

## Health Inequalities in Health Protection Briefing

### Handling Guidance

This product is designated OFFICIAL SENSITIVE. It has been produced by the Analysis and Intelligence Assessment Directorate, Health Equity and Inclusion Health, and the Strategy and Policy Teams, in UKHSA. It has been reviewed at CEO level. The purpose of this product is to summarise differences in observed incidence, management and health outcomes for a number of different health hazards including infectious disease and environmental hazards. Contact publichealthanalysis.AHI@ukhsa.gov.uk if you have any questions or to request further distribution.

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### **Problem statement**

**Problem:** Health inequalities in health protection are **unfair**, **avoidable**, **persistent** and **pervasive** differences in health outcomes between different groups of people and areas.

This includes health inequalities in infectious disease and infections, and in exposure and vulnerability to environmental hazards.

- UKHSA is committed to striving for equitable health outcomes in health protection, as set out in our <u>UKHSA Strategic Plan</u> and <u>Health Equity for Health Security Strategy</u>.
- To achieve this, we need to understand where inequalities are greatest, for whom and for which hazards (including infectious diseases and other hazards in UKHSA's remit). We also need to understand the interventions that best mitigate inequalities.

**Product:** We focus on three dimensions of inequality;

- (i) people living in different areas of deprivation,
- (ii) people from different ethnic groups,
- (iii) geographical inequalities (England, at regional level and Integrated Care System level).

Chief Data Officer Group

**UKHSA** 

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### **Executive summary: Infographic**



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### How factors like your location, job or ethnicity can damage your health

#### Blog Editor, 2 May 2025 - Health Equity



The skyline of Middlesbrough town centre, with industrial cooling towers in the background

Health inequalities are avoidable differences in health across our populations. You can suffer health inequalities because of where you were born or live, your ethnicity, or even because of your job.

How factors like your location, job or ethnicity can damage your health – UK Health Security Agency

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UK Health Security Agency

### Research and analysis Health inequalities in health protection report 2025

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### **Executive summary**

Health inequalities in health protection have a high human cost across people and place. They have a wider societal impact, including on health services and economic productivity. The causes of and solutions to addressing health inequalities are often systemic, structural and complex. This report sets out the extent of these health inequalities. It aims to support health systems in better understanding who and where is most affected. It is a step towards enabling sustainable change, so that all our communities can live longer and in better health, safe from health hazards.

In England, those living in the 20% most deprived areas bear the greatest burden, with emergency hospital admission rates due to infectious disease almost twice as high as compared to the least deprived. People from more deprived areas are also disproportionately impacted by radiation, chemical, climate and environmental hazards through their exposure, direct impacts on their health, and the exacerbation of existing health conditions.

Poor outcomes from infectious diseases are unevenly distributed across ethnic groups, with some ethnic minority groups experiencing the highest emergency hospital admissions. Emergency hospital admission rates for tuberculosis (TB) were 29 times higher for the 'Asian other' group, 27 times higher for the Indian group and 15 times higher for the 'Black African' group, compared to the 'White British' group. For all infectious diseases considered together, 5 ethnic group categories had rates of emergency hospital admission disproportionately higher than the 'White British' group. In-depth analysis is required to understand the multiple contributing factors to these inequalities and the interaction between demographic characteristics. People from some ethnic minority groups are also disproportionately impacted by radiation, chemical, climate and environmental hazards.

Across England regions, those living in the North West bore the greatest burden of infectious disease, with overall emergency hospital admission rates in the region 1.3 times higher than the England average and over 1.5 higher than the South East.

### Health inequalities in health protection report 2025 - GOV.UK

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# Deprivation: Those living in the 20% most deprived areas are almost twice as likely to be admitted to hospital due to infectious disease or infection, as compared to the 20% least deprived

Figure 1: Infectious diseases and infections category emergency admissions rates by deprivation level, England, 1 September 2023 to 31 August 2024 (age- and sex-standardised rates)

The legend is presented in the same order as the stacked bars



Between 1 September 2023 to 31 August 2024 in England, the most deprived 20% of the population (IMD1) were 1.9 times more likely to be admitted to hospital with an infectious disease or infection than the least deprived 20% (IMD5).

**Respiratory infections had the greatest absolute inequality,** with an estimated additional 128,000 admissions due to deprivation-associated inequalities, comparing between IMD1 and IMD5.

Respiratory infections also had the greatest relative inequality, with the most deprived 20% being over twice as likely to be admitted to hospital with a respiratory infection than the least deprived 20%. This is disproportionate.

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ATTRIBUTION data: Admitted Patient Care 01 September 2023 to 31 August 2024, visualisation: UKHSA, analysis: UKHSA. We focus on the 20% most deprived to align with the <u>CORE20PLUS framework</u>.

Deprivation: within disease categories, inequality in health outcomes between people living in the most and least deprived areas is almost universal. However, the scale of inequalities varies by condition

Figure 2: Inequalities between the most deprived and least deprived quintiles in emergency hospital admissions, England, 1 September 2023 to 31 August 2024 (age- and sex-standardised rates per 100,000)



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ATTRIBUTION data: Admitted Patient Care, 1 September 2023 to 31 August 2024, visualisation: UKHSA, analysis: UKHSA.

# Ethnicity: Infectious disease and infection outcomes are unevenly distributed between ethnic groups

Figure 3: Infectious diseases and infections category emergency admissions rates by ethnic group, England, 1 September 2023 to 31 August 2024 (age- and sex-standardised rates, per 100,000)

The legend is presented in the same order as the stacked bars

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Five ethnic groups had disproportionately high rates of admission, and four had disproportionately low rates of admission, as compared to the White British group.

"Any other Black ethnicity" had the highest rates of admission and are approximately twice as likely to be admitted than the White British group.

The scale of inequality varies by hazard and type of infection. Respiratory infections had the greatest absolute inequality, and infections such as tuberculosis and influenza see high relative inequality.

ATTRIBUTION data: Admitted Patient Care 1 September 2023 to 31 August 2024, visualisation: UKHSA, analysis: UKHSA.

\*across all ethnic groups, we have not accounted for differences between non-UK born and UK-born individuals.

# Geography: Admission rates are disproportionate between geographies, at region and Integrated Care System level

Figure 4: Infectious diseases and infections category emergency admissions rate, per 100,000 by NHS Region and Integrated Care System level (ICS), 1 September 2023 to 31 August 2024 (ageand sex- standardised rates)



Figure 5: Emergency hospital admission rate by region and admission type, NHS England regions, 1 September 2023 to 31 August 2024 (age- and sex-standardised rates)



**Deprivation, Ethnicity and Geography:** People from areas of high ethnic diversity and high levels of deprivation are disproportionately impacted by radiation, chemical, climate and environmental hazards through their exposure, direct impacts on health and the exacerbation of existing health conditions

Figure 6: Fraction of mortality attributable to particulate air pollution, 2023 Proportion - %



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ATTRIBUTION source: <u>DHSC Fingertips dashboard</u>, data: DEFRA

# Economic cost estimates: Inequalities in costs of admissions between deprivation areas are estimated to amount to up to £1.5 billion per year

Figure 7: Total cost of infectious disease and infections emergency hospital admissions by deprivation level, diagnosis fields 1-5, England, 6 April 2022 to 5 April 2023

Costs are calculated per patient and aggregated by deprivation level. The legend is presented in the same order as the stacked bars.

### Total cost of infectious disease hospital admissions by deprivation quintile



England, 2022-2023 financial year

Inequalities in the cost of admissions between deprivation quintiles amounted to approximately £970 million for the 22/23 financial year, for infectious disease or infection as a primary diagnosis only.

Inequalities in cost of admissions where infection or infectious disease was a primary or up to fourth secondary diagnosis are up to  $\pounds$ 1.5 billion in the 22/23 financial year.

ATTRIBUTION data: Admitted Patient Care, National Tariff Payment System. Analysis: UKHSA

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\*Calculated as the excess cost for IMD quintiles 1 -4 above the cost if all groups had the same admissions as IMD5.

### What is UKHSA doing?

Building the evidence base on the burden of disease and the factors which contribute to it across different population groups is just one of the key actions needed to achieve more equitable outcomes. Some other examples of work UKHSA has been doing to achieve this are:

### Prepare

Be ready for, and prevent, future health security hazards

### Vaccine Preventable Disease: evidence informed campaigns to improve vaccine uptake

- Designed in partnership with NHSE to respond to the declining uptake rates in the childhood immunisation programme.
- Insights and cocreation took place with specific populations where data showed that uptake was lower.
- Piloted in Manchester, then rolled out nationally in response to the measles outbreak alongside materials provided for communities to adapt and use.

### Respond

Save lives and reduce harm through effective health security response

### Progressing WHO elimination goals: Tackling TB in inclusion health groups

- Data highlights the extreme inequalities in TB experienced by inclusion health groups
- Inclusion Health groups experience social exclusion, stigma and discrimination, and poor access to health services, requiring tailored approaches to enable them to access testing and treatment.
- UKHSA developed a multi-agency
  'Tackling TB in inclusion health groups toolkit' to promote and inform holistic prevention, testing and treatment.

### Achieve more equitable outcomes

### Build

Build the UK's health security capacity

### Winter pressures: reducing inequalities in emergency hospital admissions

- UKHSA analysed hospital admissions data for influenza and COVID-19 by ethnicity and deprivation to identify inequalities.
- The analysis was shared with partners and published the Inequalities in emergency hospital admission rates for influenza and COVID-19 technical report.
- This has helped to inform multiagency interventions, including comms and engagement, and further analysis on contributing factors.

### Call to action: what can the system do?

There are multiple risk factors and wider determinants that influence the health inequalities experienced by different groups. Therefore, understanding where inequalities are greatest and for whom, and adopting a cross-system approach to act on this data and implement targeted interventions is critical to maximise whole population benefit.

### Use data and evidence

- Apply the COREE20PLUS framework to identify and address inequalities through targeted actions.
- Review which population groups are not represented in the data, and utilise additional approaches including data linkage to strengthen visibility

By applying the CORE20PLUS framework to data collection, we can strengthen the visibility of populations within data sets and enable the system to take evidence based and tailored actions.

### Leverage expertise at every level

- Consider what can be done most effectively at hyper local, local, regional, and national levels to build and scale effective interventions.
- Engage with communities to cocreate solutions that improve health outcomes.

Communities can identify and develop effective hyper local solutions to achieve more equitable outcomes for their populations. By working with them, it is possible to identify what works and, where appropriate, scale using national data and policy levers to drive performance and efficiency

### Partner for evidence-based innovation

- Combine expertise across sectors, including other government departments, academia, think tanks, the private sector and voluntary organisations.
- Evaluate the impact on inequalities and build evidence on the wider determinants of health and adopt cross-system tailored approaches to address root causes

Strengthening partnerships across sectors can accelerate performance in reducing the gap in healthy life expectancy. This could include combining expertise to make best use of new technologies and maximising social value across the economy to deliver more equitable outcomes

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### Thank you for listening.

Any questions?

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