor	Gemma Andrews, Corporate Policy & Diversity/ Public Health
Lead Director(s)	Mary E Black, Director of Public Health Cynthia Griffin, Group Director Culture & Community
Approved by	Corporate Management Team (22/10/2013) JSNA Steering Group (11/11/2013 and 16/12/2013)
Scheduled review date	January 2015

## **Document Control**



Demographics: Understanding local population change

Со	n	te	nt	S

1	I	Intr	odu	ction	3
	1.1	L	Pur	pose	3
	1.2	2	Ow	nership	3
	1.3	3	Dat	a presentation	3
	1.4	ŀ	The	e Census	4
2	l	Exe	cutiv	ve Summary	5
3	(	Geo	ogra	phical boundaries	8
4	(	Cha	nge	s in the Havering population	9
	4.1	L	Рор	oulation Growth	9
	4.2	2	Рор	pulation size1	1
	4	4.2	.1	2012 Residential population estimates1	1
	4	4.2	.2	GP registered populations1	1
5	I	Ha	/erin	g population characteristics1	3
	5.1	L	Рор	pulation age profile1	3
	5.2	2	Eco	nomic activity1	7
	5.3	3	Ηοι	usehold composition1	8
	5.4	ł	Рес	pple living in Communal Establishments1	9
	5.5	5	Dep	privation2	1
	5.6	5	Div	ersity2	1
	5.7	7	For	eign Countries/ Continents of Birth2	6
	5.8	3	Lan	guage3	1
	5.9	)	Reli	igion3	3
6	(	Cor	npoi	nents of population change3	5
	6.1	L	Birt	hs3	5
	6.2	2	Mig	gration3	9
	(	6.2	.1	Internal Migration	9
	(	6.2	.2	International Migration4	0
	(	6.2	.3	Mortality4	2
7	I	Pro	jecti	ions4	4
8	I	Fur	ther	information and references4	7
	8.1	L	Fur	ther information4	7
F	or	•••••	•••••		7
	8.2	2	Ref	erences4	7



## Demographics: Understanding local population change

## 1 Introduction

#### 1.1 Purpose

This chapter considers how demographic factors impact on the health and wellbeing needs of Havering residents and therefore demand for health and social care services. It also considers the impact of anticipated changes calculated using future population projection modelling tools and techniques. Where demographic factors relate to specific health and wellbeing issues, they will be addressed within chapters being developed as a suite of wider JSNA resources.

This chapter relates to demography. The JSNA Wider Determinants of Health Chapter is scheduled for development in 2014.

#### 1.2 Ownership

This chapter is jointly owned by the London Borough of Havering (LBH) and Havering Clinical Commissioning Group (HCCG).

#### **1.3** Data presentation

This chapter presents a variety of data including:

- Actual measured data (Census 2001 and 2011)
- Population estimates from the Office of National Statistics (ONS mid-year 2012)
- Modelled projections from the Greater London Authority (GLA)
- GP register data (GP data)
- Benchmarking against our demographic statistical neighbours. For the complete list of ONS comparators used please see the supporting document, JSNA Methodology Notes.
- Historical data showing trends over time.

In response to commissioners' requests for more graphic representations, 'info-graphics' have been used to translate data into more intuitive, easy to understand formats.

As within all Havering JSNA chapters, links to NICE guidance, evidence reviews and the Public Health and Adult Social Care Outcomes Frameworks will be drawn wherever appropriate.

For the purposes of informing commissioning, analysis by age within this chapter has been split into the below service user groups:

Pre School Infants (0-2 breakdowns for CCG commissioners; 0-4 for Local Authority commissioners) Primary School Age (5-10) Secondary School Age (11-17) Young People, including higher education students (18-24) Adults (25-64) Older People, retirement age (64-84) Adults aged over 85 (85+)

A complementary project, called the Havering Population Database Project is also underway to further enrich our understanding of Havering's changing demographics. This project aims to link a series of local and national datasets together to find out whether projections are accurately forecasting what is happening in our locality. Once available, the results will be shared alongside the JSNA.

#### 1.4 The Census

The main population base for outputs from the 2011 Census is the usual resident population as at Census day 27 March 2011. Although the population base for enumeration included non-UK short-term residents, this population is analysed separately and is not included in the main outputs from the 2011 Census. All outputs, unless specified, are produced using only usual residents of the UK. For 2011 Census purposes, a usual resident of the UK is anyone who, on Census day, was in the UK and had stayed or intended to stay in the UK for a period of 12 months or more, or had a permanent UK address and was outside the UK and intended to be outside the UK for less than 12 months.



## 2 Executive Summary

Findings of this chapter have comm	issioning implicatio	ns across:			
Acute admissions/ clinical services	Primary & Community care	Social Care	Housing, Planning & Benefits	Education	Culture & Leisure
$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Top line findings		<b>Considerations for Commissio</b>	ners		
The big picture in Havering Between 2001 and 2011 the Hav grew by 6% (12,984 people). The total Havering population is for around 250,500 by 2016 and 2 (representing 5.6% and 11.2% increased Census population respectively).	precast to rise to 63,900 by 2021	Given this projected increase made, planning needs to foc relieve the pressure of predict. Preventative services that can disease, cancer and obesity in and drinking moderation, diet investment in interventions interventions to support peop escalation of complex cases an	us on the provision of preve ed increasing demand on servi reduce the health and social nclude: supporting healthier I improvement and increased to support people to remai ple to remain in control of t	ntative services and int ices in future years. care burden associated ifestyle choices such as participation in physical in independent in thei heir long-term condition	with cardiovascular smoking cessation activity. Continued r own homes and ns can prevent the
Over the last ten years Havering has become more diverse. In 2001 BAME groups accounted for 8% of the total population; in 2011 this has risen to 17% of the Havering population.		Although the Havering popul mainstream service design is population. For example: ther and diverse needs among the It is recommended that the particularly for strategic plann of female only services where	considered within the contex e is a continuing and increasi entire local population, particu e changing ethnicity profile ing around communication (m	t of an increasingly ething ng need for sensitivity t ularly younger people. of service users is rou	nically diverse local o cultural diversity, utinely considered,
Within Havering's small BAME populishing the procentage increase has be a Black British: African, followed by Asian/ Asian British: Indian. Yoru common primary foreign language pupils in Havering.	been in: Black or White Other and uba is the most	It is probable that specific cul residents in light of the increas Health and social care service support increases in ethnicity for more information).	se in people of different ethnic es may consider strengthenir	corigin. ng service provision and	care pathways to

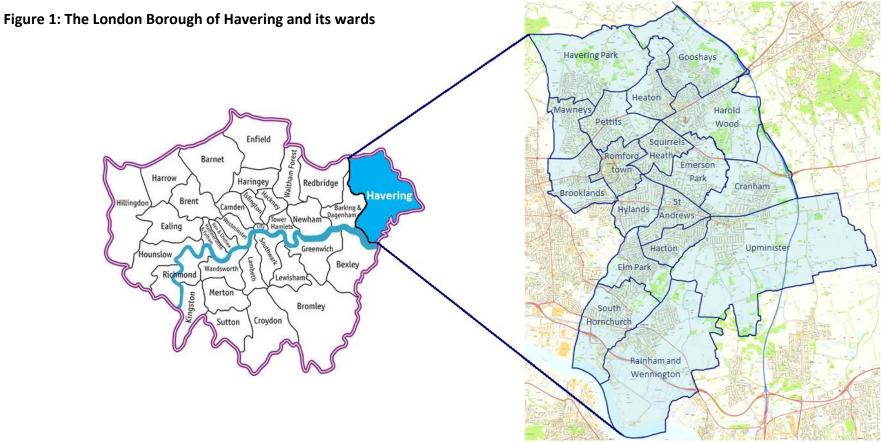
	Demographics: Understanding local population change
Top line findings	Considerations for Commissioners
The 2011 Census showed that in Havering, English was the preferred language for 95% of respondents; just 5% preferred to speak a language other than English (11,861/ 237,232). Of this small sub-group, the two most common languages spoken by adults are Lithuanian (980 people) and Polish (829 people).	<ul> <li>Although the Eastern European population is not identifiable through the current diversity data, in 2011, Lithuanian and Polish speaking residents represented just 0.4% and 0.35% of the total residential population.</li> <li>The Havering Population Database Project aims to provide a more robust analysis of immigration and emigration. Please contact the Corporate Policy and Partnership team for more information.</li> </ul>
Specific age groups of interest: Older people, 85 years+ (highest growth) Growth in this age group is higher than in London or England and has shown the largest percentage increase from 2001 to 2011 (个43%). GLA projections predict continued growth of another 1,700 people by 2016 and further 1,400 people by 2021. This represents an expected further increase of 50.8% from 2011 to 2021. Growth in the 18-24 years group was also higher in Havering than London or England, showing a 23% rise from 2001 to 2011.	Although this age group represents just 2.55% of the local population, its growth (and forecast growth) represents a major increase in health and social care service demand because it is the age group with the most complex health needs. On the whole, people in Havering are living longer and are therefore more likely to develop long term conditions. These conditions are likely to become increasingly complex as people age, requiring additional support at home or in residential or nursing accommodation. Timely, accessible and effective preventative services across primary and secondary healthcare and adult social care must be commissioned to best manage the cost and capacity implications of the projected increases in demand.
Specific age groups of interest: Early years (third highest growth) Growth in the early years age group is lower than in London and England. Still, in Havering, this age group represented the third highest percentage increase across age groups (↑10%), i.e. 1,246 extra infants over the ten year period. Projections predict an increase of 15.2% (additional 2,100 infants) from 2011 to 2016 and further 500 infants (3.1%) from 2016 to 2021. This represents an expected further increase of 18.8% from 2011 to 2021.	<ul> <li>Growth in this age group may impact on:</li> <li>Health service planning including the provision of Health Visiting</li> <li>Demand for support services for children with complex needs (increase)</li> <li>Demand on General Practice infant screening programmes (increase)</li> <li>Infant A and E attendances and admissions via A &amp; E (increase)</li> <li>In four to five years' time this will place significant demands on health, social care and education services, including further increases in demand for primary school places.</li> <li>In the next ten years it is anticipated that increases in the 0-4 BAME group will drive demand for culturally sensitive children's services/ health services for ethnicity specific risk factors in new-borns.</li> </ul>

	Demographics: Onderstanding local population change
Top line findings	Considerations for Commissioners
Working adults and migration The child bearing and working age groups (18-24 and 25-64) and hence, the group of infants and children up to 10 years contribute to the net inflow of people registering with a GP in Havering	It was expected that the 2013 Welfare Reform would have an impact on internal migration coined the 'doughnut effect, ' whereby residents relocate further outside of London to find more affordable accommodation. The time lag in data means Havering may still experience unexpected increases in the volume of new residents moving from inner London within the next 12-18 months. The Havering Population Database Project aims to provide a more robust analysis of migration and emigration in Havering.
More people in Havering than in England and statistically similar local authorities die prematurely from Heart disease and stroke.	The CCG and Public Health teams are advised to consider care pathways for heart disease and stroke prevention and treatment services, to address Havering's higher than average mortality in these areas (compared to other local authorities grouped within Public Health England (PHE) socioeconomic deprivation decile 8). Programmes with an early prevention focus, such as NHS Health Checks, can be used to target individuals in the younger quartiles of the adult age group, to reduce the burden of cardiovascular disease in the future older population. In order to deliver improved patient outcomes and cost savings, health and social care service design should consider the full patient journey to ensure that issues picked up by early screening are followed up across partnerships.
Between 2001 and 2011 there has been a 26.8% rise in one adult households with children (+1,074 households).	This change will have implications around benefit claims as well as family support services. For further commentary on the impact of this finding on service demand and commissioning please see the JSNA Children and Young People Chapter.
A larger proportion of Havering residents are Christian (66%) than in London or England (48%; 59%). Of those remaining and stating a specific religion, the next largest group was religion not stated, representing 6.7% of the total population. Beyond this, all other religious groups were quite evenly distributed; 2% Muslim, 1.2% Hindu, 0.8% Sikh, 0.3% Buddhist and 0.3% 'other religion.' People that chose not to state their religion saw a 10% decrease, however people that reported 'no religion' increased by 81%.	The Christian group is not split by Catholic and Church of England; therefore faith based school places cannot be predicted from this data. It is recommended that, where possible, local services include Catholic and Church of England fields within their religion data collection. Increased cultural sensitivity in health and social care, for example considering within the scope of the meals on wheels service the need of this population for varied dietary options (see religion). Evidence suggests that 'Cultural competency', defined as a "set of congruent behaviours, attitudes, and policies that comes together in a system, agency, or amongst professionals and enables them to work effectively in cross-cultural situations" can reduce racial and cultural health disparities. Commissioners should ensure cultural competencies are embedded within contracts with health and social care providers to tackle health inequalities. The Department of Health issued guidance in 2009 entitled 'Religion and Belief: a practical guide for the NHS'. This highlighted key issues arising from religious and spiritual need in healthcare which may also be of value for social care.

### **3** Geographical boundaries

Havering is the third largest London borough, covering some 43 square miles. It is located on the northeast boundary of Greater London. To the north and east the Borough is bordered by the Essex countryside, to the south by a three mile River Thames frontage, and to the west by the neighbouring boroughs of Redbridge and Barking & Dagenham.

The left side of **Figure 1** shows where Havering is located within the context of all 33 London boroughs; positioned north east of the river. The right side zooms in to show the location of the 18 wards within Havering.



To view the location of GP practices on a Havering map, please see the JSNA Access to Healthcare chapter (primary care section).

## 4 Changes in the Havering population

"Understanding population change is important to enable the Local Authority to best meet the needs of local residents..."

## **4.1 Population Growth**

"Between 2001 and 2011 the Havering population grew by 6% (12,984 individuals). The greatest growth has been seen in Romford Town ward."

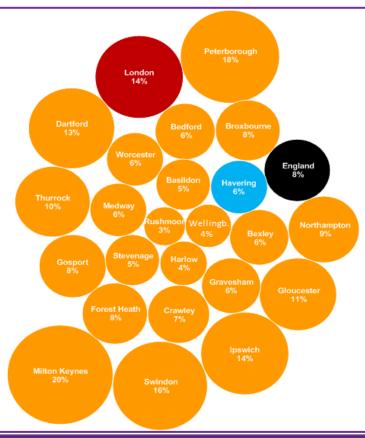
## Figure 2: Population growth from 2001 to 2011 Census, Havering compared to England, London and 2001-based ONS comparators

The population of Havering grew by 6% from 224,248 in 2001 to 237,232 in 2011. This is less than the growth in population size for England (8%) and London (14%).

**Figure 2** illustrates population growth between the 2001 to 2011 Census for Havering, England, London and Havering's 2001-based ONS comparators. The population increase within Havering's ONS comparator group ranged from 3% to 20%, with Havering ranking 17th out of 23 (in highest to lowest order) for population growth.

#### JSNA Help box:

"ONS comparators are other geographic populations most similar to Havering. The regions in the same cluster as Havering have been matched based on their similarity across 42 different variables collected at the 2001 census. This means similar areas are grouped according to their particular combination of characteristics including deprivation, ethnicity and age."



## (Spiral Chart and data table – tab 4.1a in appendix)

Area	Population in 2001	Population in 2011	Percentage Change (2001- 2011)
Milton Keynes	207,057	248,821	20%
Peterborough	156,061	183,631	18%
Swindon	180,051	209,156	16%
London	7,172,091	8,173,941	14%
Ipswich	117,069	133,384	14%
Dartford	85,911	97,365	13%
Gloucester	109,885	121,688	11%
Thurrock	143,128	157,705	10%
Northampton	194,458	212,069	9%
Gosport	76,415	82,622	8%
England	49,138,831	53,012,456	8%
Forest Heath	55,510	59,748	8%
Broxbourne	87,054	93,609	8%
Crawley	99,744	106,597	7%
Bedford	147,911	157,479	6%
Gravesham	95,717	101,720	6%
Bexley	218,307	231,997	6%
Worcester	93,353	98,768	6%
Havering	224,248	237,232	6%
Medway	249,488	263,925	6%
Basildon	165,668	174,497	5%
Stevenage	79,715	83,957	5%
Harlow	78,768	81,944	4%
Wellingborough	72,519	75,356	4%
Rushmoor	90,987	93,807	3%

## Output available from Havering Public Health Team

#### Data Source: Census 2001 and Census 2011

Methodology notes: Percentage change was worked out using the following formula: = ((Pop. 2011 - Pop. 2001)/Pop. 2001)\*100

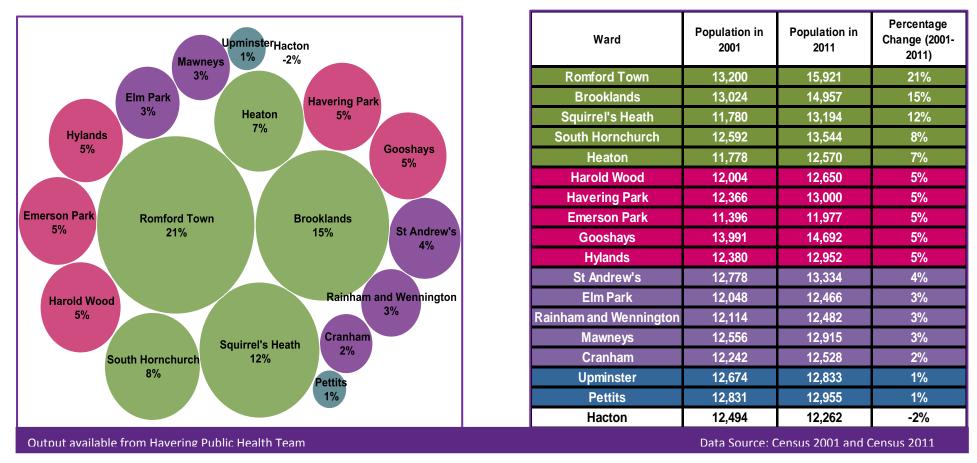


Figure 3: Population growth from 2001 to 2011 Census in Havering Wards

(Spiral chart and data table - tab 4.1a in appendix)

Figure 3 shows the population growth by ward from 2001 to 2011. The greatest population growth has occurred in **Romford Town**, which has seen an increase of nearly 2,721 (21%) between 2001 and 2011, followed by **Brooklands 1,933 (15%)**, **Squirrel's Heath 1,414 (12%)** and **South Hornchurch 952 (8%)**. The growth in Romford Town reflects new housing developments, including a large new build development of 1 and 2 bedroom flats.

### 4.2 Population size

Population estimates are the starting point to inform decisions regarding the provision of services such as education, housing, transport and health. Any overarching appraisal of need and subsequent commissioning of services will consider the change in the size of the population living locally.

#### 4.2.1 2012 Residential population estimates

Although on the Census day of 2011, the population of Havering was **237,232**, the most recent estimate from the Office of National Statistics (ONS) - ONS Mid-2012 Population Estimates - states that Havering has a population of **239,733**.

#### 4.2.2 GP registered populations

GP registers are useful sources of data because the vast majority of people living in the UK will register to access free NHS health care through a General Practice. This means that GP registrations nationally provide the fullest single data set available, nationally capturing approximately 90% of the UK population at any one time.

In April 2010, the Havering GP registered population was **254,173** (HSCIC) and at the end of July 2013 had grown by **1%** (**2,558** people) to **256,731**. This growth figure is smaller than number of 'new registrations' in the same time period (**5,132**), which represents all people that either lived in Havering already and moved GP, or were new residents; without taking into account the flow of people both in and out of the GP register, i.e. people that moved out of the area or died.

Of the **256,731** people registered with a Havering GP in July 2013, **255,575** are Havering residents and **1,156** live outside the Havering geographical boundary. The number of people registered with a Havering GP that were also residents (**255,575**) is larger than the residential population figure from the ONS Mid-2012 estimates (**239,733**) as well as the GLA Projection for 2013 (**242,800**). This suggests that GP register is not cleansed and may include people that are deceased or have moved outside of the borough. This scenario is termed 'list inflation'.

**Figure 4** overleaf illustrates that the structure of the GP registered population closely resembles the resident population. This tells us that assumptions around population growth based on the Census reported resident population are applicable to the CCG for all quinary (5-year) age groups.

For further comment on impact of projected changes on primary care services, please see the JSNA Access to Healthcare chapter (primary care section).

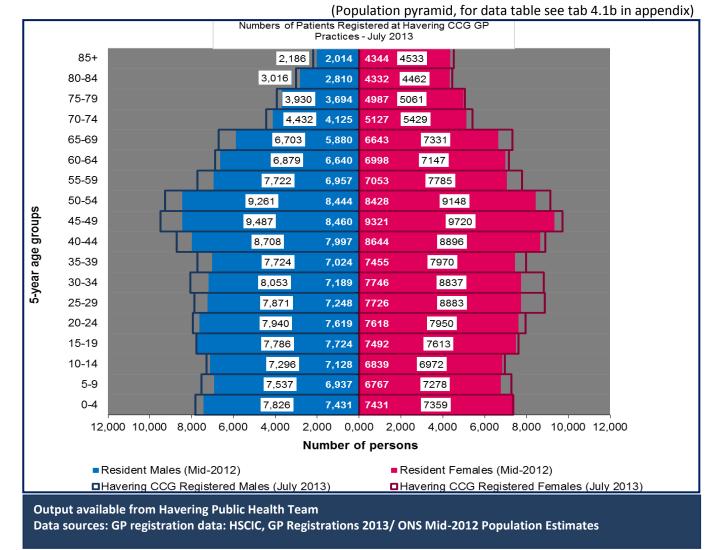


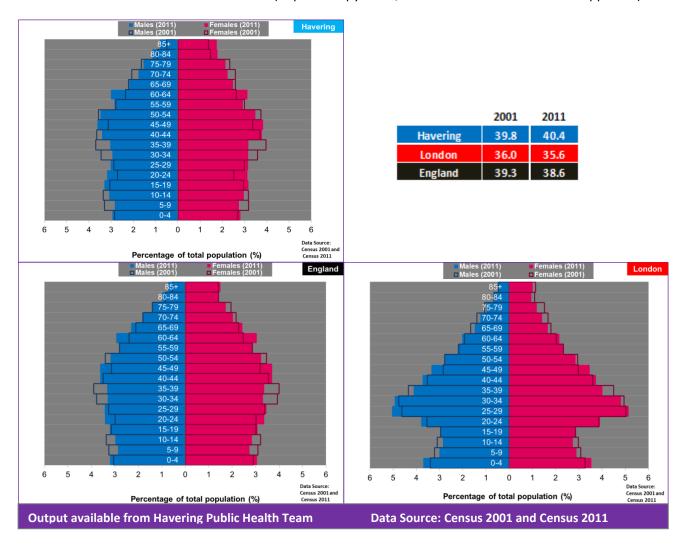
Figure 4: Population size and structure of Havering CCG registered population and Havering resident population

## 5 Havering population characteristics

### 5.1 **Population age profile**

"Havering population is continuing to age; the average age of resident in Havering has risen from 34.4 to 40.4 since the 2001 Census, which is higher than the London and England average. Growth in the 85+ age group is higher than in London or England and has seen the largest percentage increase over the ten-year period (43%). Growth in the early years age group is lower than in London and England, but this age group has seen a 10% increase, i.e. 1,246 extra infants over the ten year period; the third highest percentage increase across age groups."

## Figure 5: Resident Population age structure on Census days of 2001 and 2011, with mean age table (Population pyramid, for data tables see tab 4.1a in appendix)

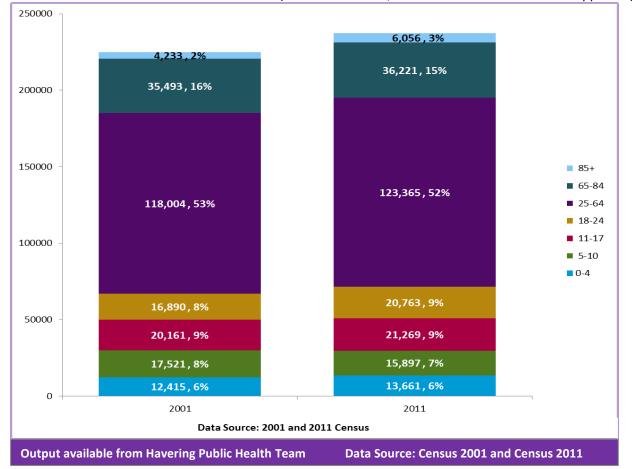


As shown in the table featured within **Figure 5**, Havering continues to have an age profile that is older than London as a whole. In 2011, the mean age of people living in Havering was 40.4 years, representing an increase of 0.6 years from 2001. The mean age of people living in Havering is 4.8 years older than people living in London (35.6) or 1.1 years older than the national average. To view the full data tables please see tab 5.1a in the appendix.

The overall Havering population distribution by age group and sex is also shown in Figure 5 (above). The bars represent the percentage of males (left) and females (right) in Havering and London for each five-year age cohort. The two largest five-year cohorts in 2001 were the 35-39 and the 30-34 age groups – these correspond to the baby boom of the 1960s. The second largest cohort is the 50-54 age

group, which corresponds to the so-called 'post war bulge'. Ten years on (2011 Census), the same cohort (baby boomers 45-50 and 50-54) still constitutes the largest proportion of the Havering population.

For further statistics about gender in Havering, including ward and age breakdowns, please see the <u>Havering Data Intelligence Hub</u>.



# Figure 6: The age composition of Havering resident population as shown in the 2001 and 2011 Census (Stacked bar chart, for data tables see tab 5.1b in appendix)

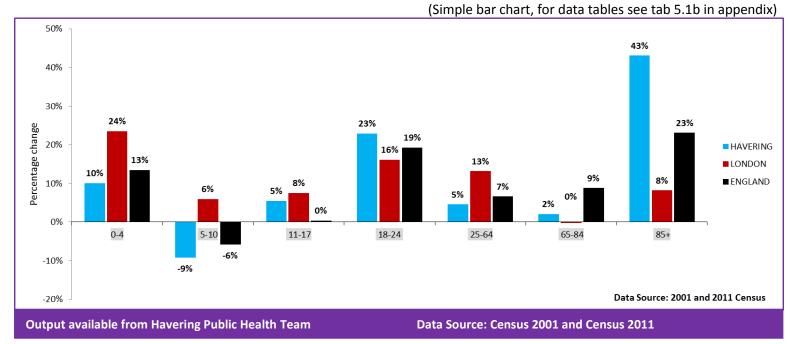
**Figure 6** presents the number of people in each age group, alongside this number expressed as a percentage of the total Havering population.

Figure 6 illustrates that:

- The number of people in each age group has increased, except in the case of the 5-10 year age group.
- The general age profile of the population has remained stable between 2001 and 2011, and the largest age group of users is still the working age population (the 25-64 year age group represented 52% of the total population in 2011).

Although the 65-84 and 84+ age groups make up a relatively small proportion of the **237,232** individuals living in Havering (**Figure 6**, previous page), **Figure 7** below shows that a significantly higher number of people in these age groups are residing in Havering compared to London and England. This group is at increased risk of contact with/ dependence on health and social care services due to complex needs relating to age related risk factors impacting on health and wellbeing. The burden of disease is higher in these age groups; it is expected that there will be an increase in the prevalence of degenerative diseases in Havering compared to London and England as a result of this demographic. The impact on services is increased demand for acute care, primary care (including medicines management), patient care services for isolated, vulnerable adults such as prescriptions delivery services and social care services including reablement.





#### Pre School Infants children (0-2 breakdowns for CCG commissioners; 0-4 for Local Authority commissioners)

- In 2001, pre-school age infants (aged 0-4 years) accounted for 5.52% (12,415) of the population. This has increased by 10% to make up 5.76% (13,661) of the population in 2011.
- The growth in this age group was smaller in Havering than that for London 24% and England 13%.

#### Primary School Age (5-10)

- The population aged 5-10 years accounted for 7.8% of the population in 2001. This saw a decline in 2011 accounting for 6.7% of the population.
- The decline in this age cohort is in line with that of England. However, there was an overall increase in London of 5.93%.

#### Secondary School Age People (11-17)

- The population aged 11-17 years accounted for 8.9% of the population in 2001. There was no proportional change in 2011.
- Although this age group accounts for the same proportion of the population, the numbers increased from 20,161 in 2001 to 21,269 in 2011.
- The increase in this age cohort is in line with that of London, but much higher than that for England.

#### Young People, including higher education students (18-24)

- The population aged 18-24 years accounted for 7.52% (16,890) of the population in 2001, but this increased to 8.75% (20,763) in 2011.
- The increase in this age cohort is in line with, but bigger than that of, both England and London.

#### Adults (25-64)

- The population aged 25-64 years accounted for 52% of the population in 2001. This slightly increased in 2011 to 52.5% of the population.
- The increase is lower than that of England and London, which experienced larger increases in this age group.

#### Older People, retirement age (64-84)

- The population aged 65-84 years accounted for 15.8% of the population in 2001. This saw a slight proportional decrease in 2011 to 15.3% of the population, but a percentage increase in numbers of 2% over the decade.
- The percentage increase in numbers in this age group is higher than that for London (which hardly changed) but lower than that of England, which experienced a larger percentage increase (9%) in this age group.

#### Adults aged over 85 (85+)

- The population aged 85+ accounted for 1.8% (4,233) of the population in 2001, and this increased to 2.55% (6,056) in 2011.
- The percentage increase over the decade in this age cohort (43%) is in line with, but much bigger than, that of both England and London.

## 5.2 Economic activity

"Havering's economic activity closely mirrors England, however Havering has a larger proportion of economically inactive retired residents. The impact of the recession on Havering residents appears to be consistent with the national situation at this time."

The economic wellbeing of an area is integral to the health of the local population. Work in general is good for health and there are significant harmful effects of long-term worklessness or sickness absence.

Approximately 71% of Havering's 'working age' (16-74) population were classified as economically active in the 2011 Census. This is similar to the national and regional picture (**Table 1**).

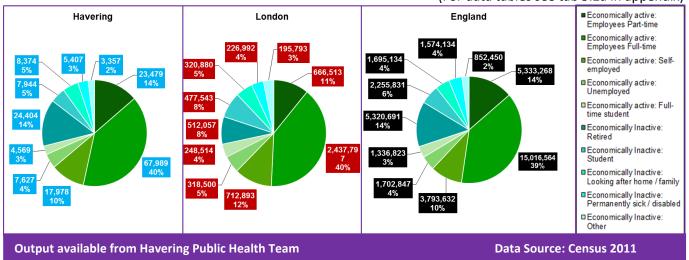
# Table 1: Number and proportion (%) of economically active and inactive persons (aged 16-74) in Havering, England and London, 2011

	-			(Data tab	le - Benchmarking)
	Economically active persons aged 16-74	Economically Inactive persons aged 16-74	All persons aged 16-74	Economically active persons age 16-74	Economically Inactive persons aged 16-74
Havering	121,642	49,486	171,128	71%	29%
London	4,384,217	1,733,265	6,117,482	72%	28%
England	27,183,134	11,698,240	38,881,374	70%	30%
				Data Source: C	ensus 2011

Havering's economic activity closely mirrors England, bar a larger proportions of economically inactive retired residents (due to Havering's comparatively older age profile). The impact of the recession on Havering residents appears to be consistent with the national situation at this time, in that it appears people may be working for longer and turning to part-time employment as an alternative to retirement (**Figure 8** - below).

## Figure 8: Proportion of economically active and inactive residents in Havering, London and England

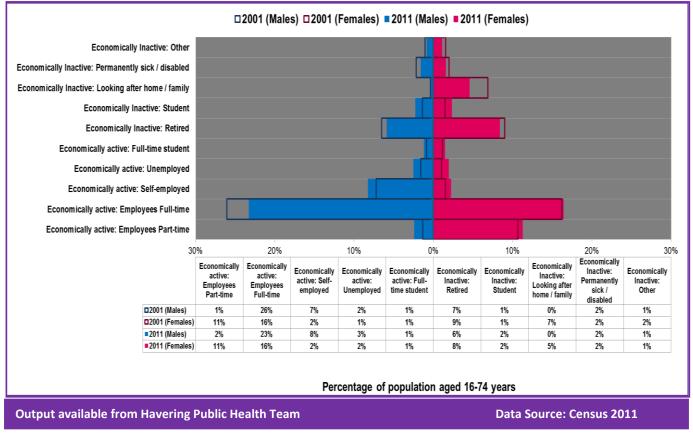
(For data tables see tab 5.2a in appendix)



Fewer females are staying home to care for the family after childbirth, and instead are switching to parttime work or self-employment. Conversely, there is no increase in the number of males staying home to care for family, suggesting families are increasingly dependent on childcare from family members or paid services (**Figure 9** – overleaf).



(For data tables see tab 5.2b in appendix)



## 5.3 Household composition

"The number of one parent households has increased by 26.8% in the last ten years"

Household composition data provides useful information about the domestic circumstances of people living in Havering. Households change rapidly according to migration, births and deaths. The 2011 Census provides the most detailed assessment of households locally. This section presents this information, along with other data sources that describe how households and family structures have changed in Havering since the 2001 Census.

Experian Mosaic intelligence can provide insight into the characteristics of people living in different areas of the Borough, including purchasing behaviours and preferred communication channels. For specific enquiries please contact the Council's Corporate Policy and Diversity team.

**Figure 10** below shows that in 2011, there were 5,079 one-adult households with children under 16 in Havering. This is an increase from 2001 when there were 4,005 lone parent households. There has also been an increase in the number of one-adult households with no children.

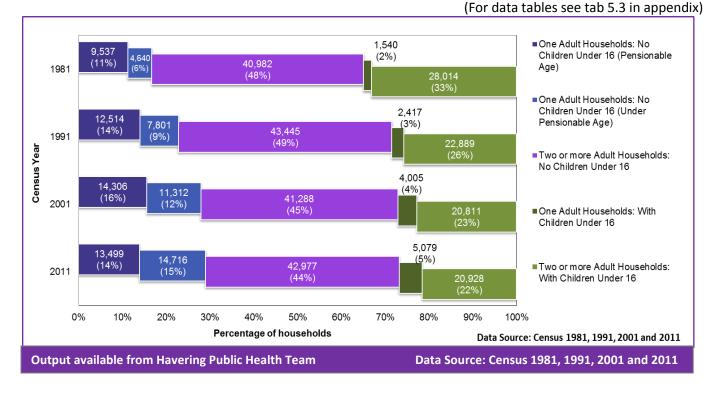


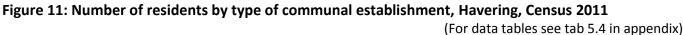
Figure 10: Distribution of household compositions in Havering by Census years

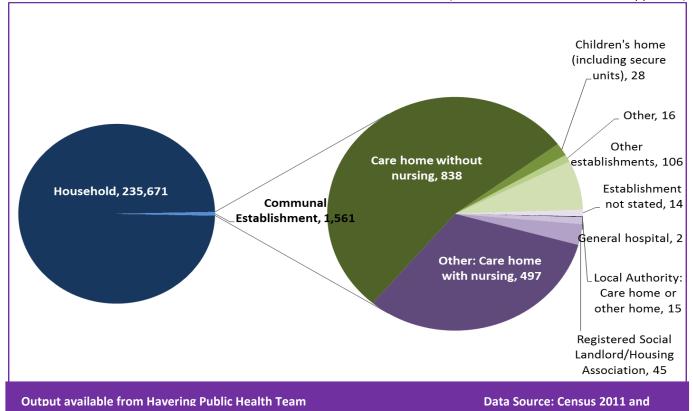
One reason for "one adult households" is parental separation, which can be challenging for both parents and children due to emotional, practical and financial pressures. Research suggests that children whose parents separate amicably do better emotionally and educationally. Therefore, where possible, increased support should be in place for parents going through separation and commissioners can consider how existing and new services can be designed and delivered to help children build emotional resilience.

## 5.4 People living in Communal Establishments

A communal establishment is an establishment providing managed residential accommodation. In this context "managed" means full-time or part-time supervision of the accommodation.

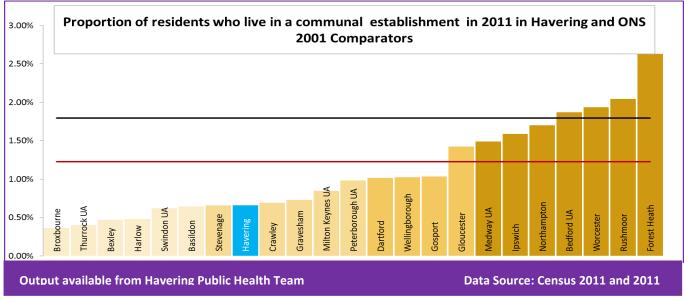
- The 2011 Census showed 235,671 (99.34%) of people living in households and 1,561 (0.66%) living in communal establishments
- Most people living in communal establishments in Havering were resident in care homes without nursing (838). The number of resident by type of communal establishment is presented in Figure 11 overleaf.





- The growth in Havering residents living in communal establishments from 2001 to 2011 was 5%, or 71 residents
- The proportion of residents living in communal establishments in Havering is lower than London, England and ONS comparators (Figure 12 below).

# Figure 12: Proportion of residents who live in a communal establishment in Havering (Census 2011), compared to ONS 2001 Comparators



(For data tables see tab 5.4 in appendix)

For further breakdowns of the number of people in communal establishments (by residential establishments vs. non-respite care, please see appendix tab 5.4).

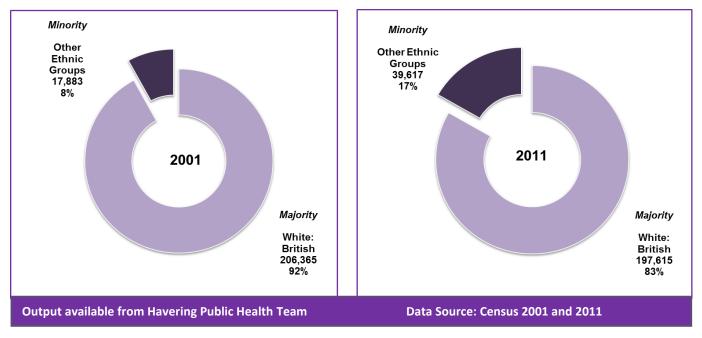
#### 5.5 Deprivation

Revised indices of deprivation will be available from January 2014, however until then please refer to pages 6-8 of the 2011/2012 JSNA demographics update which can be found here: <a href="http://www.haveringdata.net/research/jsna.htm">http://www.haveringdata.net/research/jsna.htm</a>.

#### 5.6 Diversity

"In 2011, the composition of the Havering population was 83% White British and 17% Black, Asian and Minority Ethnic (BAME) Groups. Havering is predominantly white British; within Havering's small BAME population, the largest group is Black African, which constitutes 3% of the total population."

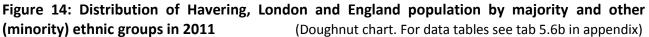
Historically, Havering's population has been one of the least ethnically diverse boroughs in London. **Figure 13** shows the change in the ethnic composition of the Havering population between the 2001 and 2011 Census. On the 2001 Census day, 92 out of every 100 people in Havering were "White British." In 2011, this has reduced to 83 out of every 100 people. This represents an increase of other ethnic groups (that are non-White British) from 8% (2001) to 17% (2011) of the Havering Population – a 9 percentage point rise in the ten-year period.

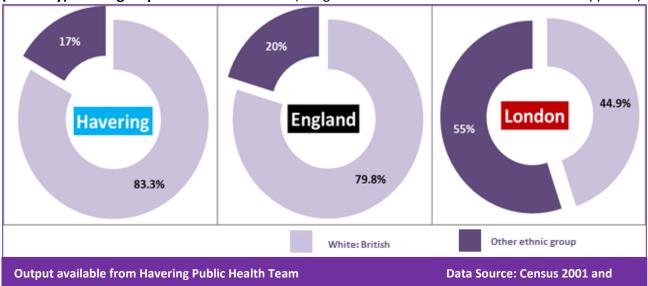


#### Figure 13: Majority and minority ethnic group populations in Havering

(Doughnut chart. For data tables see tab 5.6b in appendix)

As shown in Figure 14 below, Havering remains less ethnically diverse than London and England populations.





**Table 2** (below) and **Figure 15** (overleaf) provide a detailed breakdown of the ethnic composition of the Havering population. Asian ethnicity forms the largest minority non-White broad ethnic group in Havering (4.9%; n=11,545). This is very closely followed by Black ethnicity (4.8%; n=11,481). **Table 2** displays a breakdown of Havering's 2011 Census Population by broad ethnic group. The largest specific ethnicity categories are Black African (3.2%; n=7,581) and Other White.

Welsh/Scottish/Northern Irish/British White; Irish ite; Gypsy or Irish Traveller White; Other White hnic Groups; White and Black Caribbean	197,615 2,989 160 7,185	83.3% 1.3% 0.1%
ite; Gypsy or Irish Traveller White; Other White	160	0.1%
White; Other White		
· · · · ·	7,185	
hnic Groups; White and Black Caribbean		3.0%
	1,970	0.8%
Ethnic Groups; White and Black African	712	0.3%
Mixed/Multiple Ethnic Groups; White and Asian		0.5%
Itiple Ethnic Groups; Other Mixed	1,097	0.5%
sian/Asian British; Indian	5,017	2.1%
an/Asian British; Pakistani	1,492	0.6%
n/Asian British; Bangladeshi	975	0.4%
ian/Asian British; Chinese	1,459	0.6%
n/Asian British; Other Asian	2,602	1.1%
an/Caribbean/Black British; African	7,581	3.2%
/Caribbean/Black British; Caribbean	2,885	1.2%
	1,015	0.4%
Caribbean/Black British; Other Black	311	0.1%
,	1 012	0.4%
	/Caribbean/Black British; Other Black Other Ethnic Group; Arab	

Table 2: Breakdown of Havering's 2011 Census Population by broad ethnic group

Figure 15: Breakdown of Havering's 2011 Census Population by broad ethnic group and ranking of specific by percentage of Havering Population (For data tables see tab 5.6a in appendix)

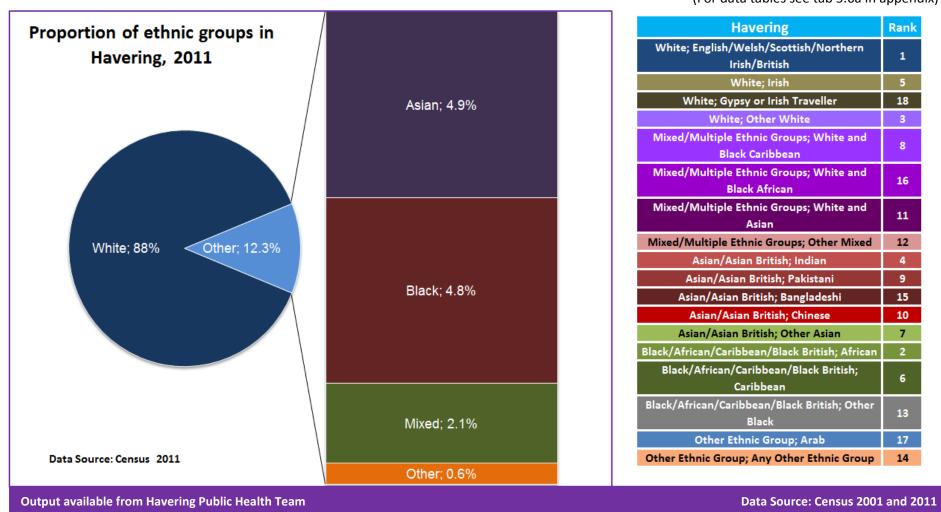
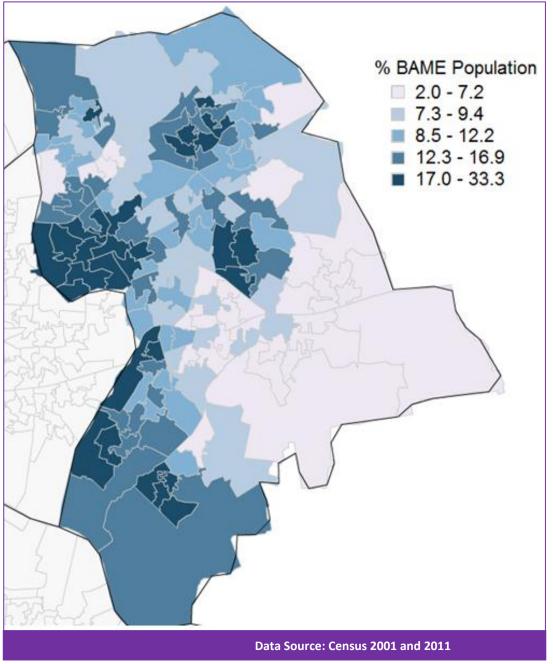


Figure 16: Percentage of population from Black, Asian and Minority Ethnic (BAME) groups in Havering, by LSOA



**Figure 16** maps the proportion of the resident population by small areas (LSOAs – Lower Super Output Areas). It indicates that the highest proportions of the Havering BAME groups live around Romford Town, Brooklands, South Hornchuch, Emerson Park, Heaton, Rainham and Wennington, and Elm Park wards.

**Figure 17** shows the change in the proportion of the population from Census 2001 to Census 2011. It can be seen that there has been a larger increase in the Asian Indian, Black African and Black Caribbean proportion of the population than London and England. These populations have increased by 0.9%, 2.6% and 0.5% respectively. The largest proportion increases in Havering form Census 2001 to Census 2011 have been in the Other White (3,519 additional) and Black African ethnic groups (6,204 additional).

#### Absolute percentage change in ethnicicties, for Havering, London and England Absolute percentage change -1% 0% 1% 2% 3% 4% 5% White: Irish New Ethnic Group in 2011 Census White; Gypsy or Irish Traveller White: Other White Mixed/Multiple Ethnic Groups; White and Black Caribbean Mixed/Multiple Ethnic Groups; White and Black African Mixed/Multiple Ethnic Groups; White and Asian Havering London Mixed/Multiple Ethnic Groups; Other Mixed England Asian/Asian British; Indian Asian/Asian British; Pakistani Asian/Asian British; Bangladeshi Asian/Asian British; Chinese Asian/Asian British; Other Asian Black/African/Caribbean/Black British; African Black/African/Caribbean/Black British; Caribbean Black/African/Caribbean/Black British; Other Black New Ethnic Group in 2011 Census Other Ethnic Group; Arab Other Ethnic Group; Any Other Ethnic Group

## Figure 17: Absolute percentage change in ethnic diversity between 2001 and 2011 for Havering, London and England

(For data tables see tab 5.6b in appendix)

Data Source: Census 2001 and 2011

**Output available from Havering Public Health Team** 

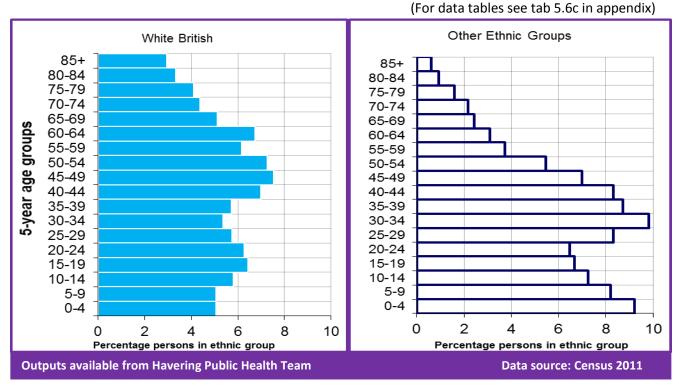


Figure 18: Age distribution of White British and Other Ethnic Groups, 2011

- The left side of Figure 18 shows the percentage of White British residents in each quinary (5 year) age group. The right side of Figure 18 shows the percentage of Other Ethnic Groups in each quinary (5 year) age group.
- The White British population has a very different age structure to the non-White British population.
- A greater proportion of the non-White British population is in the younger age groups (wider base).
- A greater proportion of the White British population are in older age groups:
- E.g. Most White British residents are in the 45-49 year age group, whereas most non-White British residents are in the 30-34 and 0-4 year quinary age groups.

## **5.7 Foreign Countries/ Continents of Birth**

"Havering has an above average concentration of UK born residents compared to other London boroughs. Non-UK born populations have a much younger age distribution than the UK born population in Havering; 49% are aged between 25 and 49 years."

In 2011, 90% of Havering residents were UK born; 10% were born outside the UK. The largest numbers of people living in Havering born outside the UK were from Ireland (2,503), India (2,301), and Nigeria (2,241). Additionally, the "Other European countries" Census group accounted for 1,636 people, followed by Lithuania (1,065) and Poland (925). These numbers represent people originating from these countries and now included in the 237,232 residents living in Havering in 2011. (**Figure 19**, overleaf).

Figure 19: Relative size map of Havering residents by Country of Birth

(For data tables see tab 5.7c in appendix)

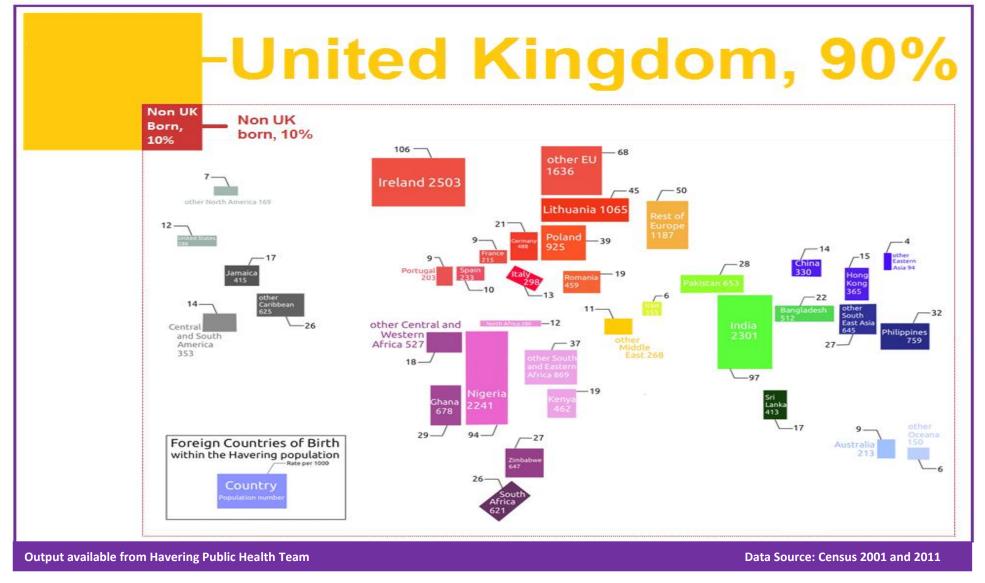
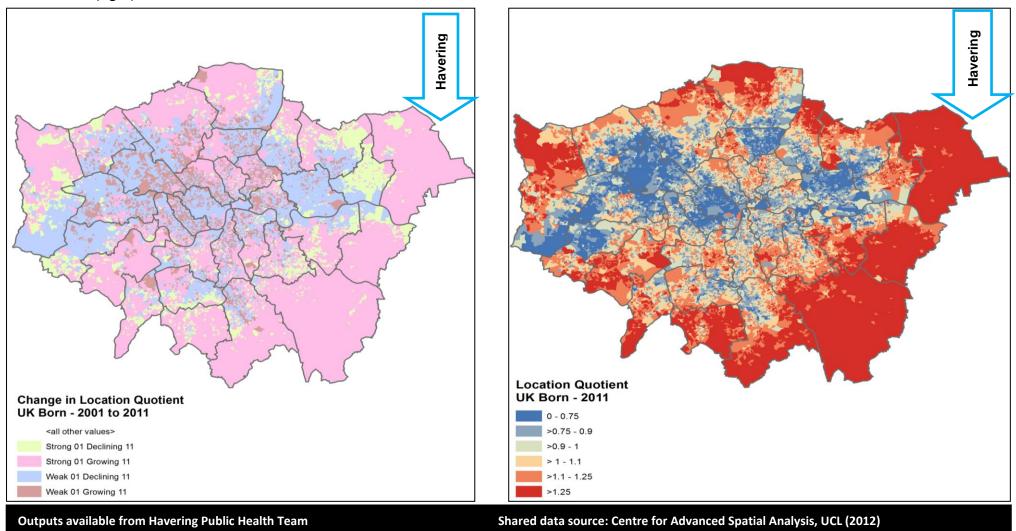


Figure 20: (a) Change from 2001 to 2011 in UK born concentration in London (left) and (b) Concentration of UK born residents by OA in London from Census 2011 (right)

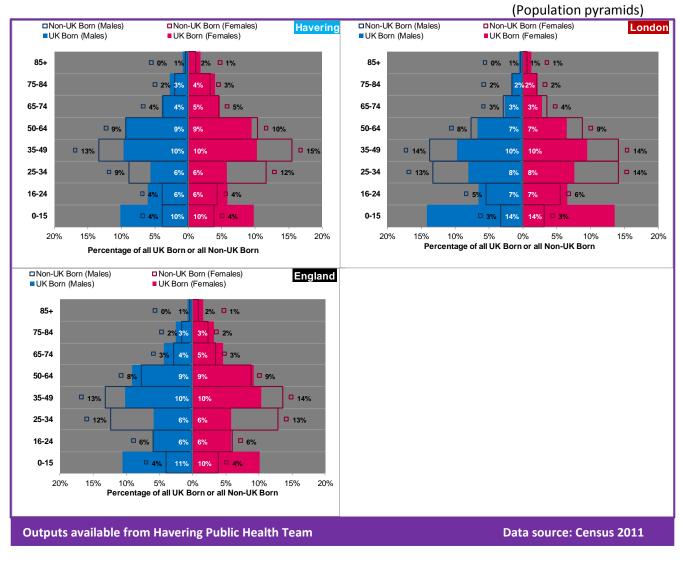


**Figure 20(a)**, above presents the change in concentration of UK born residents in London boroughs from 2001 to 2011. In Havering, unlike in many other London boroughs, the concentration of the UK born population has grown strongly over the decade.

**Figure 20(b)** (previous page, right) shows the concentration of UK born residents by output area (OA) in London on the day of the 2011 Census. Areas greater than 1 (>1) have an above-average concentration of UK born residents and areas less than 1 (<1) have below average. The map illustrates that there is a higher than average concentration of UK born people residing in Havering compared to most London boroughs, placing the immigration figures discussed elsewhere in this chapter within the context of persistent high concentration of UK born residents in Havering.

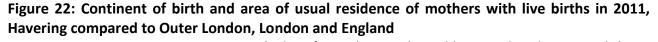
An overview from the Office of National Statistics states that "... fertility levels are on average higher among foreign born women and foreign-born and UK-born female populations of reproductive age have different age structures (for example a higher proportion of foreign-born women are aged from 25 to 34, the ages where fertility is highest)." **Figure 21** below supports this statement, showing that non-UK born populations had a much younger age distribution than UK born population across Havering, London and England in 2011. For raw data, please see tab 5.7a in the appendix.

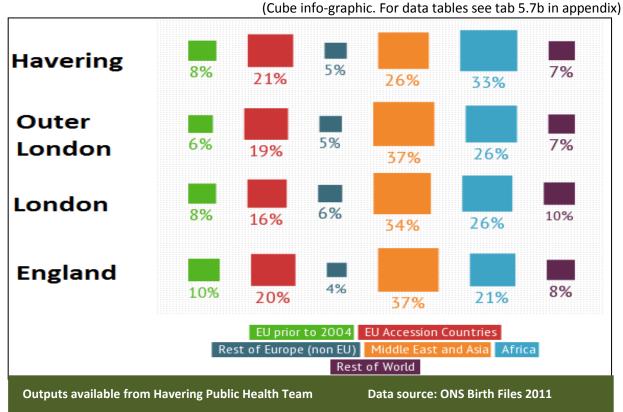




**Figure 22** shows that in 2011, around a third of mothers who gave birth in Havering (33%) were born in Africa. In comparison, around one in five mothers (21%) and one in four mothers (26%) who gave birth in 2011 in London and England respectively were born in Africa. While Outer

London's proportion of this group of mothers (26%) was the same as England's, Havering's was higher by 7 percentage points (and 12 percentage points higher than London).





#### Implications for services:

- There is a continuing and increasing need for sensitivity to cultural diversity at the service design stage, to encourage equal and equitable service access
- In order to reduce inequalities, diverse needs among the entire local population must be met. It
  is therefore important that cultural diversity is addressed in the delivery of mainstream
  services.

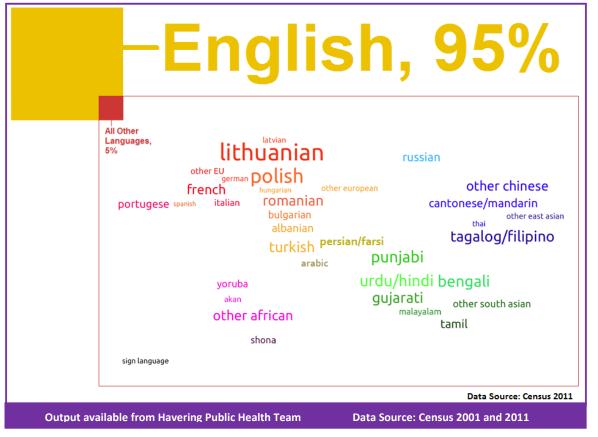
#### 5.8 Language

"English is the first language of the majority of the Havering population. The most common foreign language spoken by adults and school pupils in Havering is Lithuanian and Yoruba respectively."

**Figure 23** and **Figure 24** present 2011 Census data on foreign languages spoken in Havering. In both figures, text size directly relates to the number of people living in Havering that speak the displayed language and the colours and position relate to the continents that the language is native to. These infographics are therefore helpful in seeing, at a glance, which foreign languages are most commonly spoken in our locality and the region of the world the language is native to.

#### Figure 23: Primary foreign languages among adults in Havering

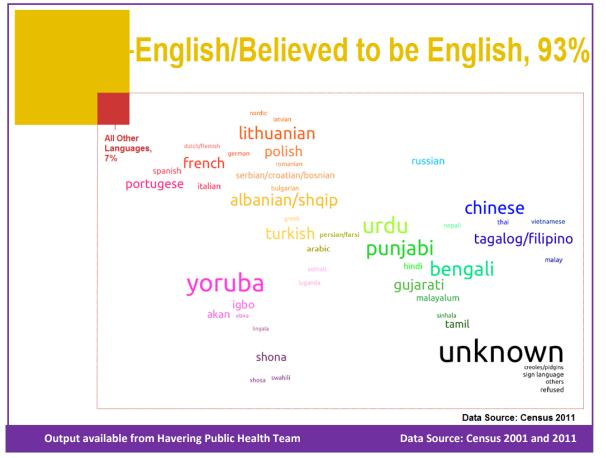
(Word cloud, For data tables see tab 5.8a in appendix)



**Figure 23** presents 2011 Census data on foreign languages spoken by adults living in Havering. This was a voluntary question; it captured a sample of 229,114 Census respondents. It shows that in Havering, 5% of the total population habitually speak a language other than English (10,469/ 229,114). Of this small sub-group, 9% (980) speak Lithuanian, and 8% (829) speak Polish. These are the two most commonly spoken foreign languages by adults in Havering. For full details, please see tab 5.8a in the appendix.

Figure 24: Foreign languages spoken by school pupils in Havering

(Word Cloud, For data tables see tab 5.8 in appendix)



**Figure 24** presents 2011 Census data on foreign languages spoken by school pupils living in Havering. This was a voluntary question; it captured a sample of 32,740 Census respondents. It shows of that in Havering, 7% of the respondents habitually speak a language other than English (2,291/ 32,740). Of this small sub-group, the standout language was Yoruba (200 children, representing 8% of the subgroup). Other languages that were more commonly spoken in this small sample were Urdu (140 children, 6% of the subgroup), Punjabi (130 children, 5% of the subgroup) and Bengali (110 children, 4% of the subgroup). For full details, please see tab 5.8b in the appendix.

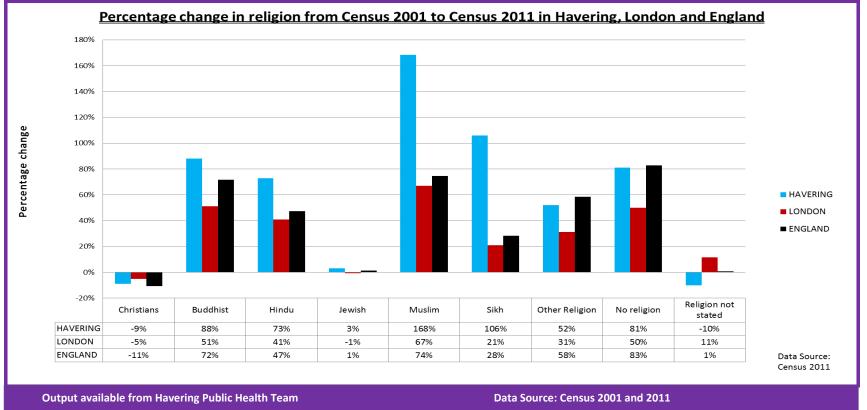
#### Implications of increasing ethnic and lingual diversity

- Increased demand for maternity services
- Increase in prevalence of diseases relating to ethnicity i.e. Black African and Indian ethnicity have higher relative risk score for: CVD, hypertension, obesity, diabetes, sickle cell. High percentage increase in the Bangladeshi population should be considered in relation to potential increase in Tuberculosis.
- Increased demand on sickle cell anaemia screening and other antenatal/ new-born screening practices.
- In order to gain a better understanding of the ethnic and cultural diversity in Havering and different specific needs, it is essential that continuous up-to-date analysis is carried out.
   Furthermore, it is vital that the changing social and income trends of these communities are monitored to support people from more diverse communities to better access and use services.
   GP data is a possible way to do this, if the recording of patient ethnicity on GP registers is vastly improved.

#### 5.9 Religion

"There has been a large absolute percentage increase in the number of people in Havering stating "no religion" between the 2001 and 2011 Census (above London but below England).





(Simple bar chart, For data tables see tab 5.9a in appendix)

As shown above in **Figure 25** (above), the largest changes in the religious profile of the residential population in Havering between 2001 and 2011 has been a decrease in people stating "Christianity" as their religion, and an increase in respondents stating "no religion." Despite these changes, **Figure 26** (overleaf) shows that Christianity is still the predominant religion in Havering (155,597 individuals - 66% of the resident population) and the "no religion" group accounts for 23% of the residential population (53,549).

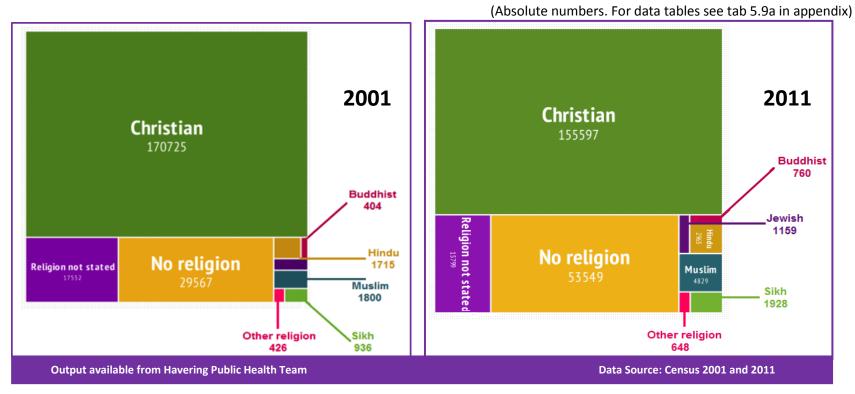


Figure 26: Number of people of each religion living in Havering as captured by the 2001 and 2011 Census

Please note: Unlike other Census questions where missing answers are imputed, this question was voluntary, and where no answer was provided the response is categorised as 'Not stated'.

For more information on the distribution of religion in Havering compared to London and England, please see tab 5.9b in the appendix.

#### Implications of increasing religious diversity

- The Christian group is not split by Catholic and Church of England therefore faith based school places cannot be predicted from this data. Data collection recommendation: Local services to include Catholic and Church of England fields within their religion data collection.
- The Department of Health issued helpful guidance in 2009 entitled "Religion and Belief: A practical guide for the NHS." This highlighted key issues
  arising from religious and spiritual need in healthcare (which may also be of value for social care commissioning).

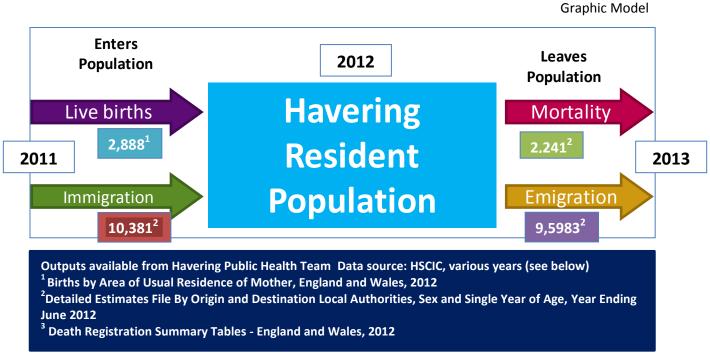
#### 6 Components of population change

"The birth rate has steadily increased since 2002.

The death rate has been steady when compared to Local Authorities with similar deprivation scores. Havering ranks among the best in mortality rates for all-cause mortality.

Therefore there is a high natural increase in population size (population growth)"

Population sizes are dynamic; at any given time the size of the population will not be the same. In this section, the components of population change are explored, including how these have changed with time and what can be expected in the future given current trends. **Figure 27** presents the population change (and the components of change) in Havering in 2012.



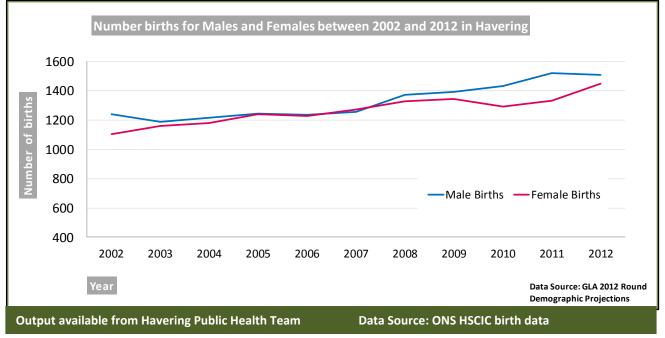
#### Figure 27: Components of population change in Havering in 2012

#### 6.1 Births

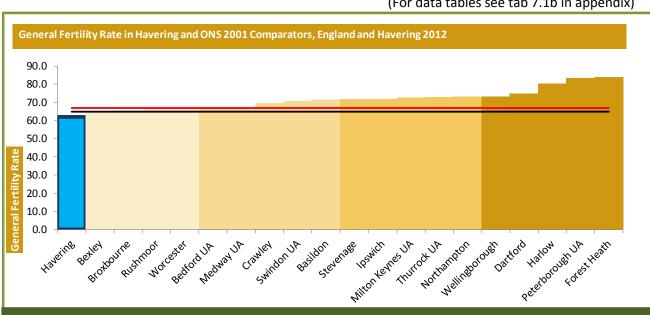
"There has been a 26% increase in the number of births per year in Havering from 2002 to 2012), and this is forecast to continue to increase"

In 2012, there were 2,888 live births to mothers residing in Havering. There has been a 26% increase in the number of births per year in Havering from 2002 (n=2,345) to 2012 (n=2,888). **Figure 28** overleaf graphically illustrates the trends in numbers of live births between 2002 and 2012.





The General fertility rate (GFR) - the number of live births per 1,000 women aged 15–44 - is lower in comparison to London, England, and ONS comparators (**Figure 29**). However, the GFR for Havering has been increasing at a greater rate than England and London, as shown in **Figure 30**.



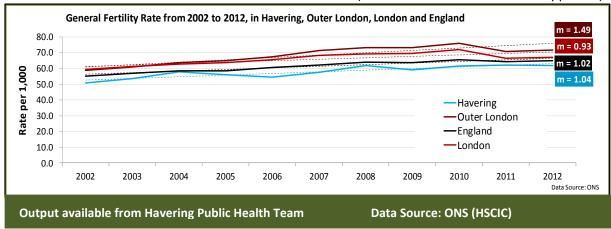
**Output available from Havering Public Health Team** 

Figure 29: General Fertility Rate 2012 Havering, 2001 ONS comparators, England and Havering (For data tables see tab 7.1b in appendix)

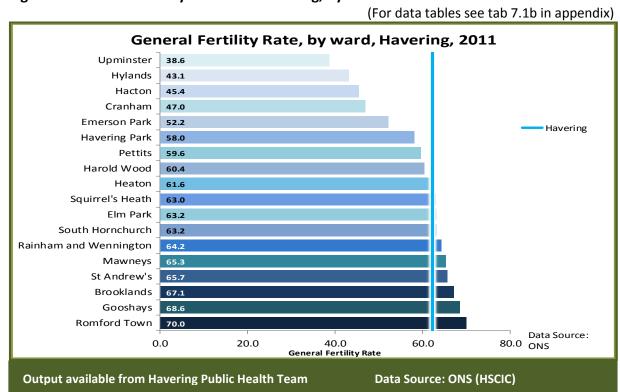
Data source: ONS (HSCIC)

# Figure 30: Trend in General Fertility Rate 2002-2012 Havering, 2001 ONS comparators, England and Havering





Furthermore, **Figure 31** shows that there is variation in GFR across wards in Havering. Upminster has the lowest fertility rate and Romford has the highest fertility rate. This is due to the demographic makeup of these areas - Upminster has an older age profile whilst Romford has a larger number of young adults of child bearing age. The impact on services is that there will be variation in demand for maternity services across the borough.

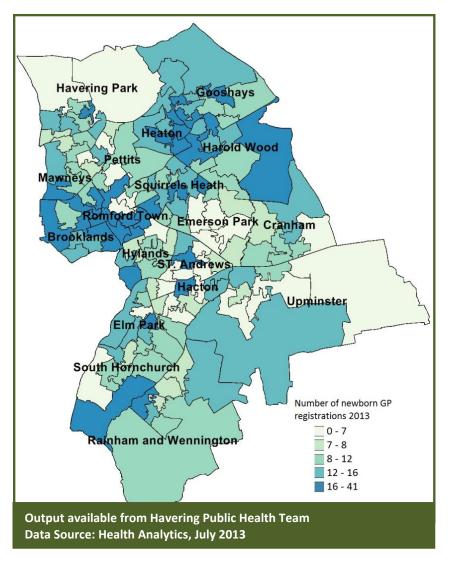


# Figure 31: General Fertility Rate 2011 Havering, by Ward

# Figure 32: New GP registrations for 0 year olds in 2013 (as at end of July 2013), by LSOA

**Figure 32** shows new GP registrations for 0 year olds (newborns) mapped, indicating LSOAs where higher numbers of births are occurring. It shows that most registrations for new-borns are occurring in Romford Town, Harold Wood, Heaton, Gooshays and South Hornchurch.

While it is useful to see where the greatest numbers of children are being born at a single point in time, tracking changes over time will help with planning of provision for children, including geographical location of facilities.



# Implications of a rise in birth rate

#### Immediate implications:

- Health service planning including the provision of Health Visiting
- Local Authority and schools
- Effective children's centre placement
- Expected increase in Accident and Emergency admissions

#### Later implications:

Primary School provision in four to five years' time

# 6.2 Migration

Migrants are described as people who belong to (or have an allegiance) to one place/state/country, but move into another for the purpose of settlement. For the purposes of this report, migration has been split into internal and international migration.

Internal migration is migration into Havering from a place of usual residence elsewhere in the UK (including Wales, Scotland and Northern Ireland). International migration is migration into Havering from a place of usual residence outside of the UK.

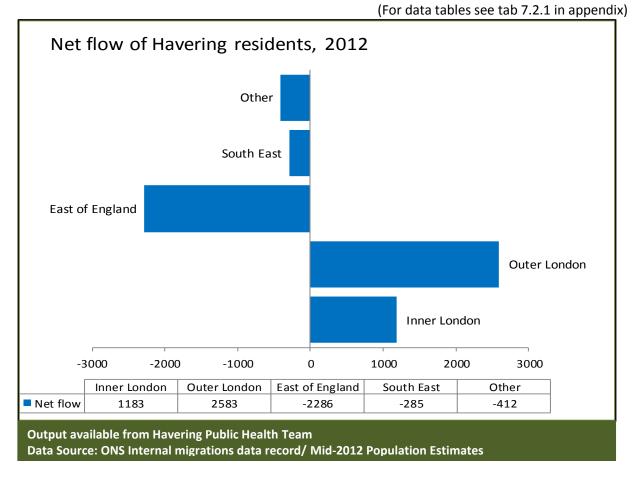
#### 6.2.1 Internal Migration

"Only the child bearing and working age groups (18-24 and 25-64) and hence, the group of infants and children up to 10 years contribute to the net inflow of people registering with a GP in Havering."

In 2012, according to transfer of GP records, approximately 10,381 people moved into Havering from elsewhere within the UK and 9,598 people moved out of Havering to elsewhere within the UK. In total, there was an increase in the Havering resident population due to the net internal migration of 783 people.

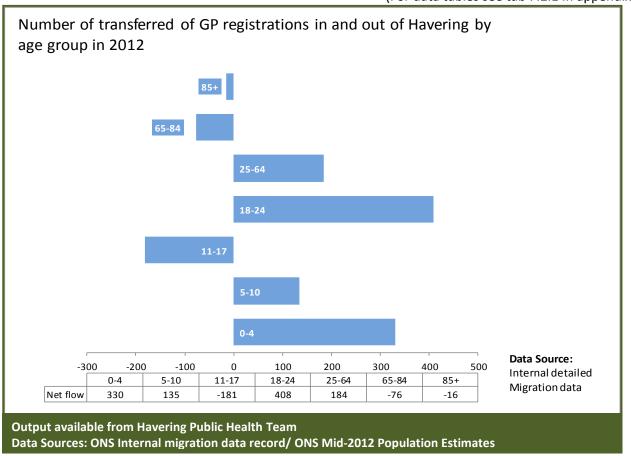
**Figure 33** presents the net flow of migration into Havering by region. Havering is subject to urban migration from other Outer London boroughs as well as some migration from Inner London. The biggest outflow from Havering is to the East of England and South East. This is may be partly explained by people leaving the Borough to an area with cheaper housing whilst maintaining good transport links to London for work purposes.





Therefore, it is not surprising that the biggest inflow to Havering (mostly from London) is in the young and working age (18-64) group (see **Figure 34**). This group are likely to be child bearing or have children already. Therefore, of significance to the net inflow is the infants and the primary school age children group (0-10).

#### Figure 34: Number of GP registration transfers in and out of Havering by age group in 2012 (For data tables see tab 7.2.1 in appendix)



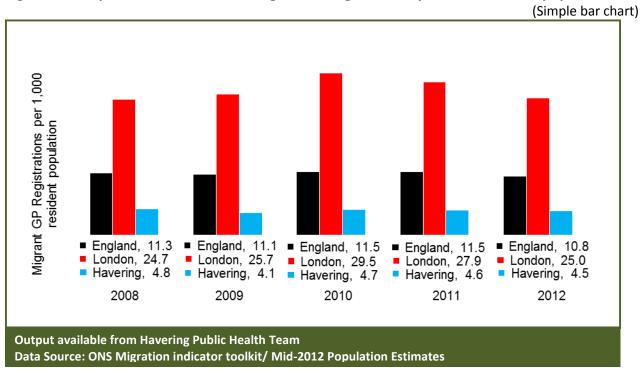
# 6.2.2 International Migration

"Migration of people from countries outside of the UK into Havering has remained stable between 2008 and 2012 and Havering's international migration rate remains lower than its statistical neighbours, London and England."

GP registration 'Flag 4', a code for migrants, indicates a person that was previously living overseas has recently registered with a GP in England and Wales. Only persons resident (as well as registered with a GP) are included. This data suggests that in 2012, there were 1,099 GP registrations of people from outside the UK. It should be noted that this data does not capture people leaving the UK and is therefore likely to be an over-estimate.

**Figure 35** overleaf shows the trend number of 'flags' per 1,000 residents, for England, London and Havering. Migration of people from countries outside of the UK into Havering has remained stable between 2008 and 2012 and Havering's international migration rate remains lower than London and England.

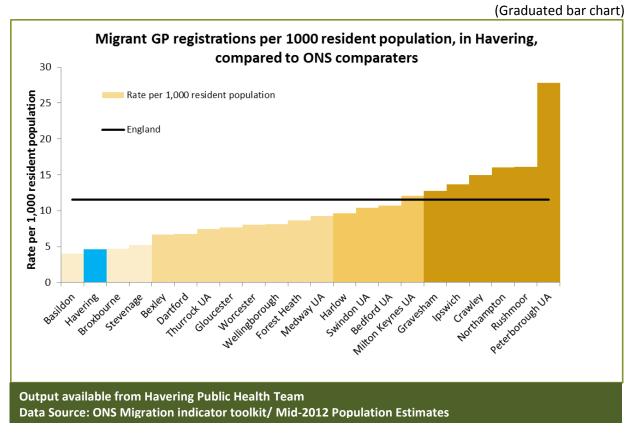
Furthermore, **Figure 36** shows that Havering's migrant GP registrations rate is in the lowest quartile of ONS statistical neighbours.





Data tables for both Figure 35 and Figure 36 are available in tab 7.2.2 of appendix.

Figure 36: Migrant GP registrations per 1,000 resident population Havering and 2001 based ONS comparators



#### Implications of migration

- International migrant populations are diverse, and many have social, cultural and health needs. Migration can be driven by a variety of factors, including family reunion, study, economic or humanitarian reasons. As a consequence, migrants may have diverse and complex health and social care needs.
- Migrants may be more likely to move into areas of existing deprivation within the Borough due to low housing costs and may be affected by deprivation related to wider determinants of health, including poor housing and lower economic opportunities. The health and wellbeing needs of this population may also vary due to:
  - a. Cultural practices impacting on lifestyle risk factors, for example health risks from diets high in saturated fats (routine use of ghee, a clarified butter product used in South Asian cuisine) or higher use of tobacco products in Asian populations
  - b. Health risk factors, for example: varied immunisation schedules for people from different countries of origin, or ethnicity specific health risks (higher and lower relative risk ratios).

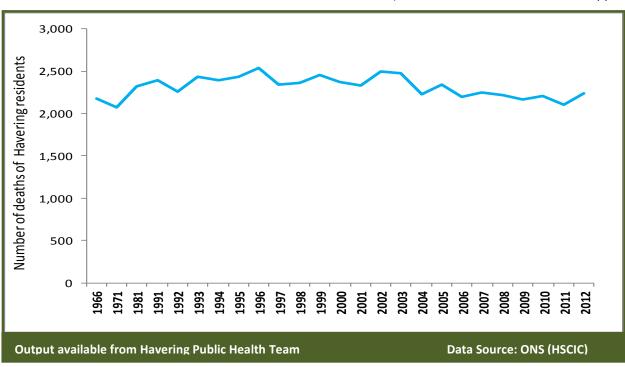
#### 6.2.3 Mortality

"More people in Havering than in England and statistically similar local authorities die prematurely from Heart disease and stroke."

There were 2,241 deaths of Havering residents in 2012. The absolute number of deaths has remained fairly constant over time (**Figure 37**) despite an increase in the size and age of the population. Further details into the causes of deaths can be found in the JSNA Access to Healthcare chapter.



(For data tables see tab 7.2.3a in appendix)

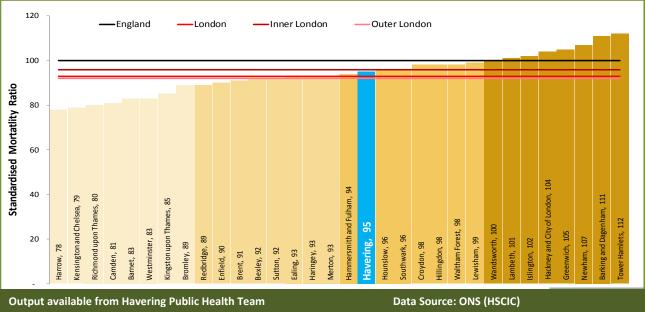


#### JSNA Help box

The Standardised Mortality Ratio (SMR) is quoted as a percentage. If it is equal to 100, this means the number of observed deaths equals that of expected in the national population. If higher than 100, then there are a higher number of higher deaths than expected e.g. 105 means 5 additional deaths per 100 deaths. If lower than 100, then there are fewer deaths than expected e.g. 95 means 5 fewer deaths per 100 deaths.

Age/sex standardisation is a statistical technique, which allows us to compare areas that have different population structures against the same measure. The indirectly age/sex standardised mortality ratio in Havering (95) is lower than the national average and in comparison, both London and Outer London regions are also below the national average (see **Figure 38**).





(Graduated bar. For data tables see tab 7.2.3b in appendix)

Life expectancy data tables and outputs are available in tab 7.2.4a and 7.2.4b in the appendix.

#### **Projections** 7

"In the next ten years it is anticipated that increases in the 0-4 BAME group will drive demand for culturally sensitive maternity and early years children's services, plus health services for ethnicity specific risk factors in new-borns."

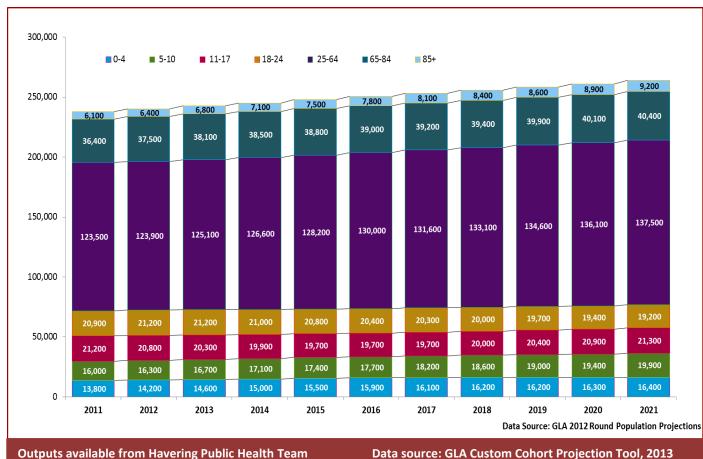


Figure 39: Future projections of the age composition of the GLA estimated Havering population, from 2011-2021 (Stacked bar chart. For data tables see tab 6.0a in appendix)

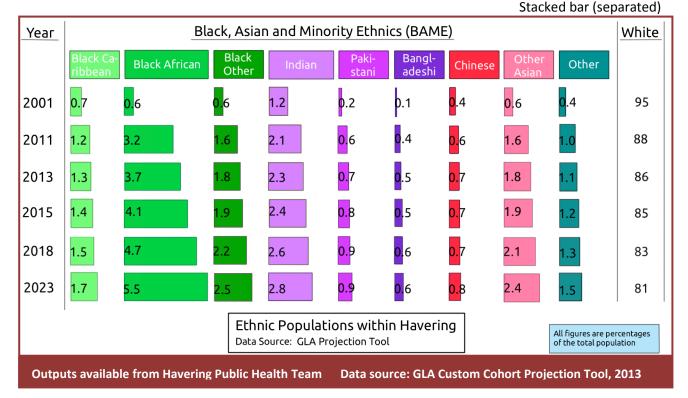
Figure 39 presents the projected number of people in each age group up to 2021. It shows:

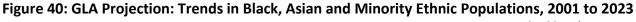
The GLA projection tool models the population size for each age group based on trend data (the assumption is that the proportion of people in each age group remains relatively stable over the next ten years). On this basis the working age population (the 25-64 years age group, which represented 52% of the total population in 2011) will remain the largest age group up to 2021.

Figure 40 (overleaf) presents projections that suggest the BAME population will grow and provide increasing diversity of the population in Havering in the coming years.

Data source: GLA Custom Cohort Projection Tool, 2013

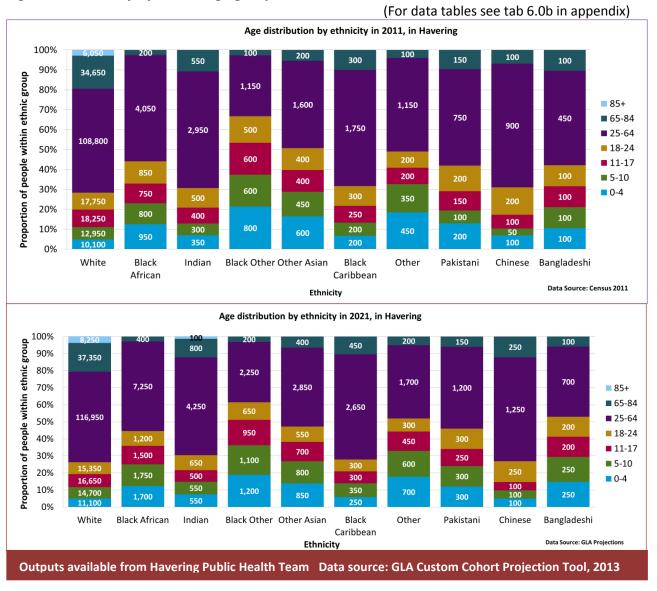
It should be noted that the ethnicity groupings available within the GLA projection tool (which is the source of the ethnicity forecasts discussed here) vary from the Census groupings. Census data splits the White ethnicity group into four categories (White British; White Irish; White Gypsy or Irish Traveller; and White Other) while the GLA projection data groups all the White ethnicities as a single category. The implication for this projection is that the BAME growth will be underrepresented because any growth in White minority ethnic groups (that is, the "White Gypsy and Irish Travellers" and non-British Whites) will be included in the "White" rather than the "BAME" category.





**Figure 40** suggests that in five and ten years (2018 and 2023) in Havering, the White ethnic category will remain the majority ethnic group, representing 83% and 81% respectively. In the next ten years, the emerging groups within the small Havering BAME community will be the Black African, Indian, Black Other, and Other Asian ethnic groups. Havering's BAME community is much smaller than London's; each of these groups will still account for less than 3 in every 100 people in Havering by 2023 – except the Black African group which is forecast to be almost 6 in every 100 people by 2023.

**45 |** Page



# Figure 41: Ethnicity by service age group

Although the BAME community is relatively small in Havering, it is important for commissioners to take into account that this population has a younger age distribution than the majority ethnic (White British) group.

**Figure 41** shows future projections of the variation in age distribution across different ethnic groups, i.e. a continued trend of larger numbers of light blue (0-4), green (5-10) and red (11-17) age categories across minority ethnic groups. The impact of this is that different ethnic groups may have different service needs, for example, other ethnic groups may access more childrens council services rather than adult services. Because the BAME population is younger, increases in diversity canhelp to rebalance the relatively large proportion of older people in the Havering population, which over time may benefit the local health economy.

Further statistics about ethnicity in Havering's wards can be found on <u>Havering Data Intelligence</u> <u>Hub.</u>

# 8 Further information and references

# 8.1 Further information

For further figures about demographics in Havering, please visit the <u>Havering Data</u> <u>Intelligence Hub.</u>

# 8.2 References

- Census (2001, 2011). Available internally through SASPAC or online here: http://www.ons.gov.uk/ons/guidemethod/Census/2011/index.html?utm\_source=LCRN+News+Service&utm\_campaign=2da3b f9763-LCRN\_Resource\_eNews\_Volume\_2\_Issue\_42\_10\_2011&utm\_medium=email (Accessed September 2013).
- Mid-year 2012 population estimates, Office of National Statistics (2012). Available online at: http://www.ons.gov.uk/ons/rel/pop-estimate/population-estimates-for-england-andwales/mid-2012/mid-2012-population-estimates-for-england-and-wales.html (Accessed August 2013).
- 3. GP Registrations (2013), Health and Social Care Information Centre. Available online here: http://www.hscic.gov.uk/catalogue/PUB11818 (Accessed December 2013).
- 4. Centre for Advanced Spatial Analysis, UCL (2012). Available on request from UCL.
- 5. Childbearing Among UK Born and Non-UK Born Women Living in the UK (2012). Zumpe J, Dormon O, and Jefferies J (2012), Office of National Statistics, Released 25<sup>th</sup> October 2012.
- 6. Births by Area of Usual Residence of Mother, England and Wales (2012). Available online here: http://www.ons.gov.uk/ons/rel/vsob1/births-by-area-of-usual-residence-of-mother--england-and-wales/2012/index.html (Accessed December 2013).
- Detailed Estimates File By Origin and Destination Local Authorities, Sex and Single Year of Age, Year Ending June 2012 (2012). Available online here: http://www.ons.gov.uk/ons/rel/migration1/internal-migration-by-local-authorities-inengland-and-wales/detailed-estimates-files/index.html (Accessed December 2013).
- 8. Death Registration Summary Tables England and Wales (2012). Available online here: http://www.ons.gov.uk/ons/rel/vsob1/death-reg-sum-tables/2012/index.html (Accessed December 2013).
- 9. Greater London Authority Custom Age Tool for GLA Population Projections (2013) http://data.london.gov.uk/datastore/applications/custom-age-tool-gla-populationprojections-ward (Accessed July 2013).
- Havering JSNA Demographics Update (2011). Available online at: http://www.haveringdata.net/research/jsna.htm (Accessed September 2013).