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## Introduction

- There is limited information on the epidemiology of psoriasis and psoriatic arthritis (PsA) in North America
- Assessing the epidemiology of psoriasis and PsA could contribute to the understanding of the worldwide burden of these diseases

## Aims

- **The aims of this study were to estimate the prevalence and incidence rates of psoriasis and PsA and their temporal trends in Ontario, Canada**

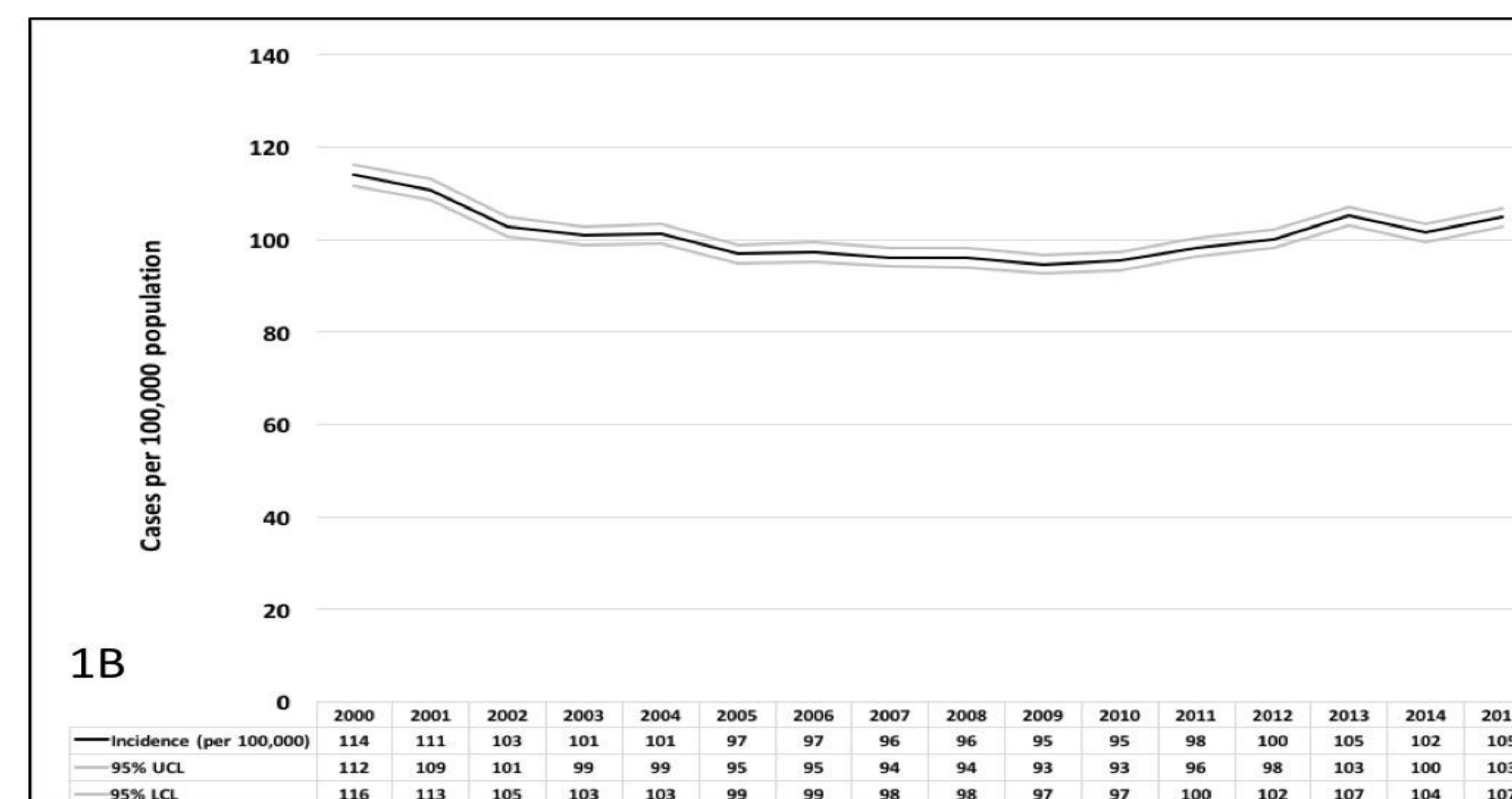
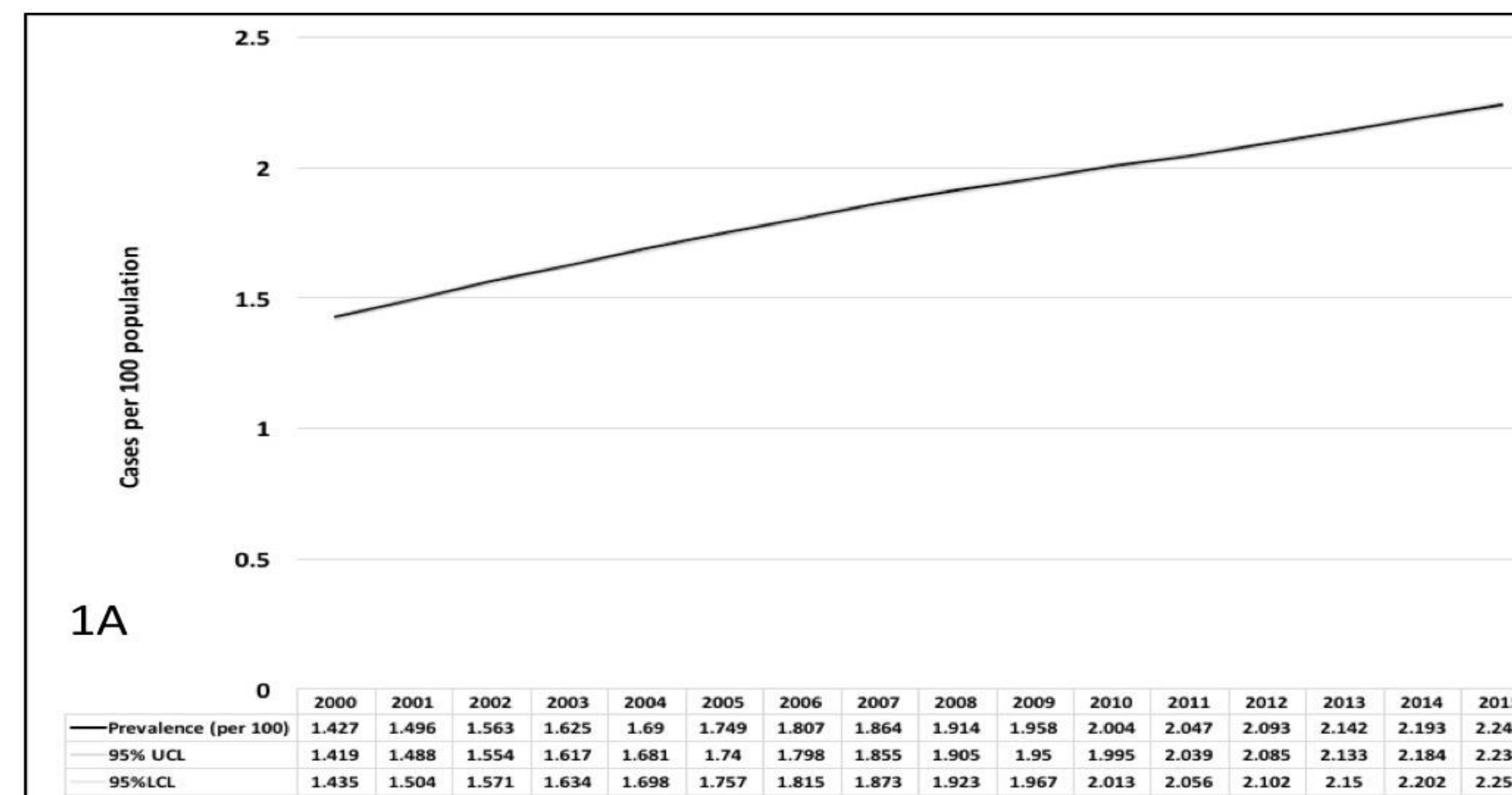
## Methods

- In Ontario, all 13.6 million residents are covered by a universal single-payer, public health insurance
- A retrospective cohort analysis was performed in Ontario health administrative databases
- The following validated algorithms were used for case definition:
  - 1) **Psoriasis:** diagnosis in hospitalization records or at least 2 psoriasis diagnostic codes assigned by any physician (specificity 99%, sensitivity 52%, PPV 62%);
  - 2) **PsA:** diagnosis in hospitalization records or a combination of: [1 psoriasis code by any physician or 1 prescription of topical anti-psoriatic treatment] and 2 diagnostic codes of spondyloarthritis at least 1 by a rheumatologist (specificity 100%, sensitivity 52%, PPV 66%).
- The crude and age and sex-standardized prevalence and incidence rates of psoriasis were calculated from 2000 to 2015 in the general population (age ≥ 20)
- For PsA, results are reported from 2008 onwards due to a change in billing code in 2006

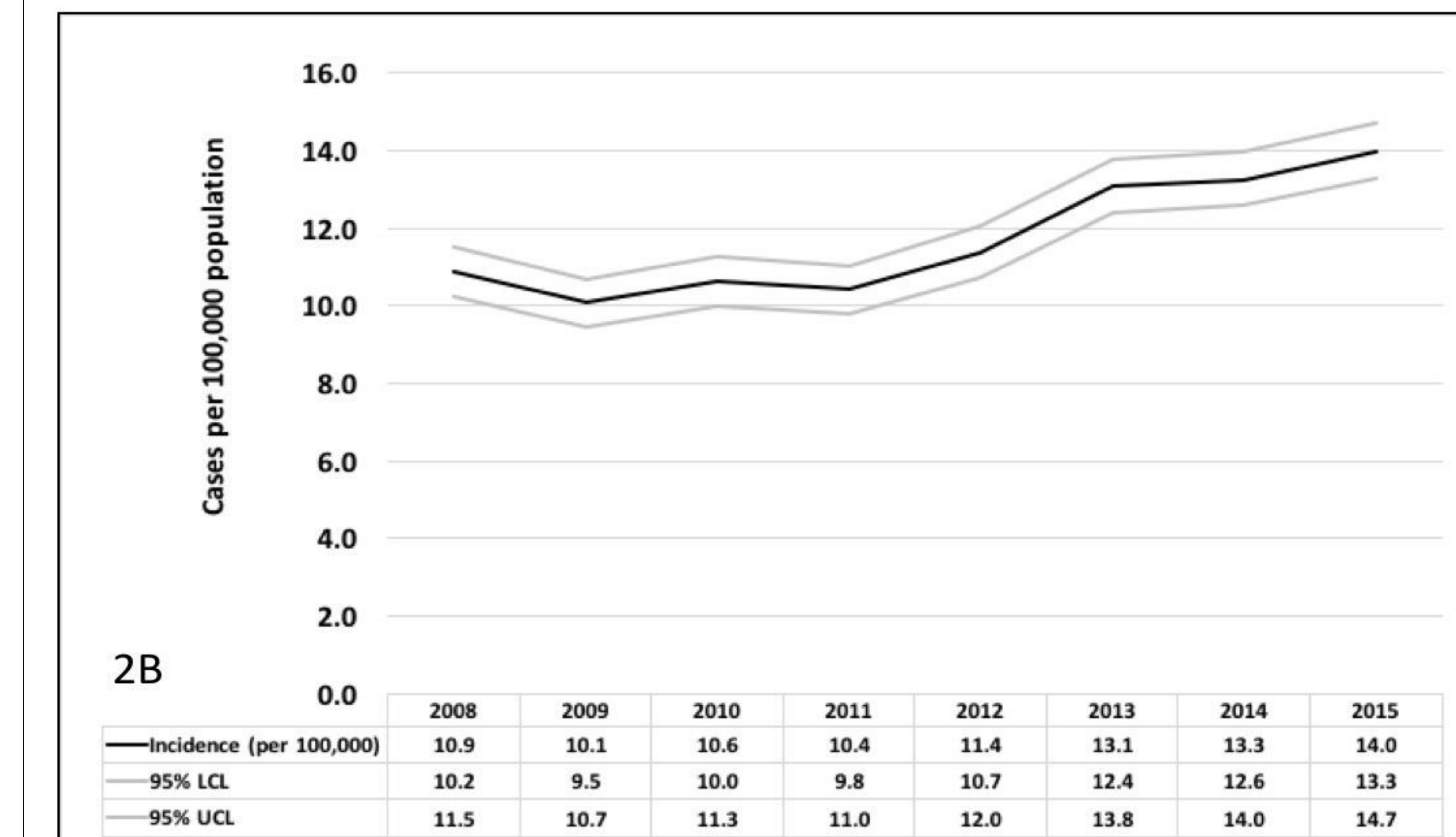
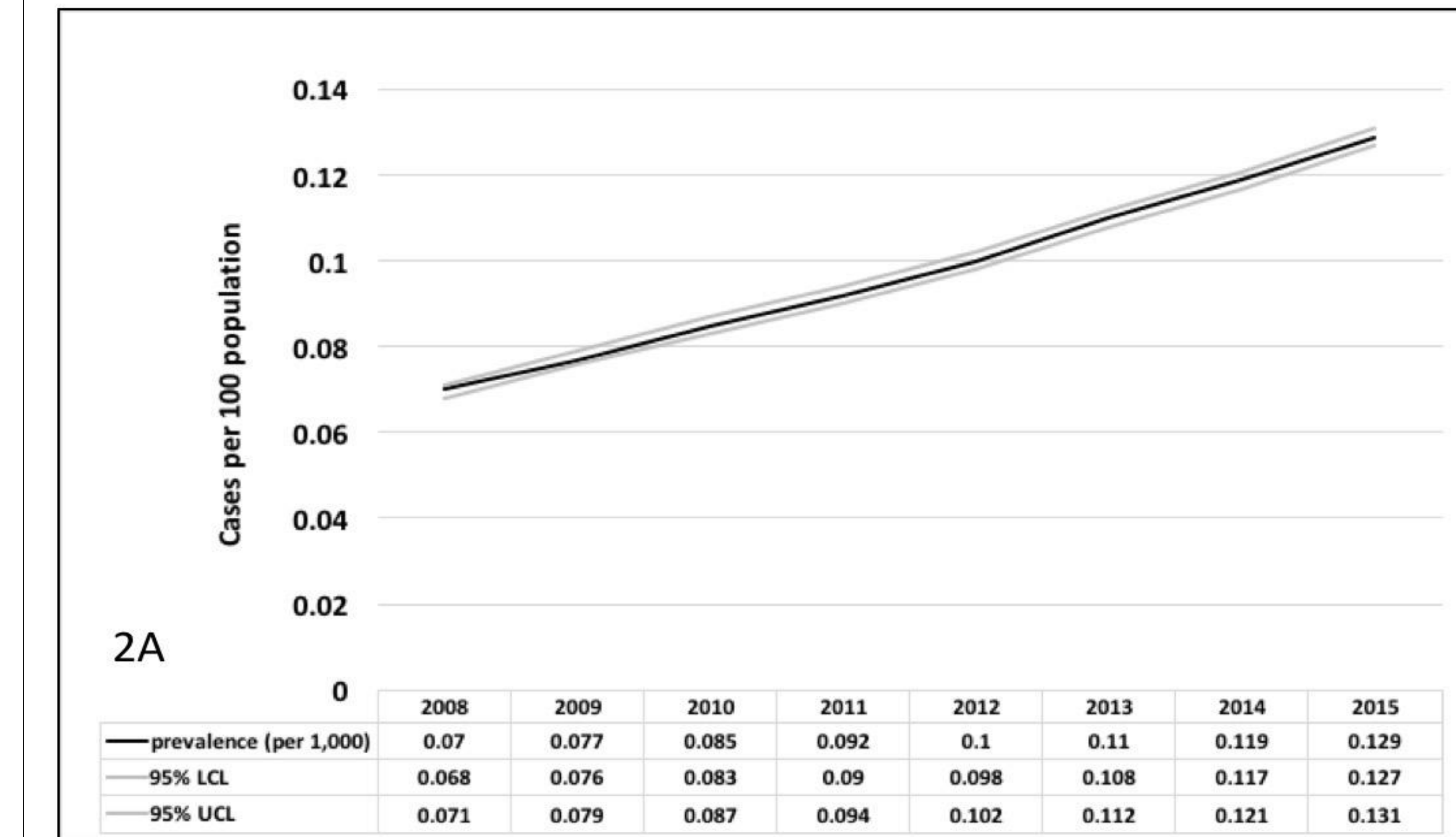
## Results

- Among the 10,757,627 individuals aged 20 years and older living in Ontario in 2015, we identified 263,586 and 16,144 patients with psoriasis, and PsA, respectively
- The crude psoriasis and PsA cumulative prevalence in 2015 was 2.25% and 0.14%, respectively
- For psoriasis, the age and sex-standardized prevalence increased from 1.43% in 2000 to 2.24% in 2015 (Figure 1)
- For PsA, the age and sex-standardized prevalence increased from 0.07% in 2008 to 0.13% in 2015 (Figure 2).
- The incidence rates of both diseases remained relatively stable

**Figure 1 – Temporal trends in the Prevalence (1A) and Incidence (1B) of psoriasis in Ontario from 2000 to 2015**



**Figure 2 – Temporal trends in the Prevalence (2A) and Incidence (2B) of psoriatic arthritis in Ontario from 2008 to 2015**



## Conclusions

- These findings enhance our understanding of the Canadian epidemiology of psoriatic disease and burden for healthcare resources planning
- Although our previous validation work showed that administrative data under captures psoriatic disease the prevalence and incidence rates of psoriasis and PsA in Ontario were comparable to European populations.
- The steady increase in the prevalence of psoriasis and PsA over the past decade may be attributable to population growth, an aging demographic, and increase in patients seeking medical care.