Long-term Trend on Tumour Thickness of Melanoma in Norway

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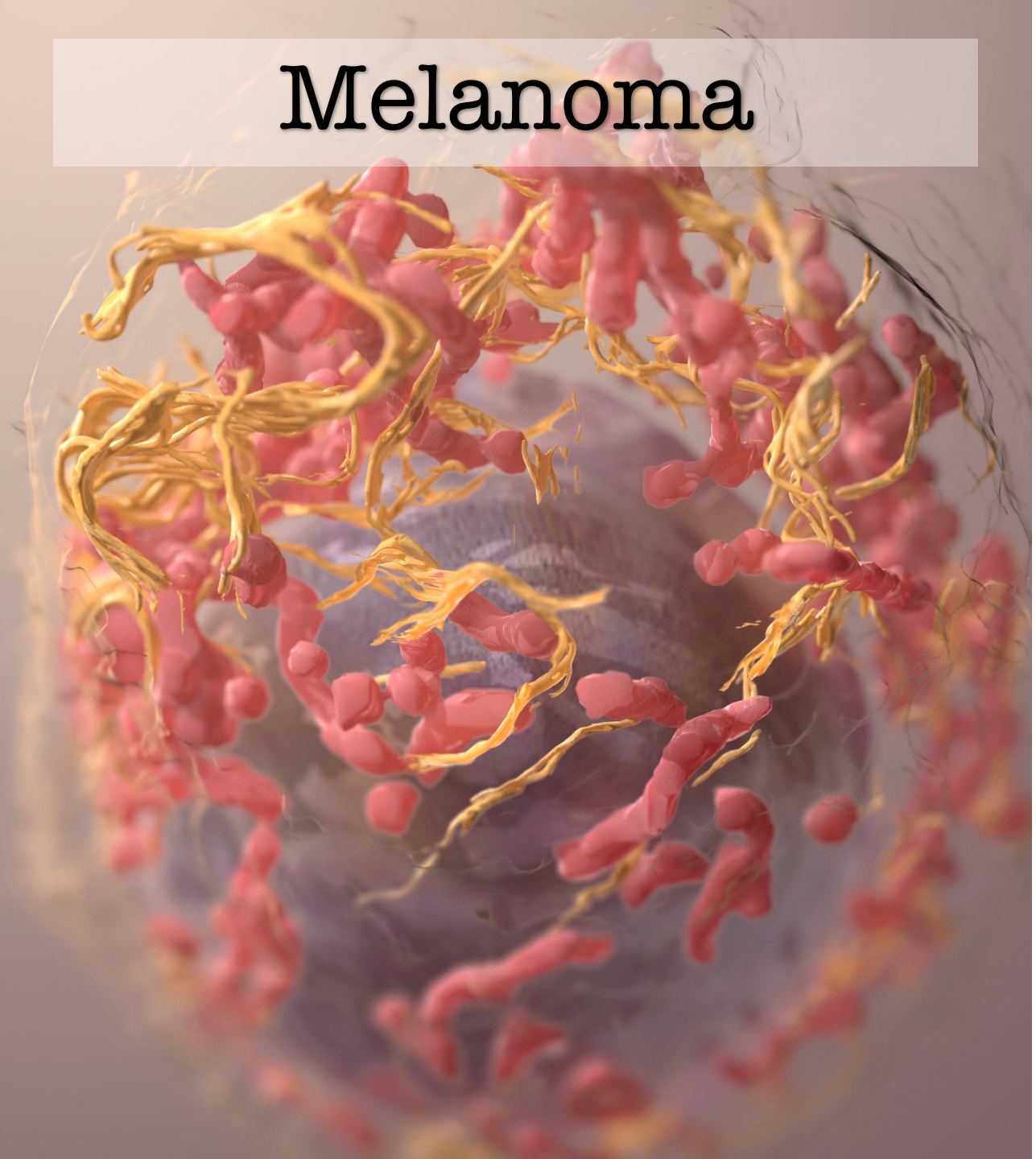
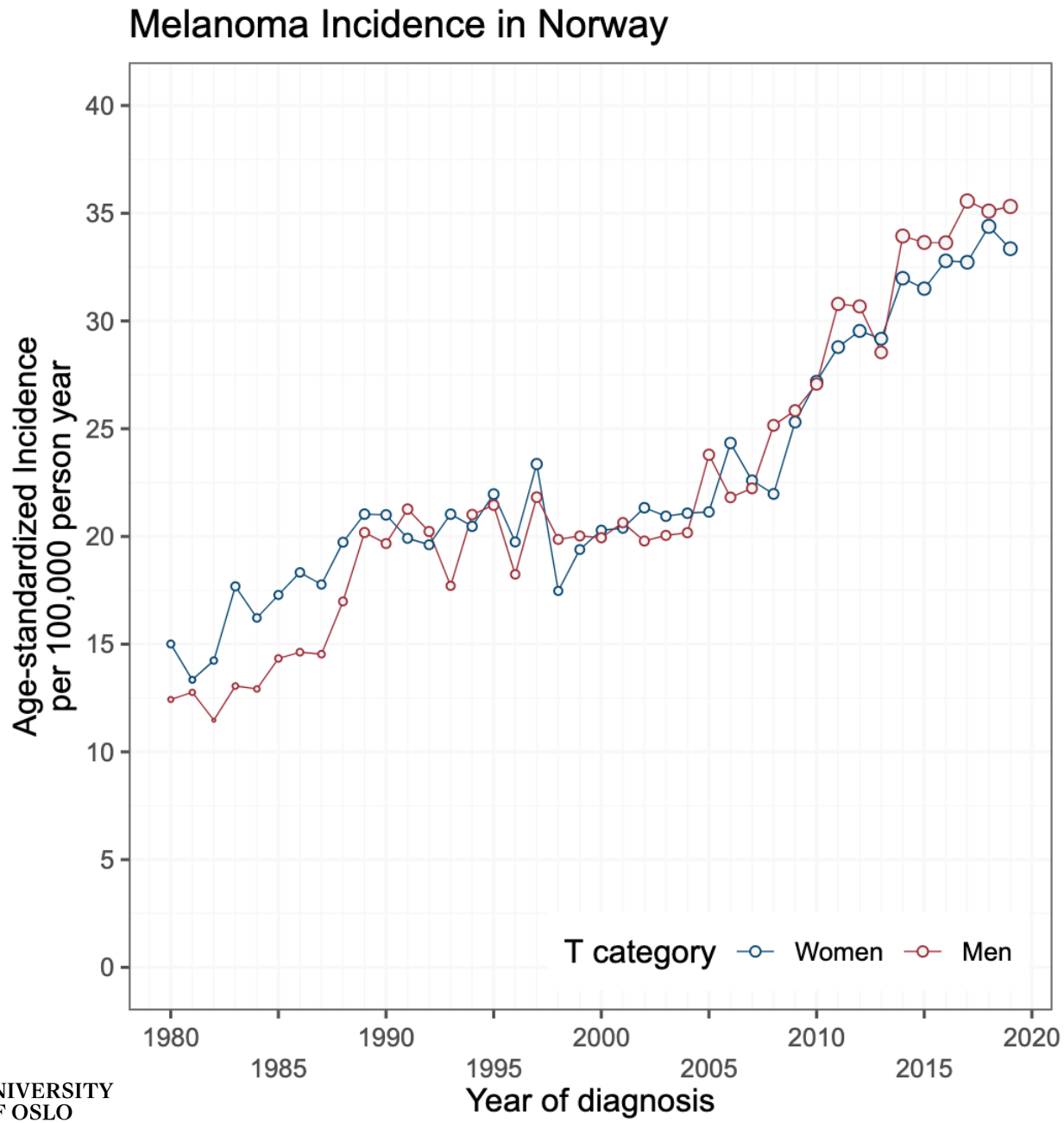
Melanoma



- Serious form of skin cancer
- Pigmentation and UV radiation exposure are the most important risk factors.
- It can be cured if caught and treated early but if left untreated, it may spread to other parts and can be fatal.
- Melanoma has increased dramatically in fair skinned population worldwide.



Norway is

5th in incidence

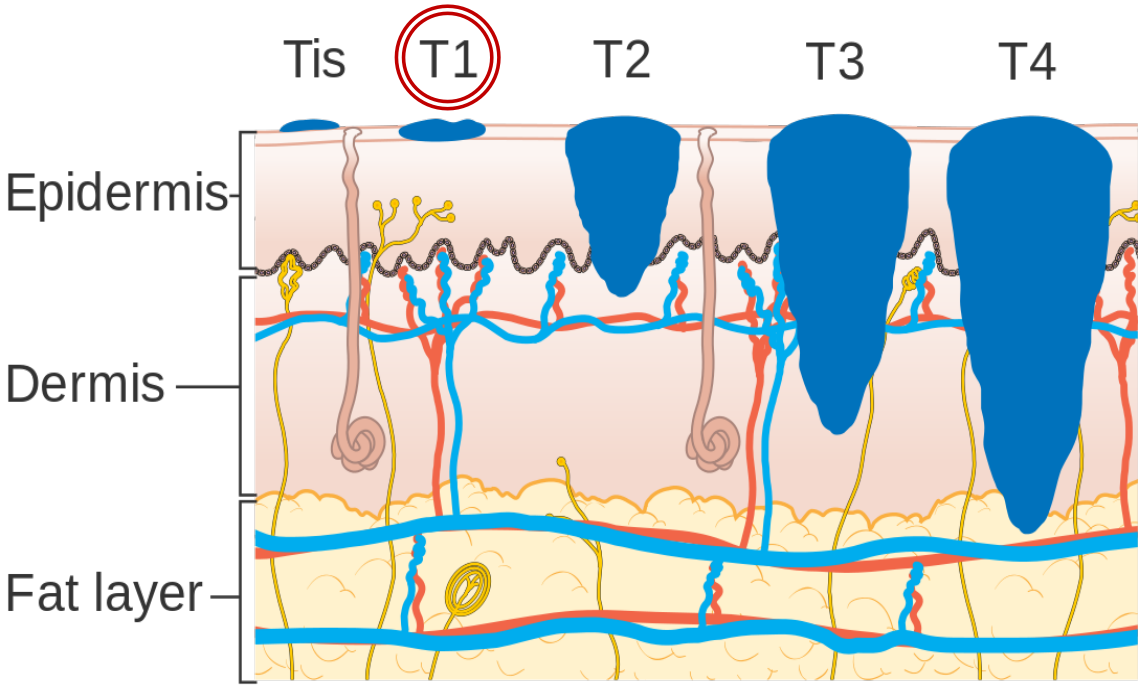
and

2nd in mortality

worldwide

Tumour thickness

The most important prognostic factor



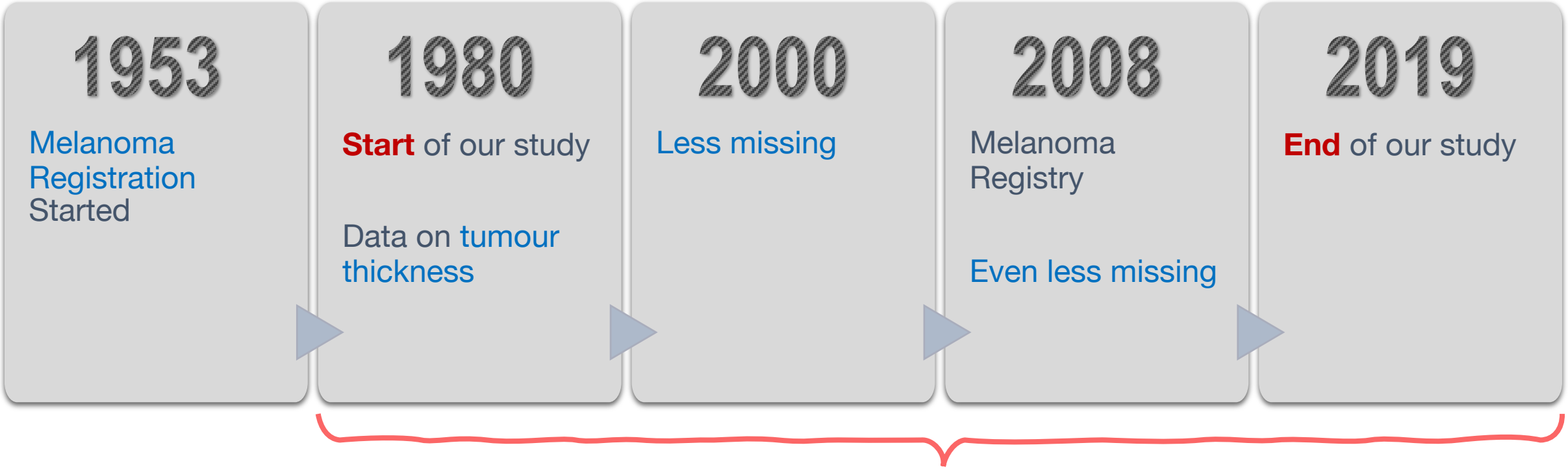
Source: **Cancer Research UK / Wikimedia Commons**

T category	
(Tis)	In situ
T1	up to 1mm
T2	from 1mm up to 2mm
T3	from 2mm up to 4mm
T4	more than 4mm

Aim of the Study

To study long-term ***trends in melanoma tumour thickness,*** overall and in important subgroups such as sex, age and anatomic sites, in a unique nationwide case series over a 40-year time period.

Melanoma in Norway



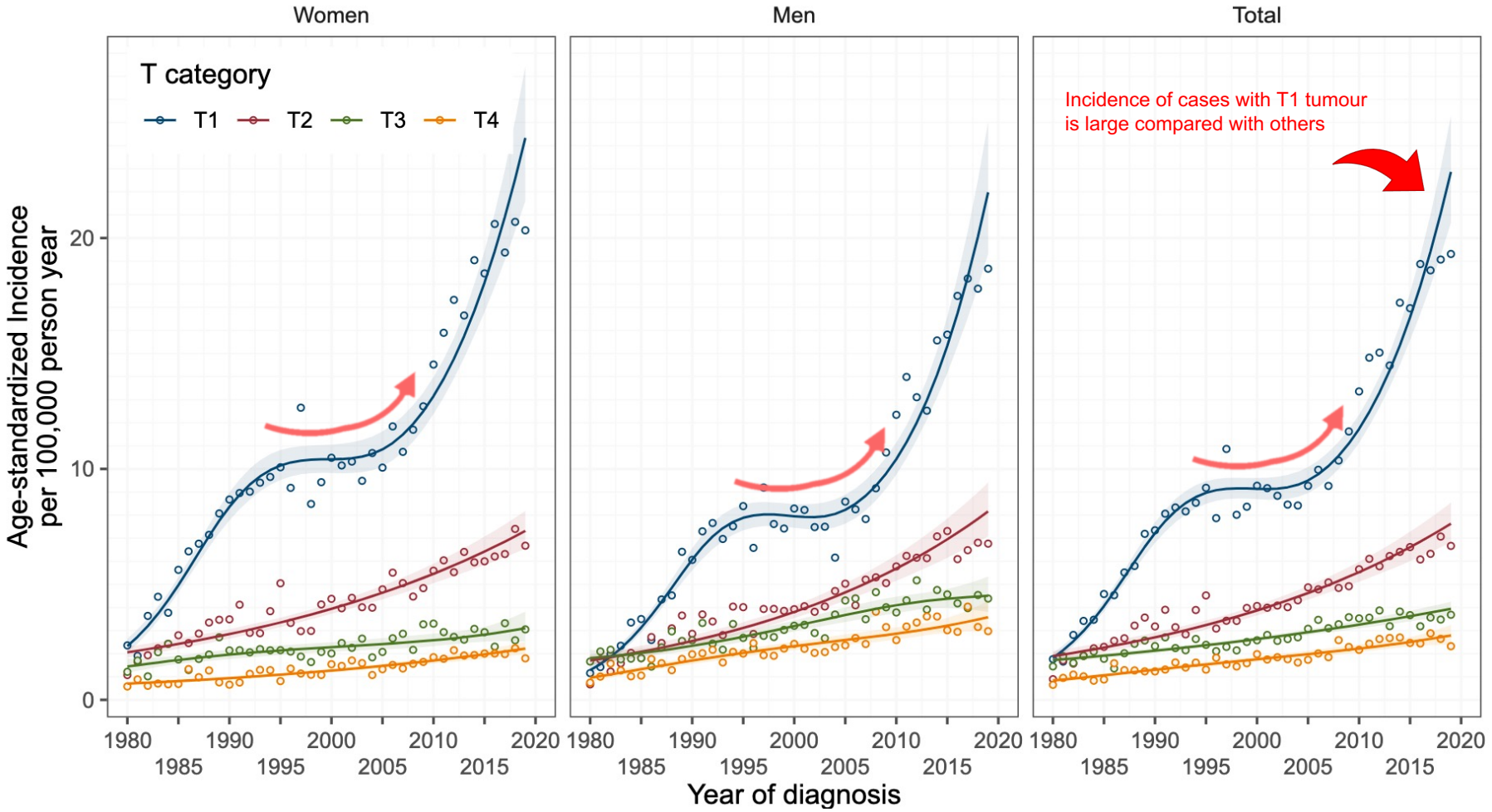
We included all Norwegian melanoma cases with tumour thickness from 1980 to 2019.

Characteristics of Norwegian melanoma cases

Characteristic[1]	Overall N = 47,438	1980-1999 N = 15,919 (34%)	2000-2007 N = 8,780 (18%)	2008-2019 N = 22,739 (48%)
Age, median (IQR)	62 (49 – 74)	**58** (44 – 71)	**62** (49 – 75)	**65** (53 – 75)
Thickness, median (IQR)	1.00 (0.60 – 2.20)	**1.15** (0.70 – 2.50)	**1.10** (0.69 – 2.44)	**1.00** (0.60 – 2.00)
Unknown	7,665	4,674	1,218	1,773

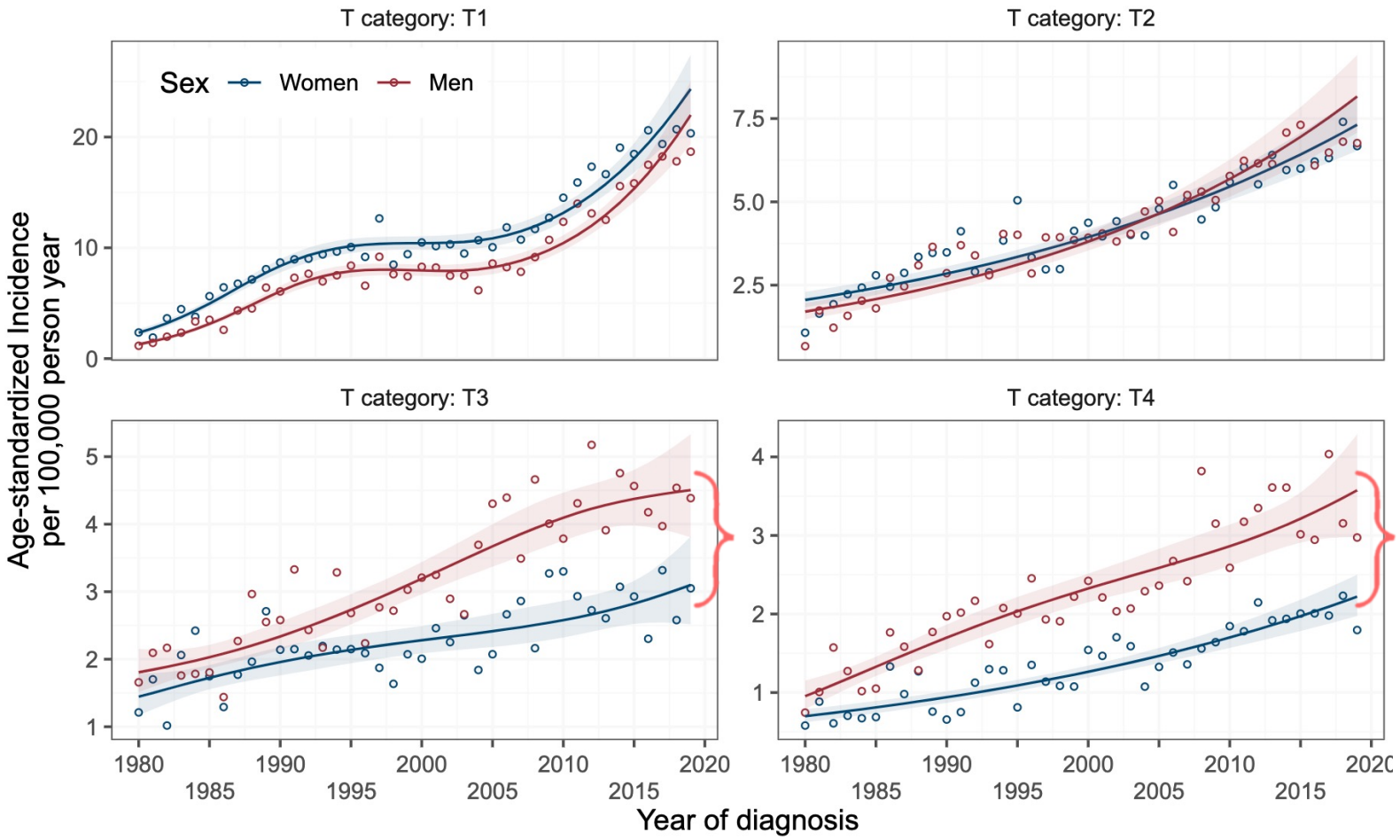
[1] Median (IQR)

Age-adjusted Incidence Rate



- Age standardized incidence rate (ASIR) increased in T categories.
- T1 has the highest ASIR.
- Between1996 and 2006, a plateau is visible in T1 in both sexes.

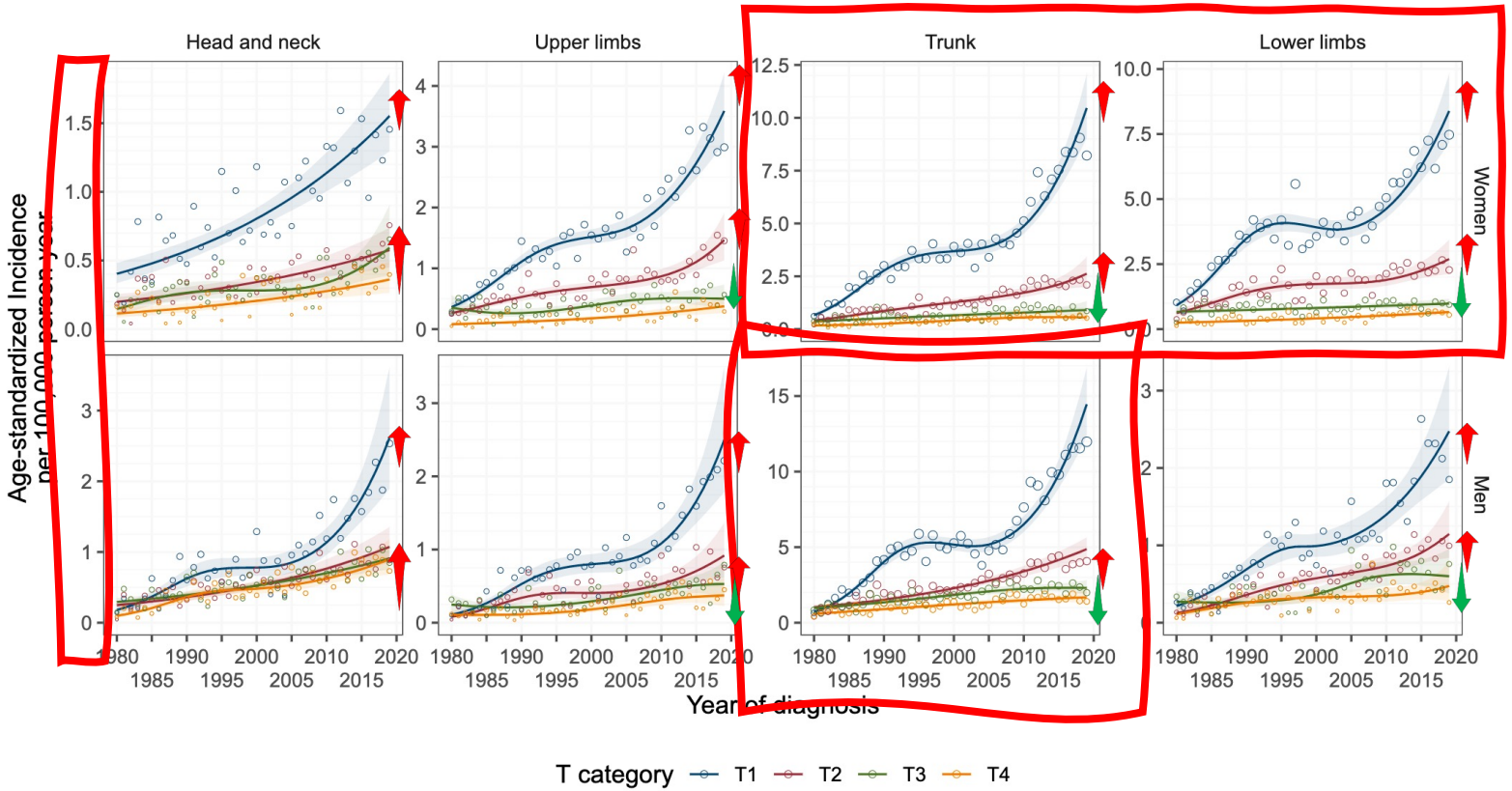
Age-adjusted Incidence Rate



- Incidence of T1 is higher in women than men.
- Incidence of T3 and T4 are higher in men than women.
- The difference between men and women in T3 and T4 have become larger over the years.

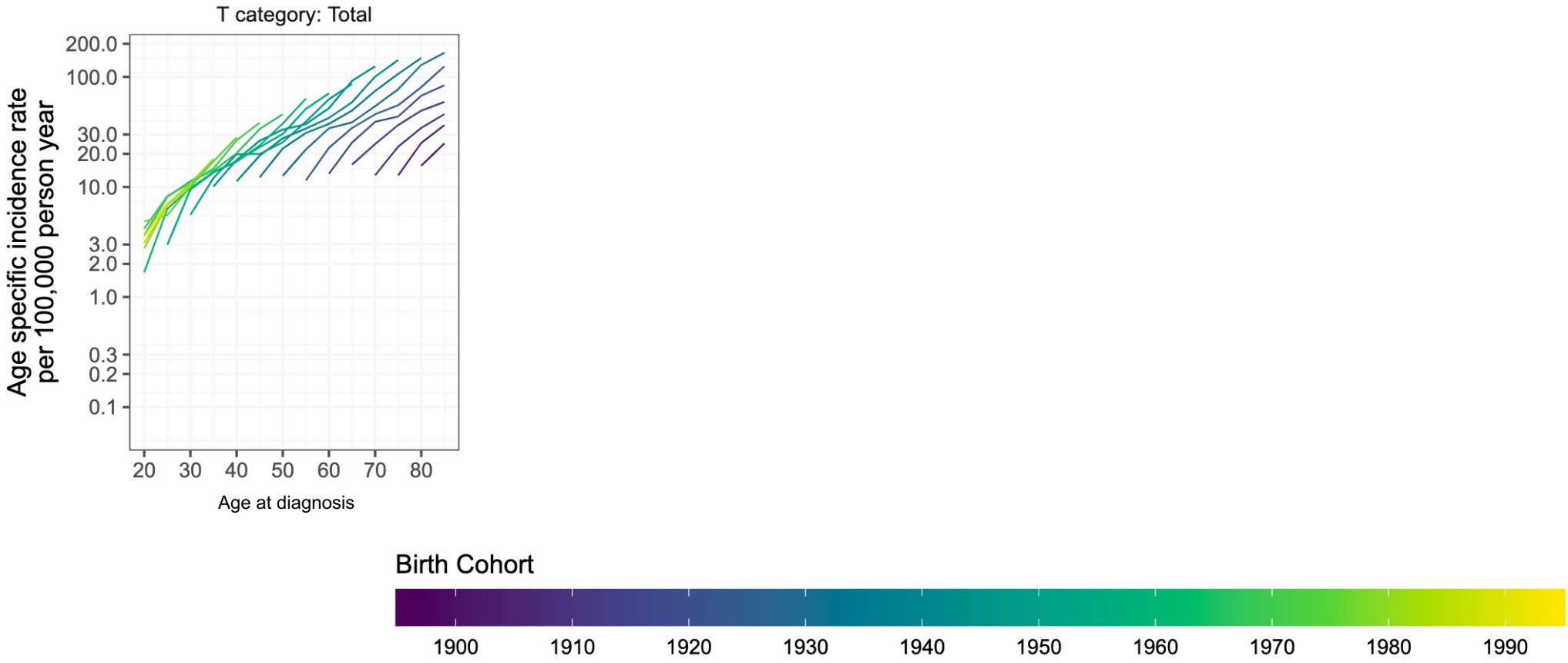
Age-adjusted Incidence Rate

By sex, anatomic site and T category



- In men, trunk has the highest incidence.
- In women, both trunk and lower-limbs have the highest incidence.
- Head and neck has lower incidence compared to the other sites but incidence is increasing in all T categories.
- T1 and T2 cases have increasing trend in all sites.
- T3 varies between sites, while T4 is more stable or increasing.

Age-Period-Cohort plot



T1 shows a similar trend as the total. Less clear cohort effect in thicker cases (T3 and T4).

Preliminary Conclusion

- T1 (thin) melanomas have the highest incidence among all T categories and also have a clear increasing trend.
- Awareness has likely contributed to the **rapid rise in melanoma incidence.**

- Although the incidence in T1 is higher than the other, the incidence in thicker melanomas is also increasing.
- **Over-diagnosis** is important to consider, but cannot explain the increase in thicker melanomas.

- For the **thicker cases**, the difference in incidence between **men and women has become larger.**
- Awareness **focused** on elderly males would be effective for early detection.

Acknowledgement

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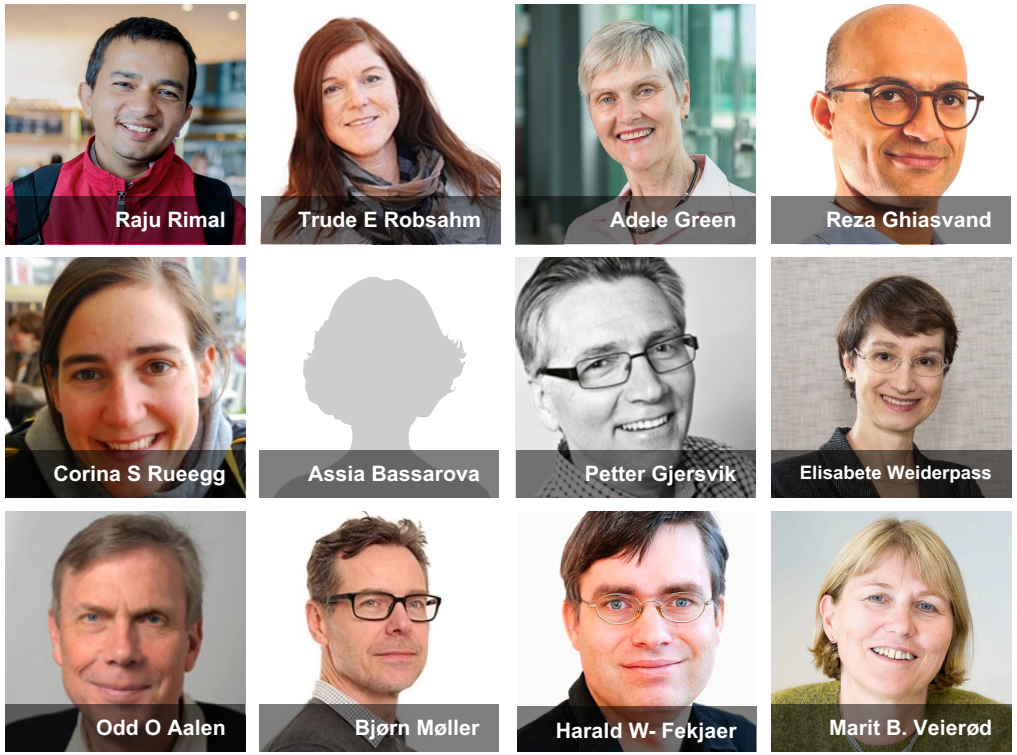

Collaborating Institutes

UNIVERSITY OF OSLO

Oslo Centre for Biostatistics and Epidemiology (OCBE)

Cancer Registry of Norway

Oslo University Hospital

QIMR Berghofer Medical Research Institute

International Agency for Research on Cancer

World Health Organization