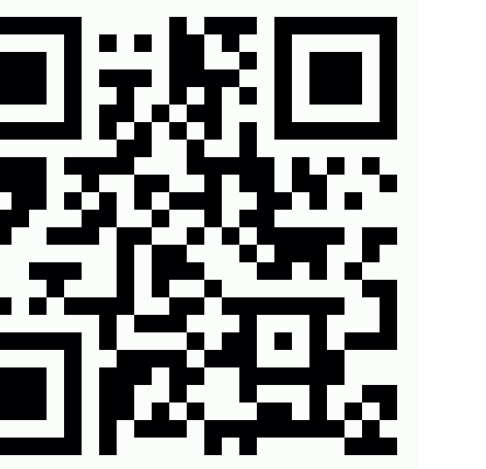


Global assessment of the diagnosed prevalence of Crohn's disease and ulcerative colitis in pediatric populations

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*At the time of research



Scan the QR code to access the poster and supplementary material
<https://tiny.one/or22582kgX>

Introduction

- IBD comprises a group of chronic, relapsing inflammatory diseases of the gastrointestinal tract, including CD and UC.^{1,2}
- Globally, the pediatric IBD incidence has increased, partly due to notable increases in newly industrialized countries; by contrast, rates in some Western countries may be stabilizing.^{3,4}
- Comprehensive and comparable global estimates of pediatric CD and UC prevalence and trends remain limited, constraining accurate assessment of disease burden and future healthcare needs.

Objective

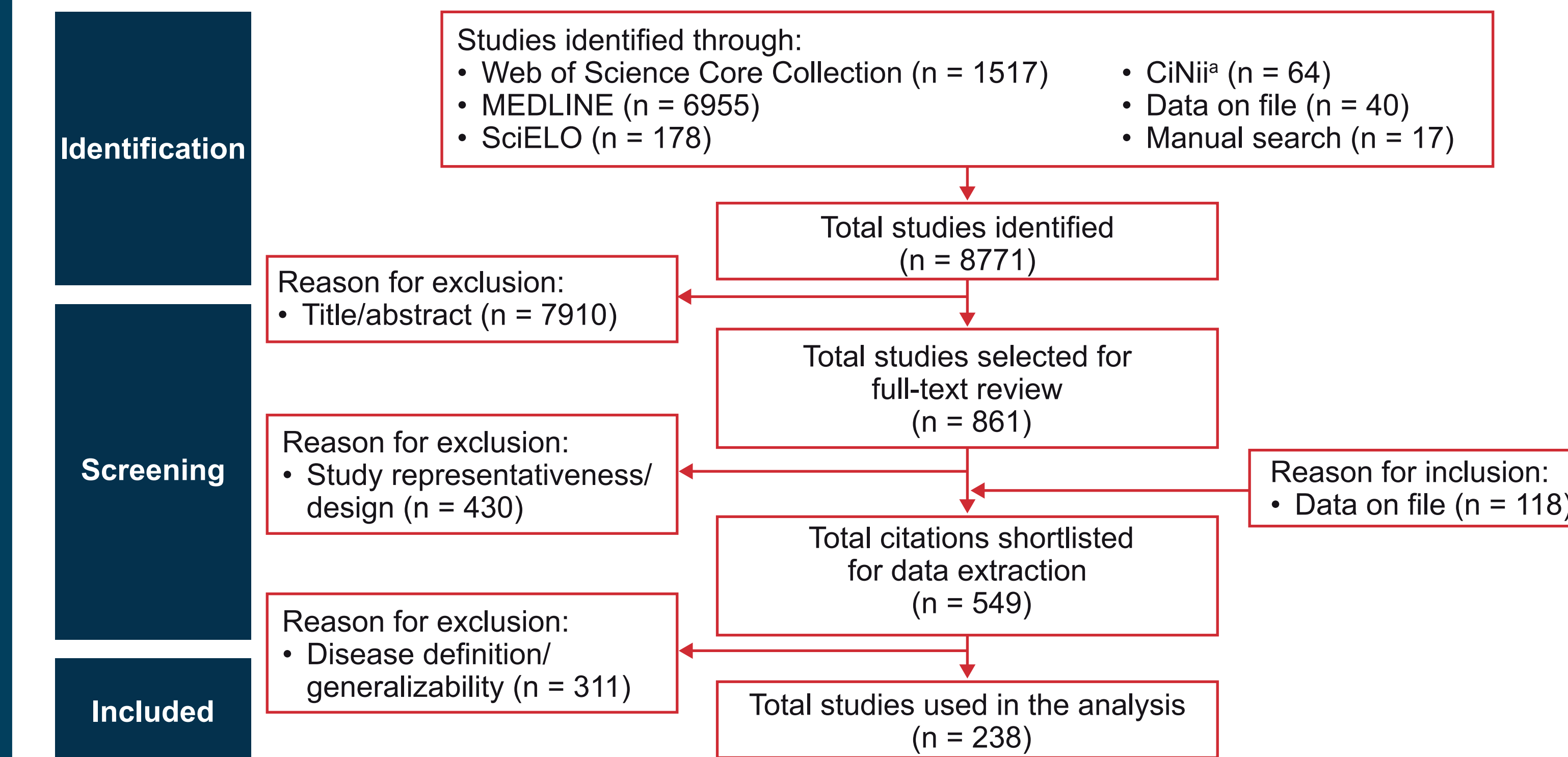
- To estimate country- or territory-specific and global diagnosed pediatric prevalence and incidence of CD and UC in 2023 and the projected global diagnosed pediatric prevalence in 2045.

Methods

- In this study, the diagnosed prevalence and incidence of CD and UC among pediatric patients aged 2–17 years were estimated across 83 countries and territories (Table S1 available via the QR code).
- A comprehensive literature review conducted in September 2023 and updated in September 2024 identified population-based studies reporting the diagnosed prevalence and/or incidence of CD and/or UC.
- Keywords were used to search four databases (MEDLINE, Web of Science, SciELO and CiNii) for articles published between 2013 and 2024 (Tables S2 and S3).
- Diagnosed prevalence and incidence estimates were identified using study-defined criteria and International Classification of Diseases-9 or -10 codes.
- Age-stratification models were used when pediatric age-group data were unavailable (Table S4).
- When CD- or UC-specific data were unavailable, but IBD data were reported, subtype estimates were derived from overall IBD data using known subtype distributions.
- For countries and territories lacking robust, reliable prevalence and/or incidence estimates, estimates were extrapolated or derived from proxy countries or territories matched by race or ethnicity, geography and GDP per capita (Table S5).
- Age-specific diagnosed prevalent and incident cases were calculated using United Nations population data.⁵
- Future prevalence was estimated using birth cohort or GDP-based trend models.

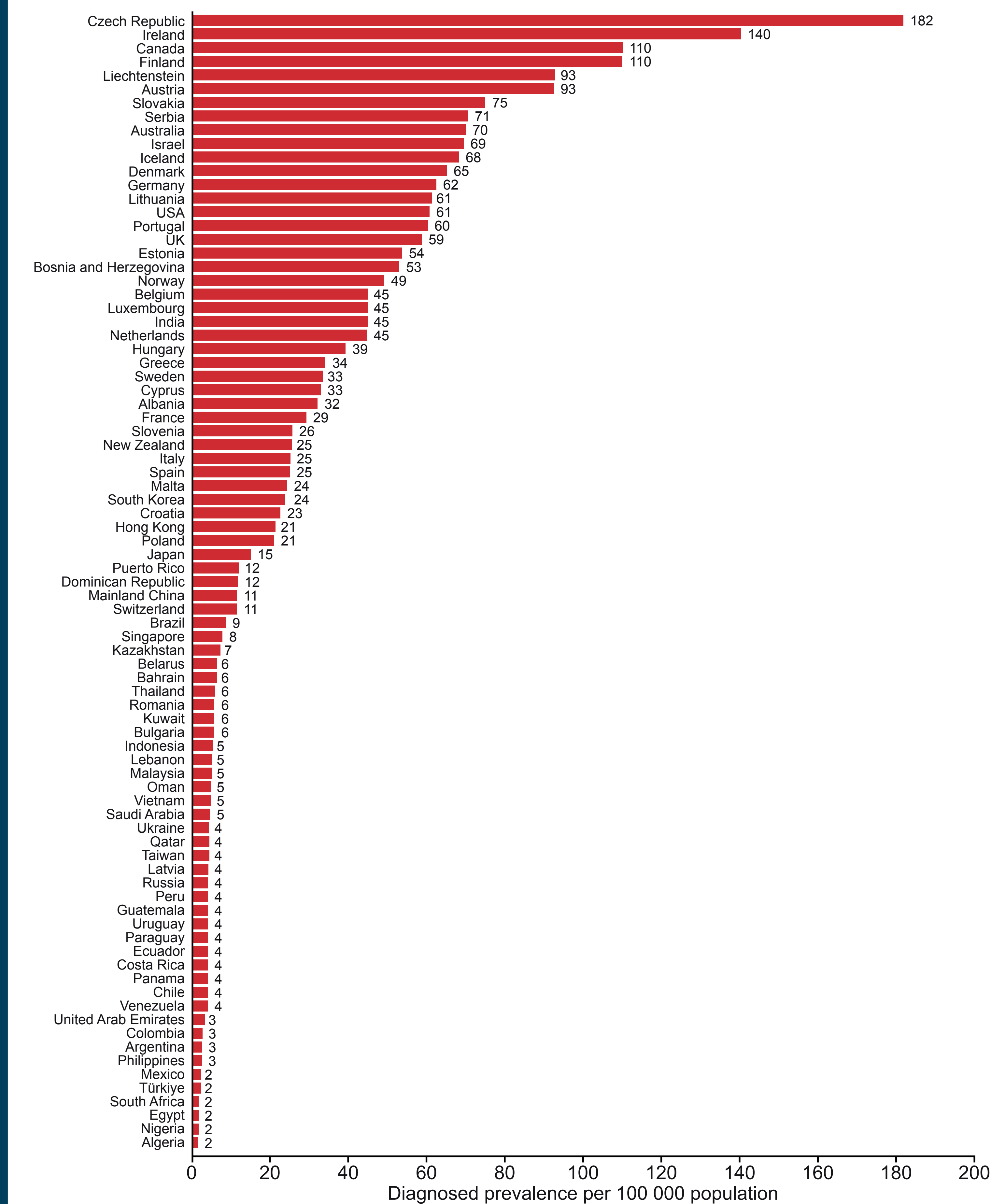
Results

Figure 1. Of 549 publications shortlisted for data extraction, 238 met the inclusion criteria and were included in this analysis.



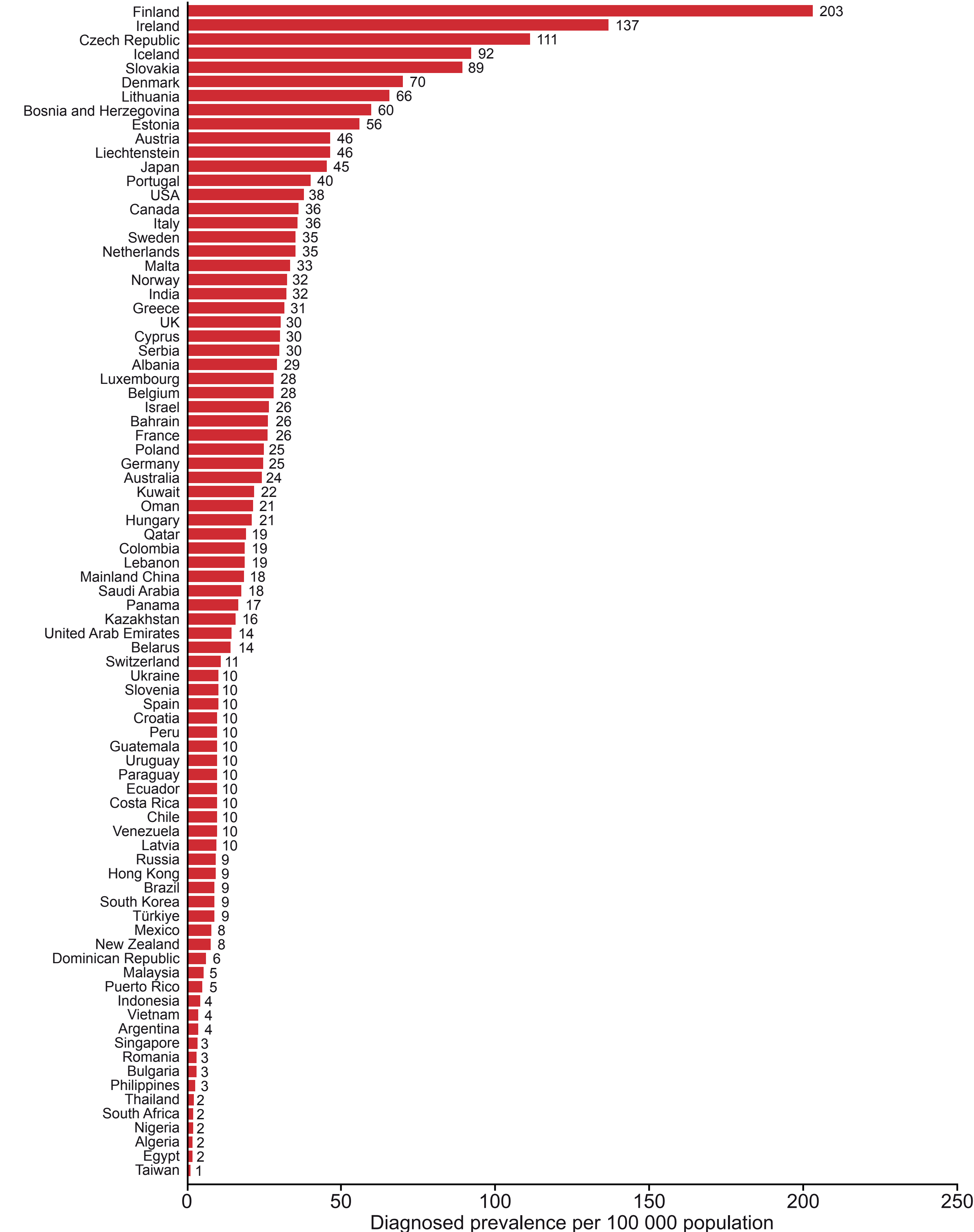
*For studies in Japan only.

Figure 2. The diagnosed pediatric CD prevalence in 2023 varied widely between countries/territories, ranging from 2 to 182 per 100 000 population; the highest prevalence was estimated in the Czech Republic, Ireland and Canada, whereas Algeria, Nigeria and Egypt had the lowest prevalence estimates.



Country-territory-specific diagnosed prevalence values per 100 000 population are rounded to whole numbers; bar heights and rankings are based on unrounded prevalence estimates.

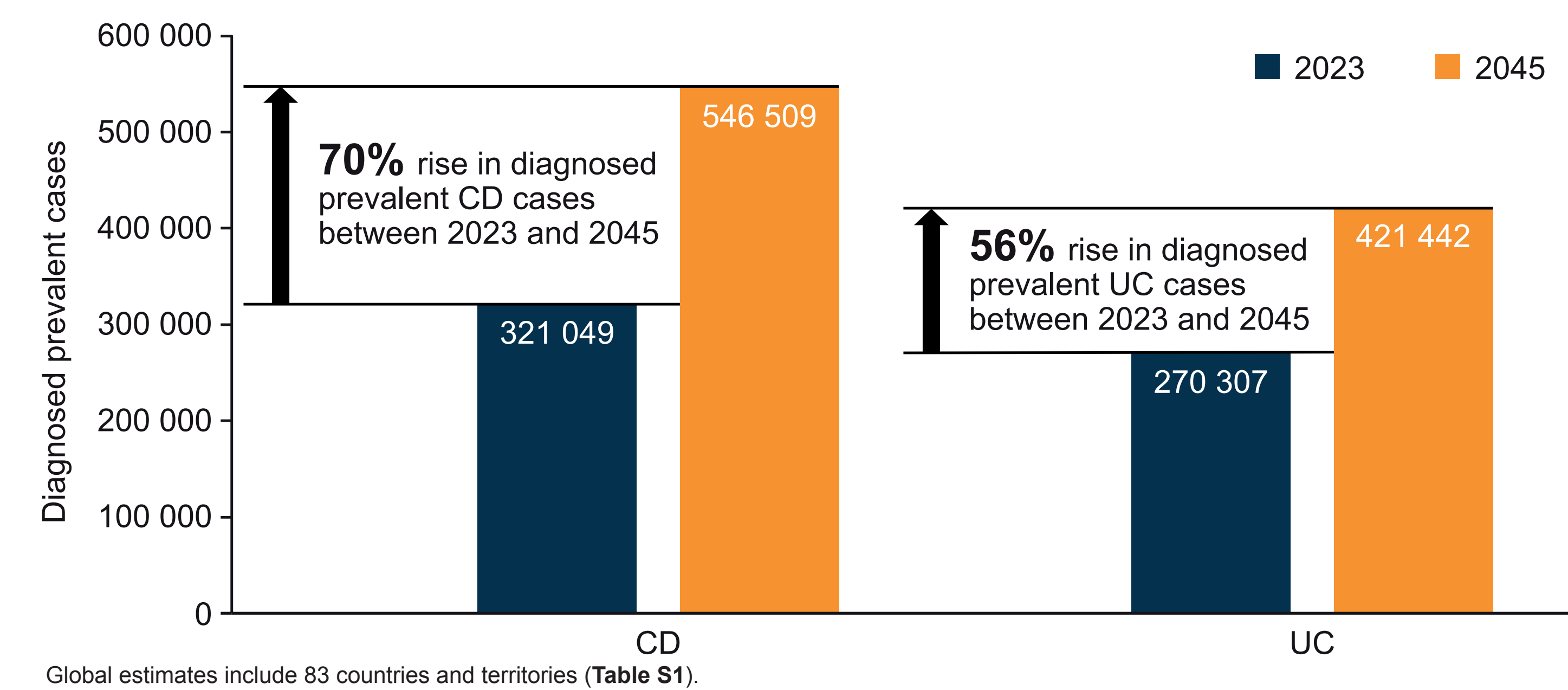
Figure 3. The diagnosed pediatric UC prevalence in 2023 varied widely between countries/territories, ranging from 1 to 203 per 100 000 population; the highest prevalence was estimated in Finland, Ireland and the Czech Republic, whereas Taiwan, Egypt and Algeria had the lowest prevalence estimates.



Country-territory-specific diagnosed prevalence values per 100 000 population are rounded to whole numbers; bar heights and rankings are based on unrounded prevalence estimates.

In 2023, the estimated global number of diagnosed pediatric incident cases of CD and UC was 95 124 (CD: 44 580; UC: 50 544). The country- and territory-specific diagnosed incidences for CD and UC are shown in Figures S1 and S2.

Figure 4. The estimated global number of diagnosed pediatric prevalent cases of CD and UC was 591 356 in 2023 and was projected to rise to 967 951 in 2045.



Global estimates include 83 countries and territories (Table S1).

Conclusions

- The global prevalence of diagnosed pediatric CD and UC is substantial.
- Marked variation in diagnosed prevalence and incidence was identified between countries/territories; these geographic differences likely reflect a combination of true epidemiologic variation and differences in data availability, diagnostic capacity, healthcare access and reporting practices.
- The comprehensive literature review and use of consistent methodology in this study enhanced the robustness of the analysis; however, estimates for some countries and territories relied on extrapolation from proxy countries or territories and should be interpreted with this limitation in mind.
- This study indicates that the global prevalence of CD and UC will continue to increase in children and adolescents.

Abbreviations
 CD, Crohn's disease; CiNii, Citation Information by National Institute of Informatics; GDP, gross domestic product; IBD, inflammatory bowel disease; SciELO, Scientific Electronic Library Online; UC, ulcerative colitis.

Disclosures
 SXS, OA and QL are employees and shareholders of Takeda Development Center Americas, Inc.
 HX and KM were employees of Clarivate Plc at the time of the study.
 AVD, NP and AS are employees of Clarivate Plc.

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