Imperial's place in society: the local population

Society and Health, Foundations of Clinical Practice

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Learning outcomes

- To be familiar with basic information about the local population
- To describe the profile and diversity of West London
- To describe the broad variation in health outcomes in the local population
- To recognise the major ways of categorising the local population

Where does Imperial fit in the world?

- One of the top Universities
  - 3rd in Europe and 5th in the world for clinical and health
  - 1st in Europe and 6th in the world for research
  - In 2008 Research Assessment exercise Imperial had highest proportion of world-leading and internationally excellent research
- ~14000 students from 126 countries
- 6750 employees
- Science, engineering, medicine, business
- Significant income from industry

Faculty of Medicine

- Established in 1997
- Links to several hospitals and NHS trusts
- Formal partnership of the Academic Health Science Centre
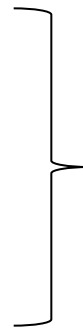
Imperial Academic Health Science Centre

ICHT is the largest NHS trust in the UK

Respect our patients and colleagues
Encourage **innovation** in all that we do
Provide the highest quality **care**
Work together for the **achievement** of outstanding results
Take **pride** in our success

Imperial College campuses

- Central Middlesex Hospital
- Chelsea and Westminster
- Northwick Park
- Royal Brompton
- Charing Cross
- Hammersmith
- St Mary's

Part of ICHT

Who does Imperial serve?*

- Local population
- "Inner North West London", a merger of 3 local primary care trusts (PCTs)
  - Westminster
  - Kensington and Chelsea
  - Hammersmith and Fulham
- Plus referrals from rest of NW London, Central London and beyond

*mainly talking about Imperial College Healthcare Trust

Inner North West London
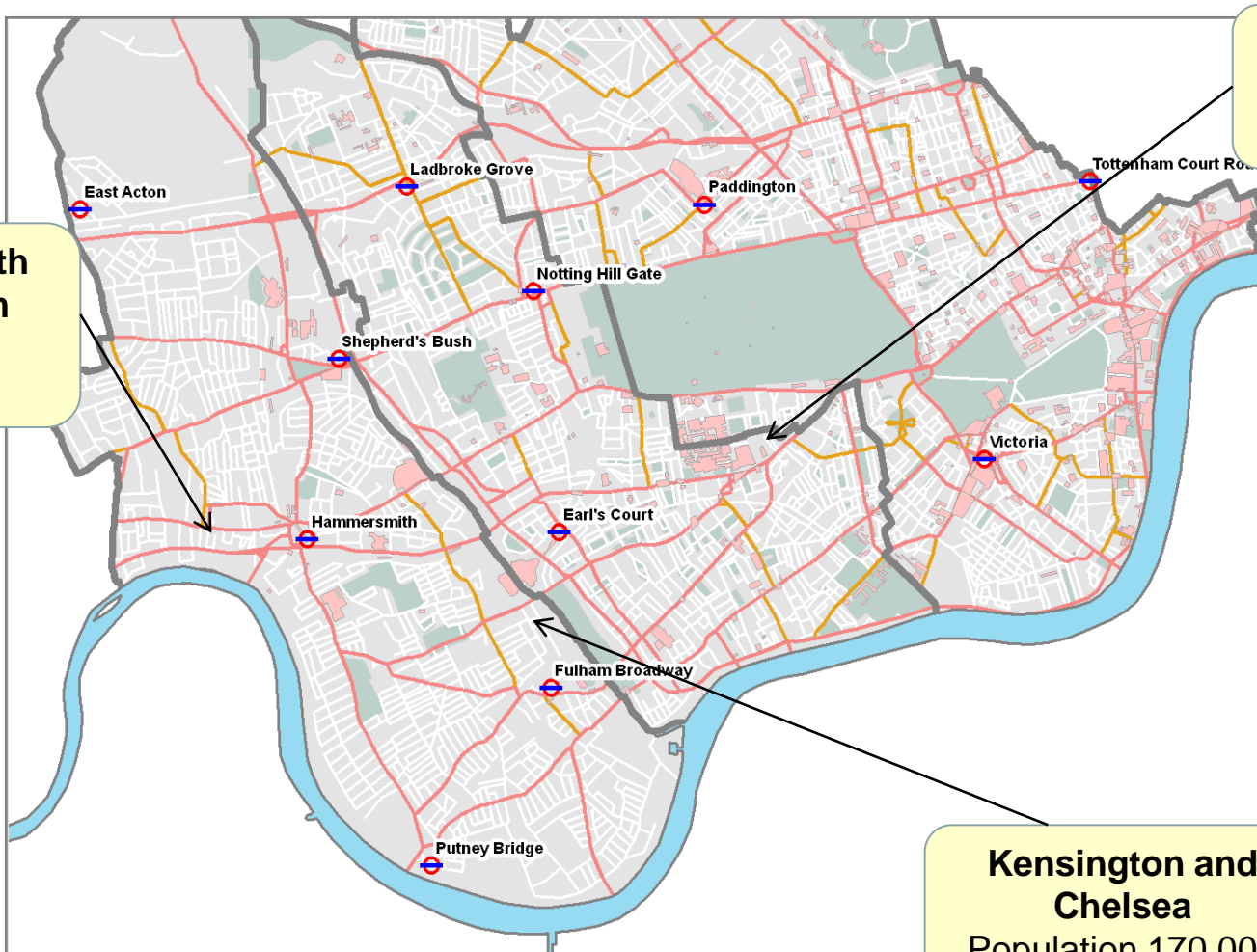
Westminster
Population
250,000

Hammersmith and Fulham
Population
170,000

Kensington and Chelsea
Population 170,000

East Acton

Ladbroke Grove

Paddington

Tottenham Court Road

Notting Hill Gate

Shepherd's Bush

Victoria

Hammersmith

Earl's Court

Fulham Broadway

Putney Bridge

Discuss and write down four key features of the local population

- Young
- Unequal
  - Very wealthy
  - Very poor
- Diverse
  - Ethnicity
  - Country of birth
- Mobile

Inner NW London

- Densely populated ~ 590,000 people* in 19 square miles

- Huge variation in wealth and cultural background

- Significant daytime population of workers and tourists, particularly Westminster

*mid-2009 population estimates

- **Young**
- Unequal
  - Very wealthy
  - Very poor
- Diverse
  - Ethnicity
  - Country of birth
- Mobile

Age structure (Westminster)

Population Profile of Westminster compared to England - MYE 2010
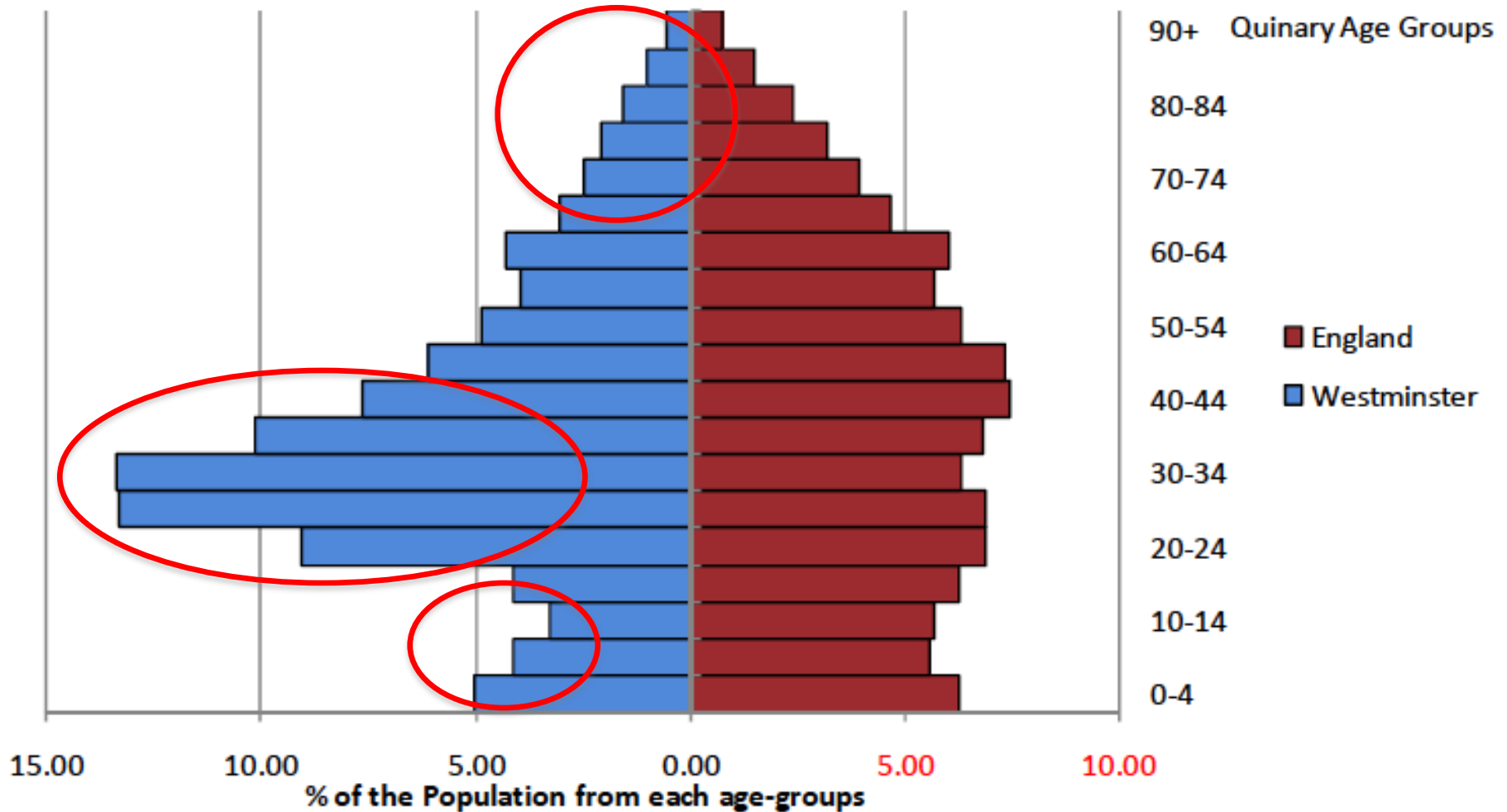
Age structure (Hammersmith and Fulham)

- High proportion of young adults
  - 45% of population aged 20 – 39
- People living alone
  - 42% of households single adults
  - 48% of older people live alone
  - 10% of households are lone parent families
- Implications for health
  - high burden of mental illness, alcohol and drug misuse
  - People do not have informal care available

Local population growing quickly

Figure 26: Mid Year Population Estimates for Westminster, 2001-2010

Population MYEs (2001-2010)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Mid Year Estimates	203,329	210,715	216,437	222,910	234,162	240,113	243,665	246,614	249,430	253,113

Source: ONS, 2011
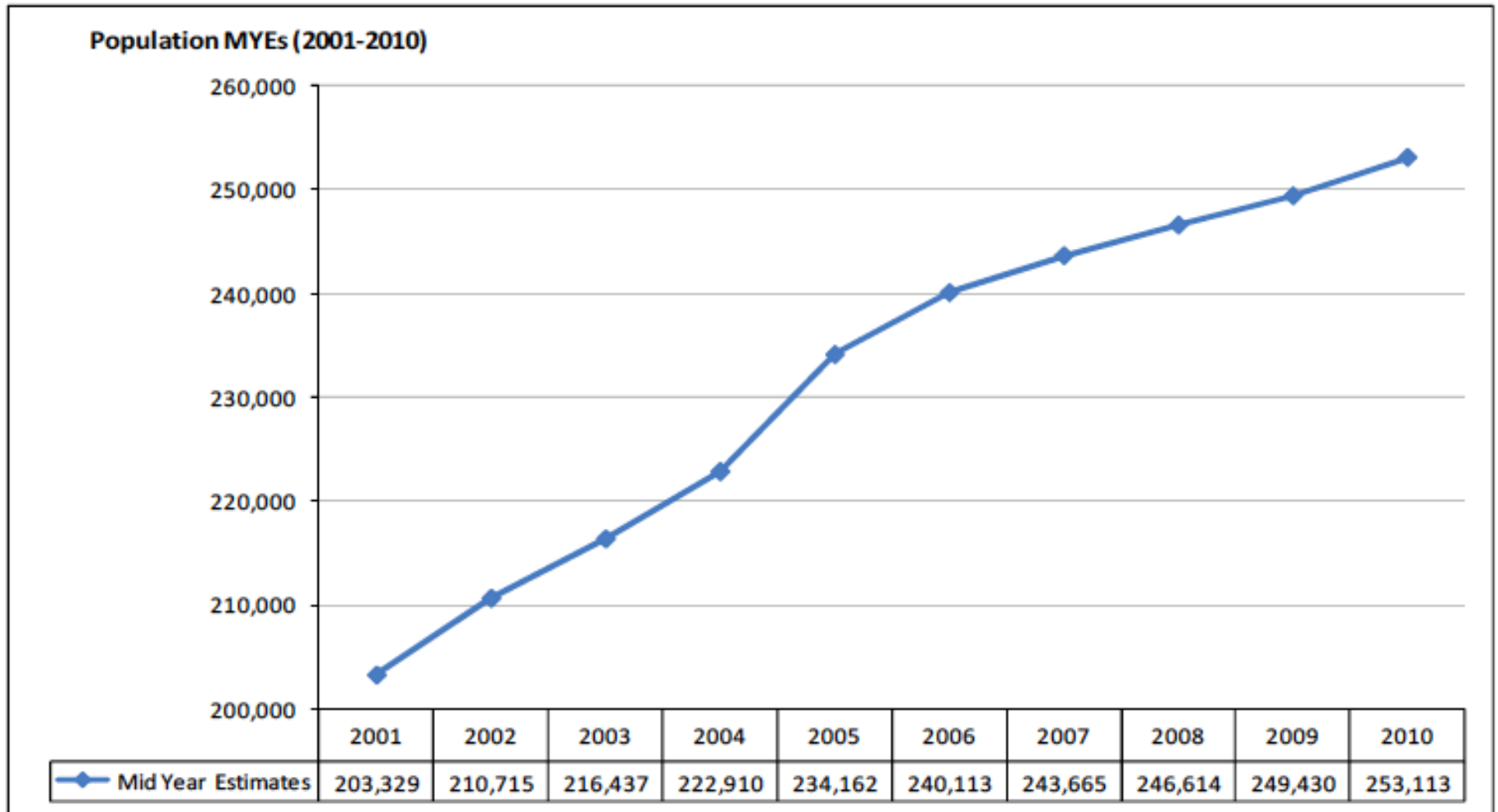
- Young
- Unequal
  - Very wealthy
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Inequalities

- High median full time income
  - £46,000 pa (Westminster and K&C) – highest in UK)
  - £26,000 nationally
- Average house price £750,000 K&C
- BUT
- Parts of the local areas are among the most deprived in the country
- 48% of children live in poverty (Westminster)

Segmentation

- Two largest population groups in (H&F):
  - "Prosperous, mobile, single young professionals"
  - "Deprived families in social housing"

Source: Mosaic Customer Segmentation, JSNA H&F 2011

Household income, 2010 (Westminster)

Median Household Income by Lower Super Output Area

Median Household Income (£)
Source: CACI data 2010

- £21,222 - £28,671
- £28,672 - £35,417
- £35,418 - £40,635
- £40,636 - £46,951
- £46,952 - £57,841

— Westminster Boundary
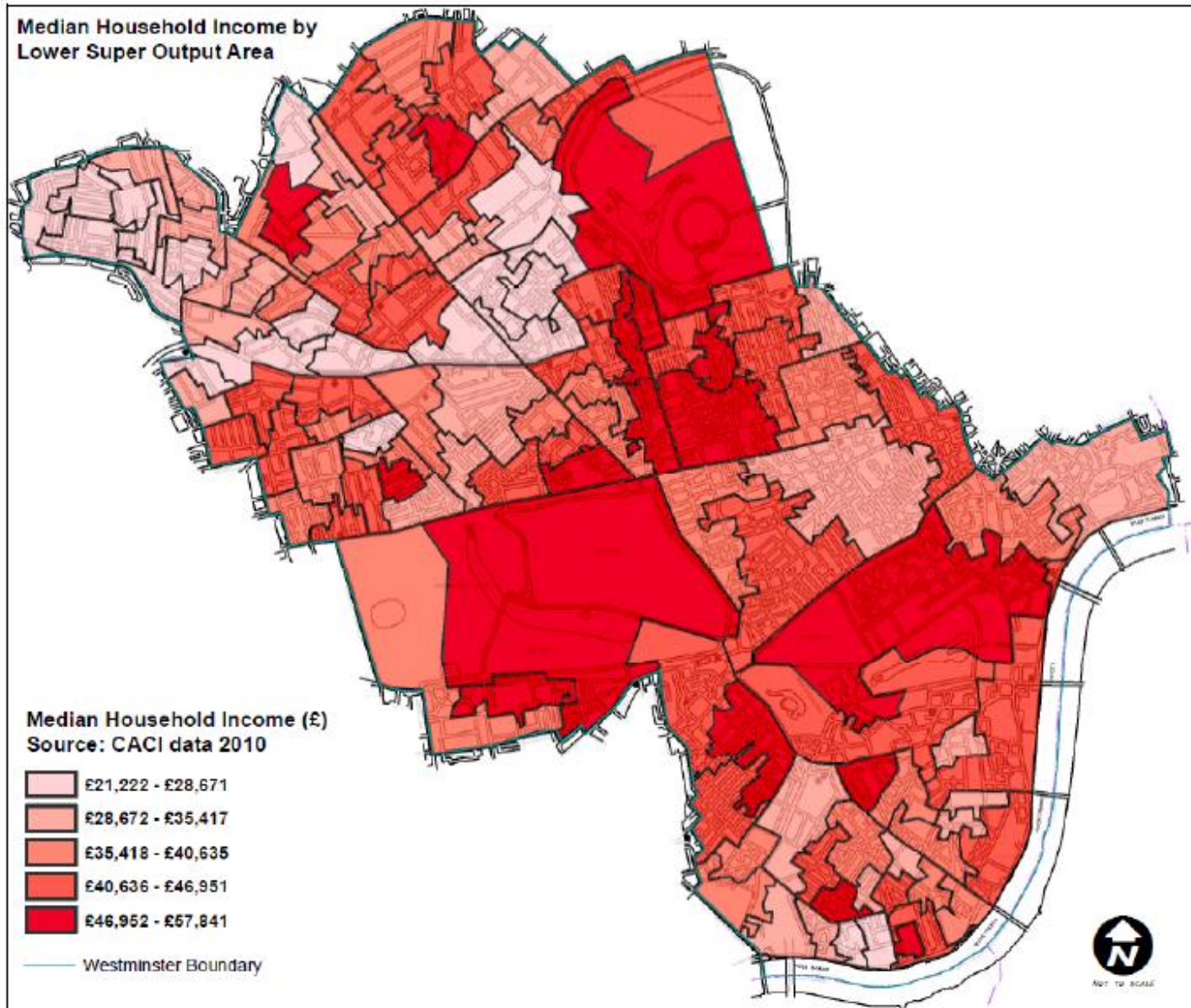
Poorest areas in north west of borough (Harrow Road, Queens Park, Westbourne, Church Street) where household income is £15,000 less than average for Westminster

Measurement of socioeconomic status

- Poverty – income and expenditure
- Social class – usually based on occupation
- Deprivation – many levels
  - Resources, education, relative position
  - Local environment

Education

- 53% of residents have degree-level education

Chart showing education levels for Westminster, England, and London.

Legend:
- % with no qualifications
- % with other qualifications
- % with GCSE grades A-C or equivalent
- % with GCE A level or equivalent
- % with higher education below degree level
- % with degree or equivalent and above

Westminster: 53, 3, 13, 9, 13, 9
England: 22, 8, 22, 23, 13, 12
London: 34, 6, 16, 15, 17, 12
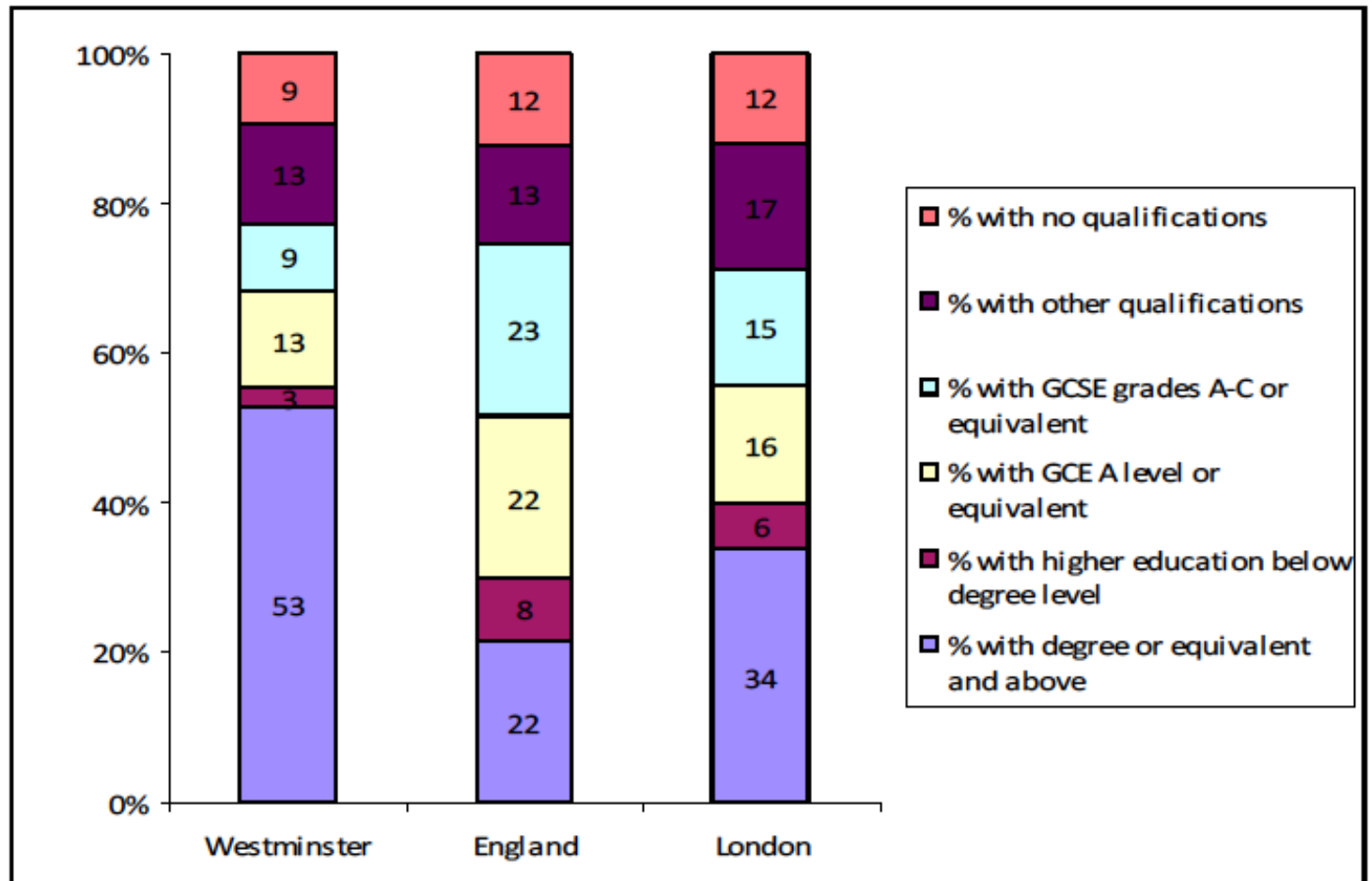
Index of Multiple Deprivation (2010)

- Seven domains
  - Income
  - Employment
  - Health
  - Education
  - Housing and services
  - Living environment
  - Crime

- Applied to areas
- Lower super output areas (LSOAs)
- About 1500 people
- Converted into relative deprivation

Deprivation, Westminster 2010
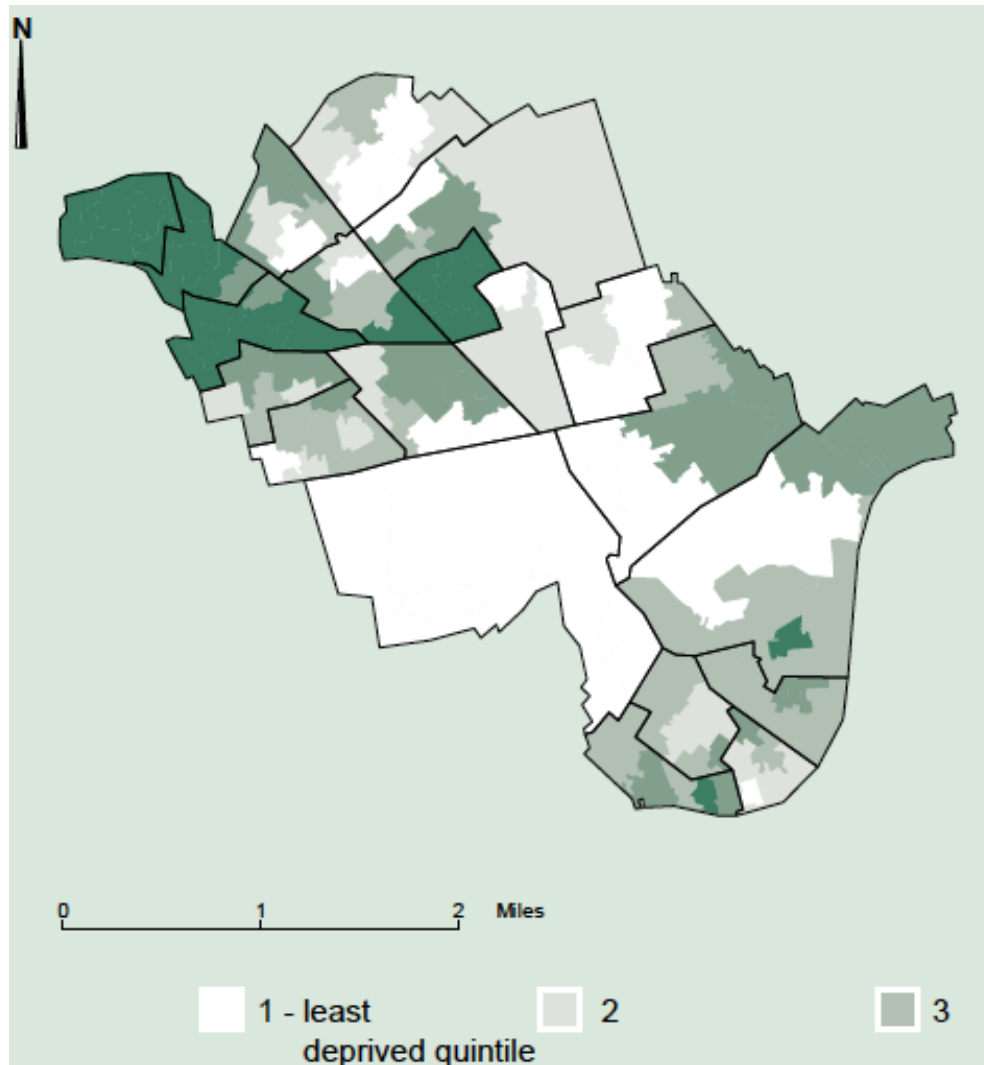
Inequalities in health

- Life expectancy for men varies between most deprived and least deprived areas

- Variation is highest in the UK (Westminster)
  - 16.6 years difference for men
  - 9 years lower for women

Figure 3.16 Inequalities in life expectancy for men and women who live in areas with different levels of deprivation within Westminster

Local indices of mass deprivation groups, 2007
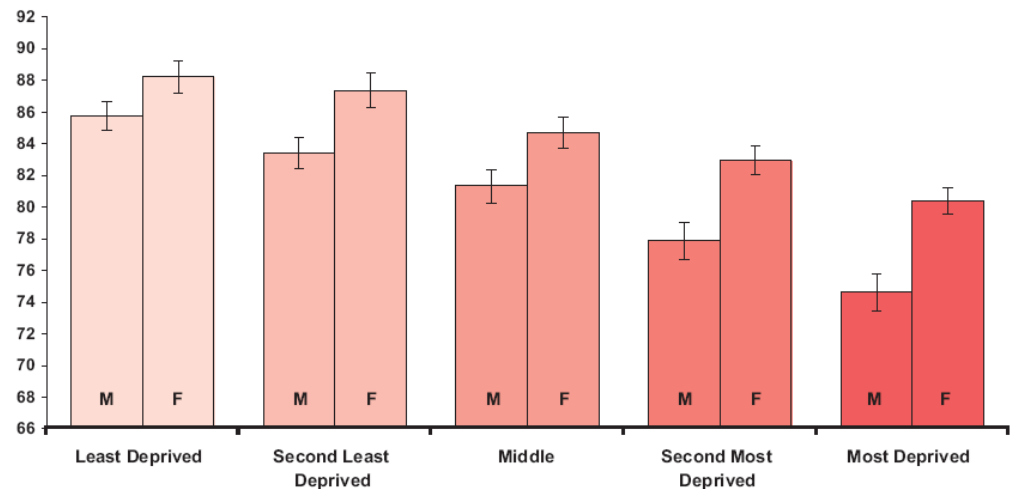
- Young
- Unequal
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  - Very poor
- Diverse
  - Ethnicity
  - Country of birth
- Mobile

Diversity - ethnicity

Westminster population by ethnicity MYE 2009
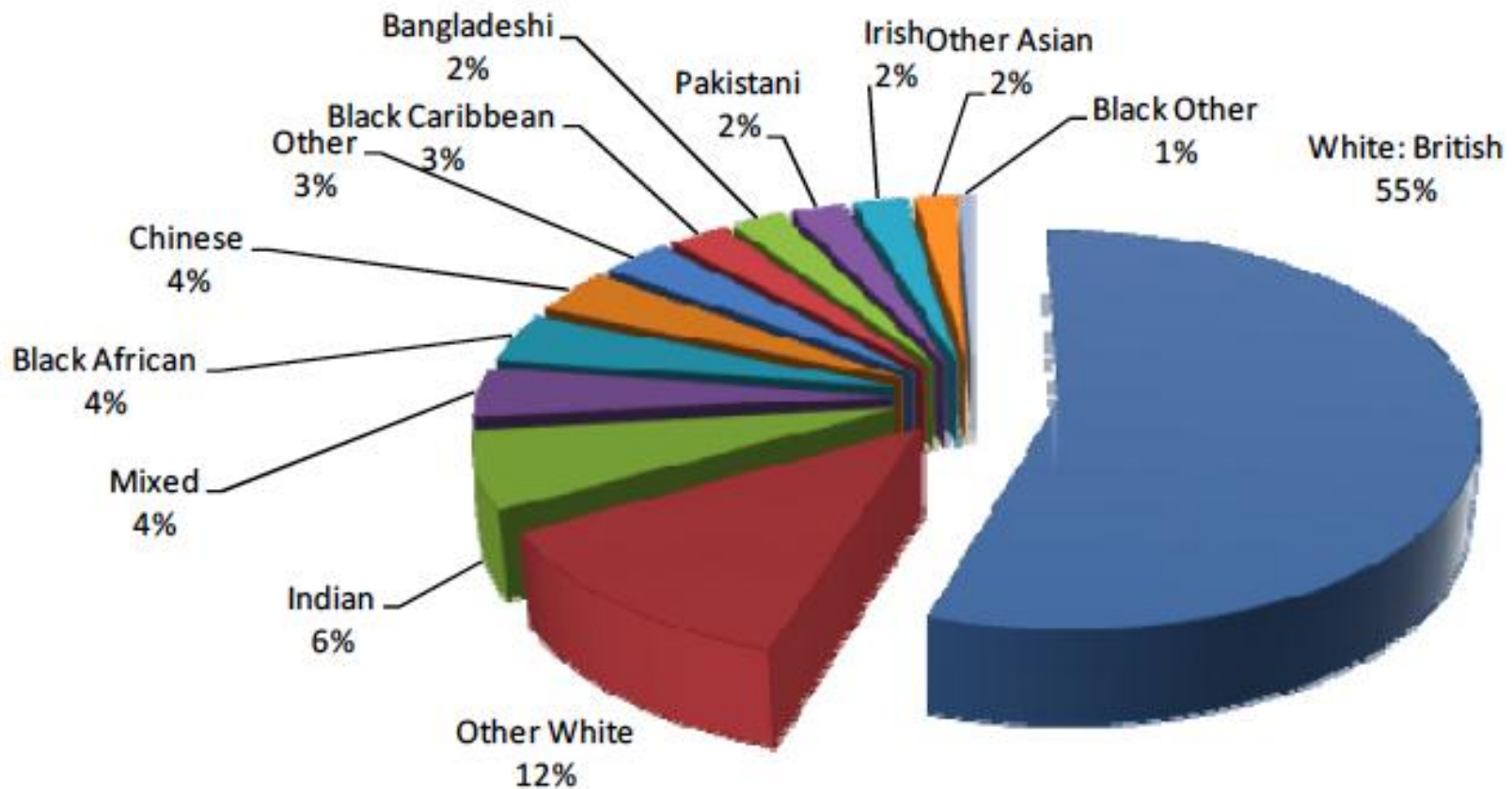
Country of birth

- Migration
  - 52% of resident population born overseas (46% H&F)
  - 66% children don't speak English as first language (W)

Figure 27: International Migration to Westminster

Migration (International) (2001-2010)

	2001-2	2002-3	2003-4	2004-5	2005-6	2006-7	2007-8	2008-9	2009-10
In	9,771	10,879	12,603	14,467	11,680	11,844	10,881	10,000	10,541
Out	6,109	6,994	4,986	5,730	6,668	8,745	7,469	8,150	9,131
Net	3,662	3,885	7,617	8,737	5,012	3,099	3,412	1,840	1,410
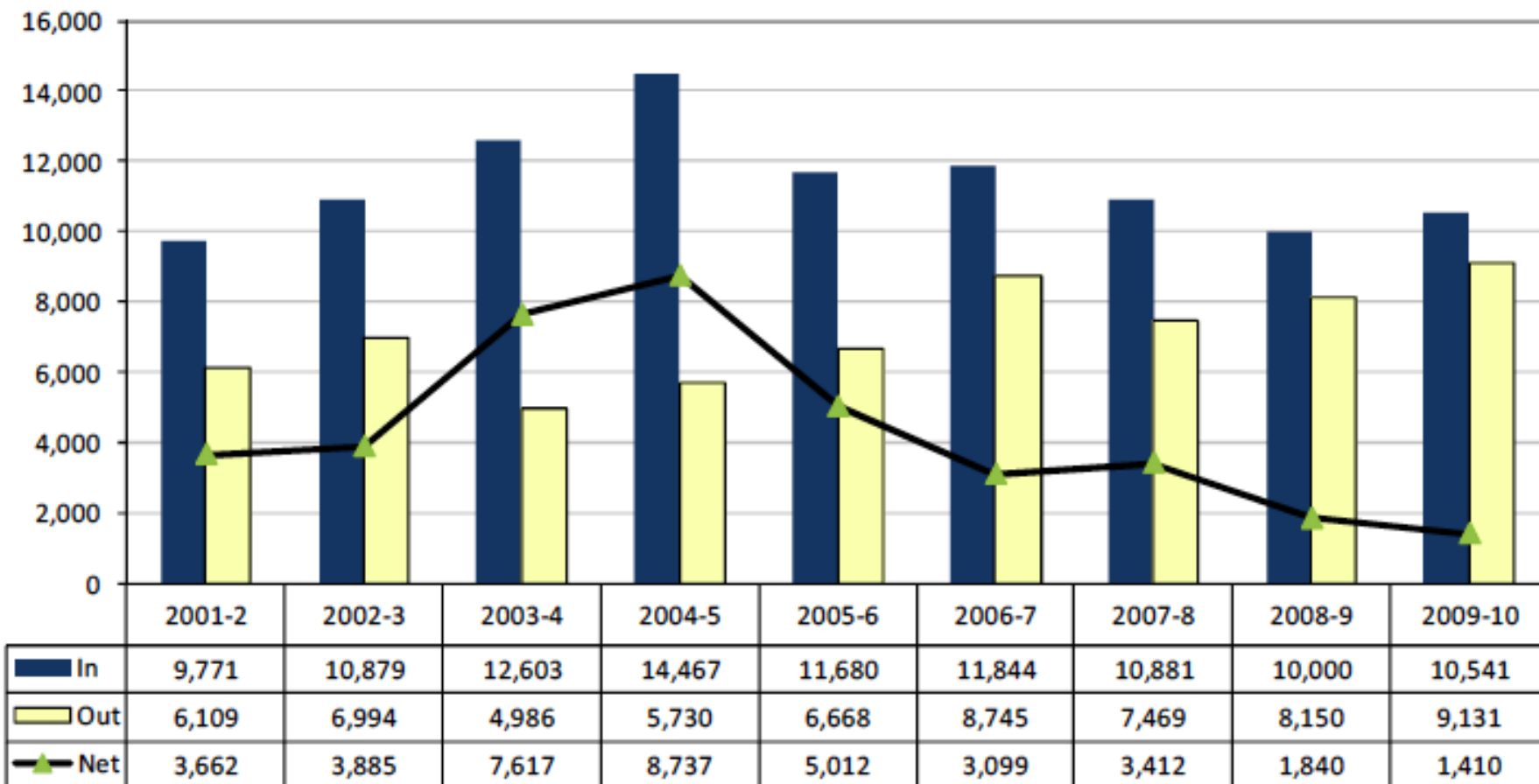
Source: Components of change, (ONS, 2010[3])

Westminster migrants 2002-10 – source countries

Migrants 2002 - 2010
Country of Origin

- 1 - 280
- 280 - 950
- 950 - 1880
- 1880 - 4050
- 4050 - 9170

More migration from
- Oceania
- North America
- Western Europe
- Middle East
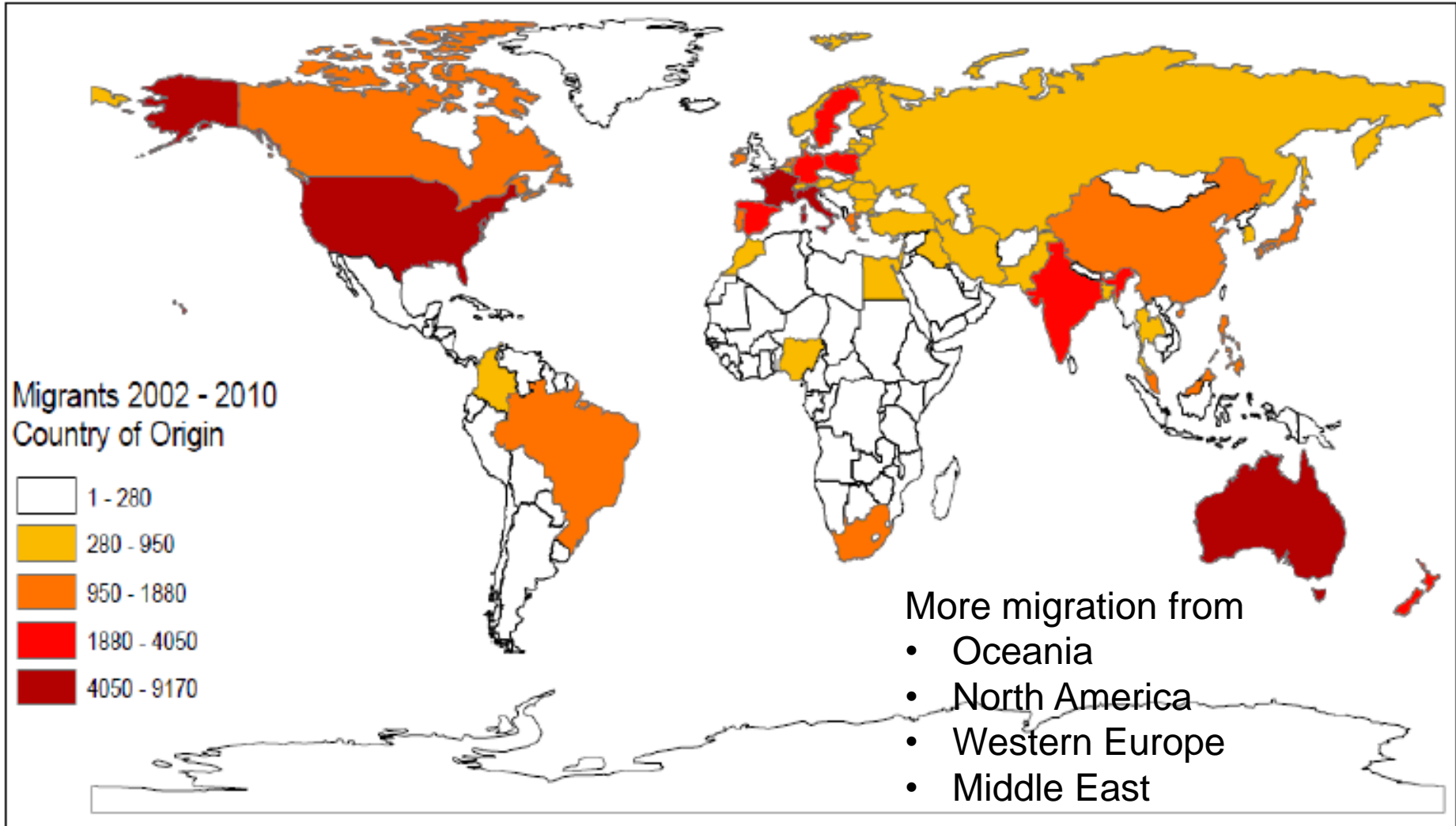
Source: National Insurance Registrations, DWP 2010

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Westminster population changes daily

- Resident population approximately 250,000
- Daily visitors 750,000
- People employed 600,000 – largest in London

Employees by Borough
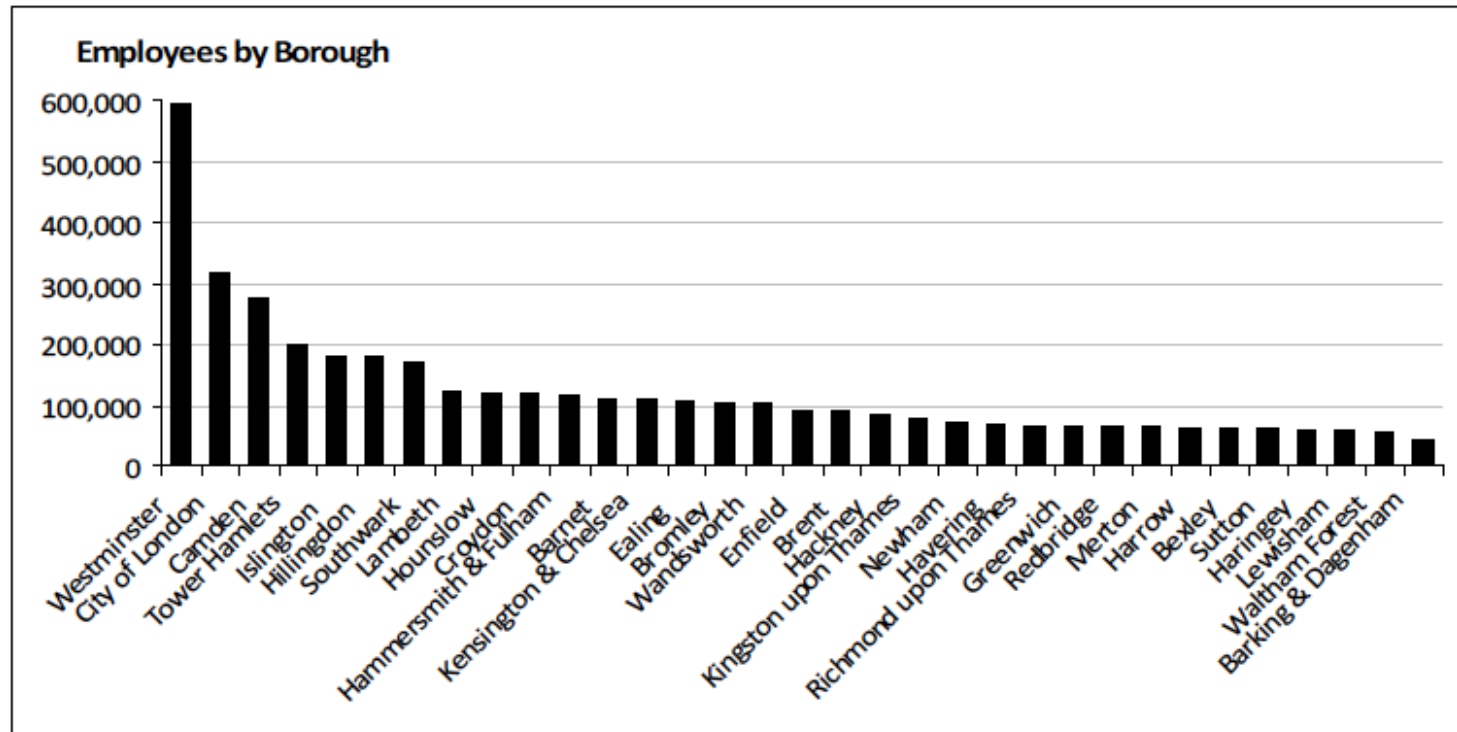
Source: BRES, (ONS 2009[2])

Short term mobility

- Short term migrants – 63,000 in 2007 (W)
- Irregular migrants – estimated 20,000 (W)
- Seasonal migrants
  - Tourists
  - Students
- 20% of households move each year (H&F)

Impact on health

- Health needs reflect population structure
  - age
  - origin
  - ethnicity
- High level of need related to poverty and inequality
  - Obesity (23% of year 6 children in H&F)
  - Smoking (25% H&F)
  - Harmful drinking

Impact on health services

- Access
  - Who has rights
  - Who has knowledge
- Communication (language, culture)
- Health seeking behaviours (high levels of use of A&E)
- Care (limited informal networks)

Inequalities in health care delivery: elective surgery*

- Coronary angioplasty
  - Patients from more deprived areas were almost twice as likely as those from more privileged areas (OR 1.66) to have a prolonged stay in hospital
  - Women were almost twice as likely as men (odds ratio 1.87) to be readmitted to hospital within 28 days

- Bariatric surgery
  - Black African and Black Caribbean patients were 2.45 times more likely (than white patients) to have a long wait for surgery

- Hip replacement
  - Patients over 85 yrs old were 8 times more likely (than those under 65) to be readmitted within 28 days

Langford KM, Bottle A, Aylin P, Ward H. Using routine data to monitor inequalities in an acute trust: a retrospective study. *BMC Health Services Research* 2012;12:104

The 'causes of the causes' – pathways to ill health and well-being

Population

Age profile – 45% in 20-39 age group significantly higher than London avg.

Ethnicity – 22% of pop are from non white groups, lower than London.

Households - 40% 1 person households, 10% lone parent; 4th highest % of pensioners living alone.

Mosaic – Inequalities more complex than N/S divide.

Provision of unpaid care – 7% of pop provide informal care, 3rd lowest in London.

Population growth – 5% over last 8 years, 9% in next 10 years. Next 20 years – 55% increase in 85+s. Births ↑ and deaths ↓.

Transient / mobile population – 1 in 5 residents moved address. High international migration

Area – Three town centres, three major football clubs.

Carers

Wider determinants

Affluence and deprivation – 38th / 354, stark inequalities

Housing – 11.6% non decent; > 2000 over-crowded households.

Education – high FSM use, 29% special needs 1.5x Eng rate ?

Employment & income – Polarised income. 10,000 kids in low income househs. 4.4% on JSA

Recession 59% rise in JSA from Aug 08-09. Youth unemployed ↑

Environment – densely populated, little green space.

Crime and ASB – 7th highest in London.

Social and community networks

Behavioural factors

Child obesity – doubling between reception and yr 6 from 11.8% to 22.7%.

Smoking –prevalence 28% = 41,000 adults (London 22%)

Physical inactivity

Alcohol Among worst (Eng) on prevalence, admissions & deaths.

Drug misuse dependency and deaths comparatively high.

Sexual health – un-protected sex → STIs, unwanted pregnancy

Accidental fires in dwellings – Still high rates of primary fires and related injuries (4th in London)

Access to Health and Social Care Services
(quality, appropriateness, under and over use)

Primary care - Undiagnosed LTCs, inverse care law, variation in quality by practice (QOF)

Prevention – Low coverage for immunisations, cervical and breast screening

Emergency bed days – High numbers of older people with 2+ emergency admissions in year.

Use of nursing care for older people – High admission rates, short length of stays.

Accommodation for people with MH – Low throughput in MH services. Non acute delayed transfers of care from MH services are high.

Physical, mental and social health at the patient/client level

Long Term Conditions (CVD, diabetes, COPD) – prevalence expected to slightly rise over time. Main contributor to premature mortality

Tooth decay in children 50% of 5 yr olds (> Eng)

Communicable diseases: HIV, TB

Excess winter deaths

Falls in older people

Dementia

Mental health problems Stress, anxiety and depression, high Needs Index, substance dependency

Children with special needs

Looked After Children

People with disabilities

Prison: setting with high need especially substance misuse and mental health problems

Patient and user experience

Source: JSNA 2008 Causes of the causes pathway, expanded

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Impact on you?

- Need to understand social and demographic factors
- Sensitive to difference
- Great experience to learn medicine in a global city

Future sessions

- Inequalities
- Social determinants of health