S2 Text: Patient selection

The source population included people who:

- Had records in the Welsh Demographic Service (WDS) and the WLGP datasets;
- Were born before 1 January, 2013; and

The study cohort included people in the source population who:

- Lived at least until 31 December, 2017;
- Had continuous follow-up in the primary care dataset over the follow-up period;
  
  [1]
- Had a GP-recorded asthma diagnosis before 1 January, 2013;
- Received at least one asthma prescription in each of the five follow-up years.

We ascertained asthma diagnosis and prescriptions by linking to the Wales Asthma Observatory, [2] a tagged asthma cohort in SAIL.

Duplicate records in each dataset have been removed, and addresses with missing LSOA codes have been excluded.

Patient section is visualised in the following flowchart:
Flowchart of patient selection and frequencies

1. Had a record in the Welsh Demographic Service (version 2018-04-10) 5,341,392
2. Had a record in the Welsh Longitudinal General Practice (version 2018-08-20) 4,114,646
3. Born before 1 January, 2013 3,971,695
4. Lived in Welsh addresses from 1 January, 2013 to 31 December, 2017 or until date of death 2,871,257
5. Lived at least until 31 December, 2017 2,739,514
6. Had continuous follow-up in the Welsh Longitudinal General Practice between 1 January, 2013 and 31 December, 2017 1,918,855

- Had asthma diagnosis recorded by a general practitioner before 1 January, 2013 313,782
  - Had at least one asthma prescription in every calendar year between 2013 and 2017 118,200
    - Sensitivity analysis

- Had asthma diagnosis recorded by a general practitioner before 1 January, 2013 227,902
  - Had at least one asthma prescription in every calendar year between 2013 and 2017 106,926
    - Sensitivity analysis

- Had asthma diagnosis recorded by a general practitioner before 1 January, 2013 327,906
  - Main study cohort

- Had asthma diagnosis recorded by a general practitioner before 1 January, 2013 313,782
  - Had at least one asthma prescription in every calendar year between 2013 and 2017 118,200
    - Sensitivity analysis

Asthma mortality analysis
References
