



# Cancer Incidence among People with intellectual Disabilities in The Netherlands

*A population-based cohort study*

**Maarten Cuypers, PhD**

Epidemiologist

Radboud university medical center, Nijmegen, The Netherlands

Department of Primary and Community Care

Intellectual Disability and Health

# COI

- No disclosures
- Funding from Dutch Ministry of Health (VWS) and The Netherlands Organisation for Health Research and Development (ZonMw)

# Outline



WHY OF  
INTEREST?



WHAT DO WE  
ALREADY KNOW?



WHAT DID WE  
DO?



OUR FINDINGS



INTERPRETATION  
AND DISCUSSION

# Why of interest?



## Genetics

Potential causal link between syndrome and tumor development



## Lifestyle

Less aware of health risks, less prevention



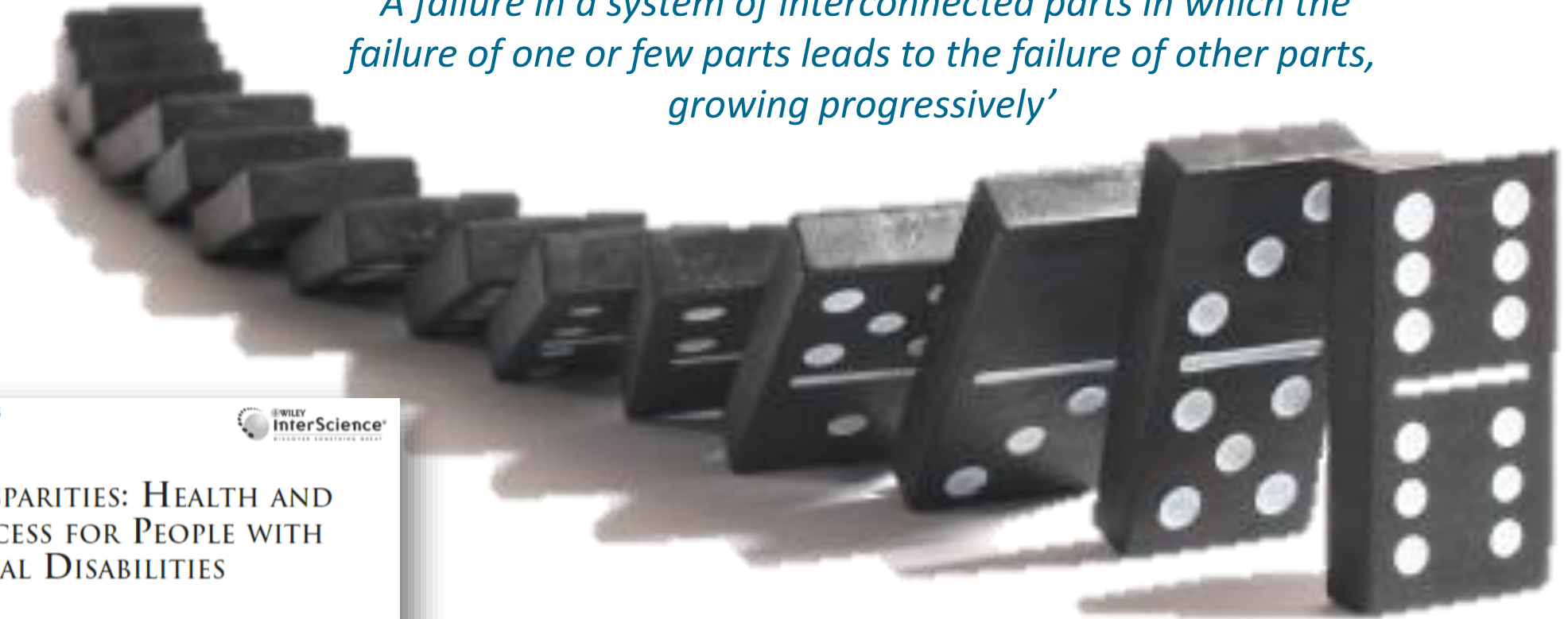
## Health(care) disparities

Communication  
Health skills and literacy  
Diagnostic overshadowing



# Cascading problems

*'A failure in a system of interconnected parts in which the failure of one or few parts leads to the failure of other parts, growing progressively'*



MENTAL RETARDATION AND DEVELOPMENTAL DISABILITIES  
RESEARCH REVIEWS 12: 70-82 (2006)

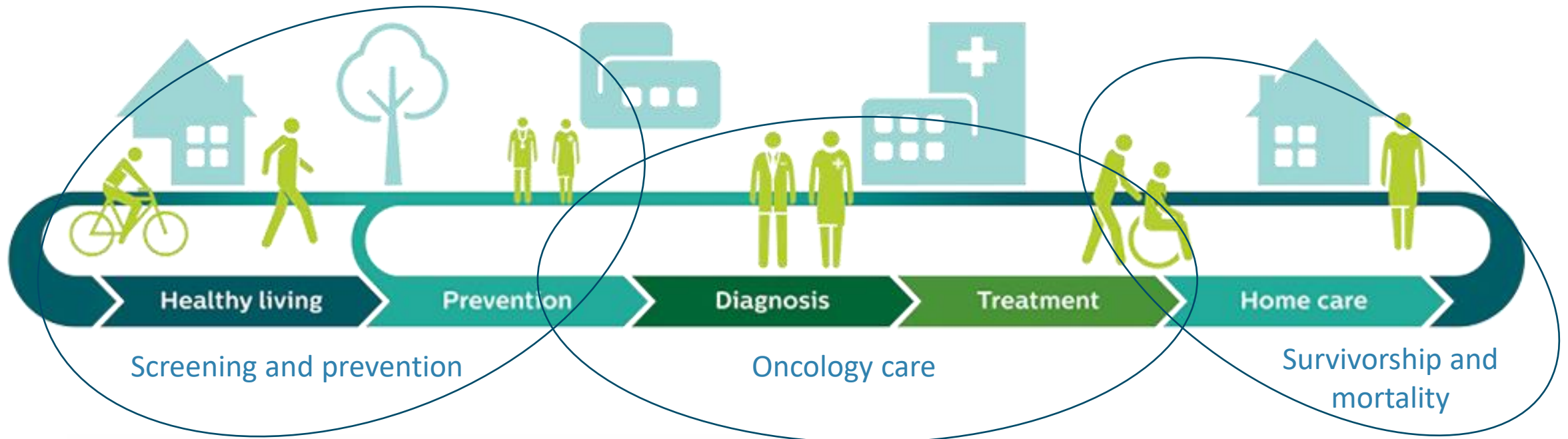


## A CASCADE OF DISPARITIES: HEALTH AND HEALTH CARE ACCESS FOR PEOPLE WITH INTELLECTUAL DISABILITIES

Gloria L. Krahn,\* Laura Hammond, and Anne Turner

Child Development and Rehabilitation Center, Oregon Health & Science University, Portland, Oregon

# Challenges throughout cancer continuum



Open access

Editorial

BMJ Oncology

**Research priorities to improve cancer care for people with intellectual disabilities across the cancer continuum**

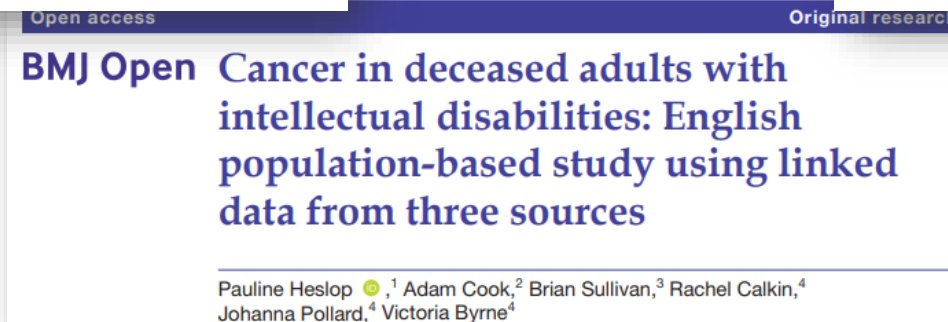
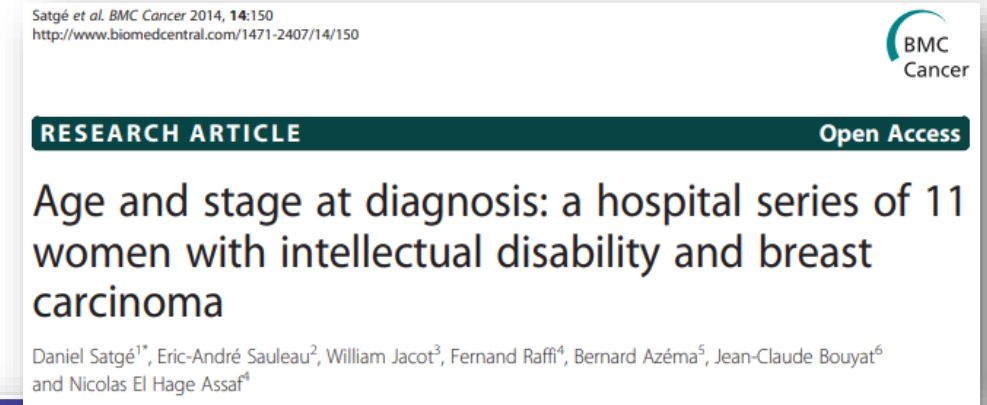
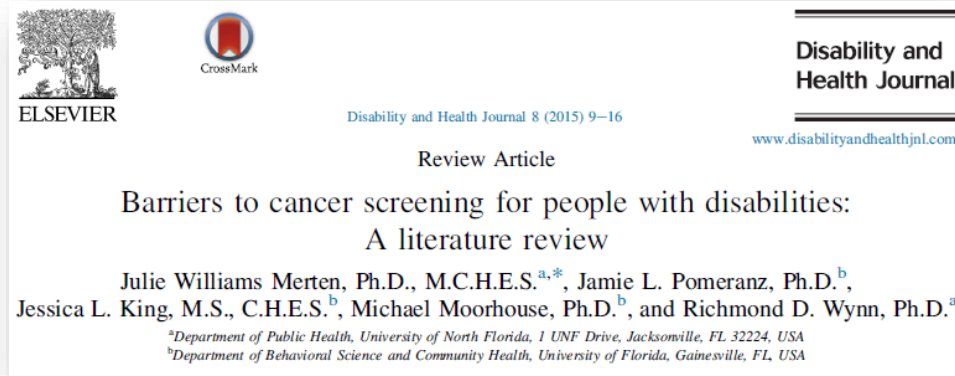
Maarten Cuypers,<sup>1</sup> Deborah Cairns,<sup>2</sup> Kathryn A Robb <sup>2</sup>

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**STERKER**  
OP EIGEN BENEN

# (early) detection

- Low participation and barriers in population screening
  - Consistent findings across Europe, North America, Australia, and Asia
- Diagnosis at more advanced stages



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# Oncology care and mortality

- Based on routine data from The Netherlands, and a literature review:
  - Fewer people with ID receive treatment at oncology department than expected
  - Treatments get adjusted without evidence or reasoning as to why
  - More people with ID die due to cancer than expected

## Cancer Medicine

Open Access

ORIGINAL RESEARCH | [Open Access](#)

### Disparities in cancer-related health insurance claims for people with intellectual disabilities: A nationwide population-based cohort study

Maarten Cuypers , Hilde Tobi, Cornelis A. M. Kiemer, Chris van Weel, Lambertus A. L. M. Kiemer

First published: 25 July 2020 | <https://doi.org/10.1016/j.cmed.2020.07.001>

SERIES | DISABILITIES AND CANCER | VOLUME 23, ISSUE 4, E174-E183, APRIL 2022

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### Cancer treatment and decision making for people with intellectual disabilities: a scoping literature review

Anne J Boonman, MSc   • Maarten Cuypers, PhD • Prof Haiko J Bloemendal, MD

Published: April, 2022 • DOI: [https://doi.org/10.1016/S1473-0502\(22\)00040-0](https://doi.org/10.1016/S1473-0502(22)00040-0)

## Cancer

An International Interdisciplinary Journal of the American Cancer Society

Original Article | [Open Access](#) |    

### Cancer-related mortality among people with intellectual disabilities: A nationwide population-based cohort study

Maarten Cuypers PhD , Bianca W. M. Schalk PhD, Anne J. N. Boonman MSc, Jenneken Naaldenberg PhD, Geraline L. Leusink MD, PhD

First published: 17 November 2021 | <https://doi.org/10.1002/cncr.34030> | Citations: 11

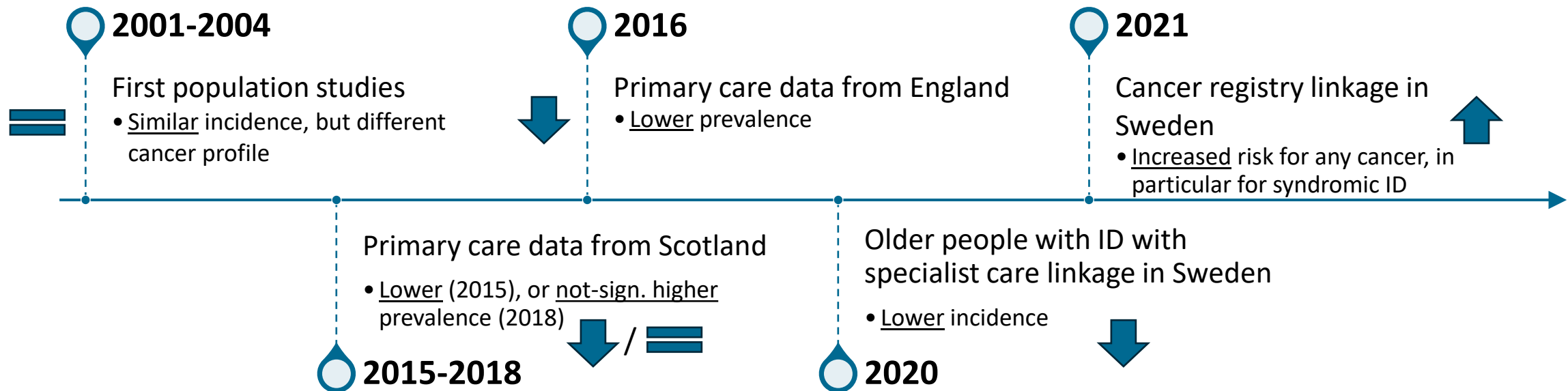


The background of the slide is a light blue surface covered with numerous small, light-colored wooden blocks. Each block has a black question mark printed on it. The blocks are scattered across the entire frame, creating a pattern of question marks.

# What do we know about cancer incidence?

# Brief overview of literature

- Since 2000

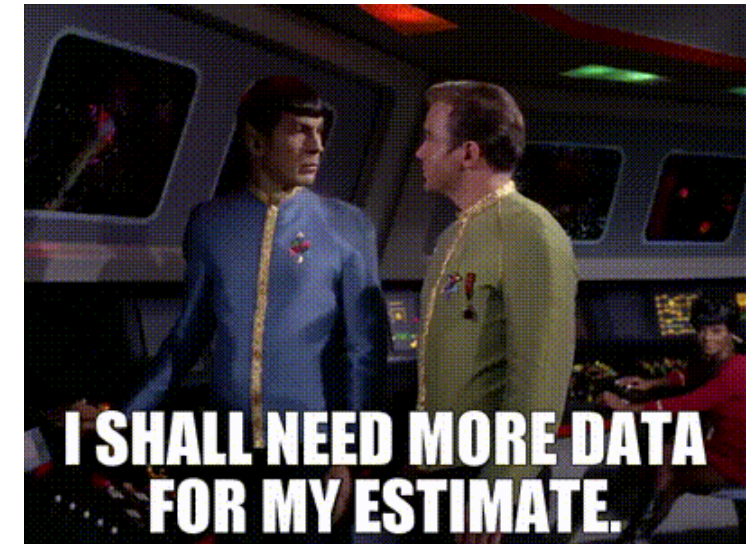


Patja, 2001; Sullivan, 2004; Carey, 2016; Cooper, 2015 and 2018; Satge, 2020; Liu, 2021

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# Cancer incidence

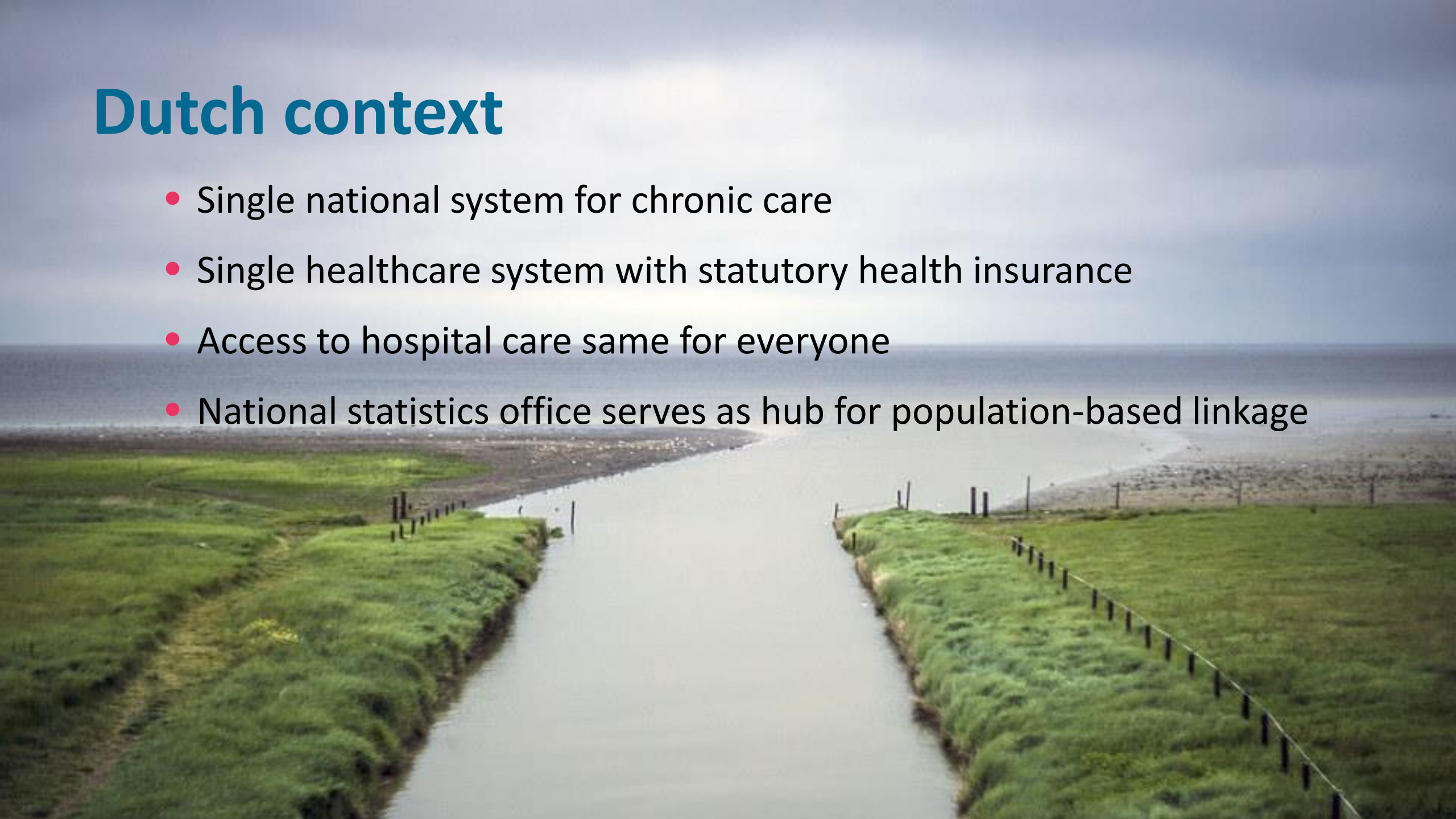
- Literature is inconclusive
  - Depends on which groups are studied and compared
- Genetic subgroups can have specific risks
  - Down's syndrome lower risk for solid tumors, increased leukemia risk
- Different age profile
  - Between 5 and 12 years younger at diagnosis
- Different cancer types and stage at diagnosis





# Dutch context

- Single national system for chronic care
- Single healthcare system with statutory health insurance
- Access to hospital care same for everyone
- National statistics office serves as hub for population-based linkage



# ID definition

- Users of ID-specific long-term care services or social benefits
- No information on aetiology
- But, a formal diagnosis of ID is mandatory to access any of the services
- Service level indicative for ID severity
  - Stratify by residential status

# Data sources

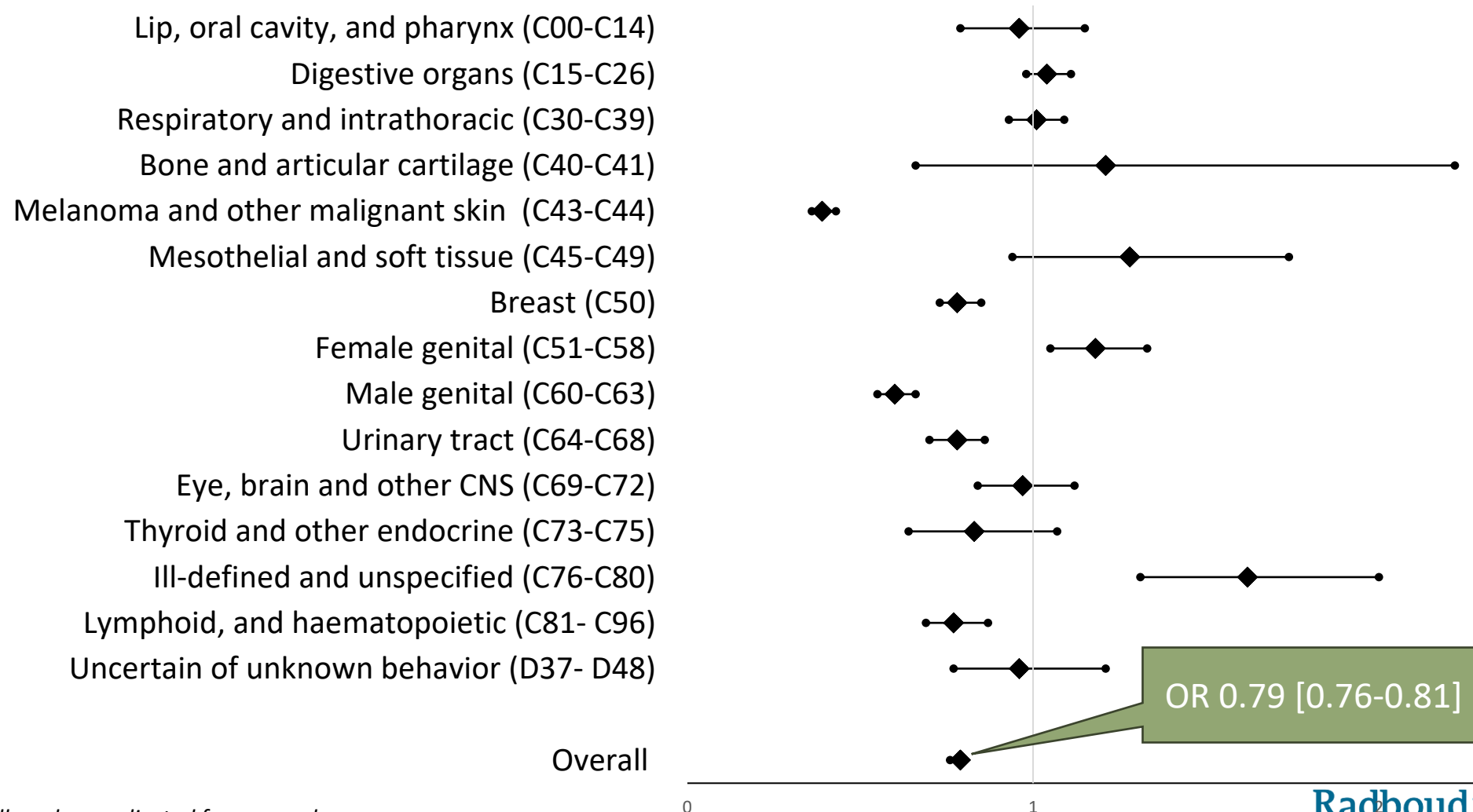


Population registry to generate cohort (N=948,056)

Chronic care and welfare databases to identify persons with ID (N=187,149)

New cancer diagnoses in national cancer registry (2015-2020) (N=50,257)

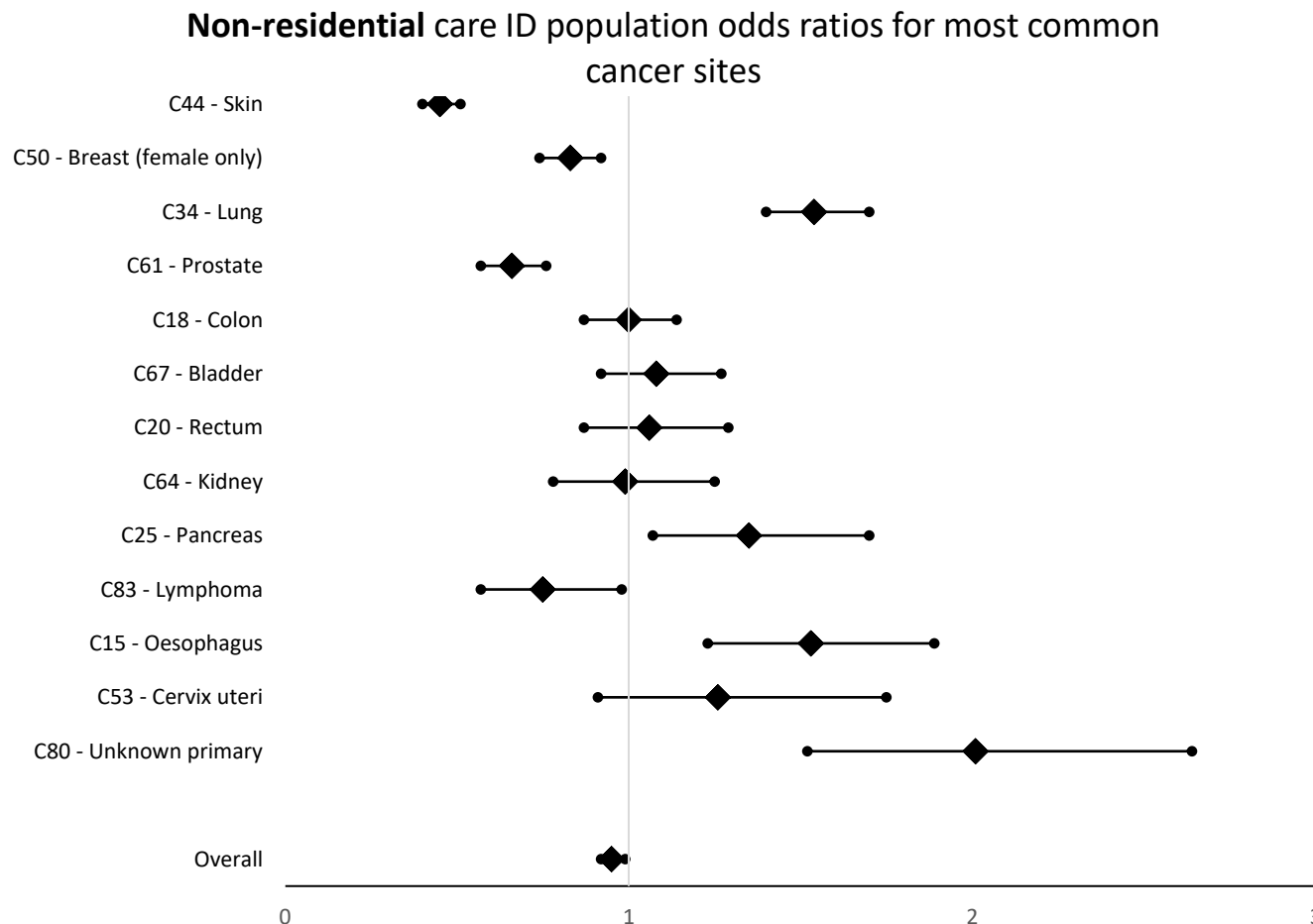
# Findings – All cancers by ICD-10 chapter



All analyses adjusted for age and sex

# Findings – Most common sites

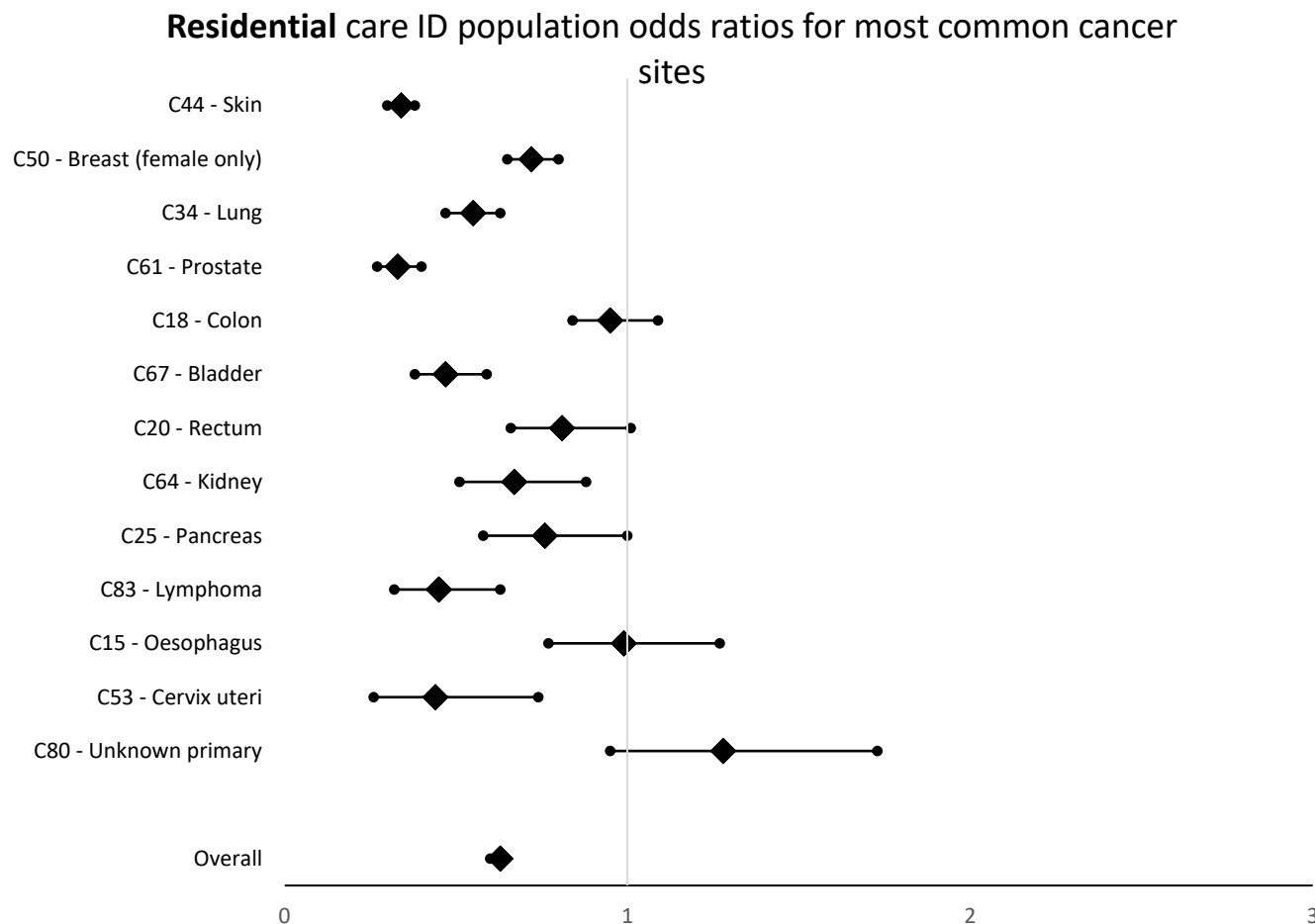
- Stratified by residency status in long-term care (i.e. proxy for ID severity)



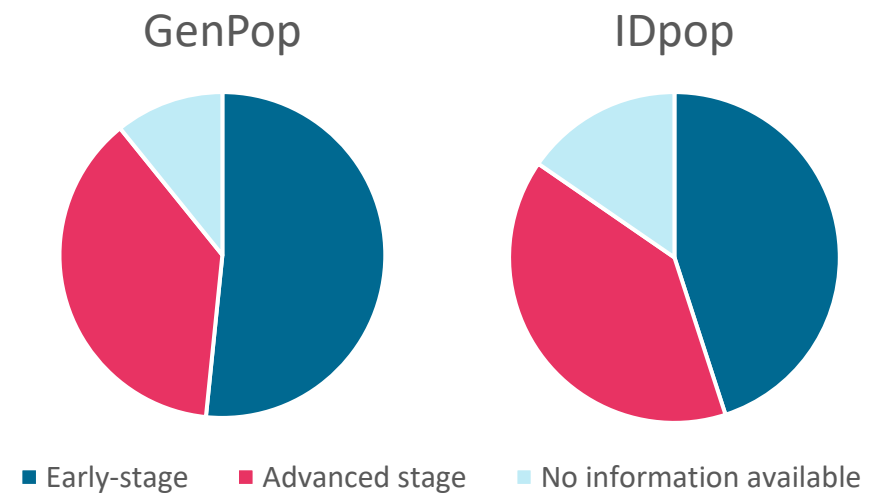
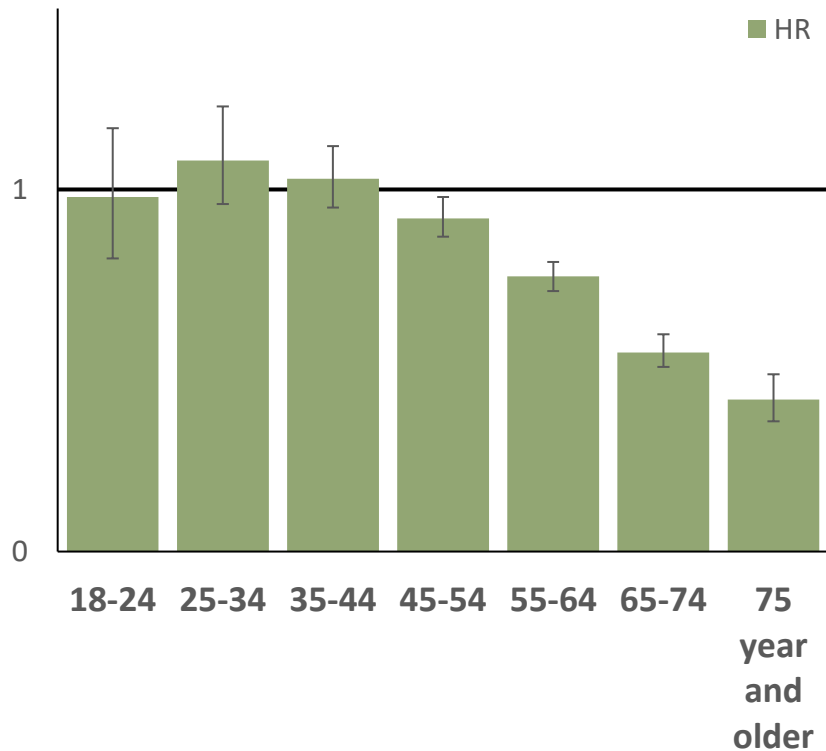


# Findings – Most common sites

- Stratified by residency status in long-term care (i.e. proxy for ID severity)



# Findings – Age and staging



Mean age at diagnosis 67,9 (13,0) vs 58,3 (12,7)

# Discussion

- Different incidence, at different age, and different sites
- High risk for cancer of unknown primary
  - Indicative for late diagnoses?
- Low risk for skin cancer
  - Underdiagnosis or truly lower risks?
- Lower risks particularly in residential care
- Contributing lifestyle factors outside residential care?
  - Lung, pancreas, oesophaegal

# Methodological take-aways

- Large sample and long follow-up preferable
- Be aware of subgroups within the ID population
- Take demographic differences between both population into account (matched sample or adjust analyses for age and sex)
- Better information on ID aetiology is needed

## Roundtable invitation

*How Can We Bridge the  
Cancer Care Gap for  
People with Intellectual  
Disabilities?*

Tuesday, August 6, 2024

5:30 PM - 7:00 PM

Session F13

Chicago 9 (Level 4)

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# Thank you for your attention

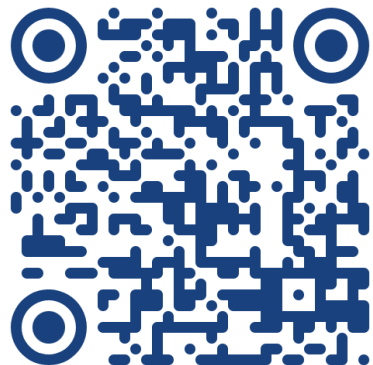
Collaborators

Jenneken Naaldenberg, Geraline Leusink, Lynette Oost,  
Amina Banda, Haiko Bloemendal

Contact

Maarten Cuypers, PhD  
Maarten.Cuypers@radboudumc.nl

Funders and partners



Ministry of Health, Welfare and Sport



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