

Variation in cancer incidence by ethnicity across London in 2015

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BACKGROUND

Research in England identifies national level cancer incidence inequalities related to ethnicity¹. This is yet to be demonstrated at local level where service provision can be more directly influenced.

Given the diversity of its population, we examined variation in cancer incidence by ethnicity across London, aiming to support service development to improve cancer prevention and early diagnosis.

METHODS

- Data on invasive cancer diagnoses in London in 2015 were identified from PHE’s cancer registration dataset and stratified by age at diagnosis, sex, ethnic group, and Sustainability and Transformation Partnership (STP) of residence
- Cancer incidence numbers were derived from the number of registered cancer cases
- Sex-specific age-standardised incidence rates were computed for 25 tumour groups by ethnicity for London and its STPs.
 - Cancer incidence numbers were standardised against 2011 Census figures. It is important to note the variation in classification of ethnic identification (see Figure 1)
 - Population data (2011 Census) may not be completely representative of the cancer registration dataset from 2015, and ethnic groups may have been affected disproportionately
- Computation of Incidence-Rate-Ratios (IRRs) demonstrated the likelihood of non-white ethnic groups developing cancer relative to the White population.

	2011 Census	PHE's Cancer Registration Dataset
White	-	White
	British	British, Mixed British
	Irish	Irish
	Gypsy or Irish Traveller	-
Mixed	Other White	Any other White background
	White and Black Caribbean	White and Black Caribbean
	White and Black African	White and Black African
	White and Asian	White and Asian
	Other Mixed	Any other mixed background
Asian	-	Other Mixed, Mixed Unspecified
	Indian	Indian or British Indian
	Pakistani	Pakistani or British Pakistani
	Bangladeshi	Bangladeshi or British Bangladeshi
Chinese	Other Asian	Any other Asian background
Black	Chinese	Chinese
	African	African
	Caribbean	Caribbean
Other*	Other Black	Any other Black background
	Arab	-
	Any other ethnic group	Any other ethnic group
	-	Other

*Excluded from further analysis as these observations are likely to be influenced by recording issues
Figure 1: Ethnicity definitions used in the 2011 Census and PHE’s cancer registration dataset

RESULTS

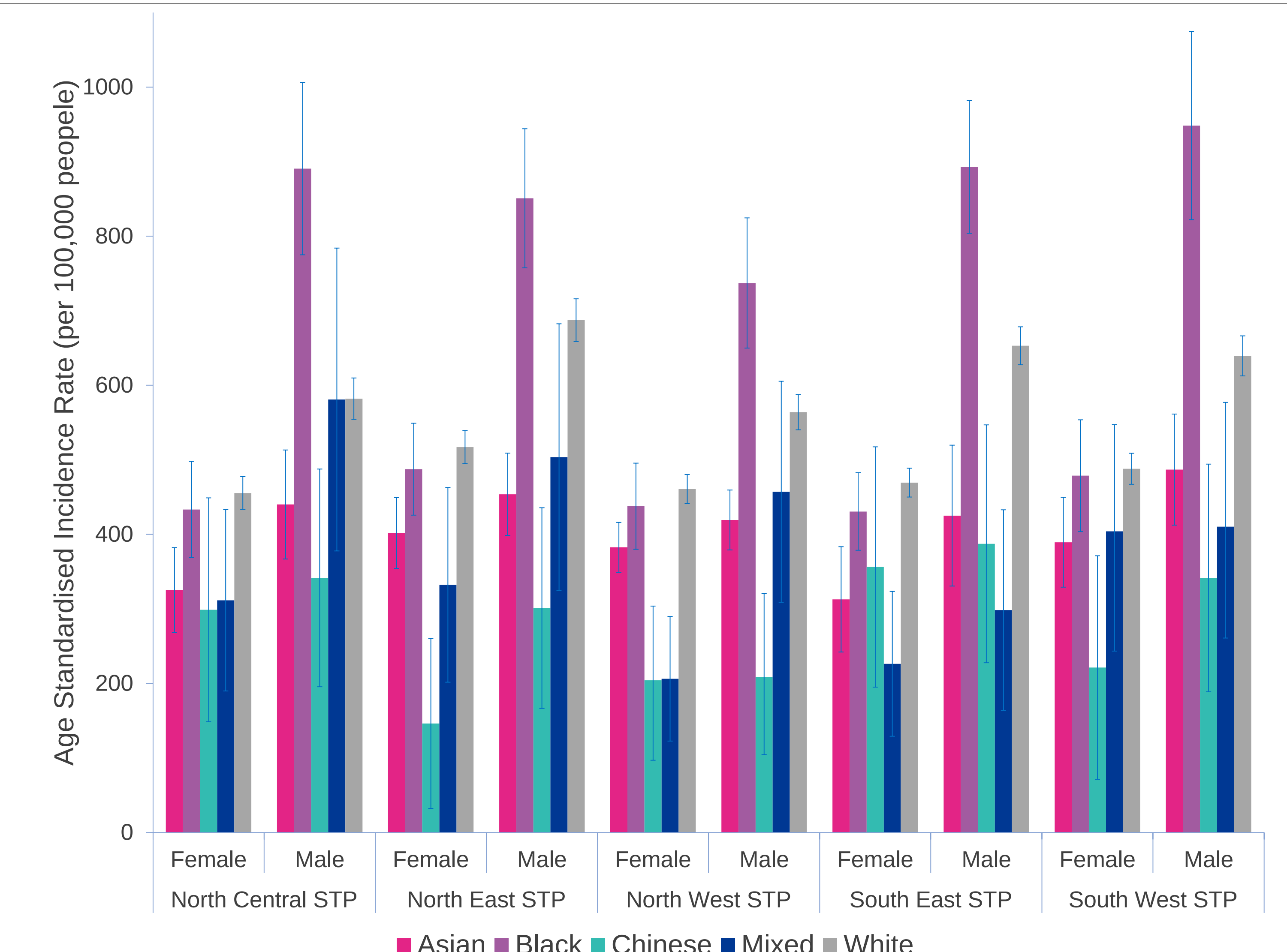


Figure 3: Sex-specific age-standardised incidence rates of Total (all) cancers in London, 2015

Relative to the White population, the likelihood of developing cancer in London in 2015 was lower in Asian, Chinese, Mixed men and women, and Black women; but greater in Black men (see Figure 3). These results were driven by the tumour-specific findings in Figure 4.

CONCLUSION

These granular results are the first of their kind and provide an in-depth understanding of cancer in different ethnic groups throughout London. This will enable local providers to better plan services and identify unmet need by raising awareness and enhanced profiling.

ACKNOWLEDGEMENT

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REFERENCE

[1] NCIN. (2009). Cancer incidence and survival by major ethnic group, England, 2002–2006. National Cancer Intelligence Network.

Tumour Group	ICD-10 Code	Ethnic Group							
		Asian		Black		Chinese		Mixed	
Total cancers	C00-C97 except C44								
Other	All C00-C97 except C44 tumours not included in the following								
Bladder	C67								
Melanoma	C43								
Oesophagus	C15								
Unknown	C77-C80								
Brain	C70-C72								
Lung	C33-C34								
Mesothelial & Soft tissue	C45-C49								
Non hodgkin lymphoma	C82-C85								
Head&Neck	C00-CC10, C12-C14, C30-C32								
Colorectal	C18-C20								
Kidney renal pelvis and ureter	C64-CC66, C68								
Hodgkin lymphoma	C81								
Pancreas	C25								
Leukaemia	C91-C95								
Liver	C22								
Multiple Myeloma	C90								
Stomach	C16								
Thyroid & Endocrine	C73-C75								
Female Specific Tumour Groups									
Female Breast	C50	-		-		-		-	
Ovary	C56	-		-		-		-	
Cervix	C53	-		-		-		-	
Uterus	C54-C55	-		-		-		-	
Male Specific Tumour Groups									
Testis	C62		-		-		-		-
Prostate	C61		-		-		-		-

= a reduced likelihood of developing cancer compared to the White population
 = the same likelihood of developing cancer compared to the White population
 = an increased likelihood of developing cancer compared to the White population

Figure 4: The likelihood of non-white ethnic groups developing certain cancers compared with the White population in London 2015