

Late effects after cancer treatment – a twin approach

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Study on health late effects after cancer diagnoses

The Danish Twin Registry

- ▶ 110,000 twins born 1873–2010
- ▶ 10,000 twins with 1+ cancer diagnoses

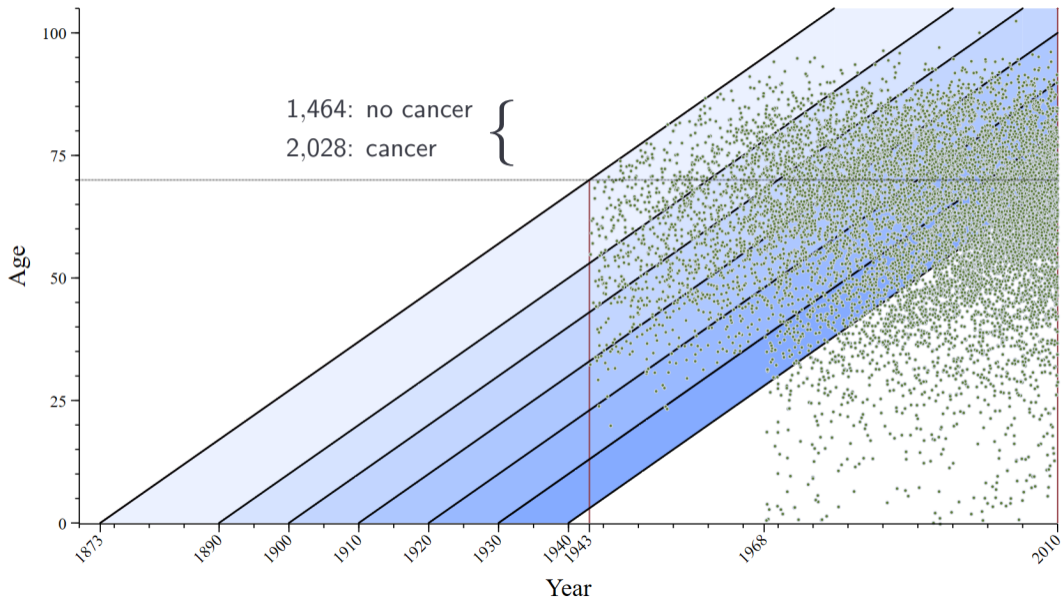
Why twins?

- ▶ Intrapair comparison. Match on: sex, age, socioeconomic factors, genes
- ▶ Indistinguishable cancer survival for twins compared to background population

Survival after cancer at age 70+ for twins

- ▶ 1,746 twin pairs:
 - First cancer at age 70+
 - Both twins alive at first cancer in the pair
 - One or more cancer diagnoses in the pair

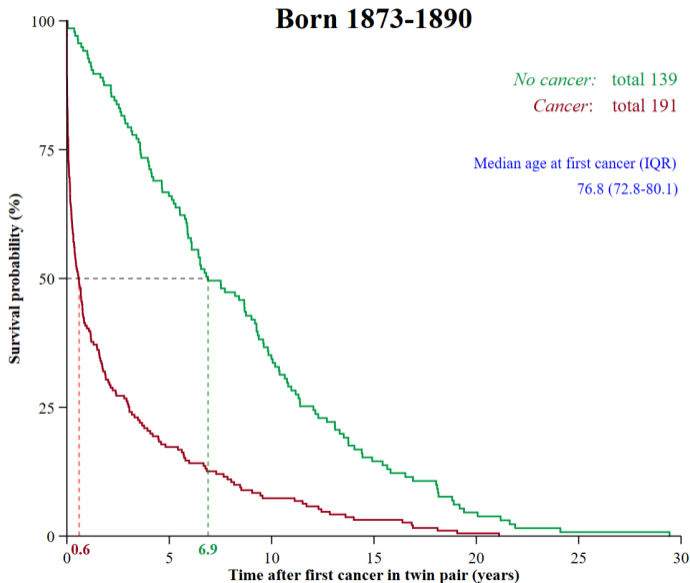
Lexis Diagram: First cancer diagnosis

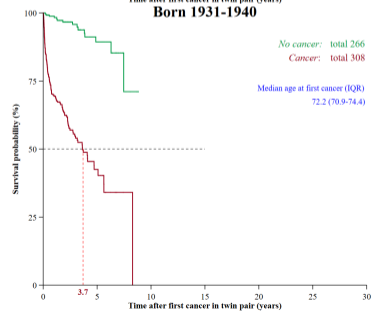
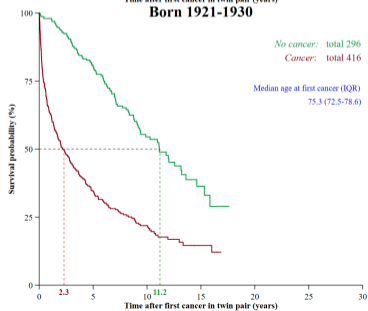
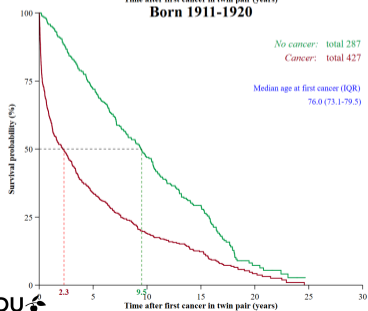
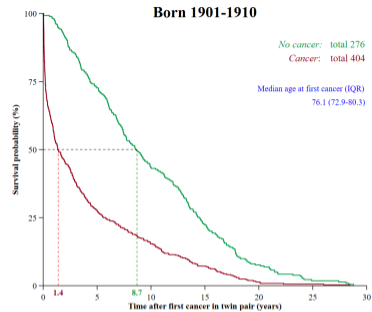
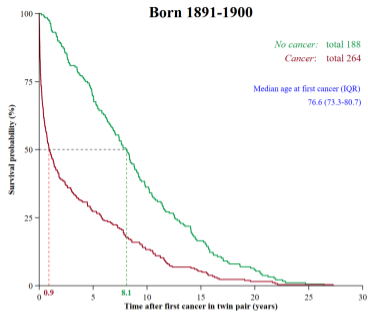
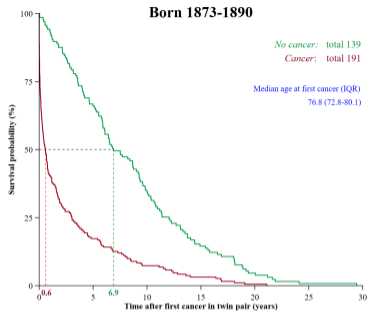


Survival curves

Cohort survival differences?

- ▶ Cancer survival goes up
- ▶ Impact of general progress in survival (e.g. CVD)?





Conclusion

Survival after cancer changes over cohorts

Absolute vs. relative

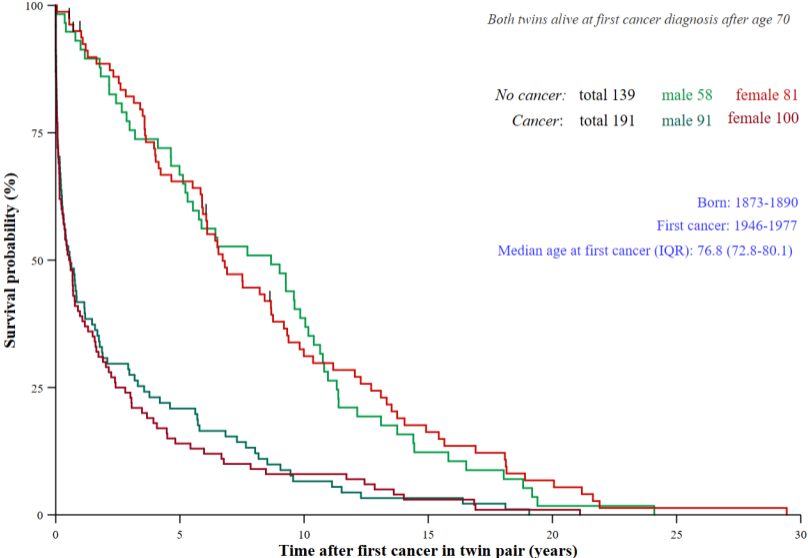
Next phenotype: Late effects of treatment

Expand with advanced statistical methods

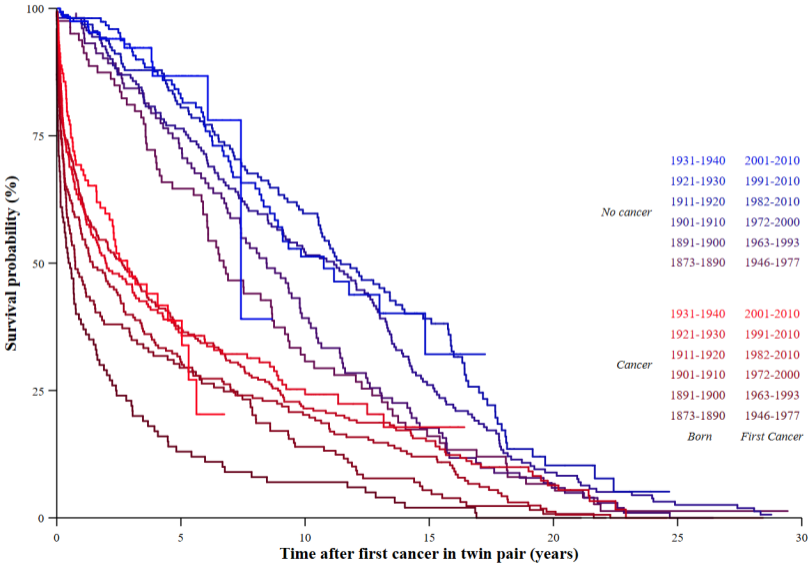
Thank you!

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Survival Curves, Twins, 70+, Born 1873–1890



Survival Curves, Twins, 70+, Female



Survival Curves, Twins, 70+, Men

