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**Title**

*The incidence and prevalence of coeliac disease in the United Kingdom*

**Priority 1 (Research Category)**

Big Data

**Presenters**

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**Abstract**

Context: Coeliac disease is a chronic auto-immune condition that causes inflammation in the small intestine and reduces the quality of life of those affected. Better understanding of diagnosis patterns is important to align health care priorities with people's needs.

Objective: To describe incidence and prevalence of coeliac disease across the United Kingdom (UK) from 2000 to 2020.

Study design and analysis: Population-based cohort study. Poisson regression to calculate adjusted incidence rate ratios (IRR).

Setting or dataset: Routinely-collected healthcare records from the Clinical Practice Research Datalink (CPRD), representative of the UK population (25% coverage).

Population studied: Over 38 million people registered with general practices (GP) at any point between the January 1 2000 and July 31 2020.

Outcome Measures: Diagnosis of coeliac disease described by age, sex, year, ethnicity, area-level socioeconomic deprivation, country and region of residence.

Results: 50,416 people were newly diagnosed with coeliac disease in the UK during 28.8 million person-years of GP follow-up, representing an incidence of 17.5 per 100,000 person-years. Incidence was highest under 4 and over 50 years of age, and was almost twice as high in females compared with males (IRR 1.95; 95% Confidence Interval:1.92-1.99). Adjusted incidence doubled over the 20-year study period and varied between England, Scotland, Wales and Northern Ireland and between regions of England. Adjusted incidence varied by ethnicity and was lower among people living areas of higher socioeconomic deprivation, apart from in Northern Ireland where overall incidence of diagnosis was highest. Prevalence in 2020 was 0.36% (1 in every 278 people in the UK) which was almost double the prevalence in 2010.

Conclusions: Coeliac disease incidence continues to rise in the UK, however, sociodemographic and geographical inequalities in diagnosis remain. Efforts are needed to address inequalities in diagnosis and the overall burden on individuals, the healthcare system and societal impacts.