




**Breathing through the years –
how children’s asthma outcomes have changed**

Aleksandra Gawlik-Lipinski, MSc., PhD Candidate, Independent Nurse Consultant, NRAP Clinical Fellow for CYP Asthma



Project background

- Common condition affecting airways
- Despite treatment children and young (CYP) people die
- National Report on Asthma Deaths (NRAD) 2014: 28 CYP deaths between 2012-2013
- NRAD: 65% of deaths avoidable
- Nuffield Report 2018 – UK among countries with the highest rate of CYP asthma deaths
- National Child Mortality Data (NCMD) 2024: 54 CYP deaths between 2019 – 2023



Aim

Explore trends in childhood asthma deaths, life-threatening attacks and poor control over the last 20 years in England



Methods



Retrospective cohort study



Data from Clinical Practice Research Datalink (CPRD) linked to hospital episodes statistics (HES), Office of National Statistics (ONS) mortality data, and the index of multiple deprivation (IMD)



English patients aged 5-21 registered with GP practice contributing data to CPRD (with linkage to HES and IMD data)



CYP asthma deaths & ICU admissions incidence rate

Unpublished data – do not share

Asthma deaths

113 asthma deaths 2002-2022

Mean incidence 0.2/100 000

21% of non-white ethnic background (12% in the general population)

39% from most deprived areas (24% in general population)

ICU admissions

1955 ICU admissions

Mean incidence 4.3/100 000

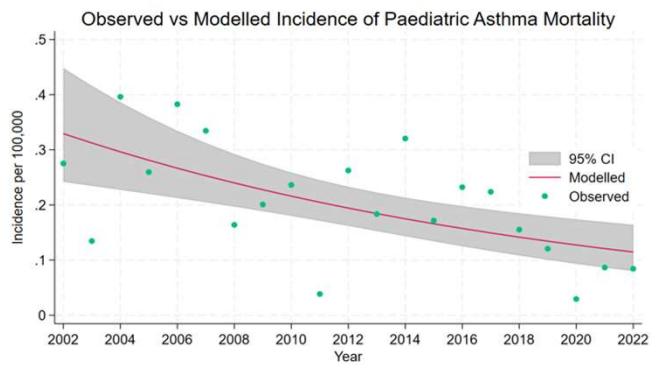
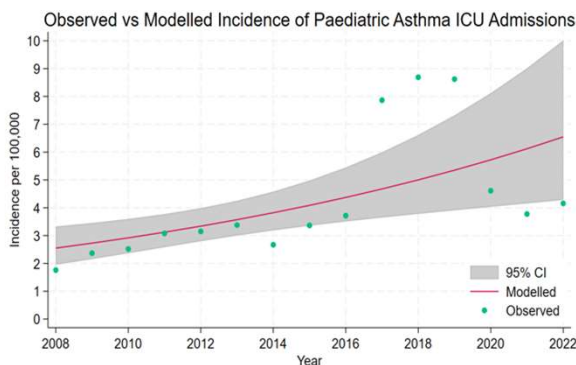
33% of non-white background (12% in the general population)

34% from most deprived areas (24% in general population)



Unpublished data – do not share

Fatal and near-fatal asthma trends over time

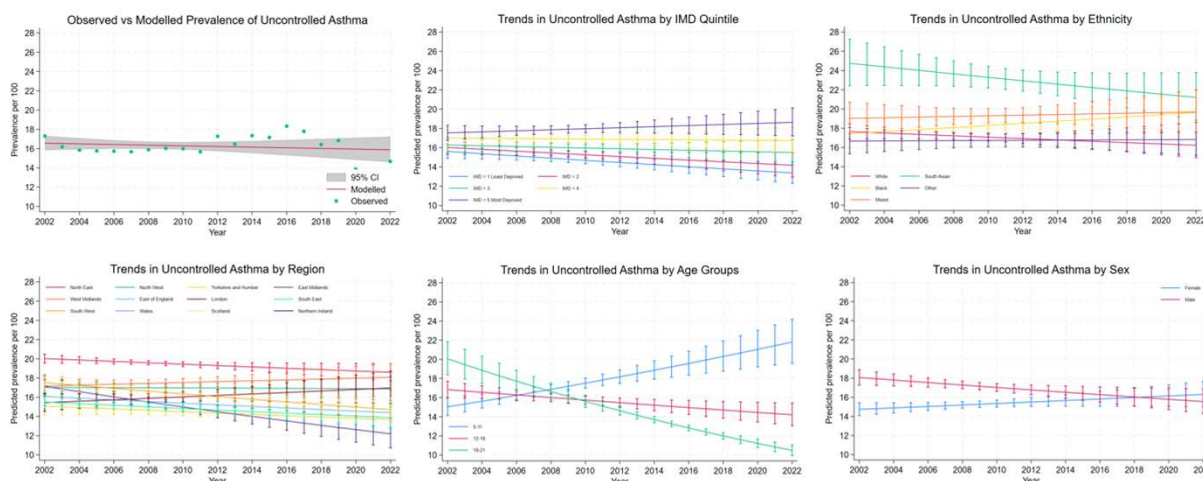


*Axes are scaled differently to depict the trends



Unpublished data – do not share

Long term trends in uncontrolled asthma



Unpublished data – do not share

Conclusions

Negative trends in asthma mortality

Positive trends in asthma ICU admission

Children from non-white ethnic backgrounds and the most deprived areas appear to be disproportionately affected

Uncontrolled asthma trends remained broadly stable over the years, with only slight decline

CYP from South Asian ethnic and low-socioeconomic background, aged 5-11, and living in the North East of England or the West Midlands are disproportionately affected.

Targeted interventions in these cohorts should be considered.



Acknowledgments

Supervisors

Dr David Lo,
Dr Clare Gillies,
Prof Jenni Quint



Collaborators

Sarah Nalir Hassen
Dr Manisha Ramphul
Dr Sharmin Shabnan
Dr Erol Gaillard
Dr Jonathan Broomfield



Asthma UK Centre
for Applied Research



Contact: agl10@leicester.ac.uk



Thank you