

# **Air Pollution and Inequalities in London - update 2023**

## **Key information**

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## **About the report**

This report analyses the relationship between exposure to air pollution with deprivation, ethnicity, diaspora communities, red routes and vulnerable receptors in London and how this relationship has and is expected to change from 2013 up to 2030.

## **Key points**

### **General exposure**

While progress has been made to reduce air pollution concentrations, most markedly since 2016, the whole population of London is forecast to remain exposed to NO<sub>2</sub> and PM<sub>2.5</sub> concentrations above the recommended WHO air quality guidelines in 2030, unless further significant action is taken to reduce concentrations.

### **Deprivation**

The most deprived communities of London still more commonly live in the most polluted areas, however concentrations have declined faster in areas of deprivation and more markedly since 2016.

Again, unless further significant action is taken, the differential of pollution experienced between the least and most deprived will remain.

## **Ethnicity**

The areas in London with the lowest NO<sub>2</sub> and PM<sub>2.5</sub> concentrations have a disproportionately white population. The inequalities in exposure to air pollution experienced between ethnic groups are much more pronounced in Outer London than Inner London. Despite progress towards meeting the WHO targets, the disparity in exposure by ethnicity is not expected to change over time without further significant action.

## **Diaspora communities**

Diaspora communities tend to reside in areas where there are higher concentrations of pollutants than the London average.

## **Vulnerable receptor sites**

For all years analysed between 2013 and 2030, all schools, hospitals and care homes will remain exposed to concentrations of NO<sub>2</sub> and PM<sub>2.5</sub> above the WHO guideline annual mean, unless further action is taken.

## **Red routes**

Communities living along red routes are exposed to higher air pollutant concentrations, though these concentrations are expected to reduce over time. The red route population exposed to NO<sub>2</sub> concentrations exceeding the WHO interim guideline is forecast to reduce from 100 per cent (1.1 million) in 2016 to 76 per cent (1 million) in 2025 and to 19 per cent (0.2 million) in 2030. Red routes are designed for main traffic and are likely to be the last places in London to meet the WHO interim targets unless further action is taken.

The report builds on previous analysis undertaken on behalf of the Greater London Authority:

- [Air Pollution and Inequalities in London 2019](#)
- [Air Pollution Exposure in London: Impact of the Environment Strategy](#) (2019)
- [Updated Analysis of Air Pollution Exposure in London](#) (2017)
- [Analysing Air Pollution Exposure in London](#) (2013)

These reports all focused on air quality at that time in London, seeking to identify whether air pollution had a role in health and social inequality and the degree to which it could be quantified (using data available at that time).

Part two of the report investigates how London compares with other cities in this area and shows that London is leading the way in assessing air quality and inequalities.

## **Full report**

[Read part one of the report: London Analysis](#)

[Read part two of the report: comparison with other cities](#)

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