

Incidence and prevalence of psoriasis in Malaysia between 2010 and 2020

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Introduction

- Around 60 million people worldwide have psoriasis; however, the GPA identified that 81% of countries in the world lack information on the epidemiology of psoriasis.
- The prevalence of psoriasis varies greatly among different geographical populations; in adults it ranges from 0.14% in East Asia to ~2% in Australasia and Europe.
- However, there is no population-based epidemiological data on psoriasis in Southeast Asia, including Malaysia.

The aim of this study was to estimate, for the first time, the annual incidence and prevalence of psoriasis over an 11-year period in multi-ethnic Malaysians in the Johor Bahru district, and determine if there was variation in rates by sex, age and ethnicity.

Methods

- We used routinely collected electronic health records from the Teleprimary Care (TPC) clinical information system, a locally developed database linking public primary and secondary care facilities.
- Psoriasis was identified by ICD-10 diagnostic codes, with all diagnoses validated by dermatologists. The index date was defined as the first recorded diagnosis of psoriasis regardless of phenotype or where the diagnosis was first documented.
- The study population (denominator) comprised any patient who contributed ≥ 1 day in the TPC. Prevalent psoriasis cases were those with a diagnosis prior to the end of the year of interest. Incident psoriasis cases were patients with first presentation of psoriasis in the year of interest.
- The person-time at risk was calculated from the start of the each calendar year of interest or the day of registration until the index date, death, or end of the calendar year, whichever came first.
- Annual prevalence and incidence were estimated and stratified by age, sex, and ethnicity.
- Prevalence reported as a percentage and incidence per 100,000 person-years (py).
- The distribution of age of psoriasis onset was examined by plotting psoriasis incidence against age.

Results

Figure 1 – Annual prevalence of psoriasis by sex and ethnicity

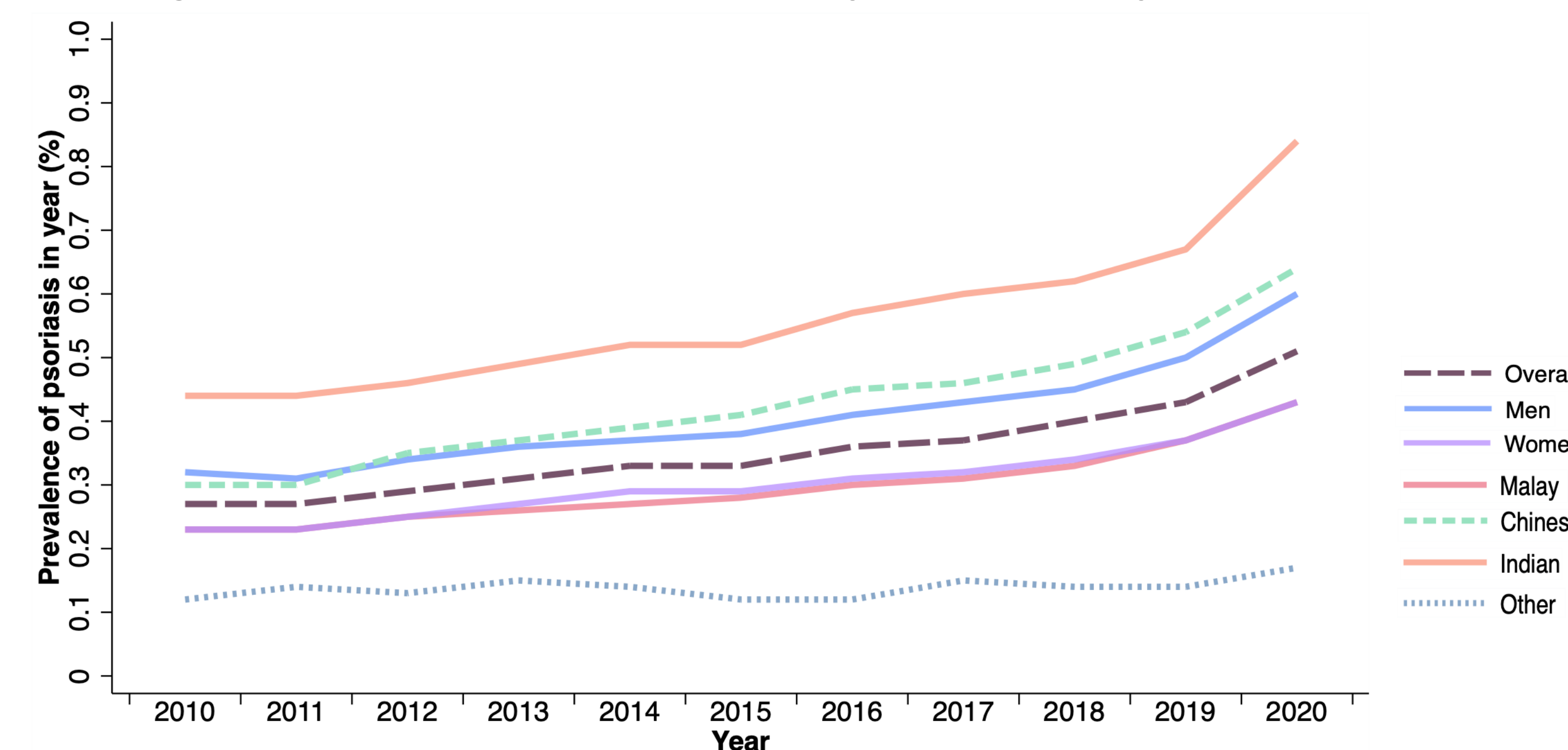


Figure 2 – Annual incidence of psoriasis by sex and ethnicity

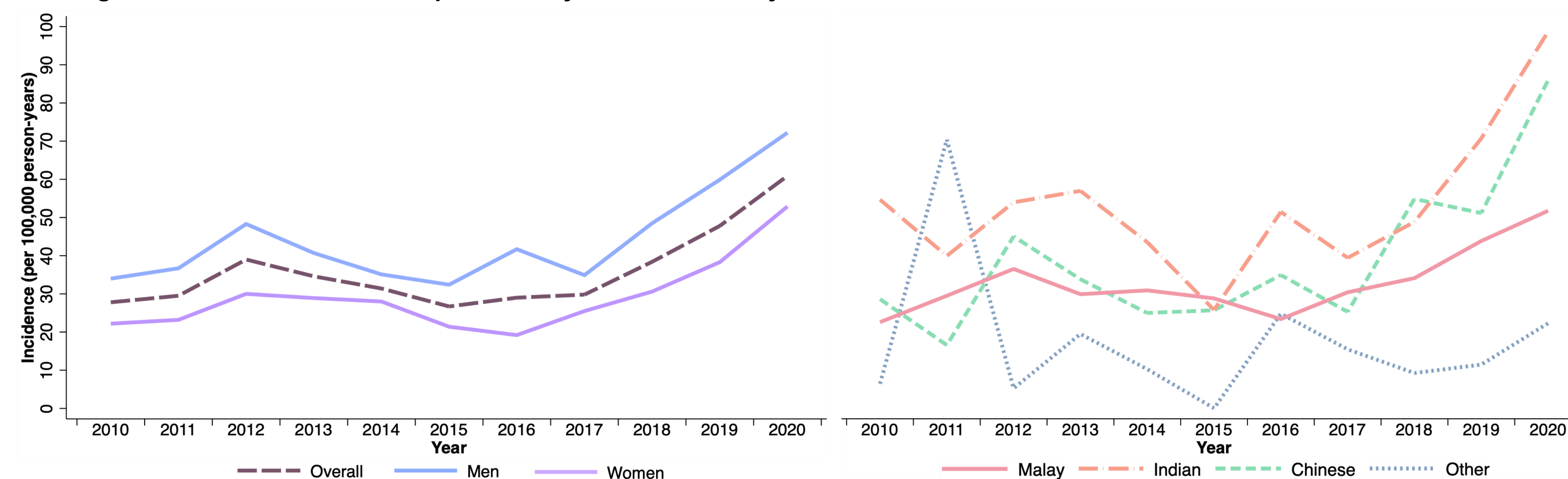
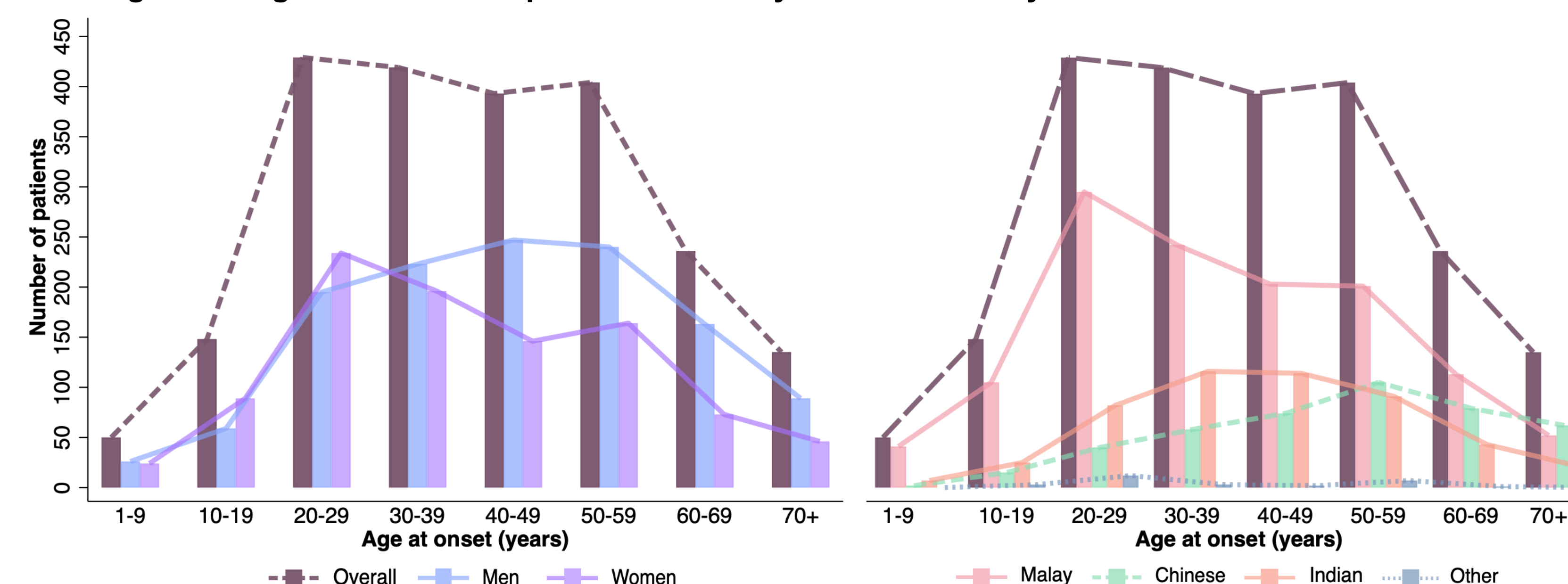


Figure 3 – Age distribution of psoriasis onset by sex and ethnicity



Results

- Between 1st January 2010 and 31st December 2020, 1.16 million people in Johor Bahru were registered in TPC (~98% of the estimated population), with 3,932 with dermatologist-confirmed psoriasis.

The period prevalence rate of psoriasis was 0.34%;
0.39% in males, 0.29% in females
0.29% in Malays, 0.38% in Chinese, 0.54% in Indians

- Prevalence rates increased steadily between 2010 and 2020 from 0.27% to 0.51%, Fig 1.
- Prevalence consistently higher in males than females and highest amongst Indians, followed by Chinese and Malays (Fig 1).

Period incidence of psoriasis was 34.2/100,000 py;
40.7 in males, 28.3 in females
30.0 in Malays, 38.0 in Chinese, 52.5 in Indians

- Incidence increased from 27.8/100,000py in 2010 to 60.9/100,000py in 2020, Fig 2.
- Increasing trend in incidence observed across sex and ethnic groups with consistently higher rates in males (Fig 2).

Modest bimodality in age of psoriasis onset observed in females and Malays with peaks at ages 20-29 & 50-59 (Fig 3).

- Mean age of psoriasis onset was 39.8 ± 17.4 years;
 42.0 ± 17.2 years in males, 36.8 ± 17.3 years in females
 36.4 ± 17.5 years in Malays, 47.4 ± 16.9 years in Chinese, 40.8 ± 15.2 years in Indians

Discussion

- This study provides information for the first time on the burden of psoriasis in Southeast Asia.
- Psoriasis incidence and prevalence are increasing and vary by age, sex and ethnicity.
- These findings should help inform healthcare planning, resource allocation and management of patients with psoriasis in Malaysia.



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