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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_2** 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

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

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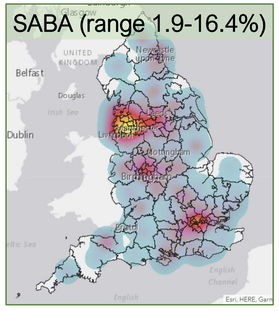
Statistical analysis
Interrupted time series analysis to investigate temporal variation. Multivariate regression models to investigate geographical variation

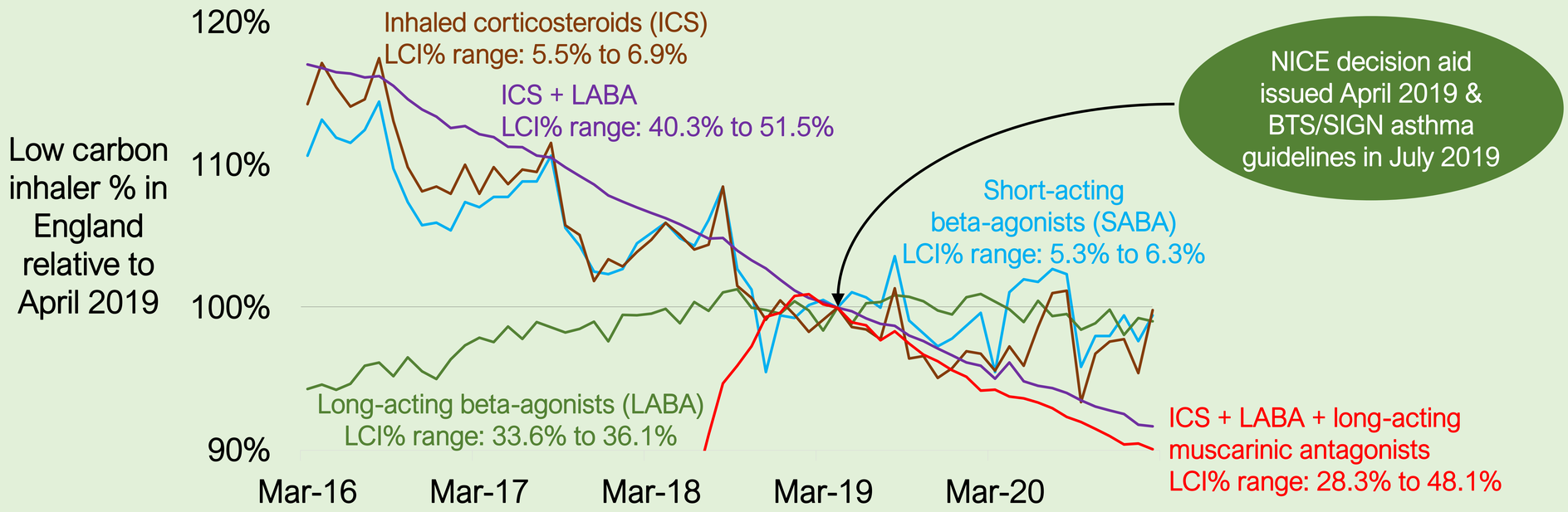
Low carbon inhaler % by CCG



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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