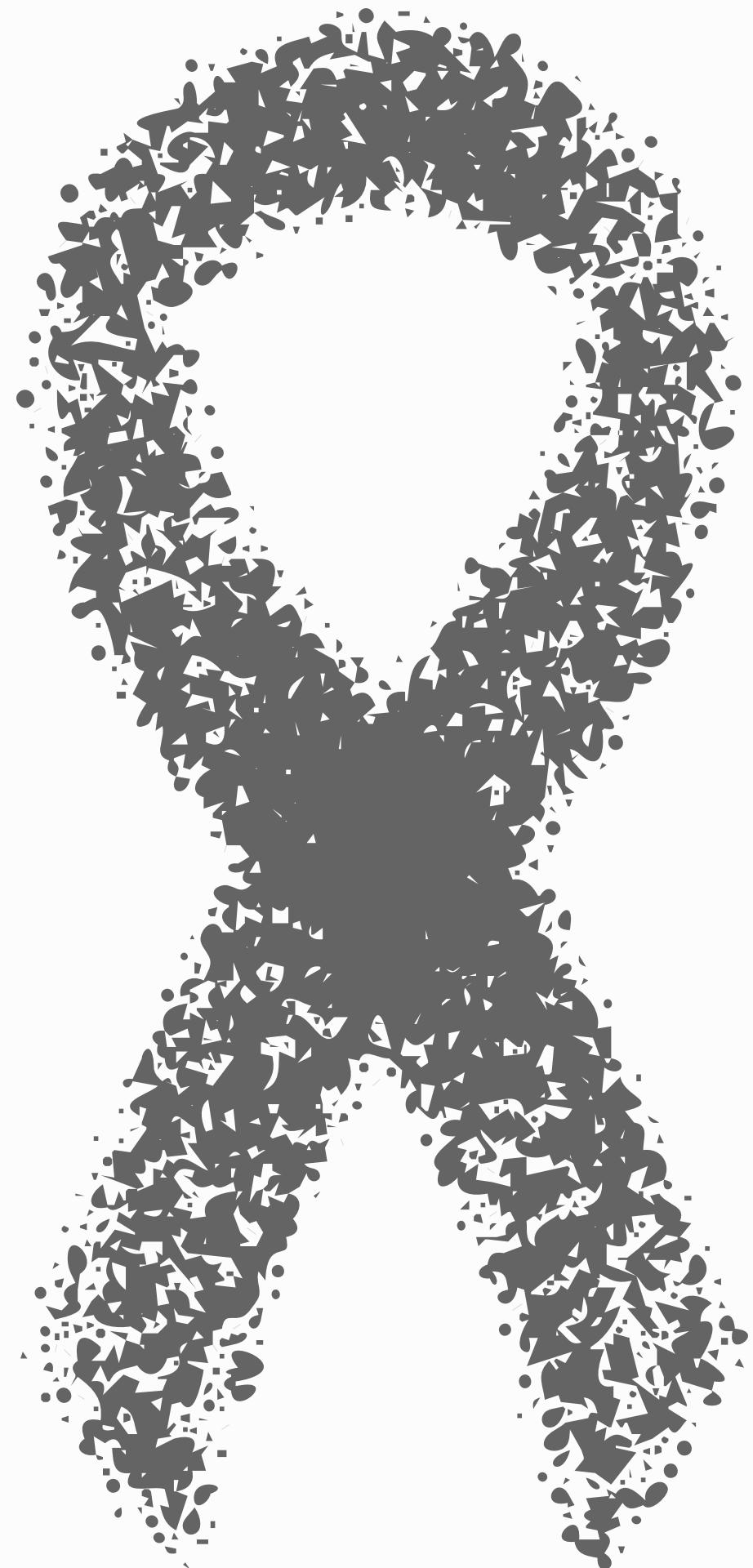


Trends in Invasive Melanoma Thickness in Norway, 1983–2019



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Presented at: [Cancer Registry of Norway](#)

30 October 2024

ORIGINAL REPORT



Trends in Invasive Melanoma Thickness in Norway, 1983–2019

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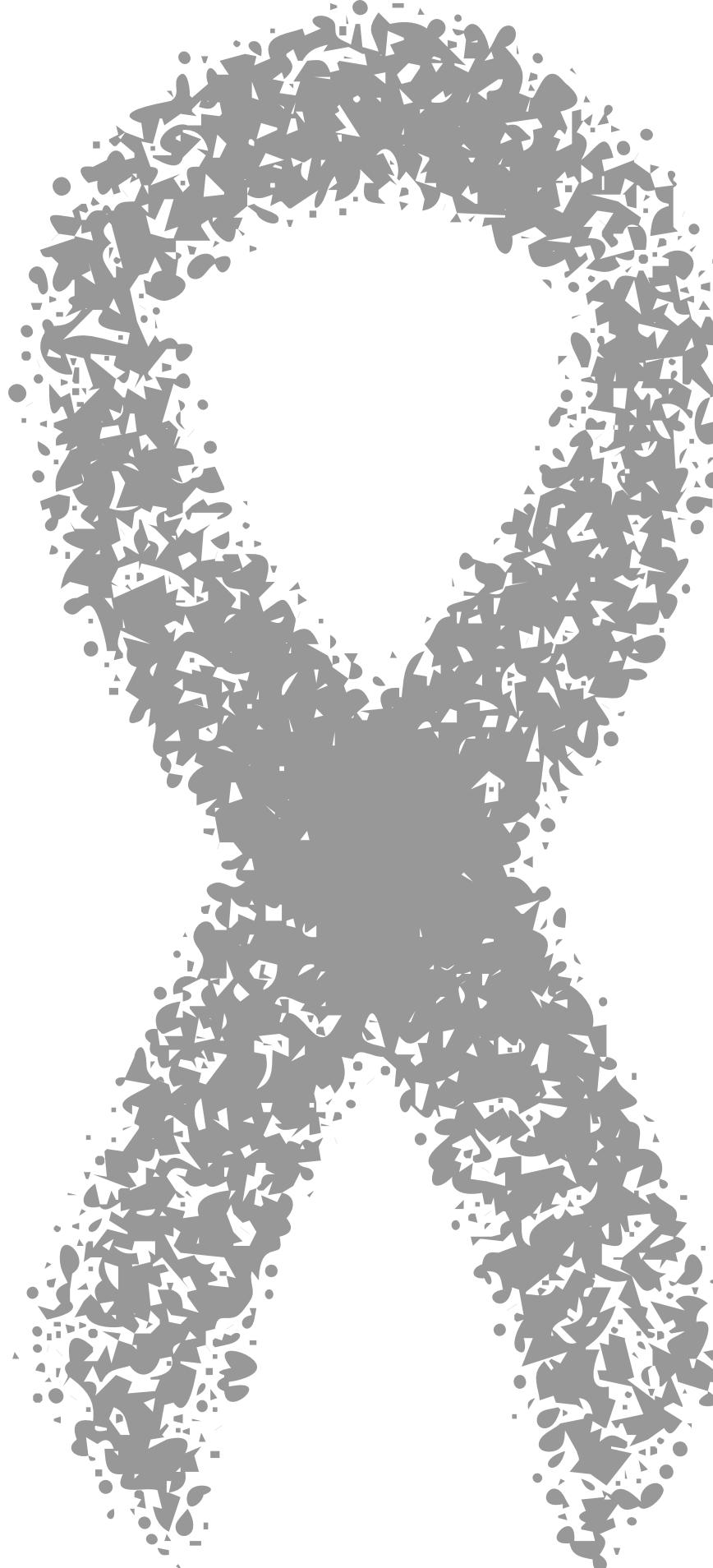
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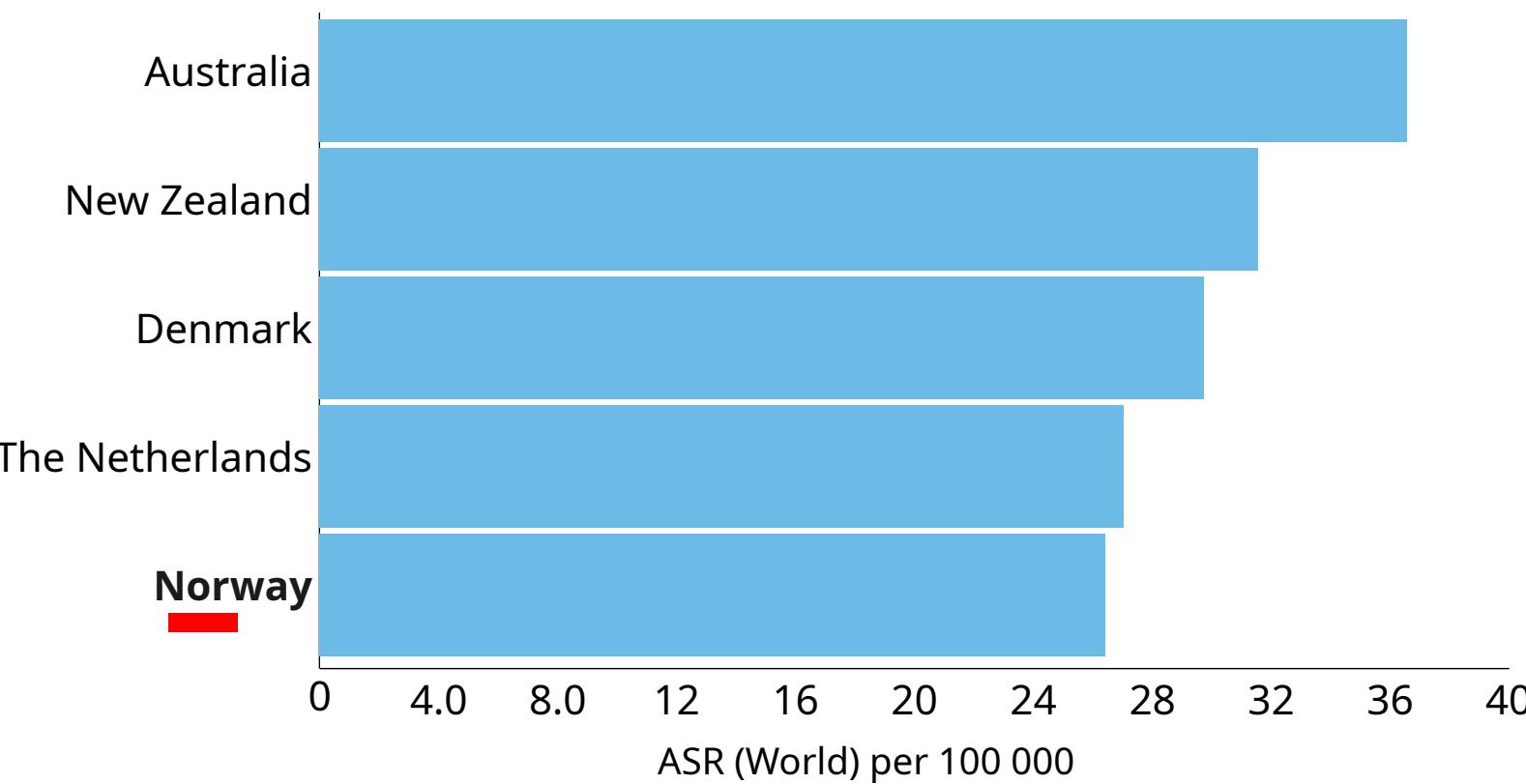
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BACKGROUND

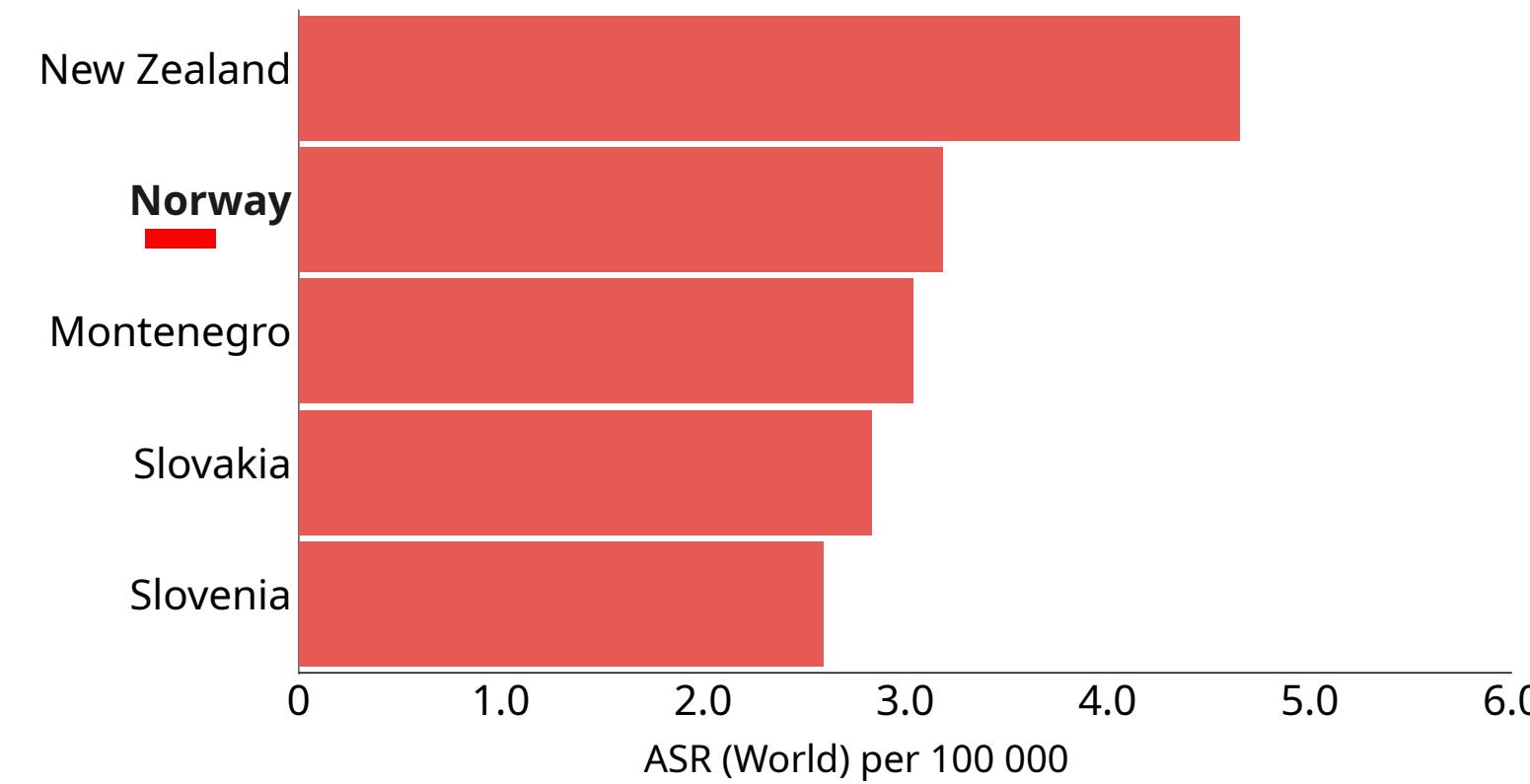




Age-standardized incidence rates (World) in 2020



Age-standardized mortality rates (World) in 2020



Data source: GLOBOCAN 2020
 Graph production: Global Cancer Observatory (<http://gco.iarc.fr/>)
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International Agency for Research on Cancer
 World Health Organization

Why this study and what we know



Understanding melanoma trends is:

- crucial for prevention and treatment strategies
- allocating resources effectively and
- prepare tailored interventions based on recent data



Tumour thickness

- Tumour thickness is the most important prognostic factor
- More thinner tumours are diagnosed than thicker

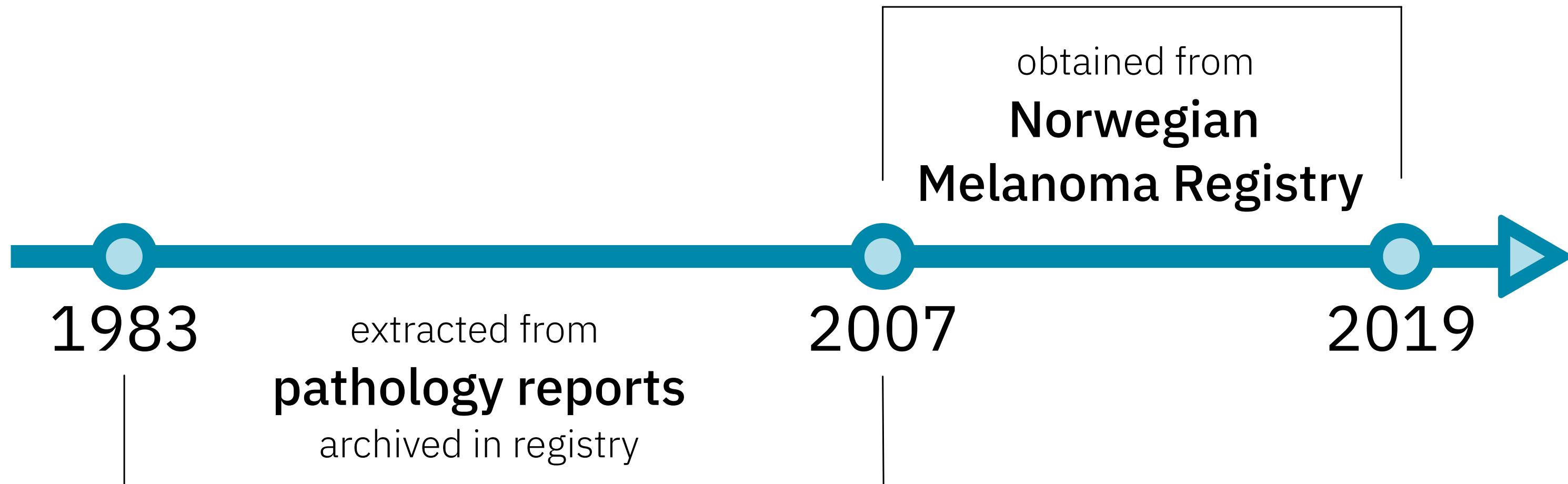
Research Objective

Describe population-based long-term trends in melanoma incidence and tumour thickness as well as by sex, age, calendar period, residential region, and anatomic site.

CASE SERIES



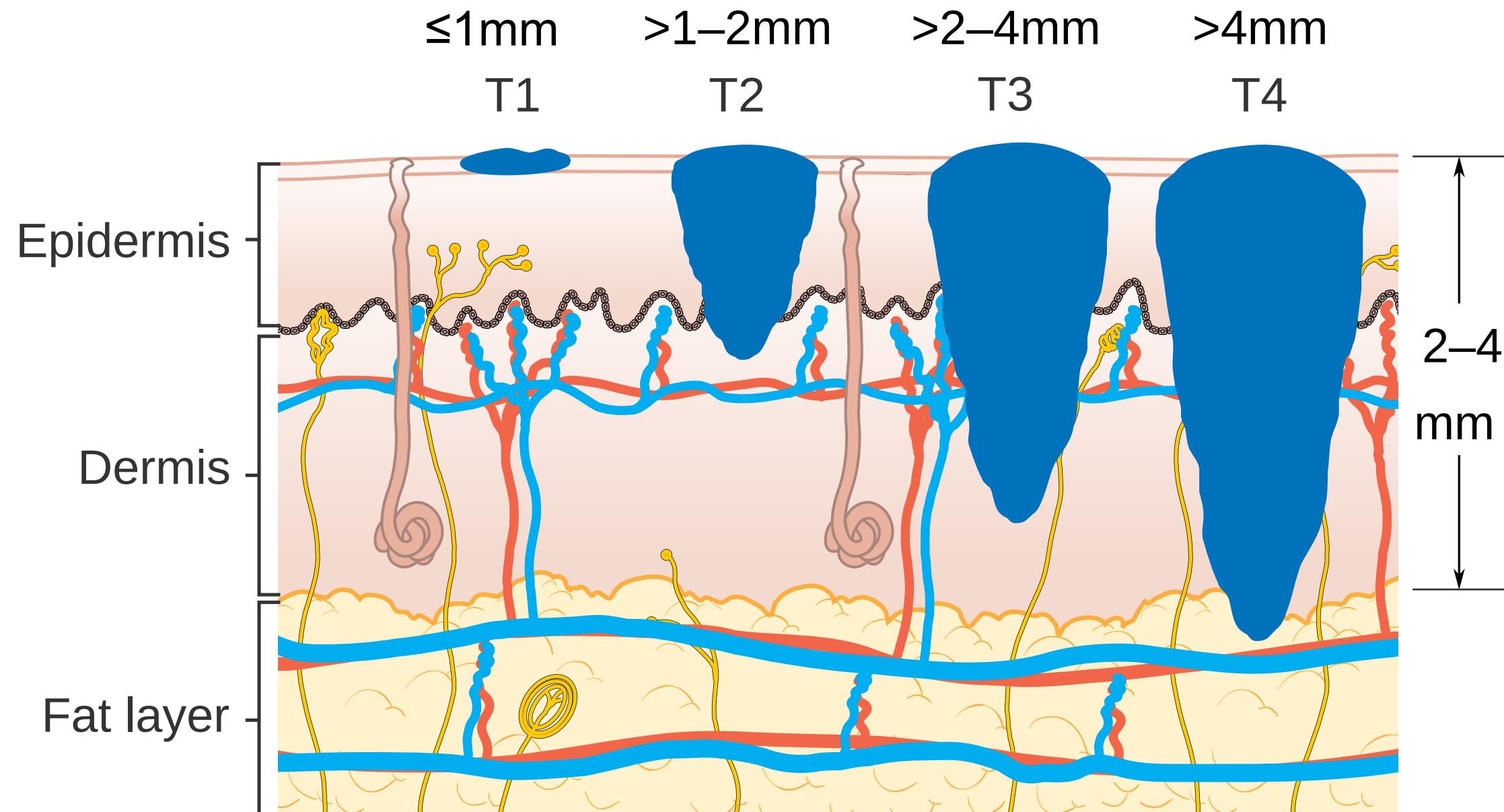
Data from Cancer Registry of Norway



- All histologically verified first primary invasive melanoma
 - **Variables:** tumour thickness, sex, age at diagnosis, vital status, anatomic site, histopathological subtype



Tumour thickness categories



Source: <https://www.cancerresearchuk.org/about-cancer/melanoma/stages-types/tnm-staging>

Basic characteristics of data

Age and Thickness

	1983-1999	2008-2019
Age at diagnosis, Median (Q1, Q3)		
Women	56 (42, 71)	63 (50, 75)
Men	59 (46, 71)	67 (56, 76)

Tumour thickness, Median (Q1, Q3)

Women	1 (0.6, 2)	0.9 (0.5, 1.8)
Men	1.3 (0.74, 2.8)	1 (0.6, 2.3)

Missing tumour decreased from 3,714 (26.3%) in 1983–1999 to 1,742 (7.7%)

Notes

Women: 23,459 (52%) and
Men: 22,065 (48%)

Increased age at diagnosis

Reduced Tumour thickness at diagnosis

Men were diagnosed at older age and thicker tumour than women

ANALYSIS & RESULTS



Methods

- Multiple imputation

Methods

- Multiple imputation
- Age-adjusted incidence rates

Methods

- Multiple imputation
- Age-adjusted incidence rates
- Segmented regression

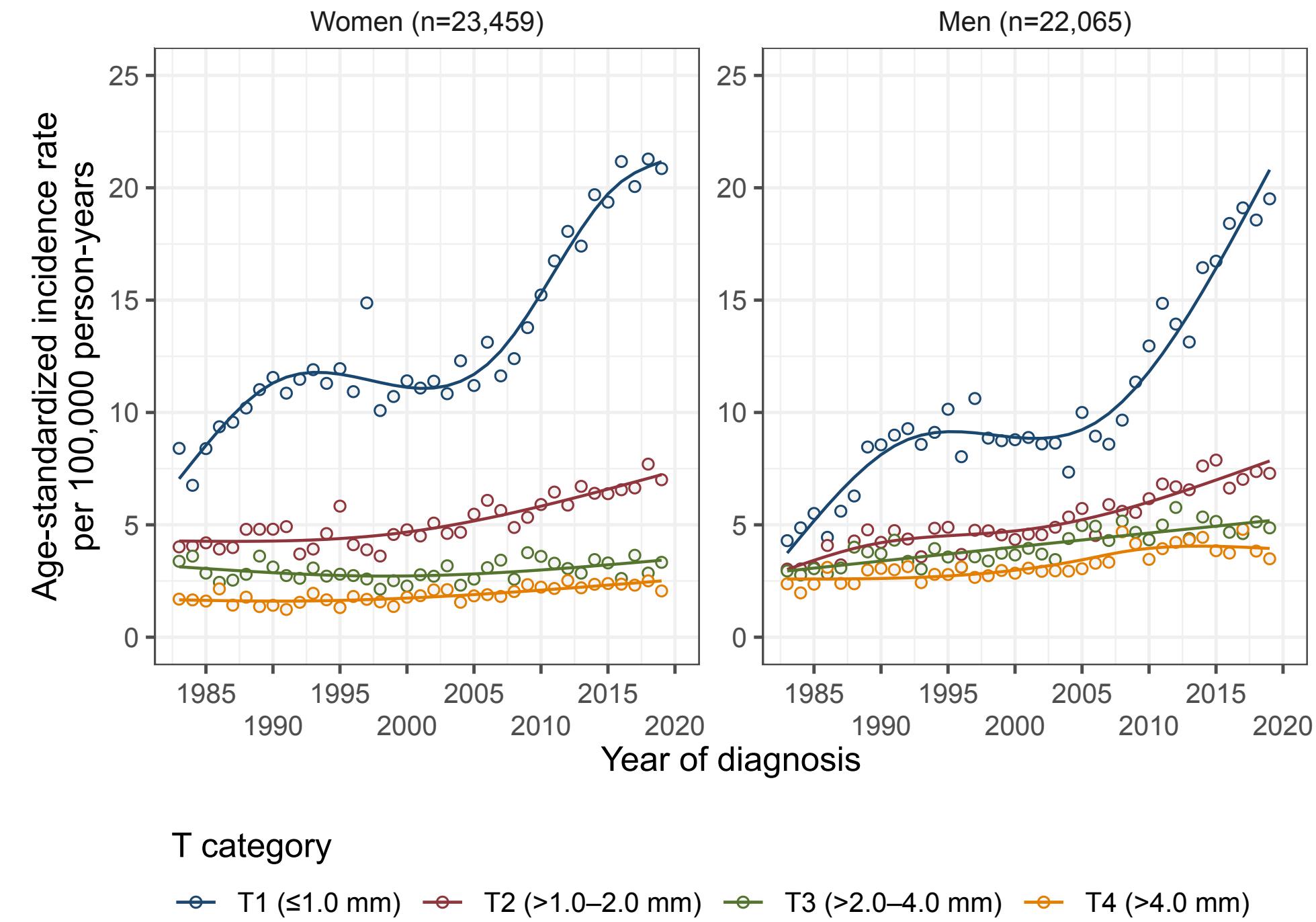
Melanoma incidence trend

By sex and T category

Increased incidence rates in all T-categories

T1 melanoma trend

- 1983–1989/90: Steep rise
- 1990–2004: Plateau
- 2005–2019: Sharp increase again

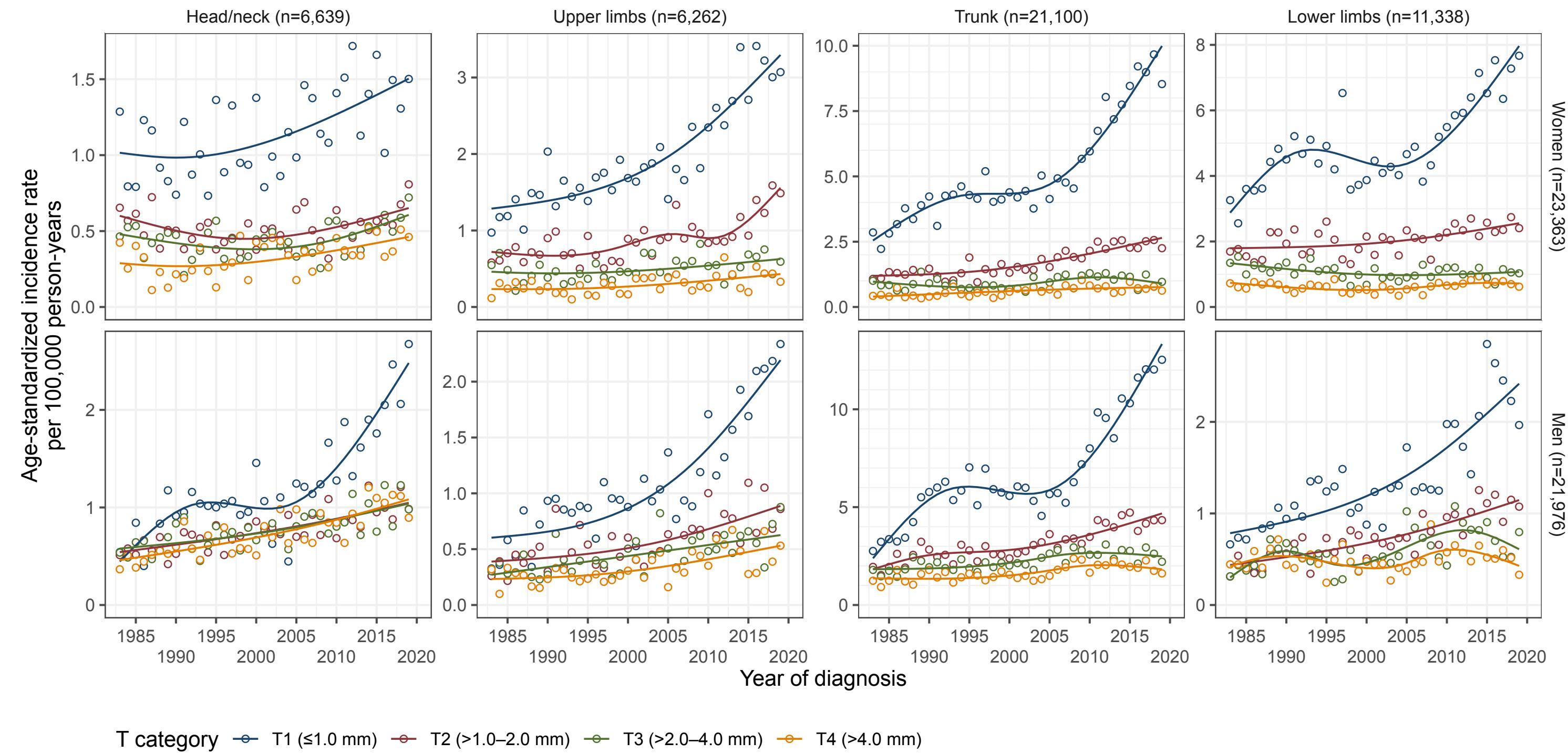


T category

—○— T1 (≤ 1.0 mm) —●— T2 ($>1.0\text{--}2.0$ mm) —■— T3 ($>2.0\text{--}4.0$ mm) —○— T4 (>4.0 mm)

Melanoma incidence trend

By anatomic site

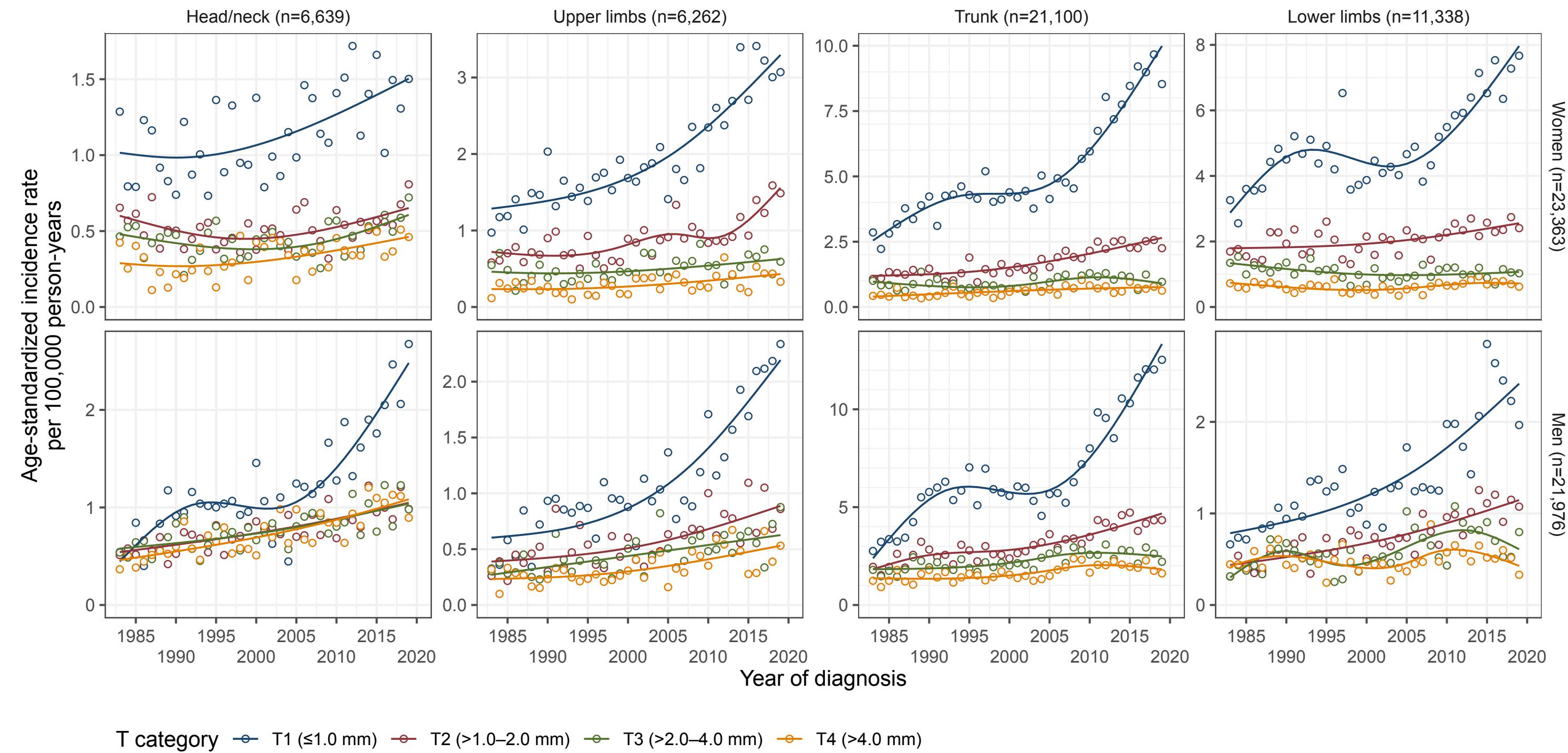


Melanoma incidence trend

By anatomic site

Overall:

T1 melanoma had the highest incidence across all sites.

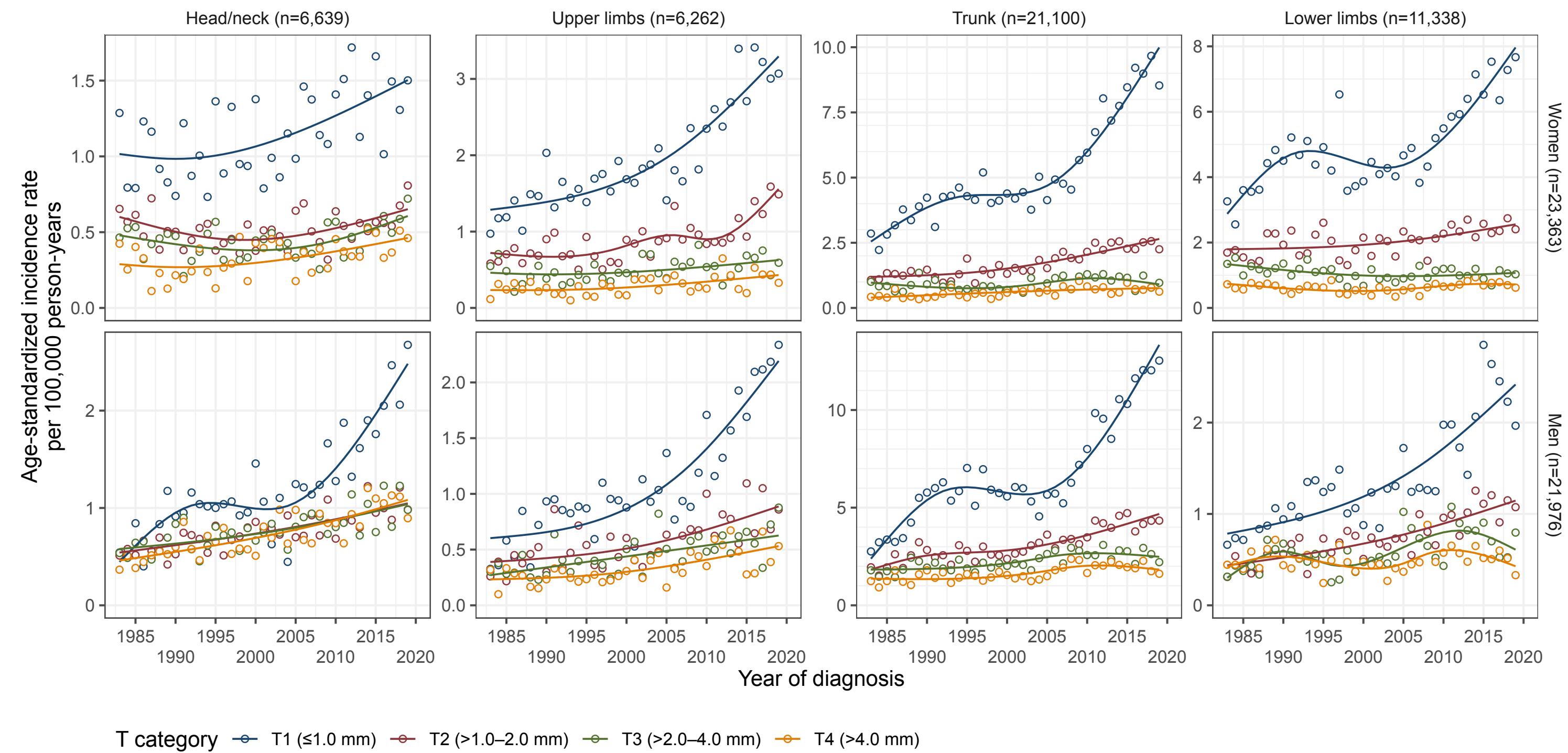


Melanoma incidence trend

By anatomic site

Overall:

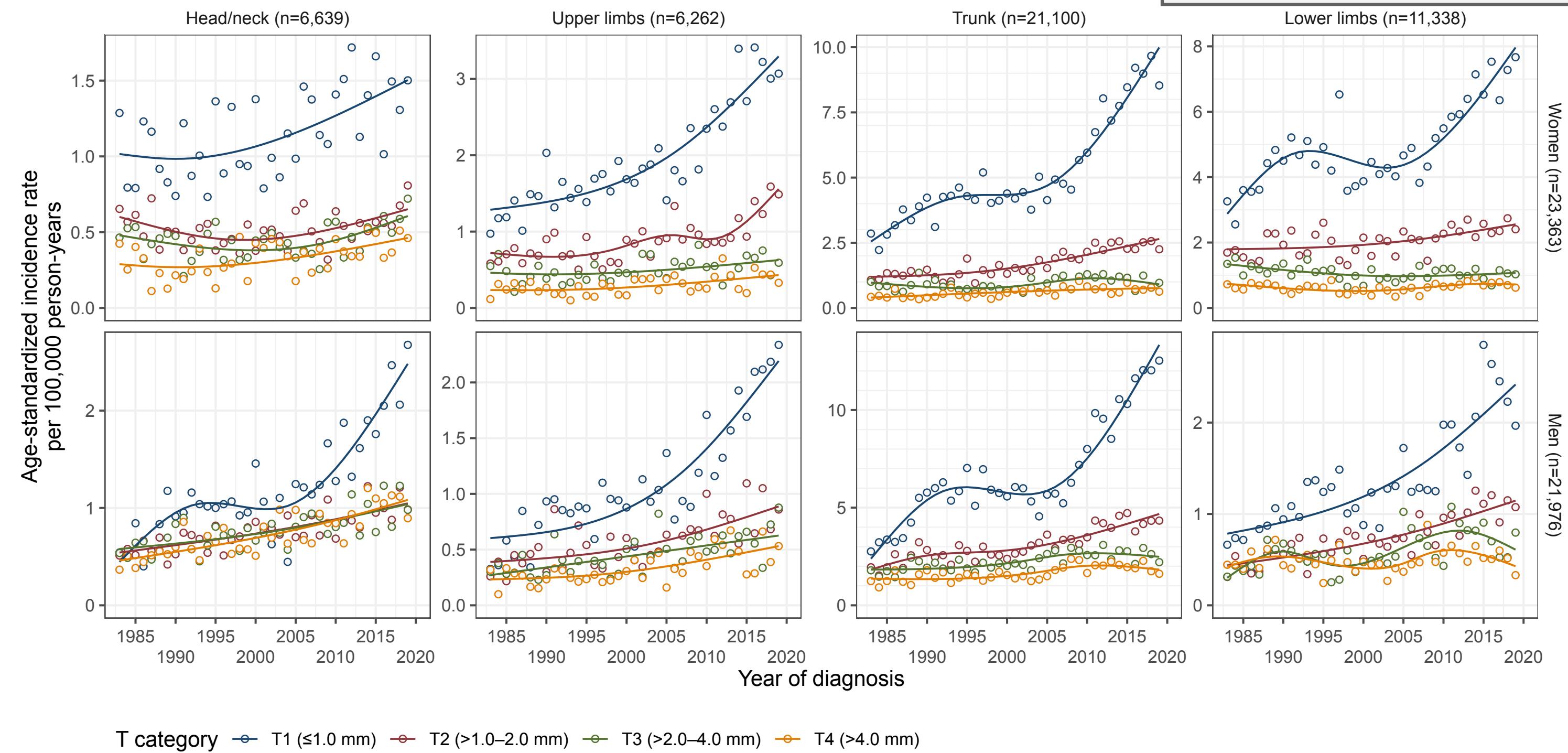
T1 plateau was not seen for all sites.



Melanoma incidence trend

By anatomic site

In women:
High and increasing incidence
on the trunk and lower limbs
with plateau in T1.

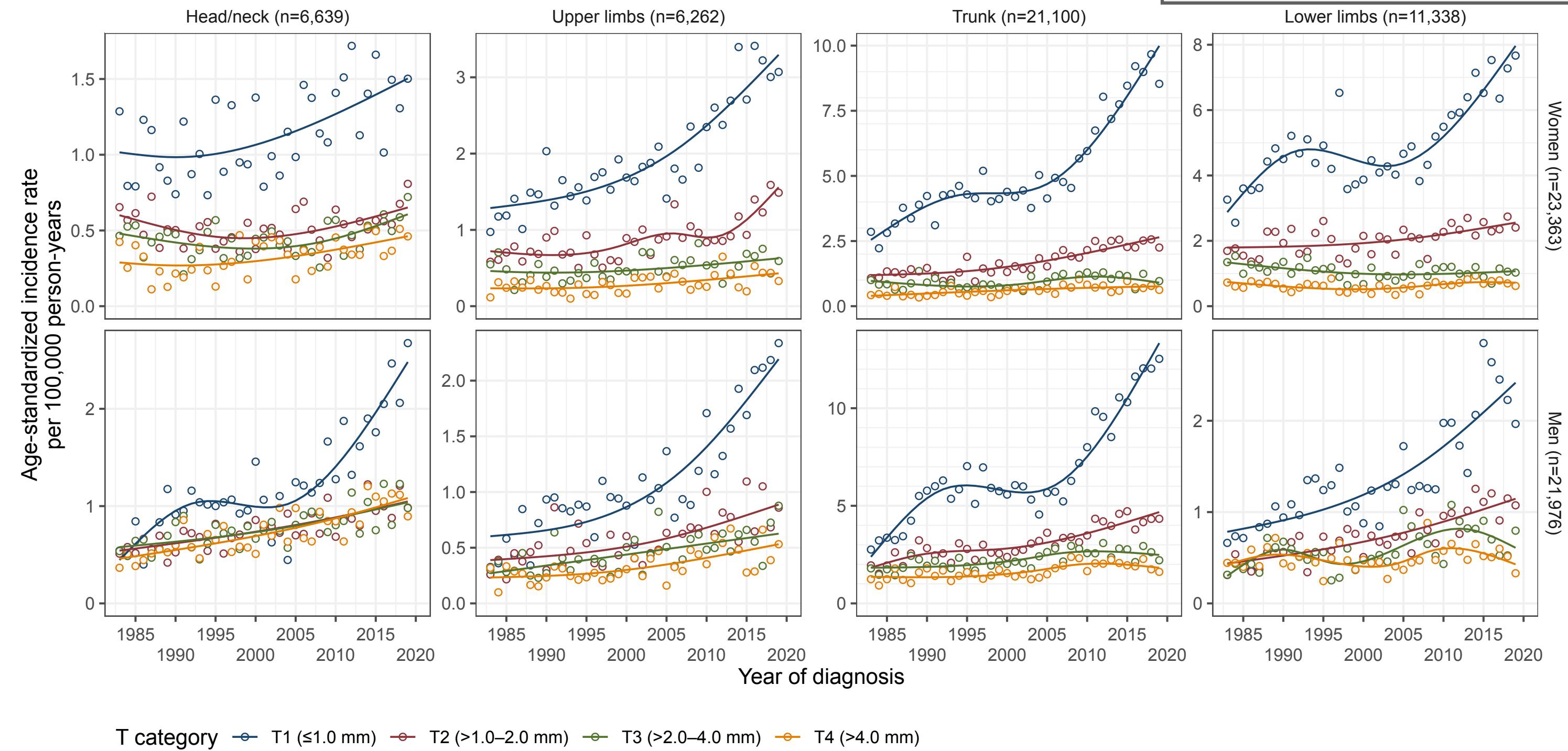


Melanoma incidence trend

By anatomic site

In men:

Highest incidence in trunk but lower incidence in lower limbs than women.

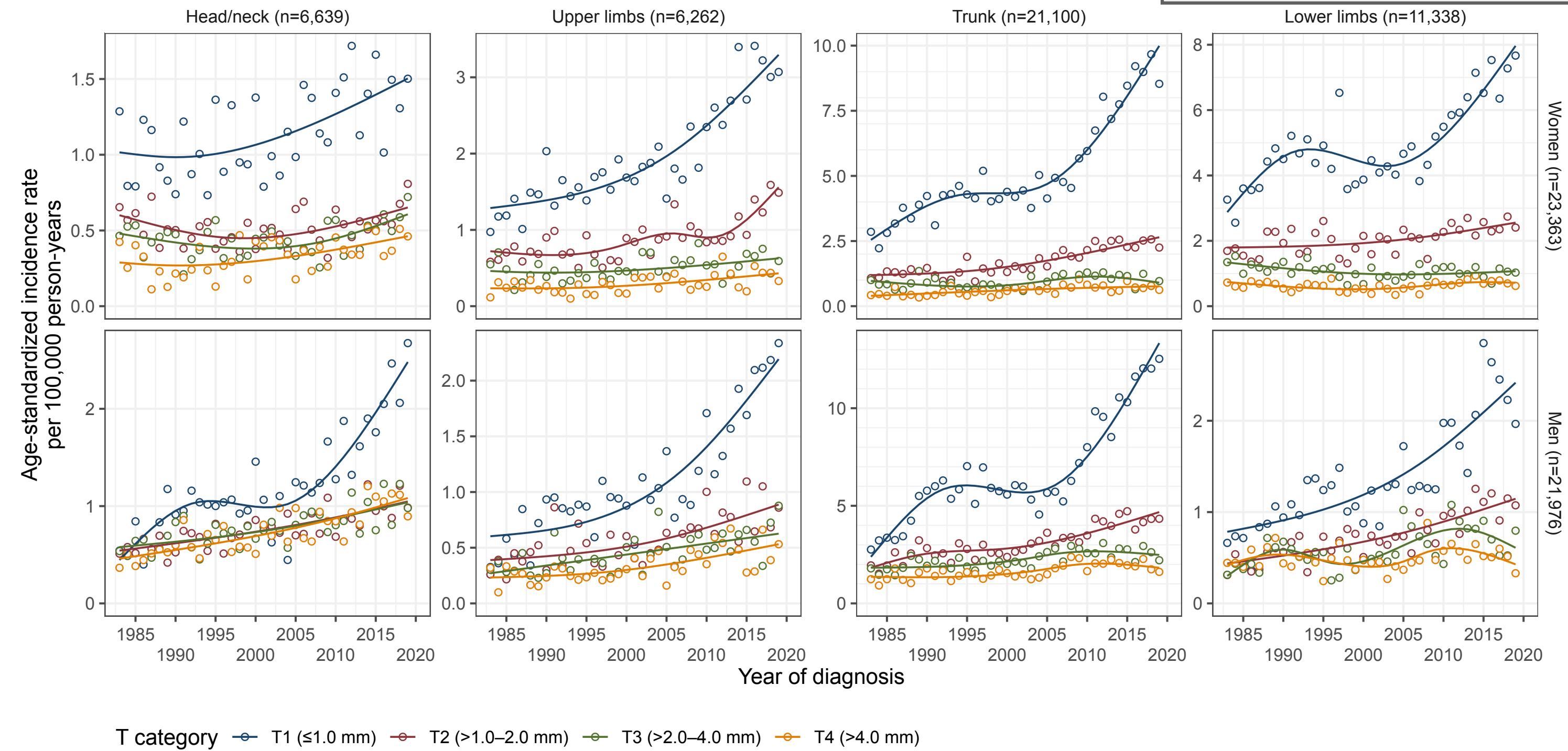


Melanoma incidence trend

By anatomic site

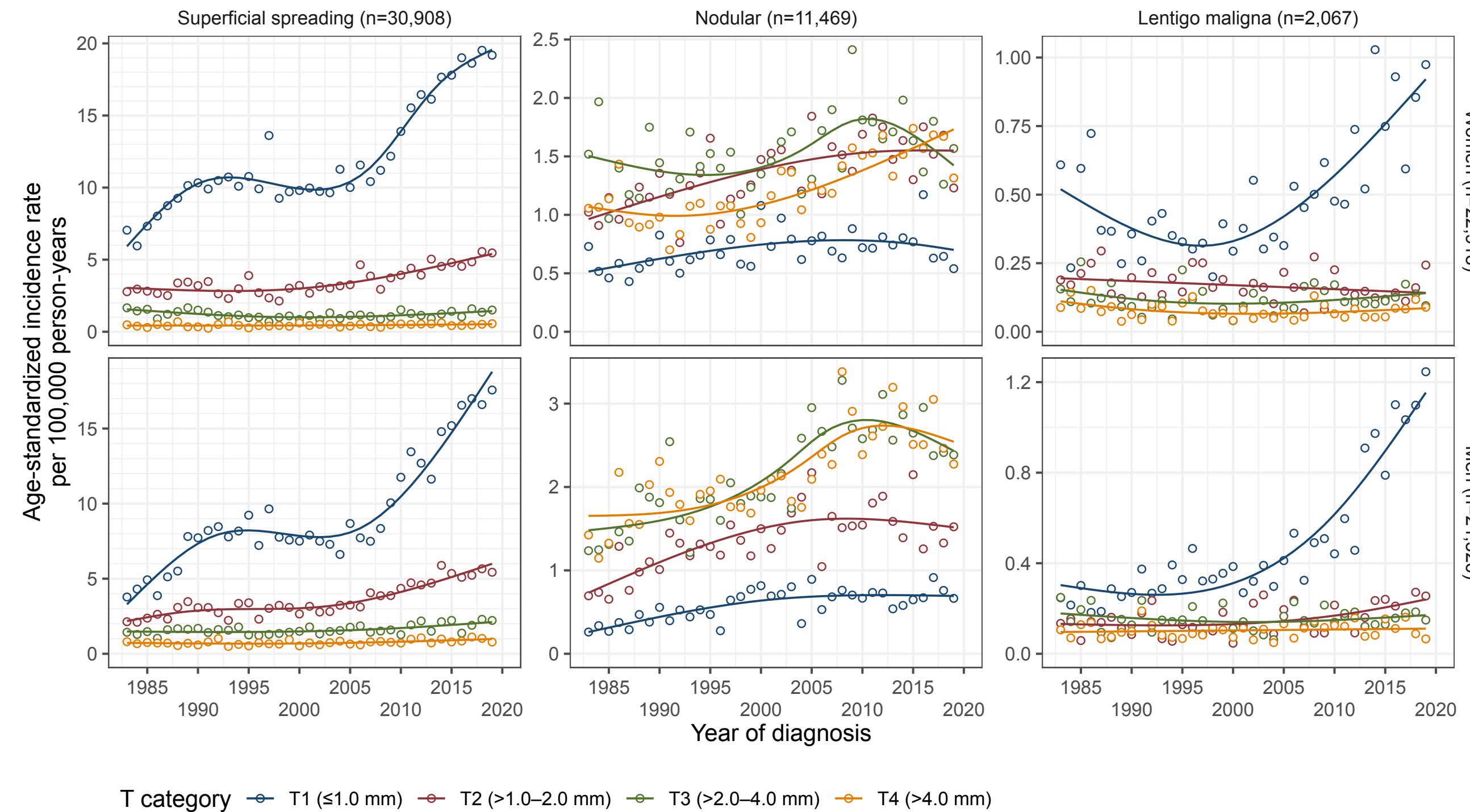
In men:

Higher and increasing head/neck incidence compared to women, mainly in thicker melanoma.



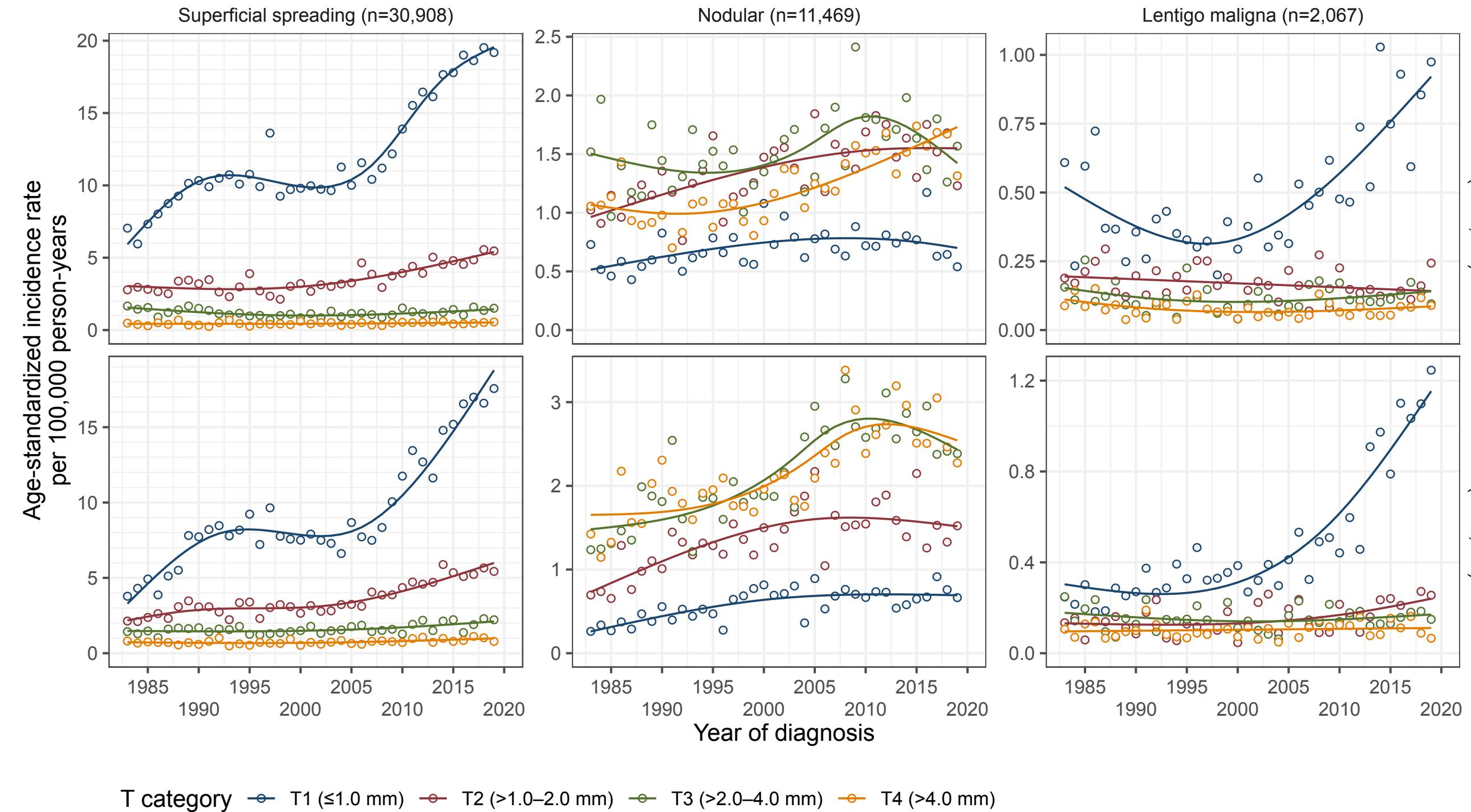
Melanoma incidence trend

By histopathological subtype



Melanoma incidence trend

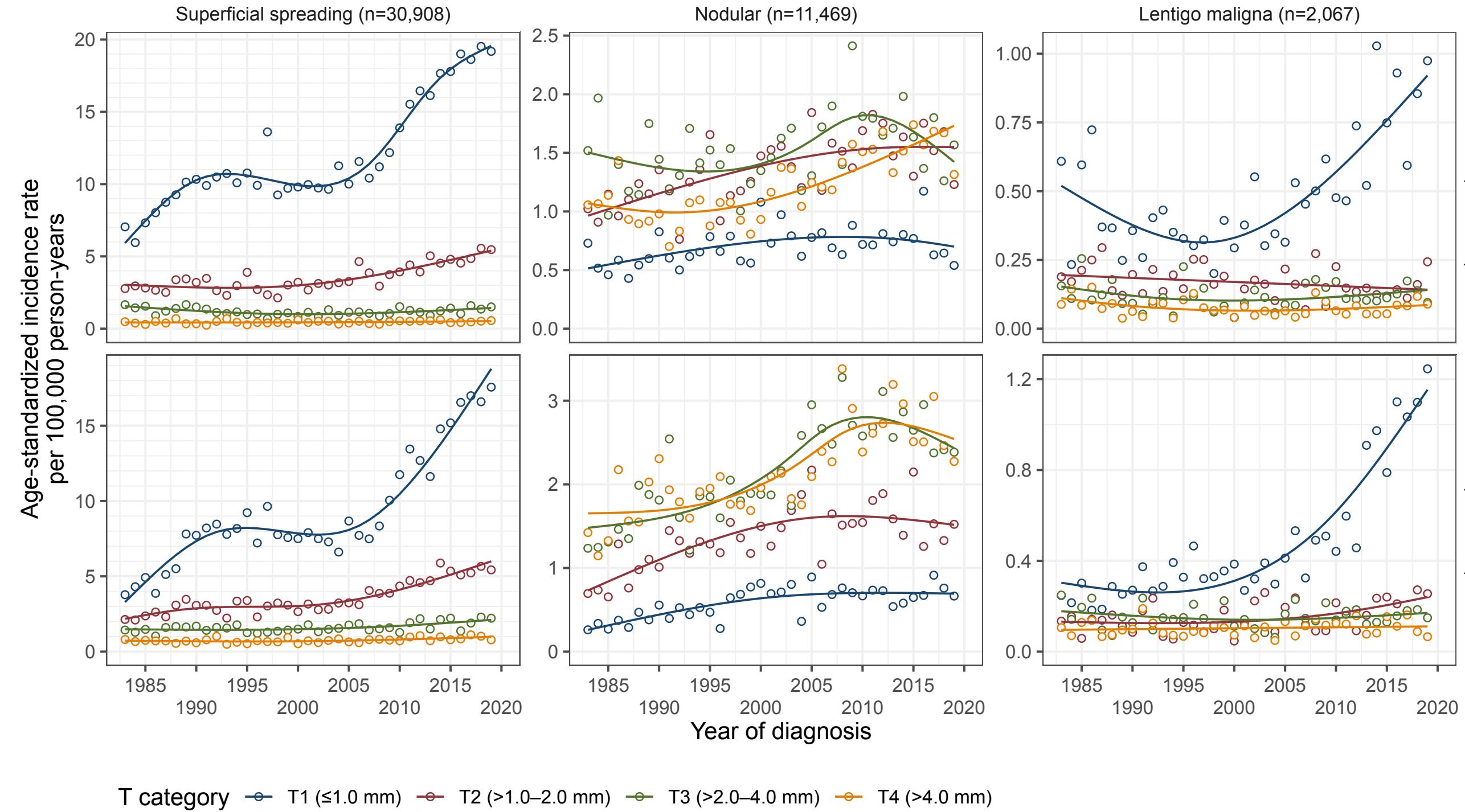
By histopathological subtype



- Superficial spreading**
- Mirrors overall pattern.
 - Higher in women than men.
 - Stable/decreasing trend in thicker melanoma.
 - Increasing T2 in the recent years.

Melanoma incidence trend

By histopathological subtype



Nodular

- Higher incidence of thicker melanoma.
- Higher in men than women.
- Stable/decreasing recent incidence trend.
- Percentage in T3 and T4 was increasing.

Summary

- Steep increase in thin melanoma until 1989/90 followed by plateau and steep increase again after 2004/05.



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- Higher and more increasing incidence in men than women.
- Nodular melanoma had higher incidence of thicker tumour, more in men compared to women.



Summary

- Steep increase in thin melanoma until 1989/90 followed by plateau and steep increase again after 2004/05.
- Higher and more increasing incidence in men than women.
- Nodular melanoma had higher incidence of thicker tumour, more in men compared to women.
- Need for increased melanoma awareness in men.
- Need for more awareness of new and rapidly growing pigmented lesions in older people



Collaborators



UNIVERSITY
OF OSLO



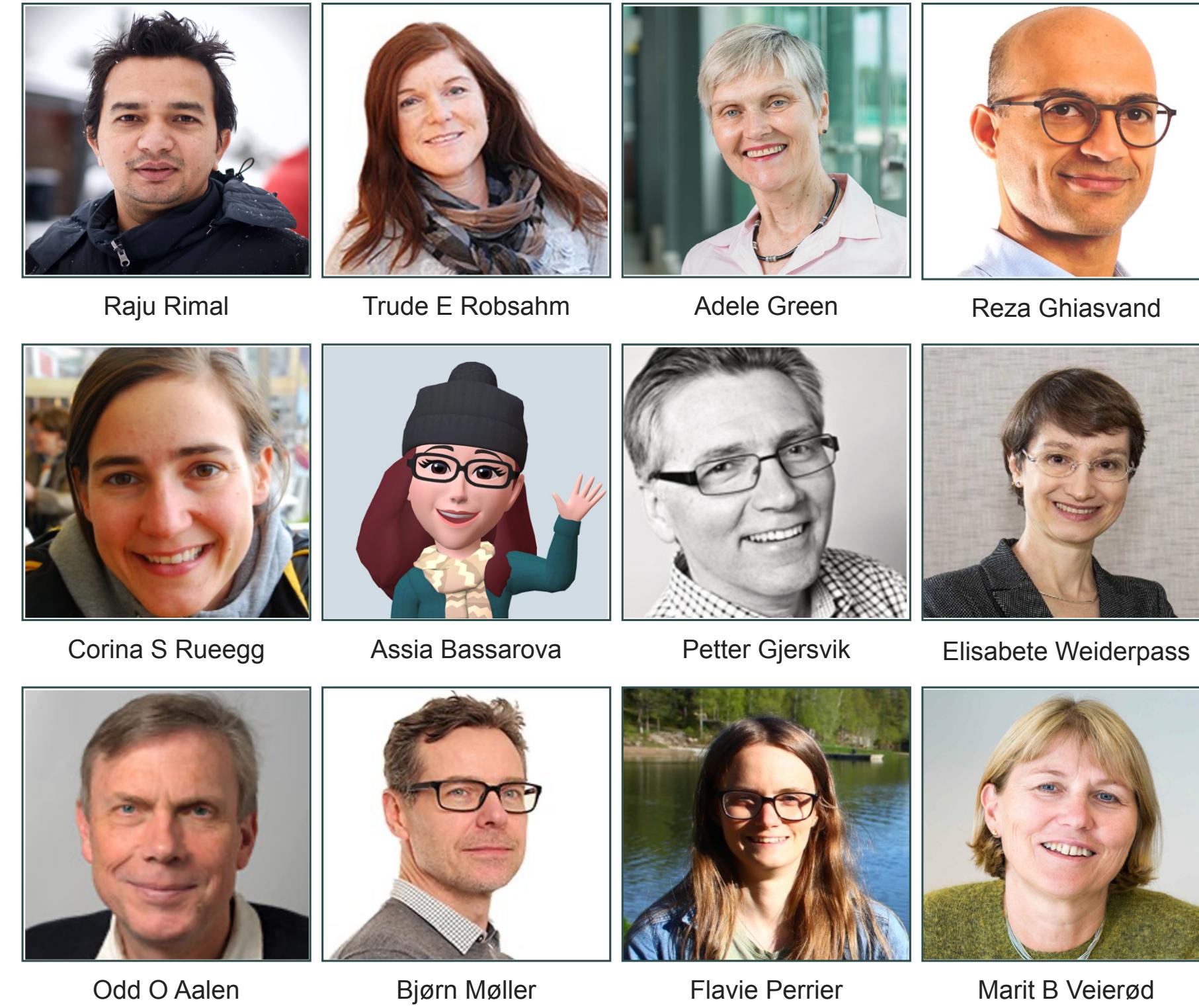
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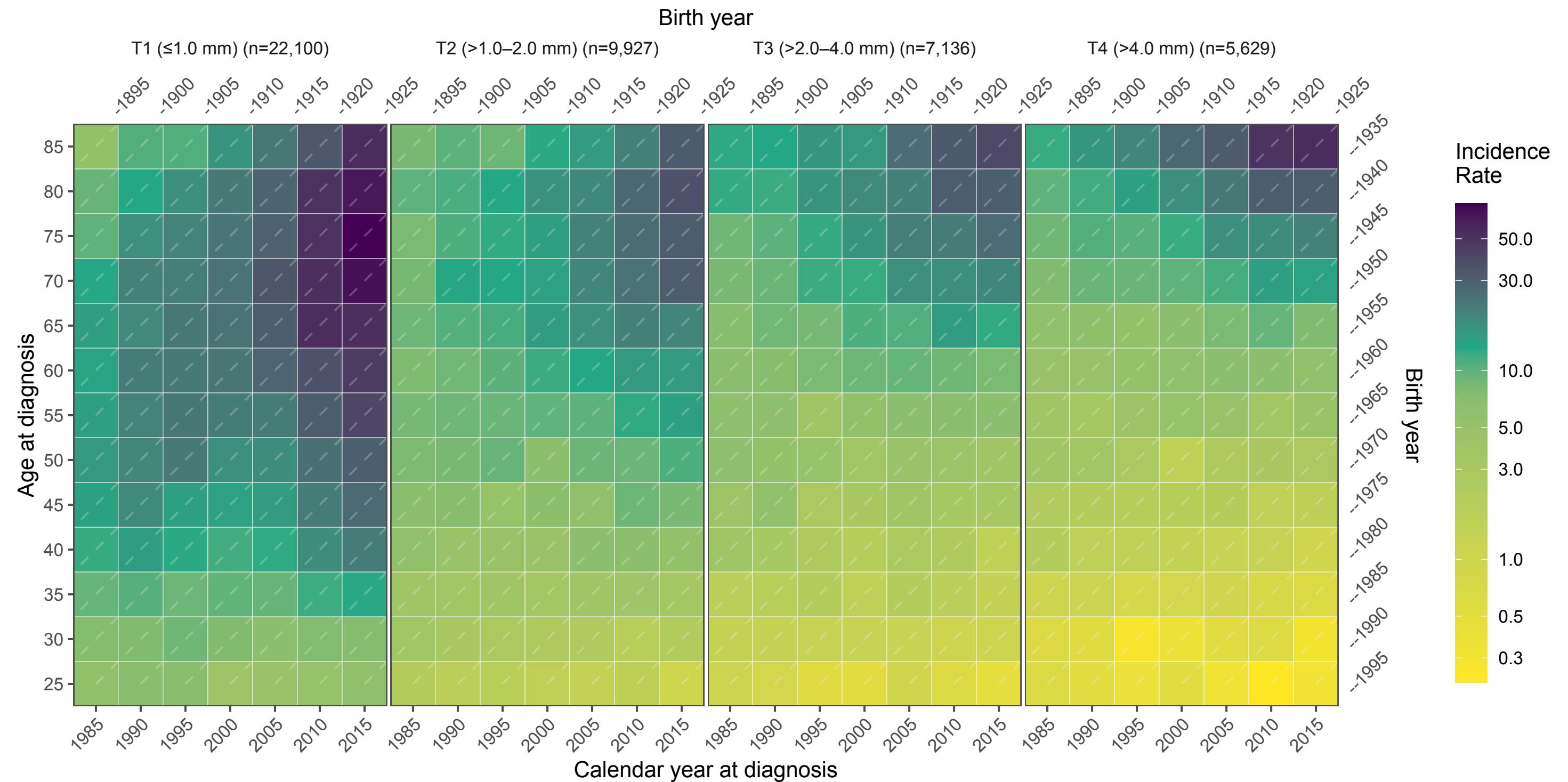


EXTRA SLIDES



Melanoma incidence trend

By period and age at diagnosis





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