



Health Inequity Bangladeshi Health Profiles

September 2024

PIR Team London





Contents and headlines

Demographics

Bangladeshis are the poorest ethnic group and live in London's most deprived areas. Unlike other ethnic groups where disparities improved after the covid pandemic, disparities amongst Bangladeshis groups have worsened nationally

Type 2 Diabetes in the <40s

- British-Bangladeshis are around twice as likely to have Type 2 diabetes than the general population and are at a higher risk of developing type 2 diabetes from a younger age.
- Black and ethnic minority people are not as likely to be prescribed newer medication for Type 2 diabetes and they experience less adequate monitoring of their condition compared to their white peers.

Vaccination Uptake

- Low covid vaccine uptake due to mistrust and access issues increased the risk of severe illness.
- Long-standing health conditions worsened post-pandemic, with Bangladeshis experiencing increased admissions

Breast Cancer Screening Uptake

Low Breast Cancer Screening Uptake in Areas with large Bangladeshi Populations recovering to pre-pandemic levels



1. Socio-demographics

Summary of age profile, deprivation, geography

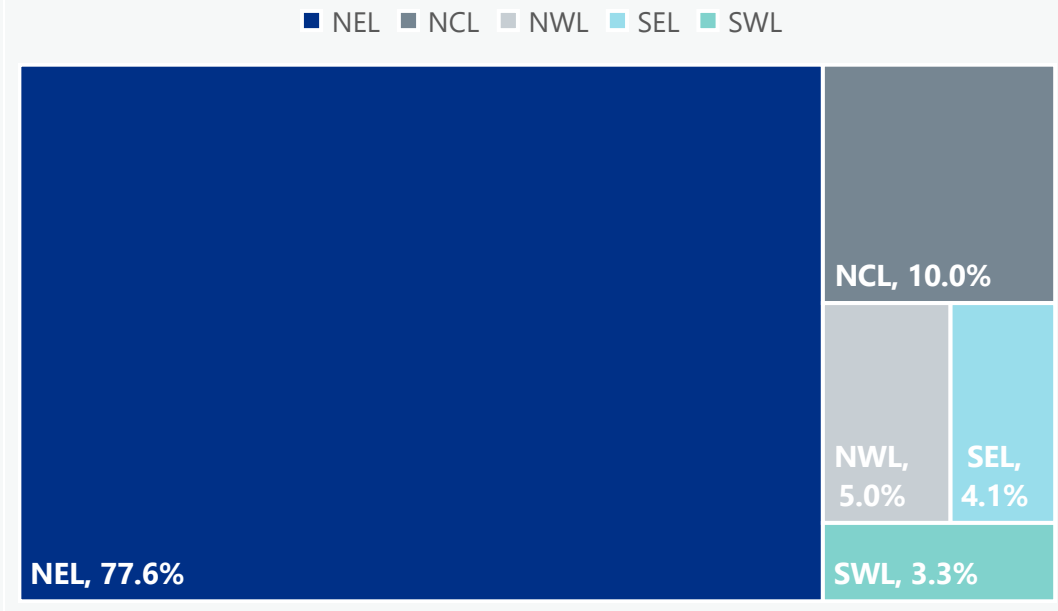


London's Bangladeshi Population: Concentrated in East London with a Younger Age Profile

- There are approximately **~322,000** Bangladeshi people resident and registered in London (making it one of London's largest ethnic minority groups)
- The majority of London's Bangladeshi population resides in East London, particularly in boroughs like Tower Hamlets, Newham, and Camden

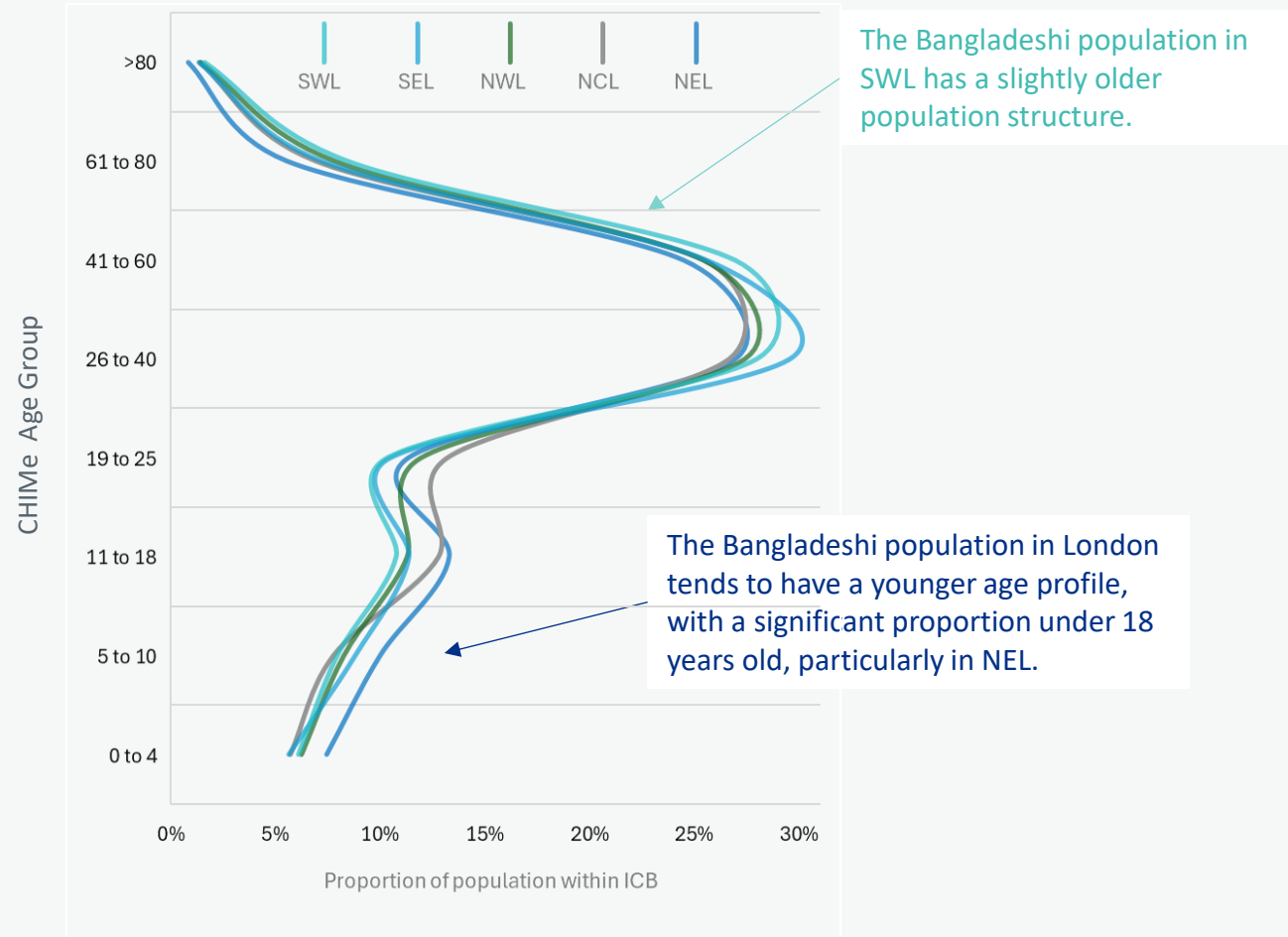
Data source: NHSE London Linked Dataset (LLD) Beta system

Figure 1: Total London Bangladeshi GP Registered Population by ICB



Data source: NHSE London Linked Dataset (LLD) Beta system

Figure 2: Proportion Bangladeshi GP Registered Population by age group and ICB

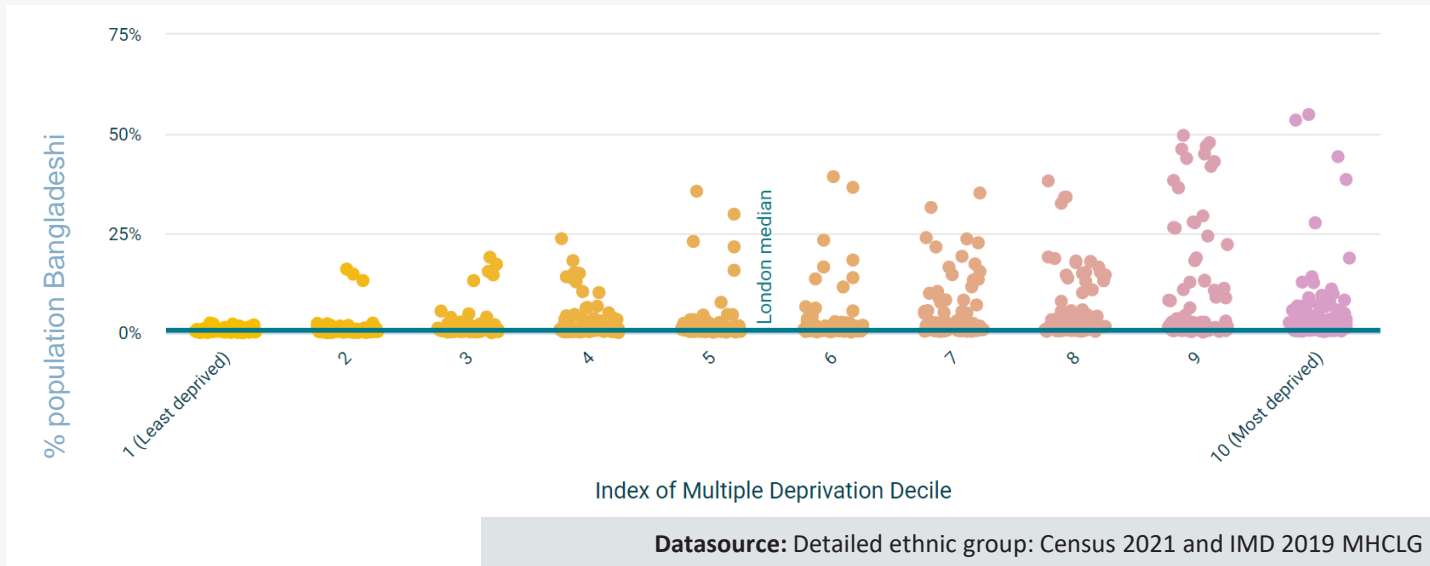


Data source: NHSE London Linked Dataset (LLD) Beta system

Disproportionate Deprivation: Bangladeshis are the poorest ethnic group and live in London's most deprived areas

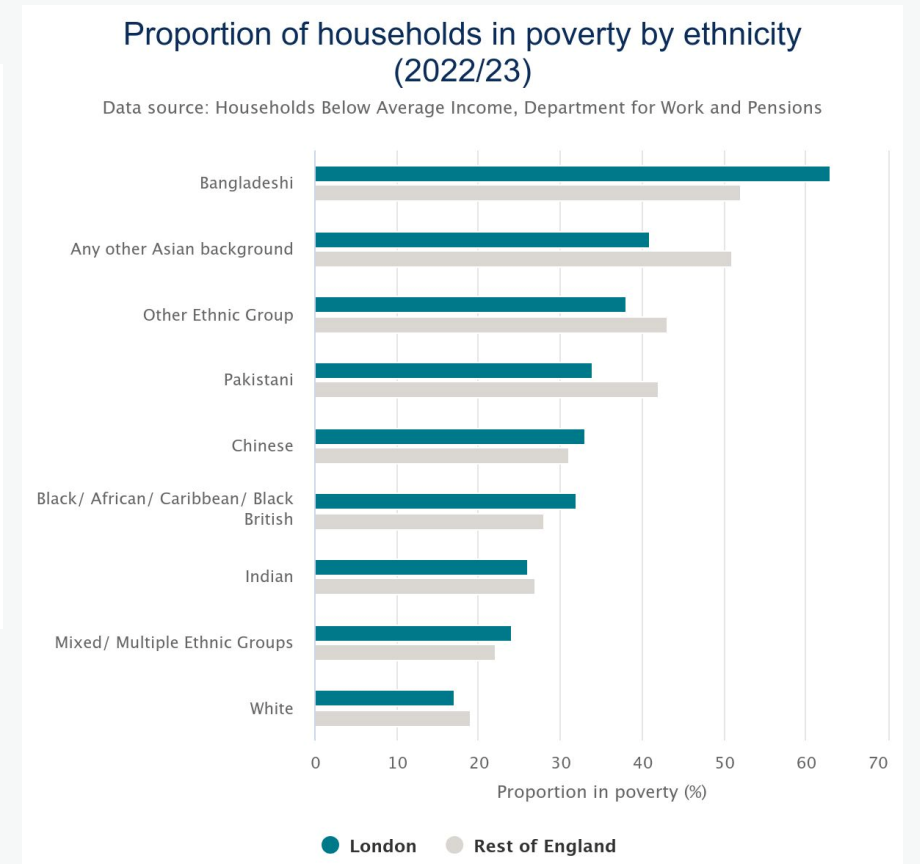
Nationally People from the Bangladeshi ethnic groups were over 3 times as likely as White British people to live in the most income-deprived 10% of neighbourhoods (Figure 1)

Figure 1: Bangladeshi % by IMD deprivation decile, London LSOAs (neighbourhoods), Census 2021



Bangladeshi households have the highest proportion of people living in poverty, both in London and the rest of England. The poverty rate for this group is significantly higher in London, surpassing 60%, while in the rest of England, it is slightly lower. (Figure 2)

Figure 2: Proportion of households in poverty (income is below 60% of the median household income after housing costs) by ethnic group



Datasource: Households Below Average Income, Department for Work and Pensions

Unlike other ethnic groups where disparities improved after the covid pandemic, disparities amongst Bangladeshis groups have worsened nationally

Pre-COVID Known Inequalities

Cardiovascular Disease (CVD) Risk and Multimorbidity:

- The Bangladeshi population has a higher prevalence of CVD and related conditions (e.g., diabetes), with earlier onset compared to White British counterparts.
- They are 60% more likely to suffer from long-term health conditions, contributing to poorer health outcomes.

Life Expectancy and Healthy Life Expectancy:

- Bangladeshis face shorter life expectancy and lower healthy life expectancy due to higher rates of obesity, diabetes, and long-term conditions.
- The community also experiences barriers in accessing preventive healthcare services, leading to late diagnoses and worse outcomes.

Socioeconomic Factors:

- Higher rates of poverty and overcrowded housing, with 30% living in overcrowded homes, affect overall health and well-being.
- Employment is often concentrated in low-income, high-risk sectors, impacting economic stability and access to healthcare.

Post-COVID Widened Inequalities

Increased COVID-19 Mortality:

- The Bangladeshi group had twice the risk of dying from COVID-19 compared to White British populations.
- Overcrowded living conditions and multi-generational households contributed to the higher spread and severe outcomes during the pandemic.

Worsened Economic Vulnerabilities:

- A disproportionate number of Bangladeshi men worked in industries severely impacted by lockdowns (e.g., restaurants). This led to income loss, financial instability, and poorer health outcomes.
- Limited access to financial support during the pandemic exacerbated these vulnerabilities.

Barriers to Vaccination and Healthcare Access:

- Low covid vaccine uptake due to mistrust and access issues increased the risk of severe illness.
- Long-standing health conditions worsened post-pandemic, with Bangladeshis experiencing delayed care and reduced access to healthcare services.

Widening Health Inequalities:

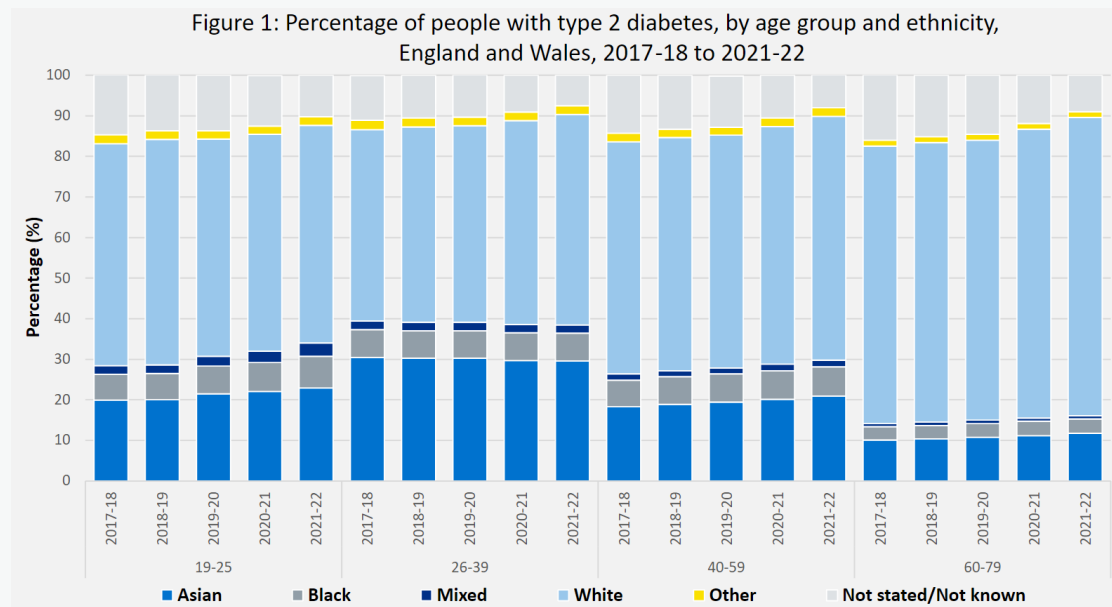
- The compounding effect of higher chronic illness rates, reduced healthcare access, and financial instability has widened pre-existing health disparities.
- The community continues to face heightened risks of long-term COVID-19 complications and worse recovery outcomes due to underlying conditions and socioeconomic factors.

2. T2 Diabetes

Bangladeshis Face Double the Risk of Type 2 Diabetes at Younger Age

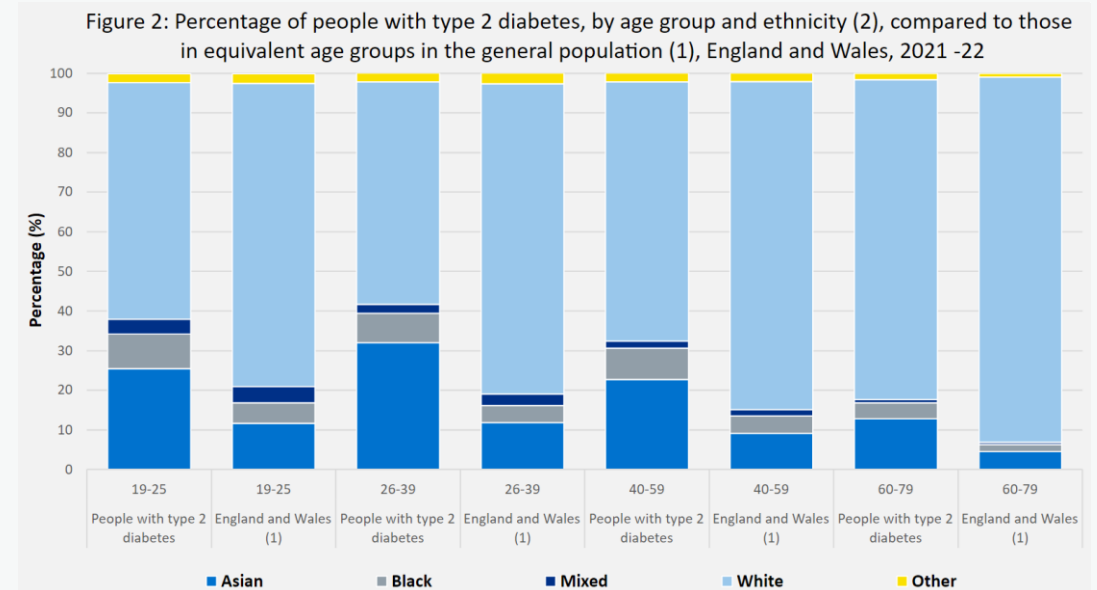
From the epidemiological literature:

- British-Bangladeshis are around twice as likely to have Type 2 diabetes than the general population and are at a higher risk of developing type 2 diabetes from a younger age.
- Black and ethnic minority people are not as likely to be prescribed newer medication for Type 2 diabetes and they experience less adequate monitoring of their condition compared to their white peers.

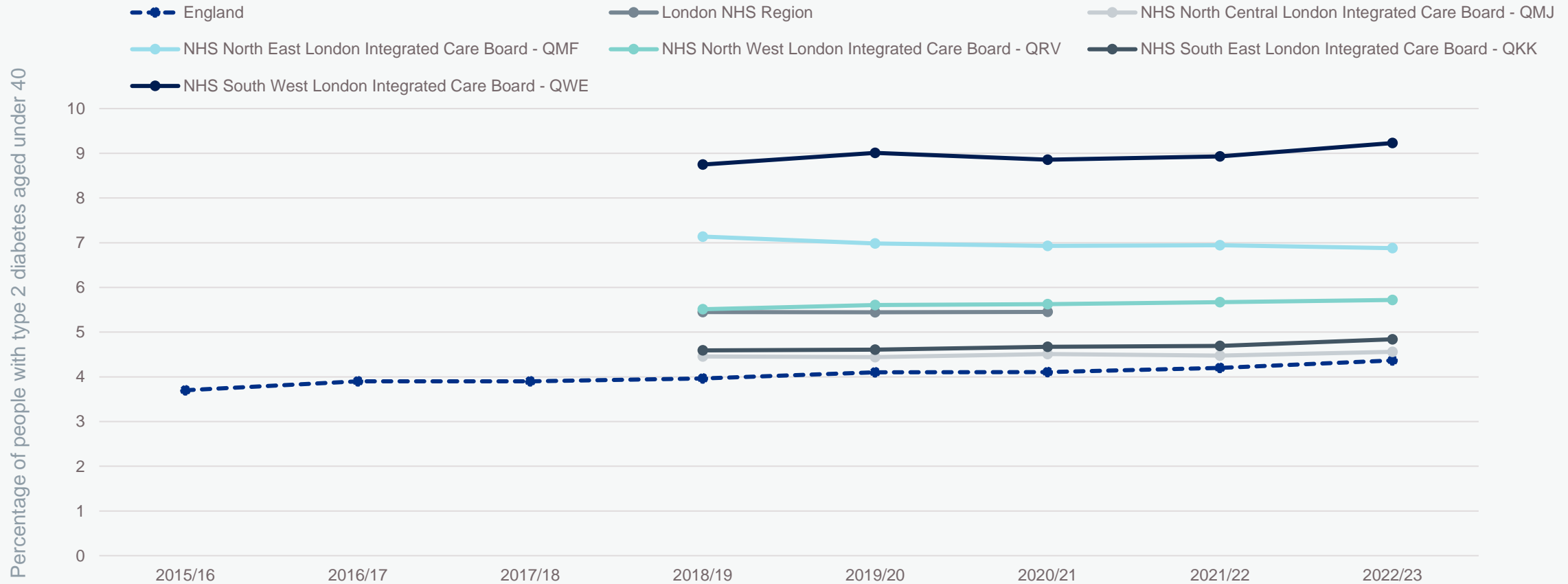


When compared to the national England and Wales picture (1), people from Asian and black ethnic groups were over-represented in younger age groups of people with type 2 diabetes (in 2021-22 (2), 32.0% of 26-39 year olds with type 2 diabetes were from Asian ethnic groups and 7.4% were from black ethnic groups, compared to 11.9% and 4.3% of the national total in this age group respectively; see Figure 2).

Young people (aged under 40 years old) with type 2 diabetes were more likely to be from Asian and mixed ethnic groups compared to older people with type 2 diabetes (in 2021-22, 29.6% of 26-39 year olds were from Asian ethnic groups and 2.1% were from mixed ethnic groups compared to 20.9% and 1.7% of 40-59 year olds respectively;



Type 2 Diabetes in Young Adults: Higher Prevalence in London Areas with Large Bangladeshi Communities



Co-morbidities and risk factors in Bangladeshi young adults with type 2 diabetes

Obesity and smoking emerge as predominant risk factors, with significant regional variations in physical activity advice and hypertension rates

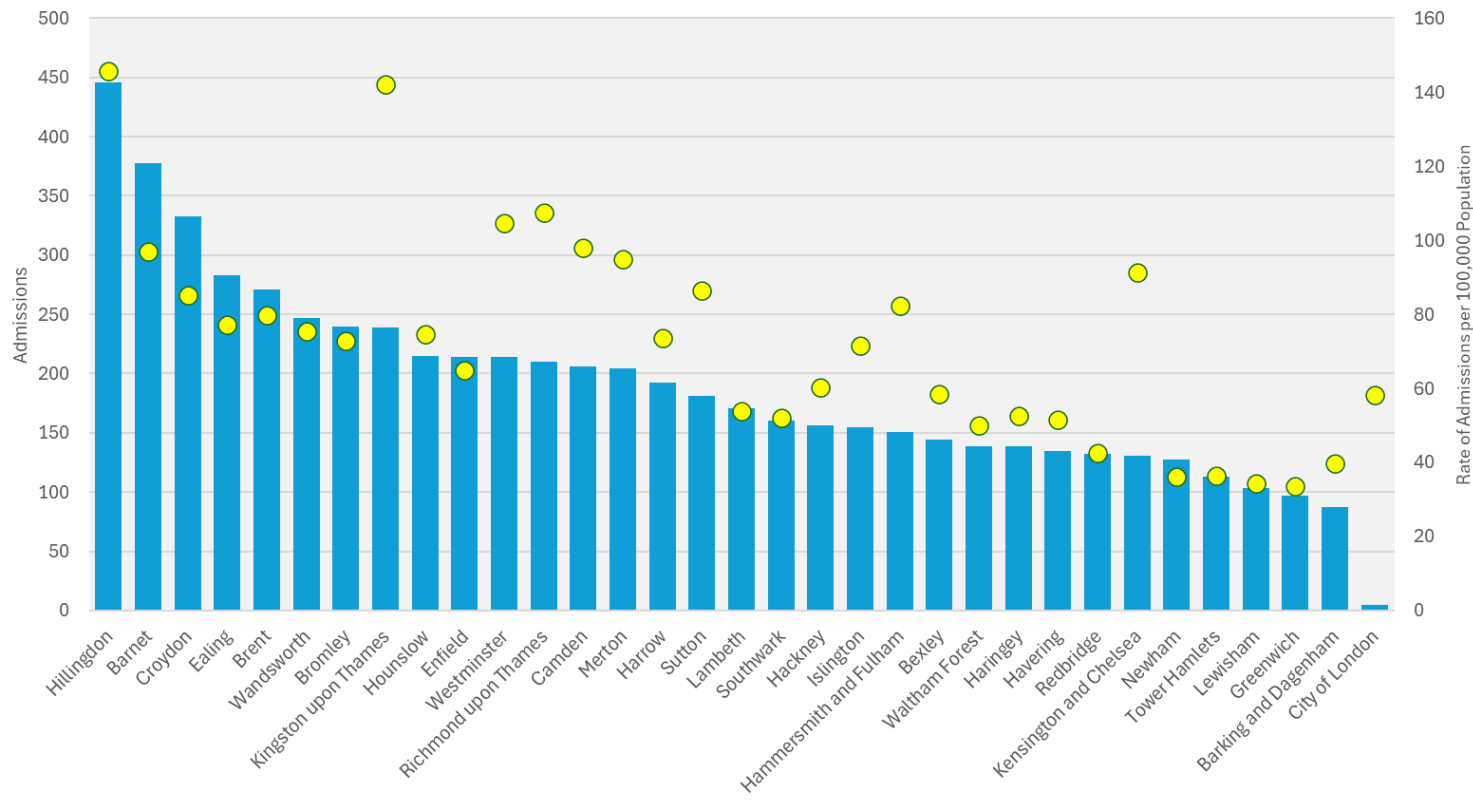
	Physical Activity Advised	Smoking	Hypertension	Obesity	Asthma	Depression
NEL	78%	55.8%	13.1%	47.4%	8.0%	10.0%
NCL	58%	55.4%	13.0%	50.2%	10.7%	13.4%
SEL	63%	49.1%	13.5%	47.4%	10.5%	15.8%
NWL	80%	43.9%	13.5%	50.3%	5.8%	11.0%
SWL	63%	44.3%	19.3%	50.0%	8.0%	8.0%

Data source: NHSE London Linked Dataset (LLD) Beta system

3. Vaccination and Immunisation

COVID: Admissions

COVID Admissions 2023/24 - London Residents



London is the most ethnically diverse region in England and Wales (2021 Census population by ethnicity):

- Asian: 20.7%
- Black: 13.5%
- Mixed: 5.7%
- White British: 36.8%
- White Other: 17%
- Other: 6.3%

The chart to the left shows the total COVID admissions for London residents by Borough in 2023/24. The blue bars are total admissions, and the yellow dot is the rates of admissions per 100,000 population.

The Boroughs with the highest number of admissions tend to have higher rates of admissions. H&F and K&C are slight exceptions with lower admission volumes but relatively higher rates. Hillingdon, Ealing and Brent are in the top 5 for admissions and Hillingdon has the highest rate of admissions. NEL Boroughs tends to have lower admissions and rates.

Looking at all admissions by Ethnicity 53% are in White British and we know the population of London around 37% are White British. Across Asian, Black and Mixed ethnic groups the proportional share of admissions is not out of sync with the population split overall.

Additional analyses looking at age profile of admissions and population would be worth further exploration.

Ethnicity	Admissions	% Admissions
White	3,274	53%
Other ethnic groups	1,121	18%
Asian or Asian British	945	15%
Black or Black British	545	9%
Mixed	177	3%
Unknown	156	3%
Total	6,218	100%

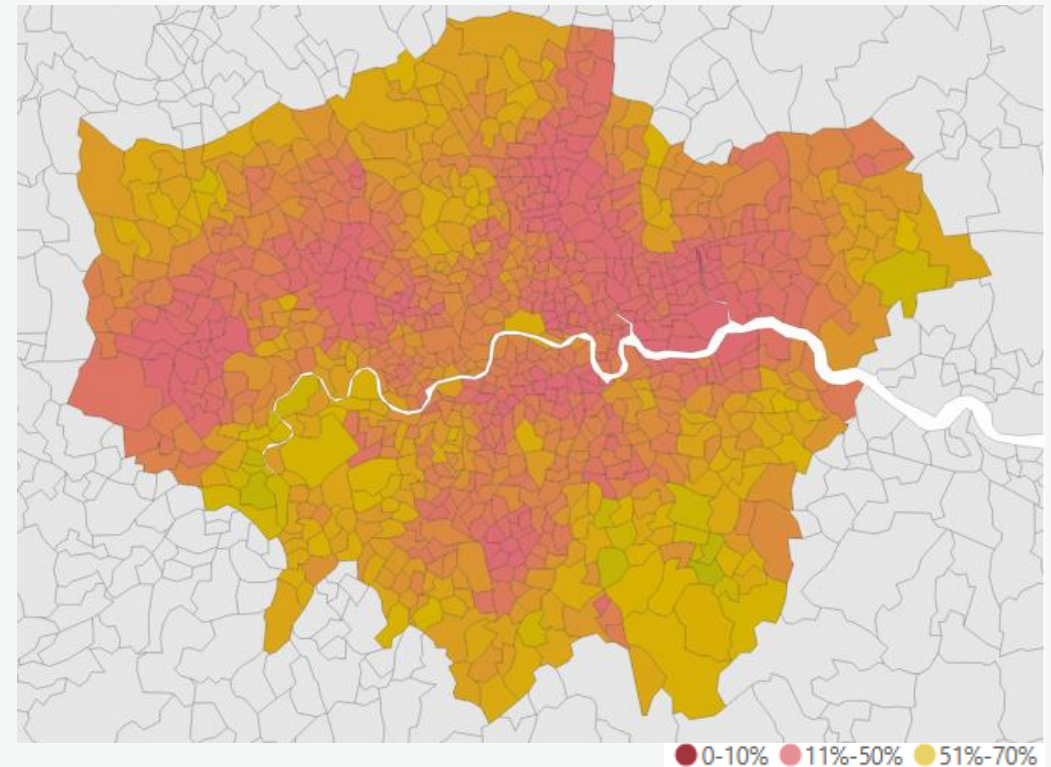
COVID: Uptake Overview

- As of 4th February, overall uptake in London was 37.8% with over 1.5m eligible remaining. Uptake ranges from 31.4% in NEL to 45% in SWL. Overall uptake in England is 53.7%.
- The MSOA map highlights that uptake tends to be much higher in outer London, especially across SW and SE.
- Newham (25%), Tower Hamlets (27%), Waltham Forest (27%), Barking and Dagenham (28%) and Brent (29%) have the lowest AW 23 covid vaccination uptake. Newham (69.2%), Brent (65.4%) and Tower Hamlets (60.6%) are three of London's most diverse boroughs, where over 60% of the population is non-white. The IMD (rank of) average rank, which summarises the average level of deprivation across an area, for all 5 boroughs fall within the lowest fifth of all England boroughs.

AW23 Booster Uptake:

	Eligible	Vaccinated	Uptake	Remaining
England	20,486,039	11,005,142	53.7%	9,480,897
London	2,497,753	942,975	37.8%	1,554,778
NCL	405,662	160,345	39.5%	245,317
NEL	525,922	164,943	31.4%	360,979
NWL	627,384	215,174	34.3%	412,210
SEL	505,502	207,485	41.0%	298,017
SWL	433,283	195,028	45.0%	238,255

AW23 Booster Uptake by MSOA of Residence:



COVID: Uptake by IMD and ethnicity

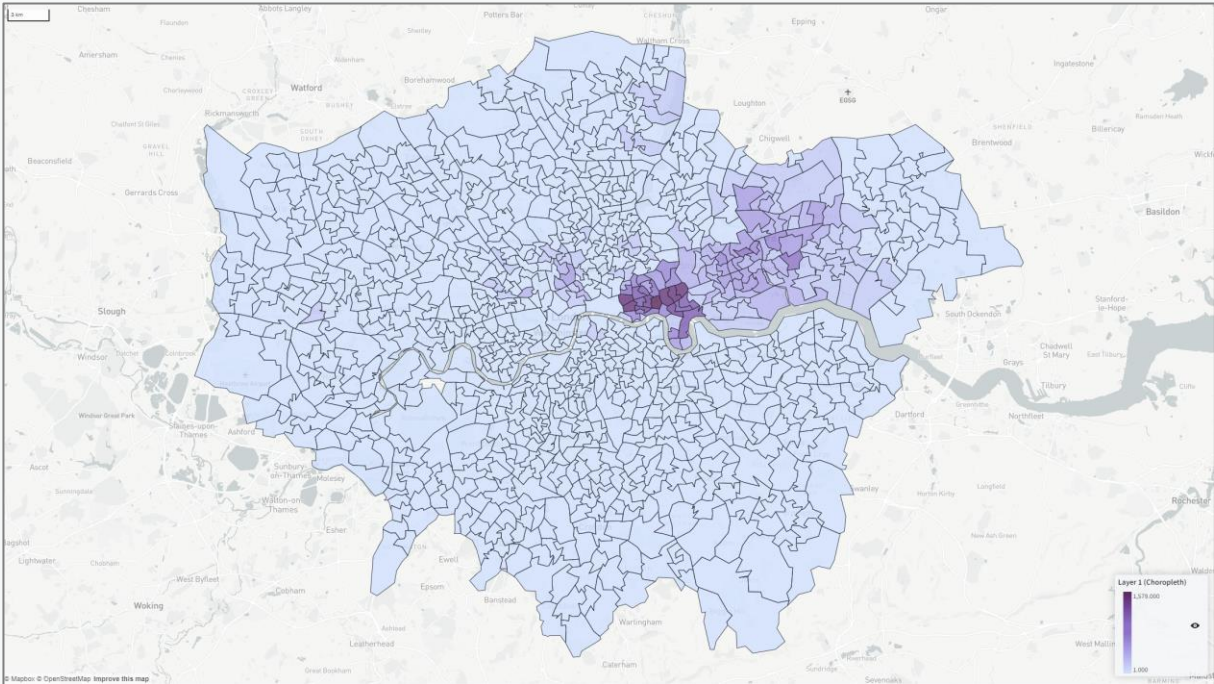
- The highest AW booster uptake is seen in the White British group, with high uptake also seen in White Irish and Chinese groups. Uptake is low across all black/mixed black ethnic groups as well as in Bangladeshi and Pakistani groups.
- Across ethnicity groups in London, we see a clear gradient of lower uptake in more deprived Indices of Multiple Deprivation (IMD) deciles to higher uptake in less deprived deciles.
- Within ethnicity groups we also see low uptake in patients with no IMD decile (i.e. no patient address information) recorded.

Ethnicity Category	1	2	3	4	5	6	7	8	9	10
A: White - British	40.4%	41.7%	44.6%	48.1%	51.6%	54.4%	56.2%	57.9%	60.5%	63.9%
B: White - Irish	42.0%	45.0%	45.2%	47.1%	49.5%	51.2%	53.1%	54.4%	57.2%	59.5%
C: White - Any other White background	19.9%	23.4%	26.1%	28.7%	32.9%	35.1%	38.4%	40.0%	44.5%	49.9%
D: Mixed - White and Black Caribbean	20.1%	20.4%	21.2%	23.3%	23.5%	26.0%	24.9%	27.0%	29.2%	35.6%
E: Mixed - White and Black African	14.2%	16.6%	18.5%	17.8%	19.2%	23.1%	23.0%	25.9%	27.3%	24.0%
F: Mixed - White and Asian	23.8%	26.0%	27.0%	29.3%	28.9%	32.0%	35.4%	34.0%	36.3%	41.0%
G: Mixed - Any other Mixed background	18.0%	21.5%	23.1%	25.9%	28.3%	30.5%	33.1%	31.8%	35.4%	38.9%
H: Asian or Asian British - Indian	24.7%	25.8%	24.6%	25.7%	30.1%	33.3%	36.6%	38.0%	39.0%	41.2%
J: Asian or Asian British - Pakistani	14.7%	13.0%	13.2%	14.2%	15.9%	17.2%	20.5%	23.5%	25.1%	27.5%
K: Asian or Asian British - Bangladeshi	17.4%	14.6%	15.7%	16.6%	17.3%	20.5%	23.1%	27.2%	30.7%	38.7%
L: Asian or Asian British - Any other Asian background	22.3%	23.4%	23.1%	24.1%	24.6%	26.6%	29.3%	31.5%	34.8%	38.8%
M: Black or Black British - Caribbean	19.4%	20.1%	21.2%	21.9%	22.7%	25.2%	27.1%	29.1%	34.0%	34.6%
N: Black or Black British - African	16.4%	16.3%	16.6%	17.1%	18.5%	20.0%	21.6%	21.9%	24.2%	27.4%
P: Black or Black British - Any other Black background	13.8%	15.6%	16.0%	17.9%	18.9%	21.0%	22.3%	22.0%	25.4%	26.5%
R: Other ethnic groups - Chinese	34.3%	34.5%	35.6%	37.2%	41.9%	41.7%	43.8%	46.1%	46.0%	46.5%
S: Other ethnic groups - Any other ethnic group	16.7%	19.7%	21.9%	23.8%	26.0%	28.7%	31.2%	33.7%	38.6%	42.9%
X: Unknown	10.9%	17.9%	21.2%	22.8%	24.5%	27.9%	33.0%	33.4%	39.7%	40.7%

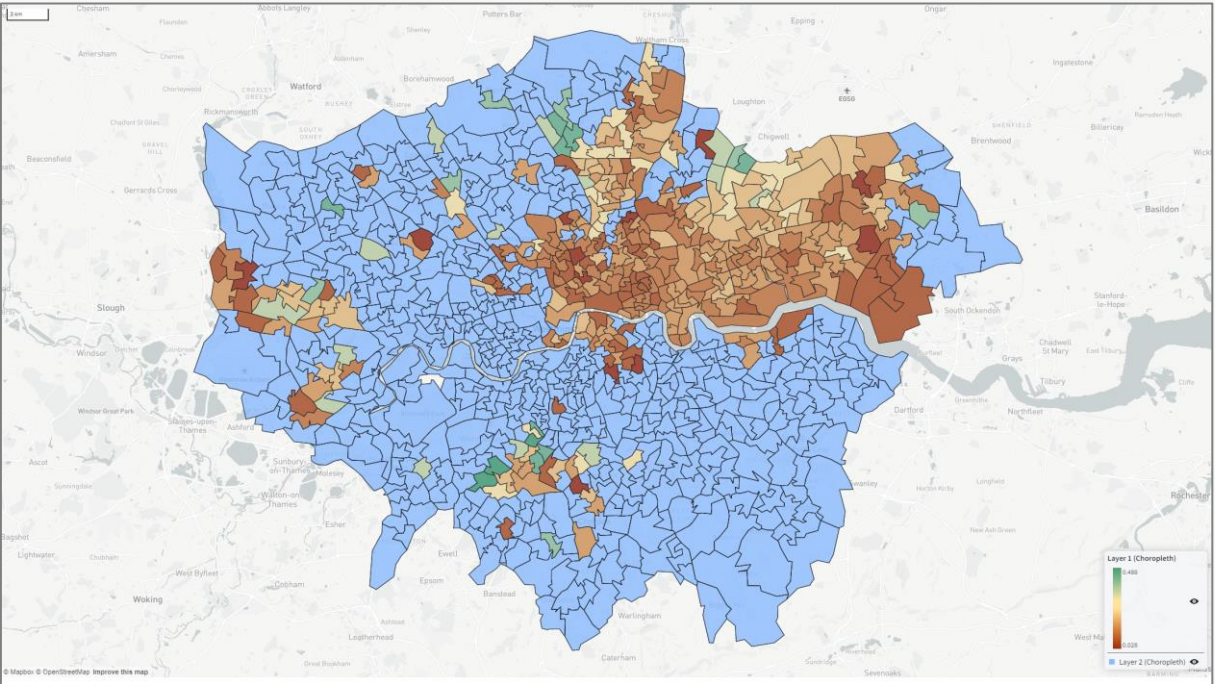
COVID: Uptake in Bangladeshi Population

- The map on the left shows the number of people per MSOA in London that are Bangladeshi. Most people in this ethnic group are in inner North East London, particularly across Tower Hamlets, Newham and Redbridge.
- The map to the right shows AW23 COVID uptake only for MSOAs with more than 30 Bangladeshi residents. MSOAs in blue have fewer than 30 residents. As per previous slides we know that overall uptake in Bangladeshi communities is low across the region.
- Uptake is low across all MSOAs in North East London. There are some small pockets where uptake is higher in the north of Redbridge as well as in Merton and Enfield. In the south of Hillingdon there is a pocket of low uptake.

Population

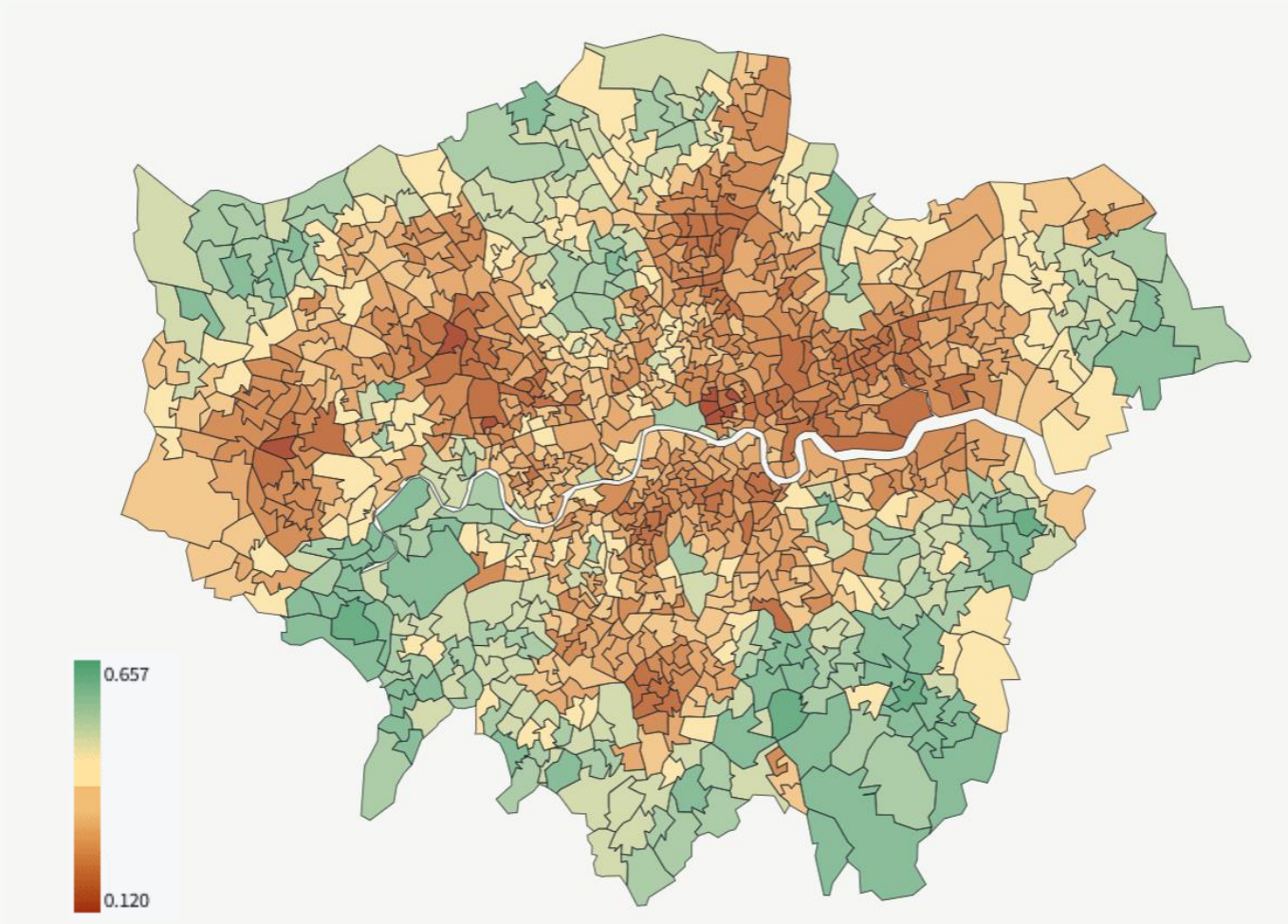


Covid Uptake (%)



Source: NHS Foundry
Notes: Uptake map only displays uptake for MSOAs with >=30 eligible population; MSOAs with <30 displayed as blue. Uptake figures were run on 4th June 2024 and include patients who – at this date – met the eligibility criteria for the AW23 campaign. These figures may differ to figures elsewhere in this pack as we are unable to exactly replicate eligible populations in extracts run previously

SB24 Uptake by MSOA

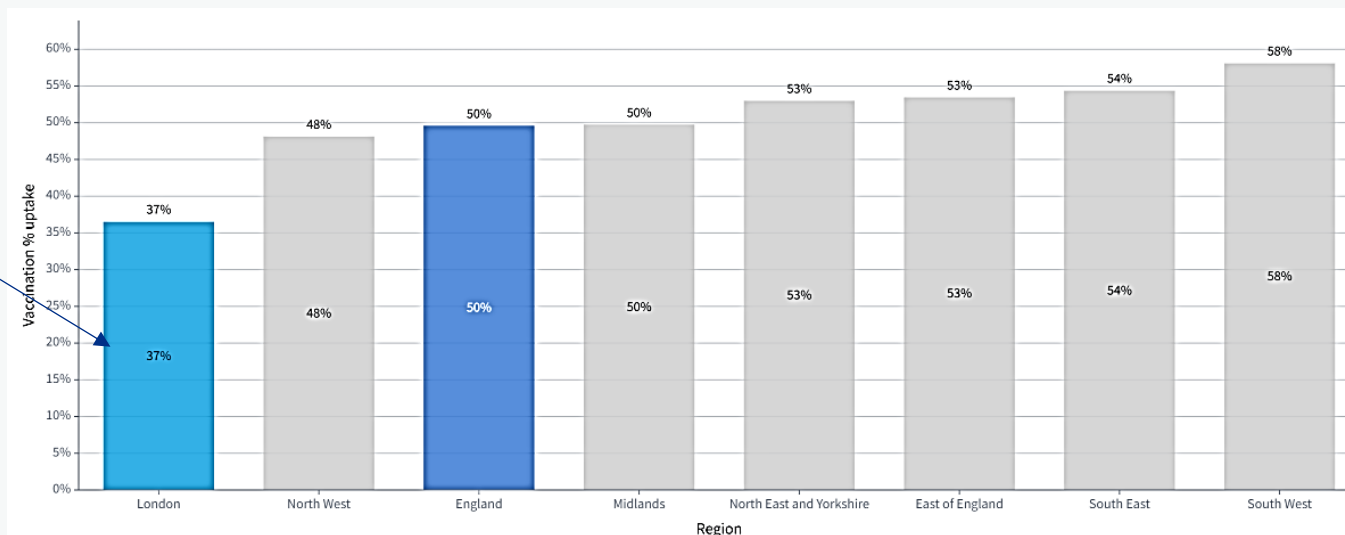


- The map shows uptake by MSOA of residence, with darker shades of brown indicating lower uptake and brighter shades of green indicating higher uptake.
- Uptake tends to be higher in outer London.
- Uptake is lowest in Newham (24.2%), Brent (28%), Southwark (29.1%) and Tower Hamlets (30.2%)
- Newham (69.2%), Brent (65.4%) and Tower Hamlets (60.6%) are three of London's most diverse boroughs, where over 60% of the population is non-white.
- The IMD (rank of) average rank, which summarises the average level of deprivation across an area, for all 3 boroughs falls within the lowest fifth of all England boroughs.

London's Flu Vaccination Uptake: Regional Comparisons and Performance of Local Integrated Care Systems (ICs)

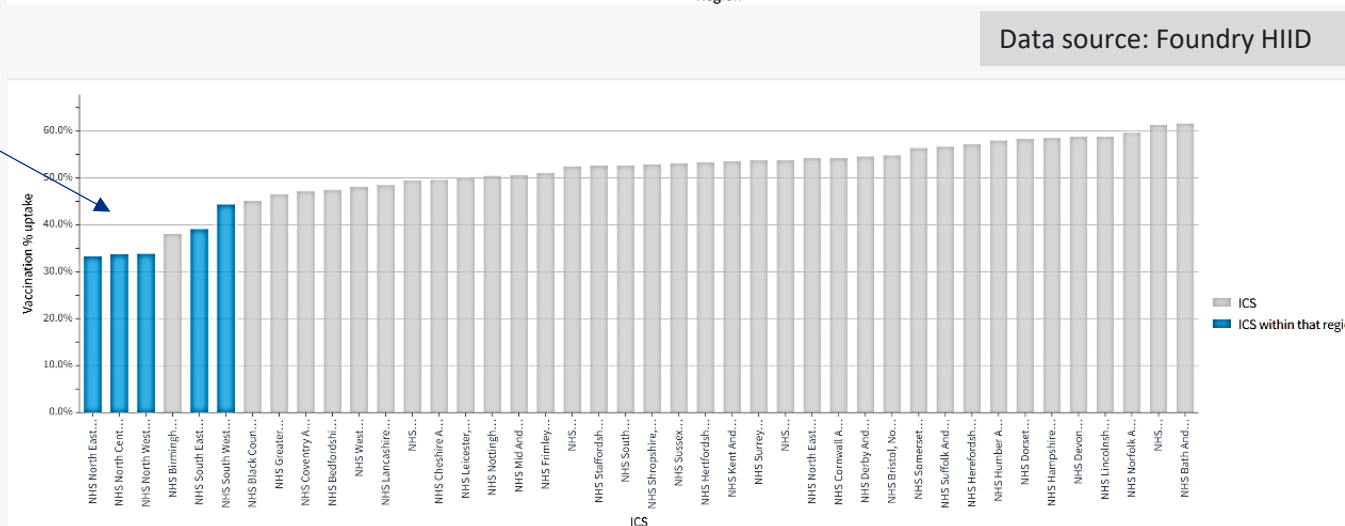
1. Regional Comparison:

- London has the lowest vaccination uptake rate at 37% among all regions in England.
- This is significantly lower than the national average for England, which stands at 50%.
- London's uptake is 13 percentage points below the national average and 21 percentage points below the highest performing region (South West at 58%).



2. London Integrated Care Systems (ICS):

- The bottom chart shows individual ICS performance, with London ICSs clustered at the lower end of the uptake spectrum.
- NHS North East London, NHS North Central London, and NHS North West London are among the lowest performing ICSs nationally.
- These London ICSs have uptake rates ranging from about 33% to 38%, which is consistent with the overall London average of 37%.



Data source: Foundry HIID

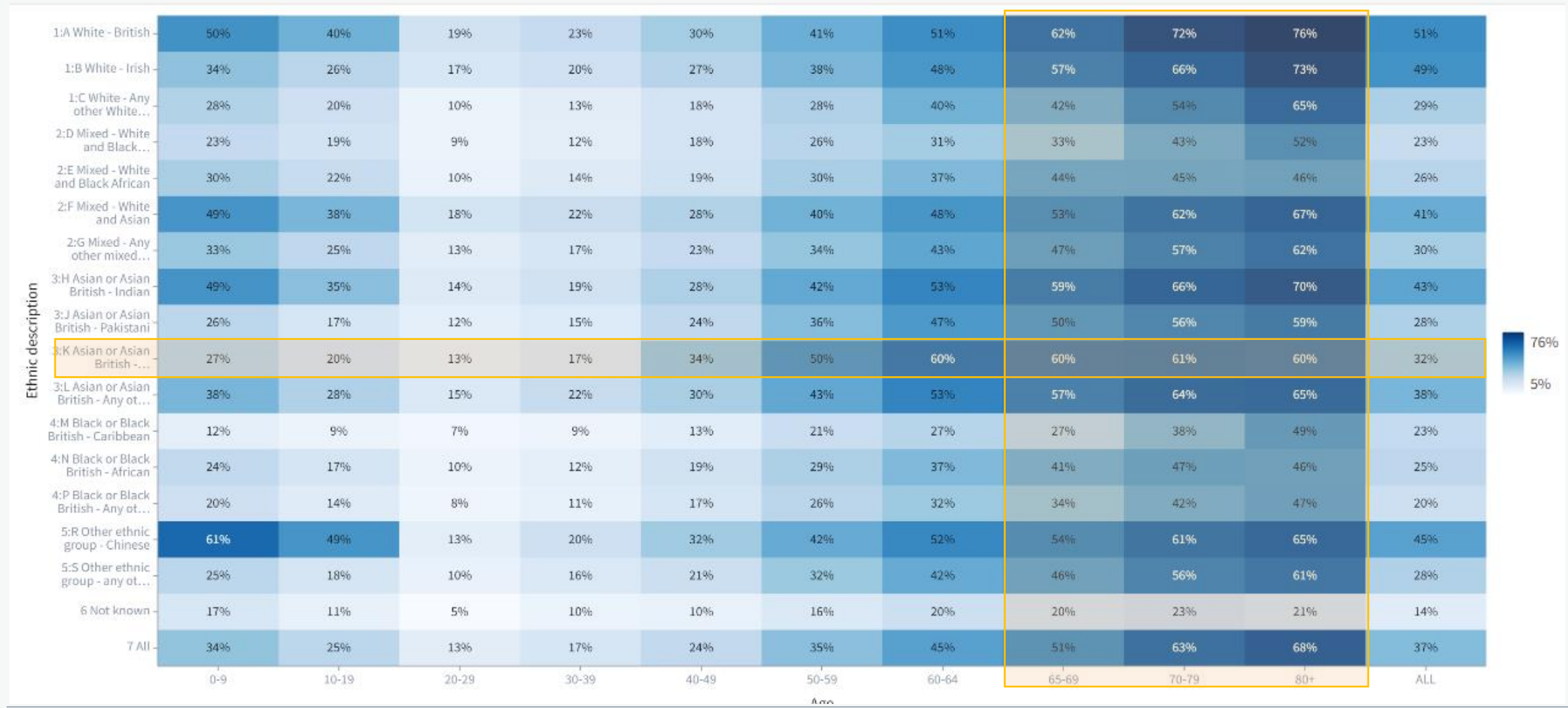
Data source: Foundry HIID

Flu Vaccine Uptake Disparities: Implications for London's Bangladeshi Population

- Bangladeshi populations have lower flu vaccine uptake compared to White British, with significant variations across deprivation levels, highlighting the need for targeted interventions in London's Bangladeshi communities



Flu Vaccine Uptake Disparities: Implications for London's Bangladeshi Population

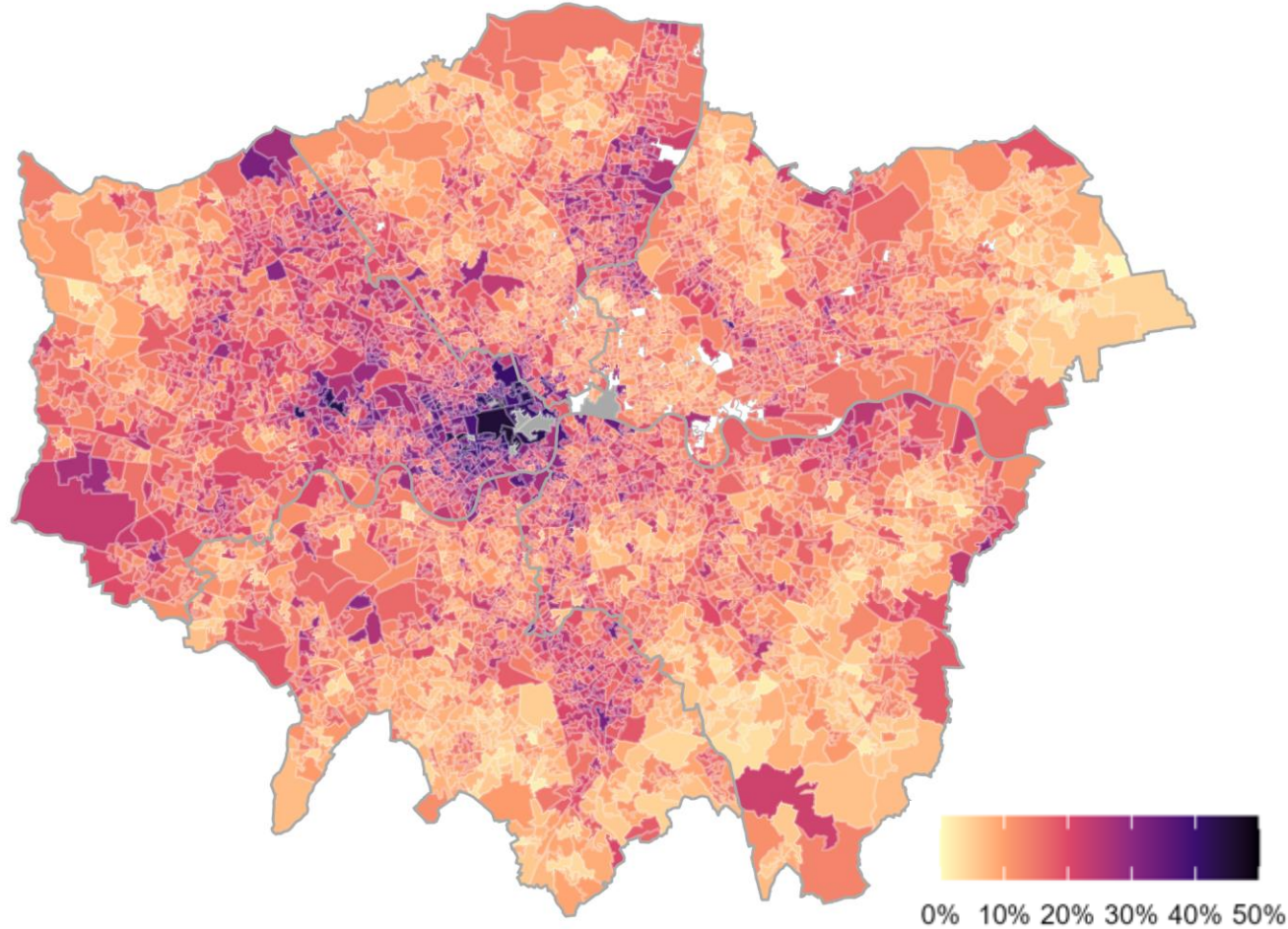


MMR Unvaccinated – LSOA

All Ethnicity groups

(LSOAs with <20 population excluded)

% MMR Unvaccinated: All



- In Jul-24 197,266 (15.8%) of London children aged 2-11 were unvaccinated for MMR. The highest proportion of unvaccinated children are in North West London and the lowest in North East London.
- This map shows LSOAs with a population of 20 children or above, shading is based on the % of that population which is unvaccinated for MMR, with darker shading indicating a higher % of unvaccinated children.
- The map indicates there are a high proportion of unvaccinated children concentrated in North West London, in North Central London (Haringey and Enfield), in inner South East London (Southwark and Lambeth) and in South West London (North Croydon, North East Wandsworth).

Bangladeshi Children Vaccine Uptake Disparities:

Bangladeshi children have better vaccination rates than many other ethnic minority groups

Unvaccinated Children Aged 2-11 for MMR – Snapshot Comparison

Aged 2-11

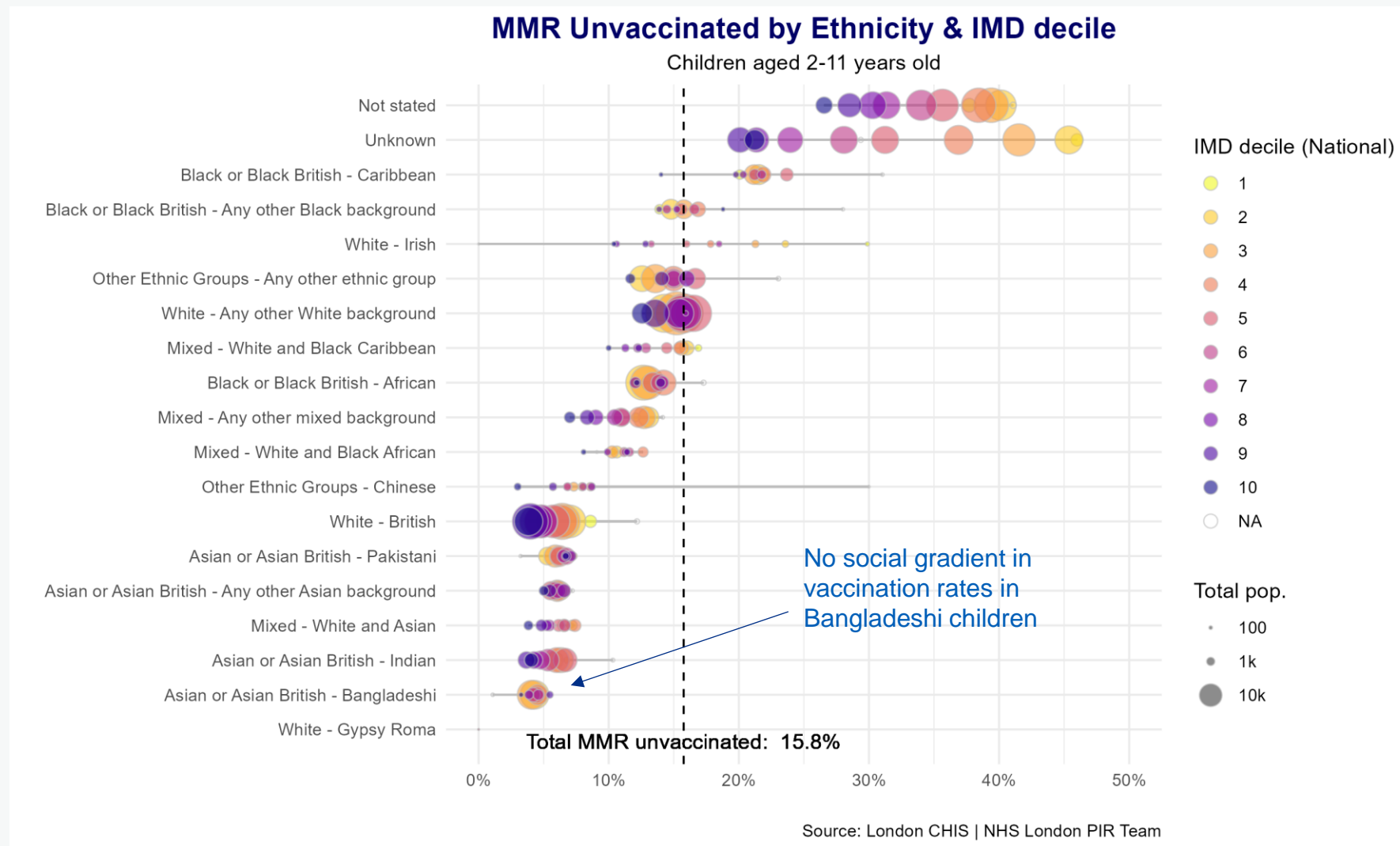
Ethnicity	Apr-24	Jul-24	Change
African	13.3%	13.2%	-0.1%
Any other Asian background	6.2%	6.0%	-0.2%
Any other Black background	15.5%	15.5%	+0.1%
Any other ethnic group	14.4%	14.4%	-0.1%
Any other Mixed background	11.4%	11.3%	-0.1%
Any other White background	15.4%	15.2%	-0.2%
Bangladeshi	4.5%	4.3%	-0.2%
British	5.5%	5.3%	-0.1%
Caribbean	21.4%	21.6%	+0.1%
Chinese	7.5%	7.2%	-0.3%
Indian	6.0%	5.6%	-0.4%
Irish	17.3%	17.2%	-0.0%
Pakistani	6.3%	6.2%	-0.2%
White and Asian	6.1%	6.1%	-0.0%
White and Black African	11.2%	11.0%	-0.3%
White and Black Caribbean	14.6%	14.6%	+0.0%
Not stated	36.2%	35.4%	-0.8%
Not known	32.5%	32.0%	-0.5%
Total	16.1%	15.8%	-0.3%

Aged 2-11

Ethnicity	Apr-24	Jul-24	Change	% Change
African	11,507	11,302	-205	-1.8%
Any other Asian background	2,963	2,845	-118	-4.0%
Any other Black background	4,169	4,090	-79	-1.9%
Any other ethnic group	10,620	10,568	-52	-0.5%
Any other Mixed background	6,046	6,015	-31	-0.5%
Any other White background	33,524	33,147	-377	-1.1%
Bangladeshi	2,443	2,330	-113	-4.6%
British	11,137	10,818	-319	-2.9%
Caribbean	6,113	6,094	-19	-0.3%
Chinese	649	616	-33	-5.1%
Indian	4,250	3,942	-308	-7.2%
Irish	877	872	-5	-0.6%
Pakistani	2,742	2,657	-85	-3.1%
White and Asian	1,186	1,182	-4	-0.3%
White and Black African	1,343	1,313	-30	-2.2%
White and Black Caribbean	2,529	2,513	-16	-0.6%
Not stated	56,542	55,092	-1,450	-2.6%
Not known	43,210	41,870	-1,340	-3.1%
Total	201,850	197,266	-4,584	-2.3%

- The tables provide a summary of unvaccinated children aged 2-11 by ethnicity at snapshots in April 2024 and July 2024. The left table shows the % of total children unvaccinated by ethnicity. The lowest proportions of unvaccinated children are seen in Bangladeshi, British, Indian and Other Asian group. Aside from Unknown, Black (African, Caribbean and Other) groups along with Irish and White Other have the highest unvaccinated proportions. Around a third of children with unknown ethnicities are unvaccinated. All ethnicities other than Any other Black background and Black Caribbean have seen small % reductions in the number of children unvaccinated.
- Looking at the changes in number of children unvaccinated in the right table, there have been reductions across all ethnicities. Larger reductions were seen in the Indian, Chinese and Bangladeshi ethnic groups.

Bangladeshi Children Vaccine Uptake Disparities: Bangladeshi children do not take inequitable MMR vaccination rates



- The bubble chart shows MMR unvaccinated children aged 2-11 years by Indices of Multiple Deprivation (IMD) and ethnicity. The bubble colour represents the IMD with 1 being most the most deprived and 10 the least deprived. The bubble size indicates the total number of children within the IMD decile and ethnicity.
- The not stated, unknown, mixed and white ethnic groups have a higher proportion of unvaccinated children in more deprived IMD deciles and a lower proportion of unvaccinated children in least deprived deciles. However, for Black, Bangladeshi, Pakistani and 'any other' ethnic groups this is not apparent, with higher proportions of unvaccinated children in the least deprived deciles.
- Within the not stated, unknown and white Irish ethnic groups there is a large gap between the high proportion of unvaccinated children in the more deprived IMD deciles and lower proportion of unvaccinated children in the least deprived deciles.

* Note that deprivation is an area-based metric. The ecological fallacy should be kept in mind when interpreting IMD based inequalities.

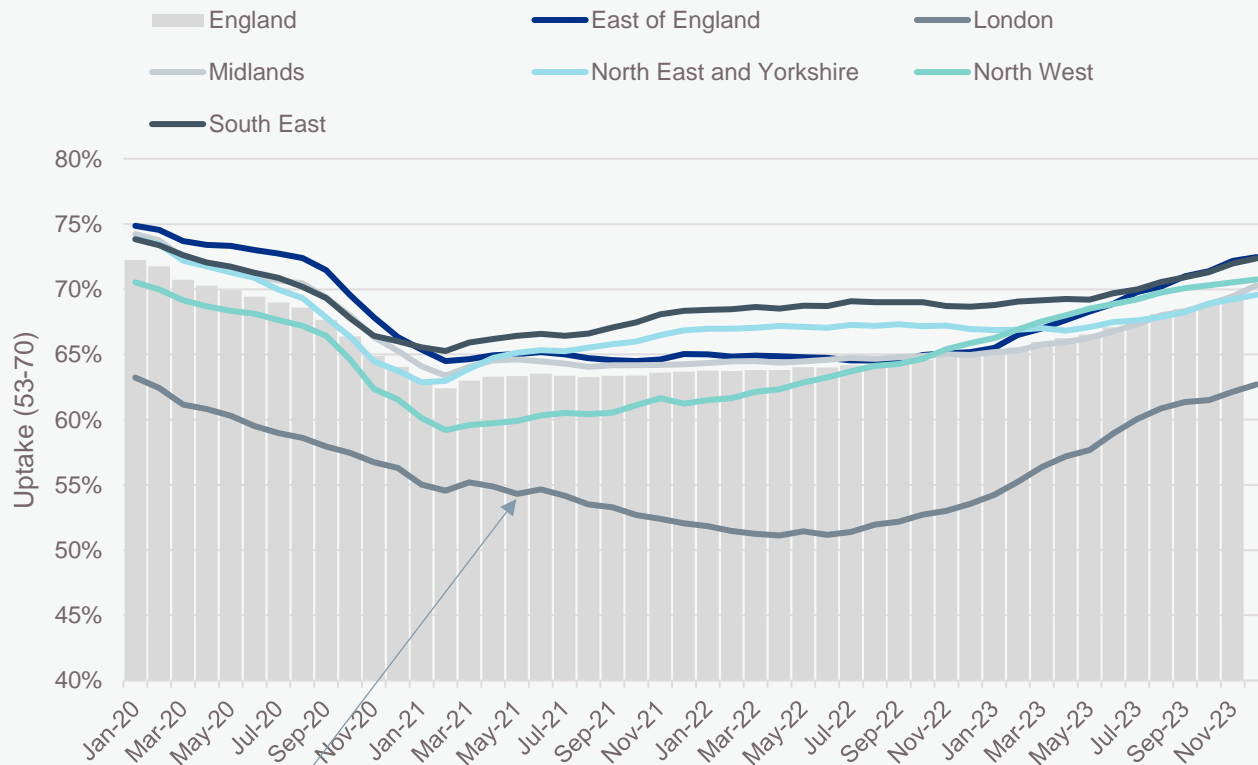
4. Breast Cancer Screening

Breast Cancer Screening Uptake in London:

Low Breast Cancer Screening Uptake in Areas with large Bangladeshi Populations

Within London breast cancer screening uptake lowest in inner London populations

Breast Cancer Screening Uptake (53-70)

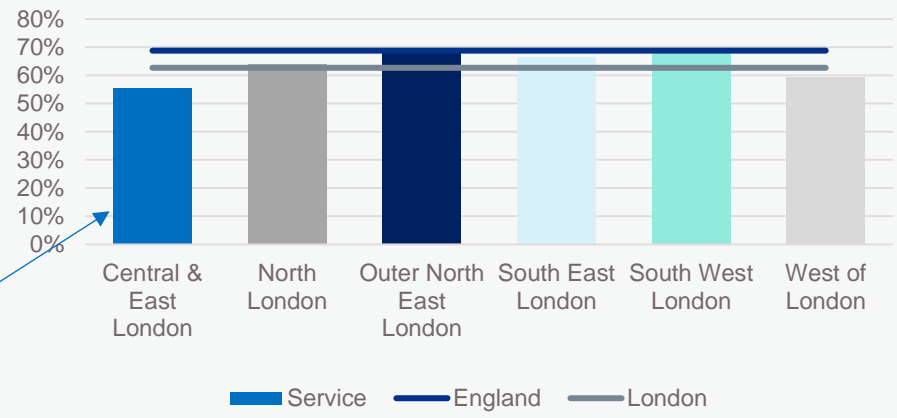
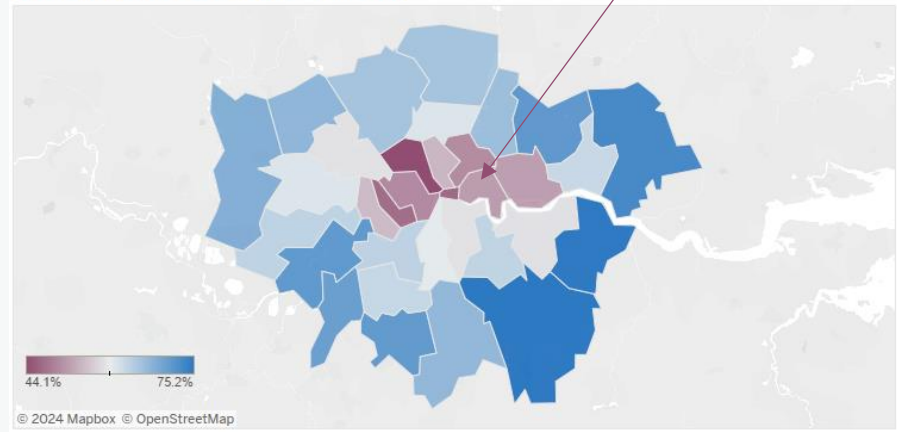


Axis does not start at 0

Breast cancer screening uptake persistently lowest in London Region*

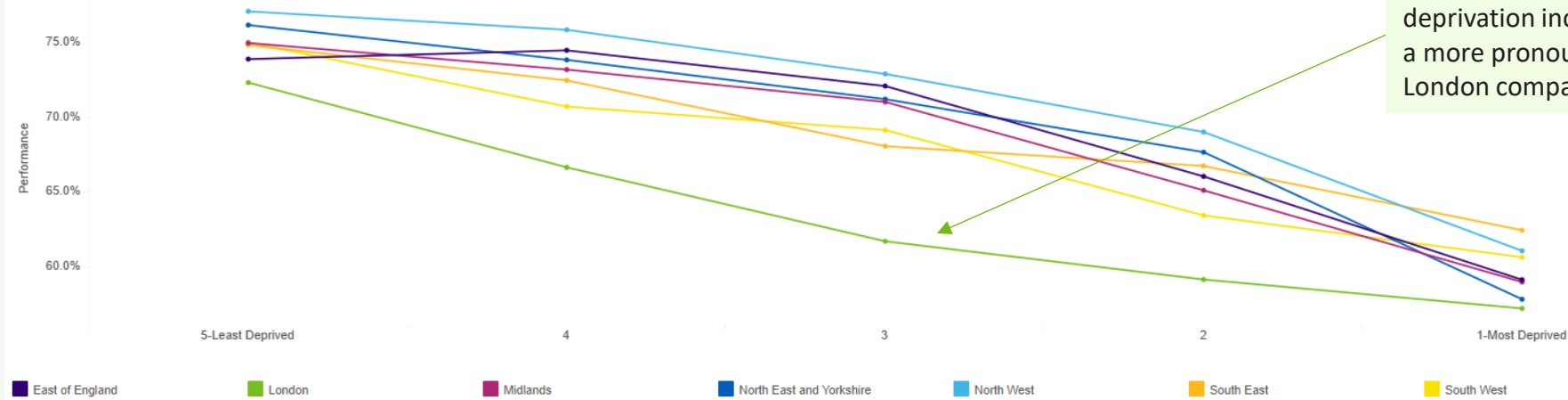
Within London breast cancer screening uptake lowest in **Central and East London**

Uptake (53-70): LTLA Map (December 2023)



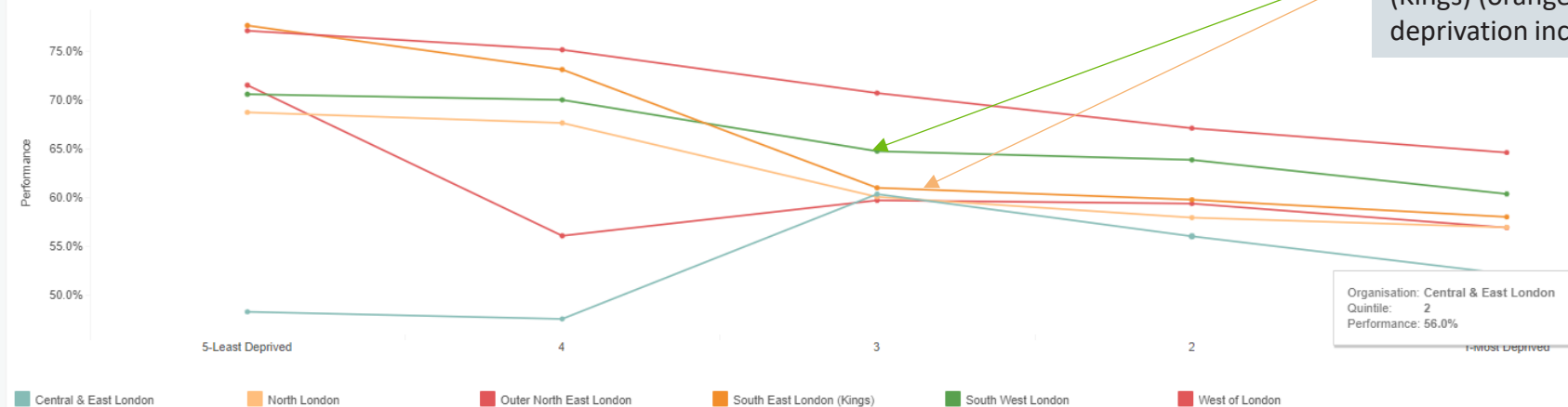
Breast Cancer Screening Uptake in Deprived Areas: Challenges for London's Bangladeshi Communities

IMD Quintiles: Region (All) - Uptake (50-70) - November 2023



London shows the steepest decline in uptake as deprivation increases. This suggests that deprivation has a more pronounced impact on health service uptake in London compared to other regions.

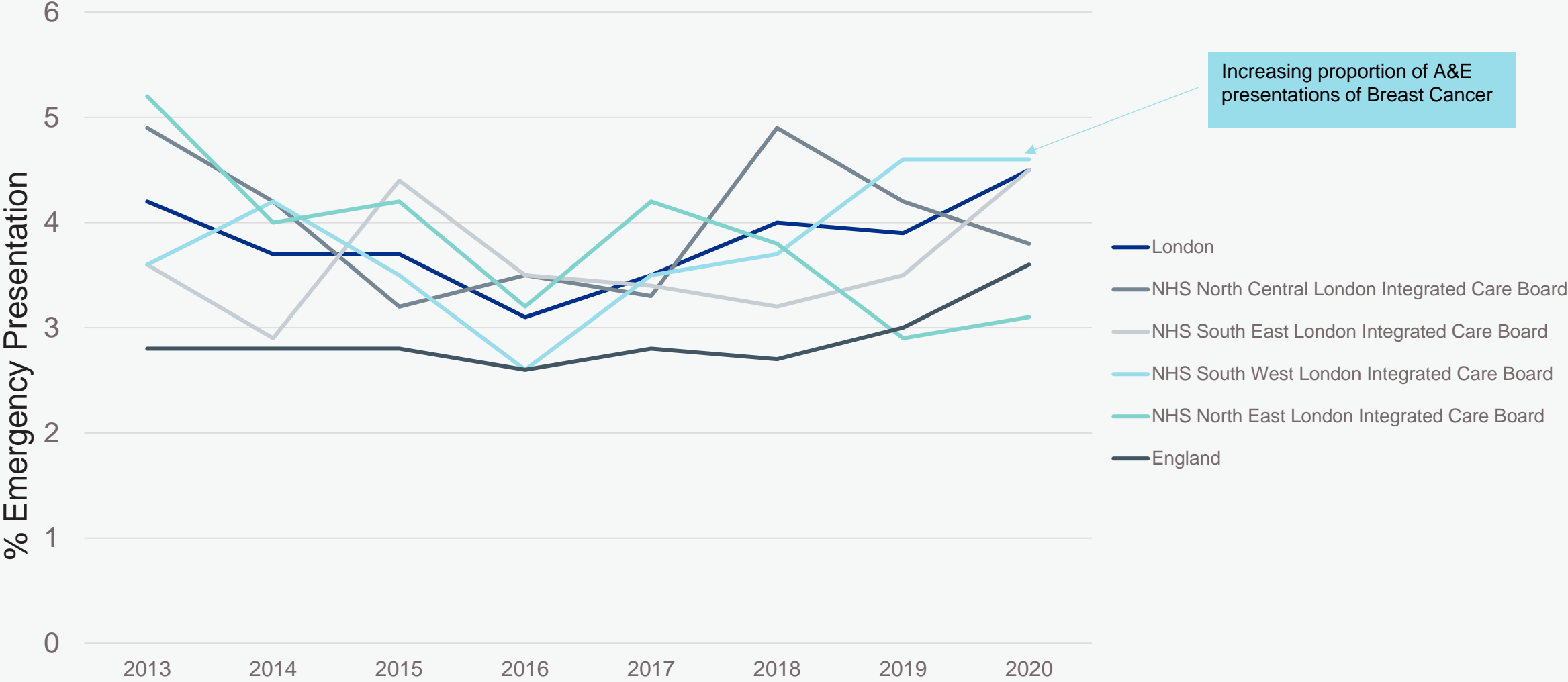
IMD Quintiles: BSO (All) - Uptake (50-70) - November 2023



Central & East London (green line) and South East London (Kings) (orange line) exhibit the steepest declines in uptake as deprivation increases.

Organisation: Central & East London
 Quintile: 2
 Performance: 58.0%

Breast Cancer: Proportion A&E emergency presentations



Data source: National Disease Registration Service

Headlines: Ethnic population density and uptake

- The table below summarizes the correlations between the ethnic population density in LSOAs across the London region and in each ICS, and breast screening uptake for screening invitations sent between June 2020 and June 2022.
- At London region level Asian Indian, White British and White Irish are the only ethnic communities that are associated with increasing breast screening uptake. All other ethnic communities are associated with a negative correlation between population density and breast screening uptake (as the population increases, uptake decreases).

Ethnicity	London Region	NWL	NCL	NEL	SWL	SEL
	Correlation between population density & breast screening uptake					
Black/Black British African	Negative	Negative	Negative	Negative	Negative	Negative
Black/Black British Caribbean	Negative	Negative	Negative	Negative	Negative	Negative
Asian Bangladeshi	Negative	Negative	Negative	Negative	Negative	Negative
Asian Chinese	Negative	Negative	Negative	Negative	Negative	Negative
Asian Indian	Positive	Positive	Positive	Negative	Positive	Positive
Asian Pakistani	Negative	Positive	Positive	Negative	Negative	Negative
Mixed ethnicities (aggregated)	Negative	Negative	Negative	Negative	Negative	Negative
White British	Positive	Flat	Positive	Positive	Positive	Positive
White Irish	Positive	Positive	Positive	Positive	Positive	Flat
White Other	Negative	Negative	Negative	Negative	Negative	Negative
White Roma	Negative	Negative	Negative	Negative	Negative	Negative

Comparison with pre-pandemic trends

- There is a correlation consistent across all ethnicities, that uptake during/post pandemic (June 2020 to June 2022) was lower than the period immediately before the pandemic (Jan 2017 – Dec 2019).
 - [Link to pre & post pandemic ethnicity comparative analysis](#)
- However, the gap to pre-pandemic levels of uptake, reduces as the White population density within a LSOA increases.
- Whereas, the gap to pre-pandemic levels of uptake, increases as the density of the following ethnicities increases:
 - Asian – Pakistani and Bangladeshi
 - Black – Black African and Black Caribbean
 - White – White Other
- [Link to system level ethnicity analysis](#)

Headlines: Religious community population density and uptake

- The table below summarises the correlations between the religious community population density in LSOAs across the London region and in each ICS, and breast screening uptake for screening invitations sent between June 2020 and June 2022.
- Overall uptake increases within a LSOA as the population density of Christians increases, apart from in NWL where an increase in the population density of Christians remains correlated with a decline in uptake.
- Overall uptake increases within a LSOA as the population density of Hindus increases – this is particularly strong in NWL. However in NEL, and SWL an increase in the population density of Hindus is no longer correlated with a decline in uptake as was the case for screening invitations between 2020 and 2021.
- In all systems there is a correlation between overall uptake decreases within a LSOA as the Muslim population density increases.
- Whereas an increase in the Jewish population density in NCL is no longer correlated with an increase in uptake, uptake in NCL now appears independent of the population density of Jewish communities in an LSOA. An increase in the Jewish population density in other systems is correlated with a decline in uptake.
- At a London region level, there is no correlation between increasing population density of the Sikh community and either increased or decreased uptake. This is predominantly due to the concentration of Sikh communities in NWL where uptake is independent of population density. Whereas in other London systems the populations are much smaller.
- [Link to system level religious analysis](#)

Religious community	London Region	NWL	NCL	NEL	SWL	SEL
	Correlation between population density & breast screening uptake					
Buddhist	Negative	Negative	Negative	Negative	Negative	Negative
Christian	Positive	Negative	Positive	Positive	Positive	Positive
Hindu	Positive	Positive	Positive	Flat	Positive	Positive
Jewish	Negative	Negative	Flat	Negative	Negative	Negative
Muslim	Negative	Negative	Negative	Negative	Negative	Negative
Sikh	Flat	Flat	Positive	Positive	Positive	Positive
No Religion	Positive	Negative	Negative	Positive	Positive	Positive

Comparison with pre-pandemic trends

- There is a correlation consistent across all religious communities (including atheist/no religion stated) that uptake post pandemic is lower than the period immediately before the pandemic.
- The gap to pre-pandemic levels of uptake reduces as the Atheist (No Religion), Christian, Hindu and Jewish population densities within a LSOA increases.
- The gap to pre-pandemic levels of uptake remains broadly consistent irrespective of the changes in population density of the Muslim population.
- The gap to pre-pandemic levels of uptake increases as the density of Buddhist and Sikh populations within a LSOA increases.
- [Link to Pre and Post Pandemic analysis](#)

Headlines: Deprivation and other factors

- The correlation that as the LSOA IMD deprivation score increases, screening uptake reduces remains true and has deteriorated since the pandemic.
- Screening uptake is lower post pandemic, compared to the period prior to the pandemic. However, the gap to pre-pandemic uptake is smaller in less deprived LSOAs (with a low IMD deprivation score), and higher in more deprived LSOAs (that have higher IMD deprivation scores).
- There is a correlation between households without anyone aged 16 or older who speak English as their main language, and screening uptake. Uptake is lower in LSOAs where more households do not contain someone aged 16 or above who speak English as a main language. In LSOAs where near 100% of households with someone aged 16 or older who speaks English as their main language, screening uptake is approximately 60%. In LSOAs where 40% of households do not have anyone aged 16 or older who speaks English as a main language, uptake is approximately 32%.
- There is a correlation between car ownership and screening uptake. In LSOAs where less than 10% of households do not own a car, screening uptake is approximately 65%. In LSOAs where 80% of households do not own a car, screening uptake is approximately 30%.

Social-economic factor	London Region	NWL	NCL	NEL	SWL	SEL
	Correlation between population density & breast screening uptake					
Deprivation (IMD score)	Negative	Negative	Negative	Negative	Negative	Negative
Households without an adult who speaks English as a main language	Negative	Negative	Negative	Negative	Negative	Negative
Households who do not own a car	Negative	Negative	Negative	Negative	Negative	Negative

- [Link to Pre and post pandemic socio-economic analysis](#)
- [Link to System level socio-economic analysis](#)
- [Link to London level Citizen's Advice Bureau dashboard data \(date upto December 2022\)](#)