

# Low carbon footprint inhalers in England: a review of dispensing data

## Background

Metered dose inhalers (pMDIs) have a higher carbon footprint than low carbon inhalers (LCIs), such as dry powder inhalers. pMDIs contribute 3.5% of the NHS's CO<sub>2</sub> equivalent emissions. In 2019, NICE and BTS/SIGN guidelines attempted to increase use of LCIs, but their effects & factors influencing success are unknown.

**Aim:** To investigate temporal & geographical variation in LCI prescribing in England over 5 years.

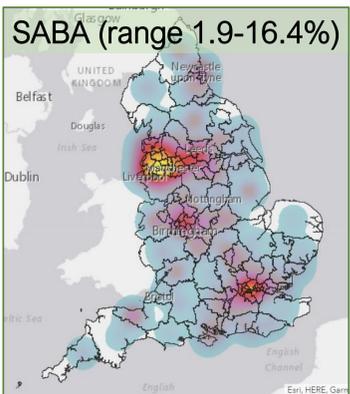
## Methods

**Data**  
CCG dispensed items (March 2016-Feb 2021) from openprescribing.net  
CCG population characteristics from ONS, PHE & CCG websites

**Key measure**  
Low carbon inhaler % = LCI items relative to total inhaler items (pMDI + LCI)

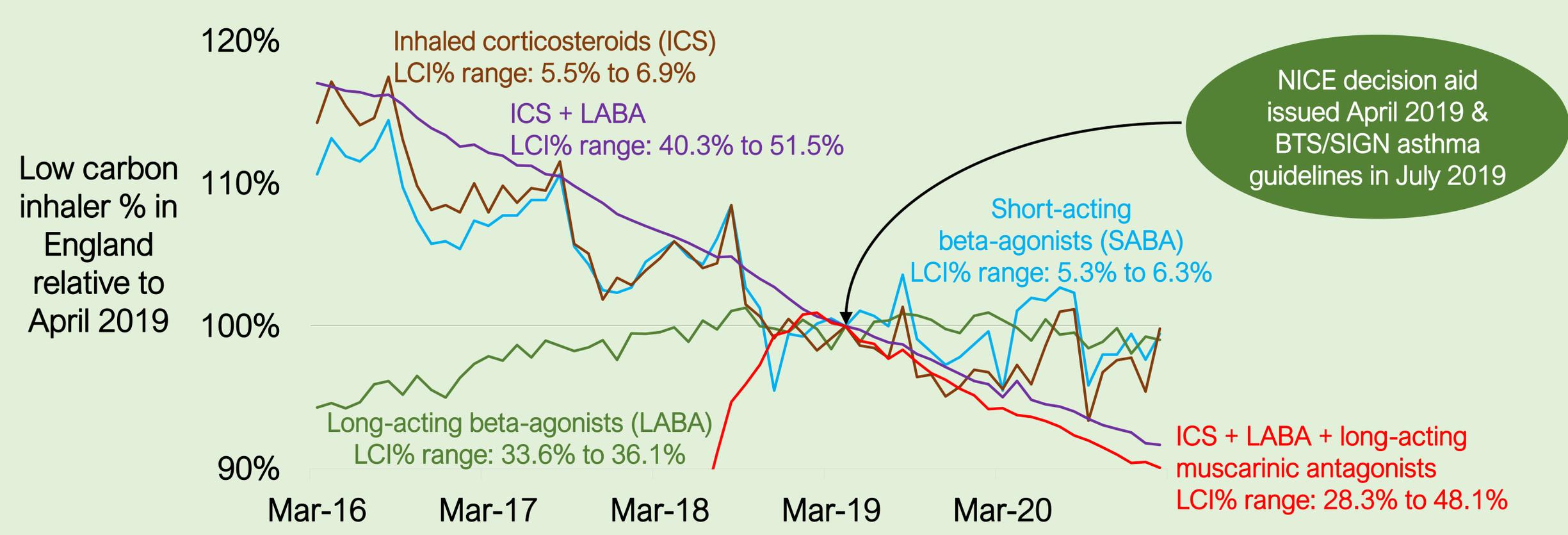
**Statistical analysis**  
Interrupted time series analysis to investigate temporal variation. Multivariate regression models to investigate geographical variation

## Low carbon inhaler % by CCG



SABA & ICS: both advice on climate change in CCG guidelines & asthma prevalence associated with higher %LCI  
ICS & ICS+LABA: CCG population <15 years associated with lower %LCI

# Despite current initiatives, use of low carbon inhalers in England has fallen since 2019



Only a small increase in low carbon inhaler % seen after publication of NICE & British Thoracic Society guidelines, which was soon erased by the long-term trend

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