# Severe asthma biologics use in England: a need to increase use and reduce inequity

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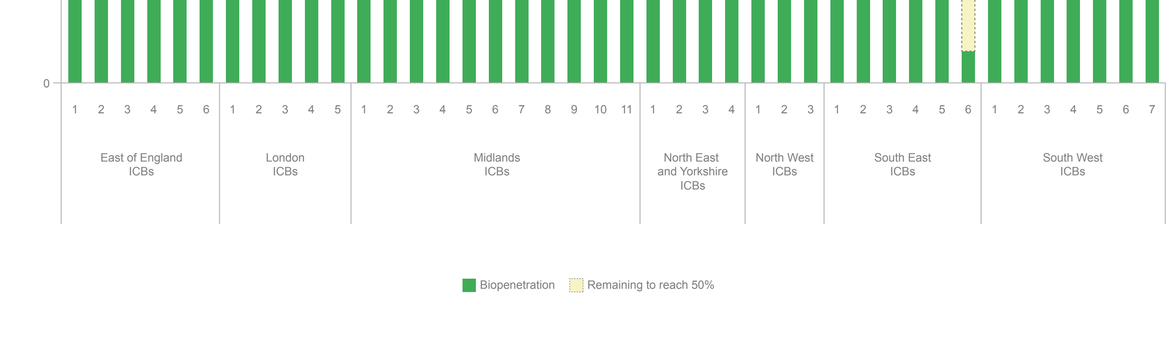
## Why did we perform this research?

- Asthma is a common, chronic disease affecting over 260 million people globally[1] with varying degrees of impact on individuals and healthcare services
- Severe asthma (SA) affects ~5% of people with asthma[2] and is associated with frequent exacerbations, hospital attendances and steroid use[3]
- Asthma biologics can be transformative for patients with severe asthma, reducing oral steroid reliance and improving quality of life[4]
- In England, patients are referred to and undergo systematic assessment in a specialist centre prior to biologic initiation
- We aimed to evaluate the degree of regional variation in biologic prescribing across England to assess the need for interventions to improve access

## How did we perform this research?

- In England, 42 Integrated Care Boards (ICBs) link into 14 severe asthma networks and centres, serving seven National Health Service regions
- Data (BlueTeq: national recording system) on the initiation of biologic treatments in eligible patients in England between 2016 and 2023 were obtained for all 42 ICBs
  - Patient eligibility was calculated at 2.34% using the incidence of asthma in the United Kingdom from the Quality and Outcomes Framework[5]
- An arbitrary target of 50% uptake of biologic therapy among eligible patients was used to benchmark initiation of biologics nationally by ICB and to contextualise a forecast based on current use among eligible patients actually receiving biologics

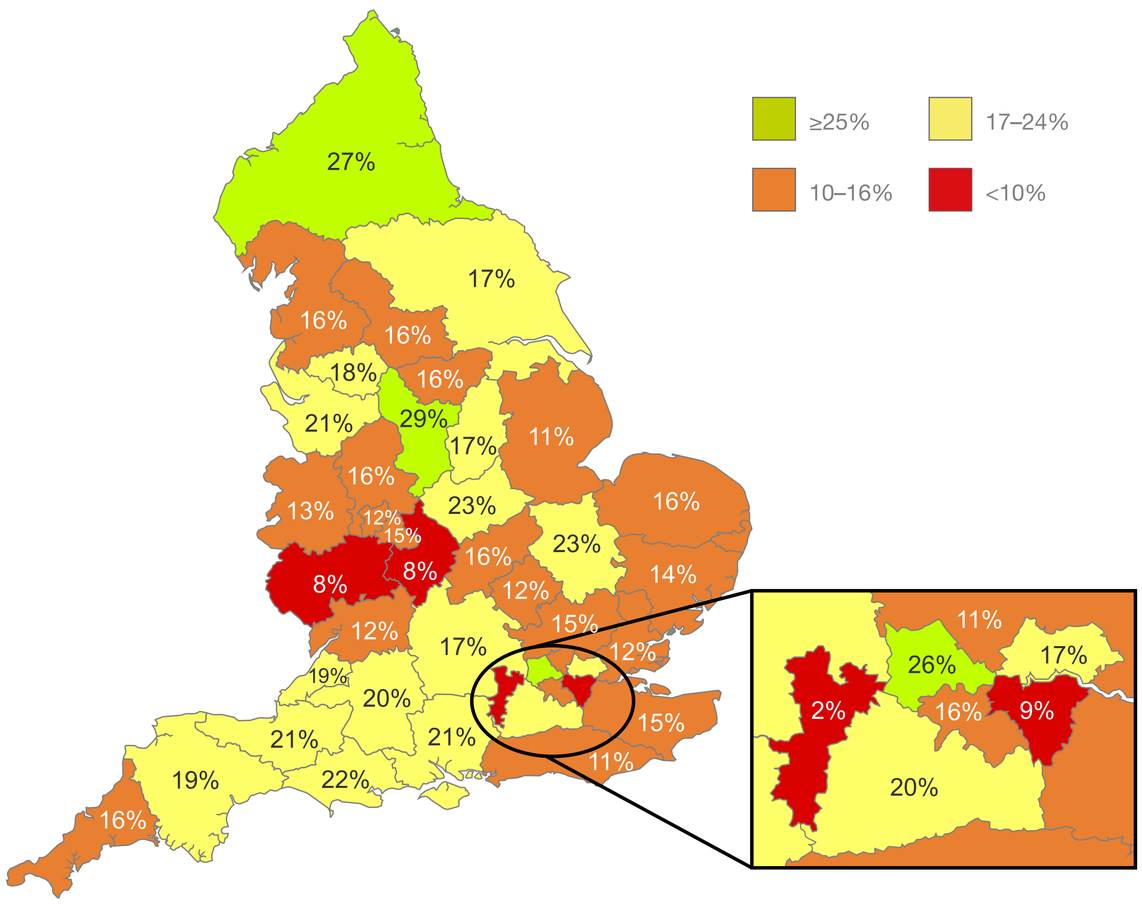
**Figure 2. Rates of use of biologics and deficit from 50% use by regional Integrated Care Boards in England**




## What did we find?

- The national median of biologic therapy uptake by patients with SA in England between 2016 and 2023 was 16% and uptake varied widely among ICBs, between 2% and 29% (an up to 15-fold difference: Figure 1)
- All ICBs are falling short of the illustrative 50% target (Figure 2)
  - The 50% target is arbitrary and much greater use of biologics is desired in practice
- Based on the current regional use of biologics by ICBs in England (lowest of 2%), modelling forecasts that 50% use will be achieved for just two ICBs in the next 5 years, in different regions of the country. Across all other ICBs in England (n=40) the model estimates that it will take 37 years (until December 2061) for 50% of eligible patients to be on biologic therapy

**Figure 1. National use of biologics (percentages) for treatment of severe asthma in England**




Areas in England with Integrated Care Board rates of use of biologics stratified as <10%, 10–16%, 17–24% and ≥25%.
Adapted from NHS England. Available from: www.england.nhs.uk/integratedcare/integrated-care-in-your-area/
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## How might this impact current clinical practice?

- **In England, biologics are underused among eligible patients with SA, with considerable regional variability and inequity**
- **Interventions to address the challenges have been shown:**
  - Proactive identification of patients with SA using primary care search tools led to a 3-fold increase in biologic referral for initiation in one region[6]
  - At the other end of the patient journey, accelerating transfer to home care in appropriate patients can increase capacity to initiate biologics and reduce time to start biologics[7]
  - Additionally, improved integration of care between specialist centres and primary care can support more timely and higher rates of biologic initiations
    - An immediate opportunity exists for ICBs with the delegation of specialised commissioning for SA from NHS England
- **System-wide, nationally driven policy change and implementation are needed to reduce variation in care and ensure appropriate patients receive this treatment in a timely manner**

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