

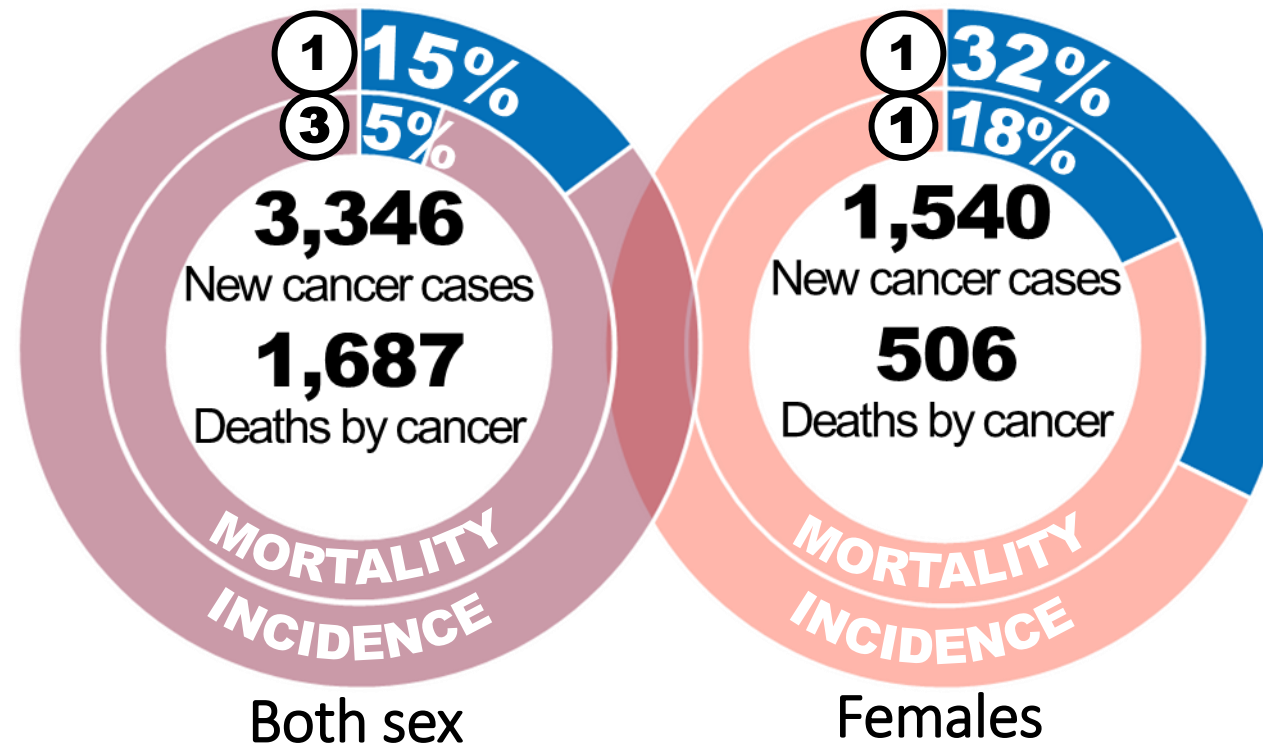


Breast cancer in the population eligible to screening in Luxembourg, 2013-2018 – *work in progress*

Quentin Rollet, Sophie Couffignal, Isabelle Robert, Fanny Lorin, Claire Dillenbourg, Claudine Backes

Cancer in Luxembourg

Cancer = **25%** of all deaths
Breast cancer epidemiology



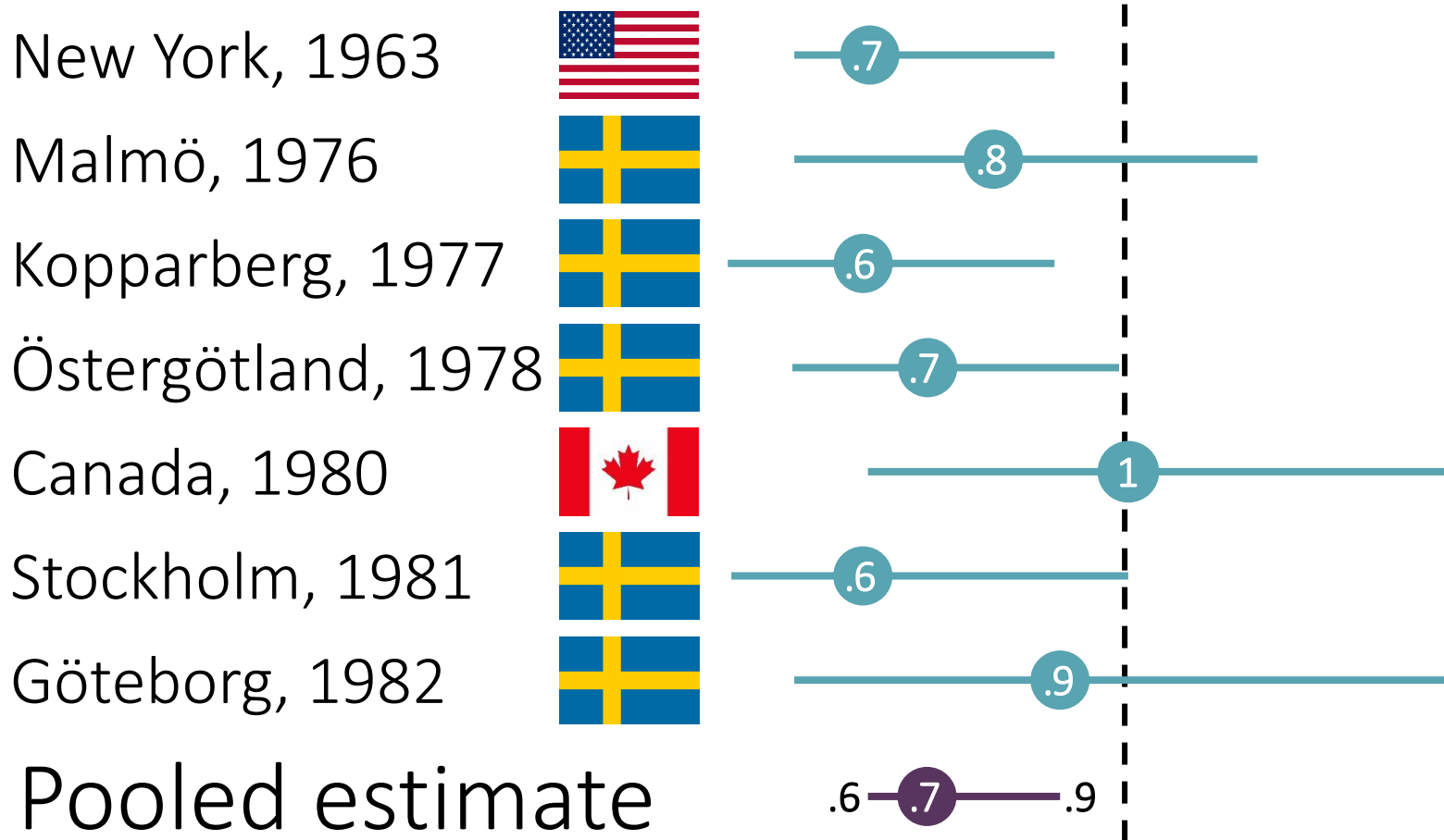
From GLOBOCAN 2020

National population-based organised breast cancer screening programme **since 1992**
National population-based cancer registry **since 2013**

Aim: Reduce breast cancer **mortality** through **early detection** of breast cancers

Randomized Controlled trials

Risk of breast cancer death after 7 years in women 50+
One versus no mammography screening



FEW COUNTRIES
OLD STUDIES
DELAYED IMPACT
EFFICACY

DIFFERENCES FOR
EXAMINATION,
INTERVAL, METHOD OF
EXPOSURE

RANDOMIZATION
IMPOSSIBLE

↓
Effectiveness ?

From screening for breast cancer with mammography,
2001. The Cochrane Library

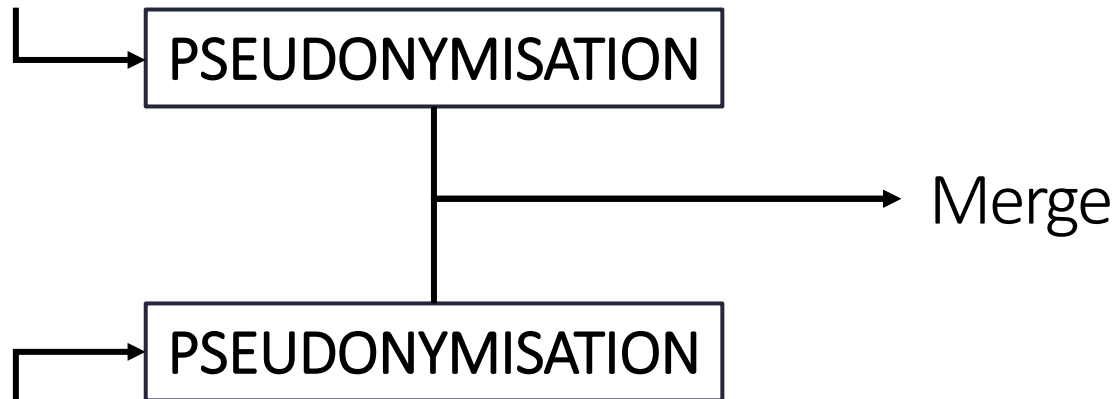
Aim of this study

Investigate whether screened cancers showed **signs of earlier detection** and **better prognostic outcomes** compared to diagnosed cancers

1,621 first breast cancers diagnosed between 2013-2018 in women 50-71



- if synchrone: stage +
- 3 missing laterality: excluded

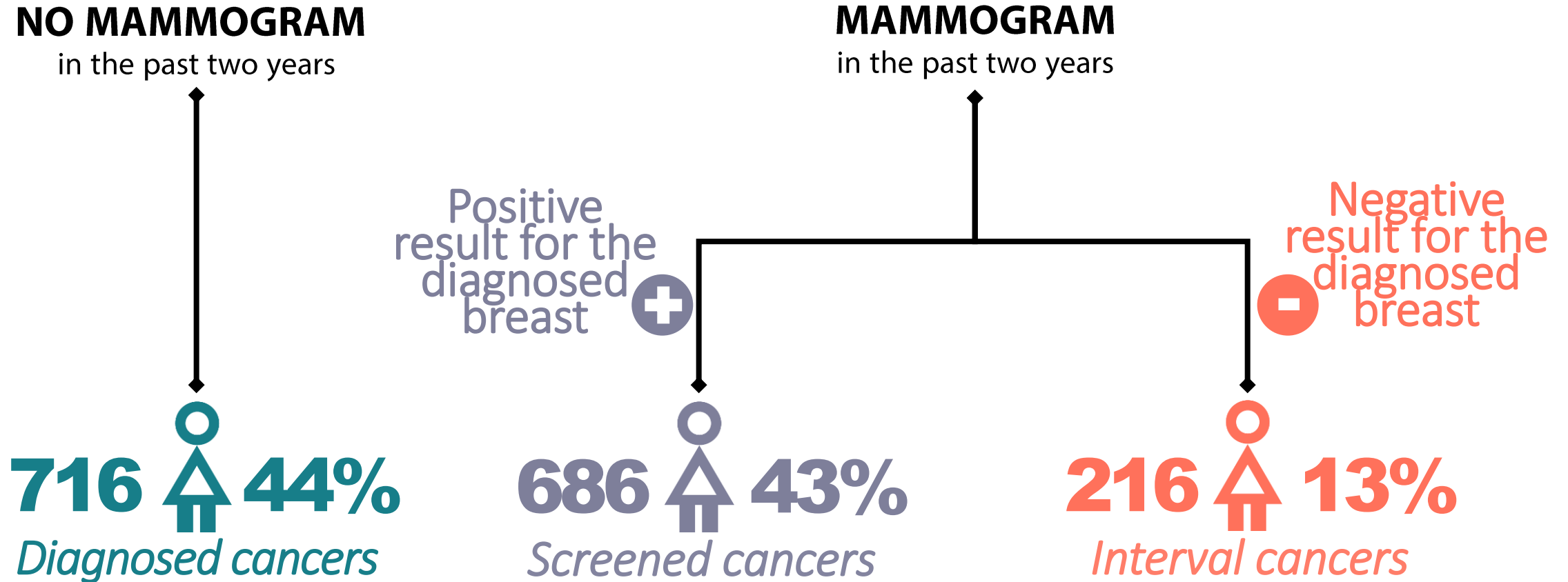


58,858 participants between 2011-2018 in women 50-69

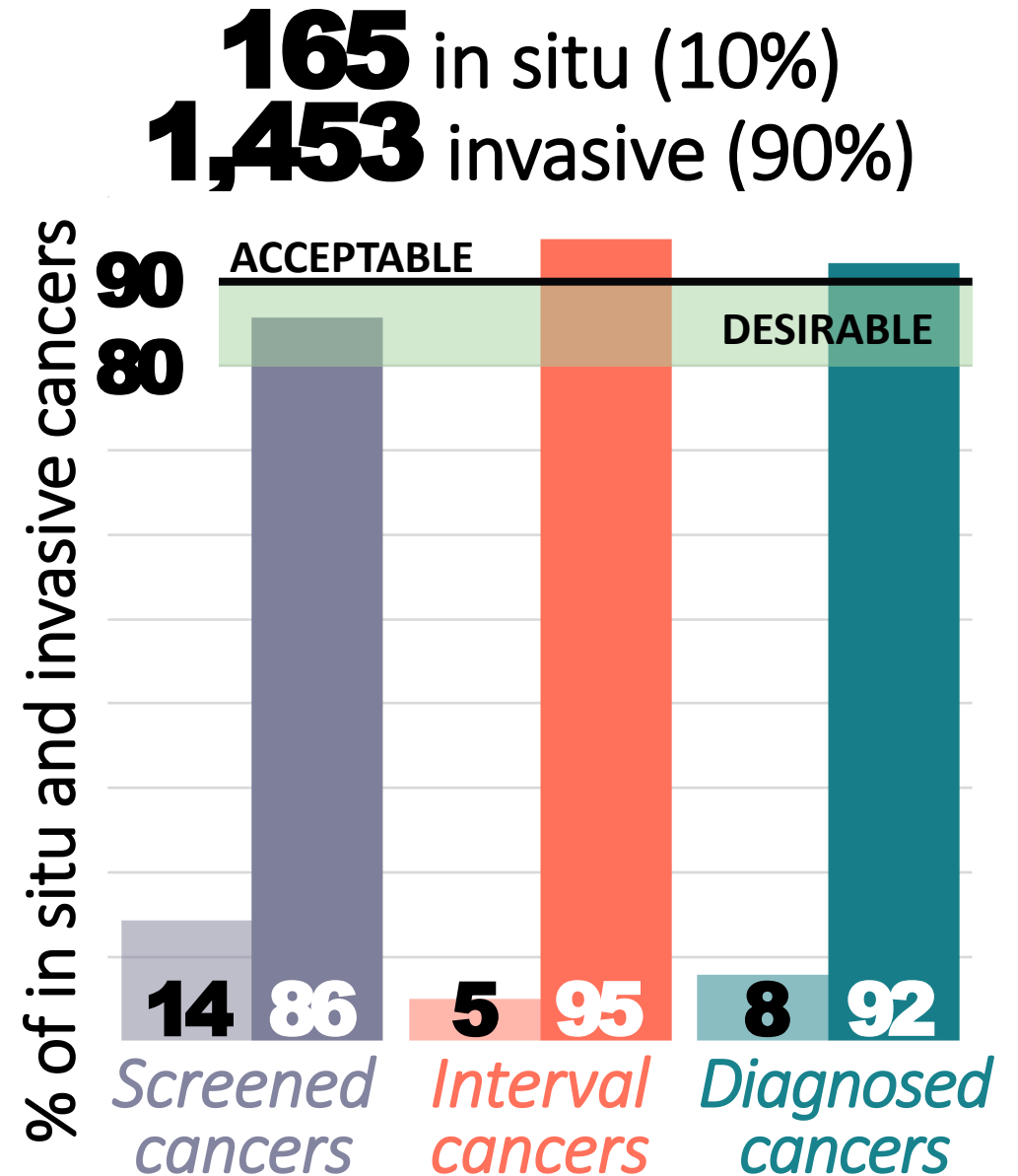
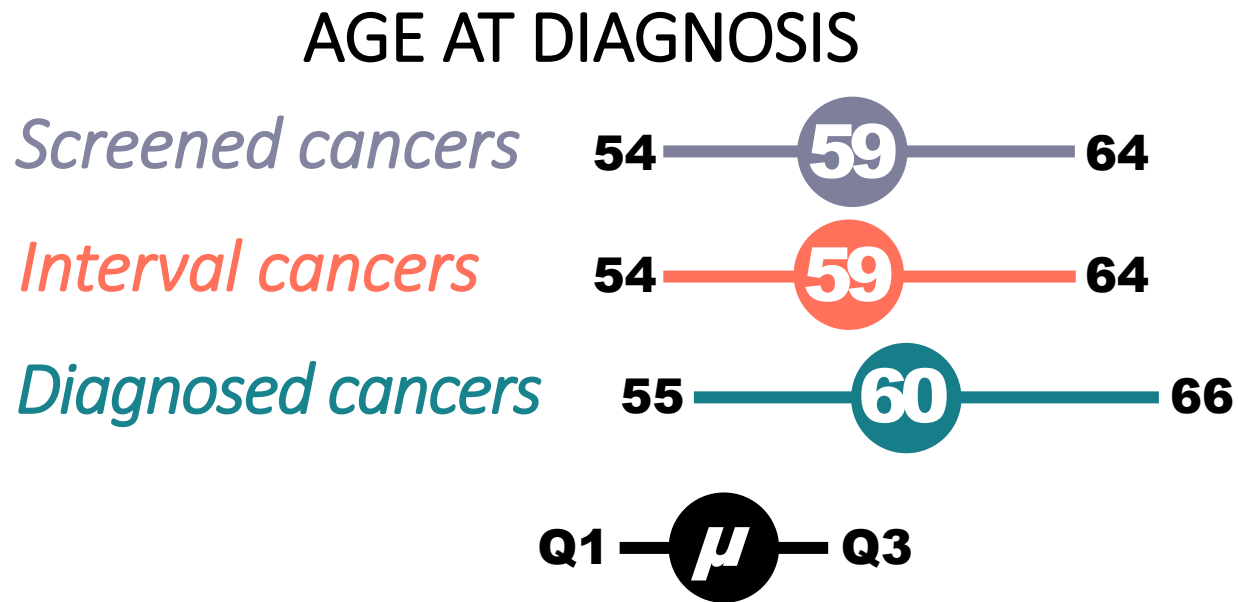
- 3 pseudoID errors: excluded

Definitions

Modes of detection

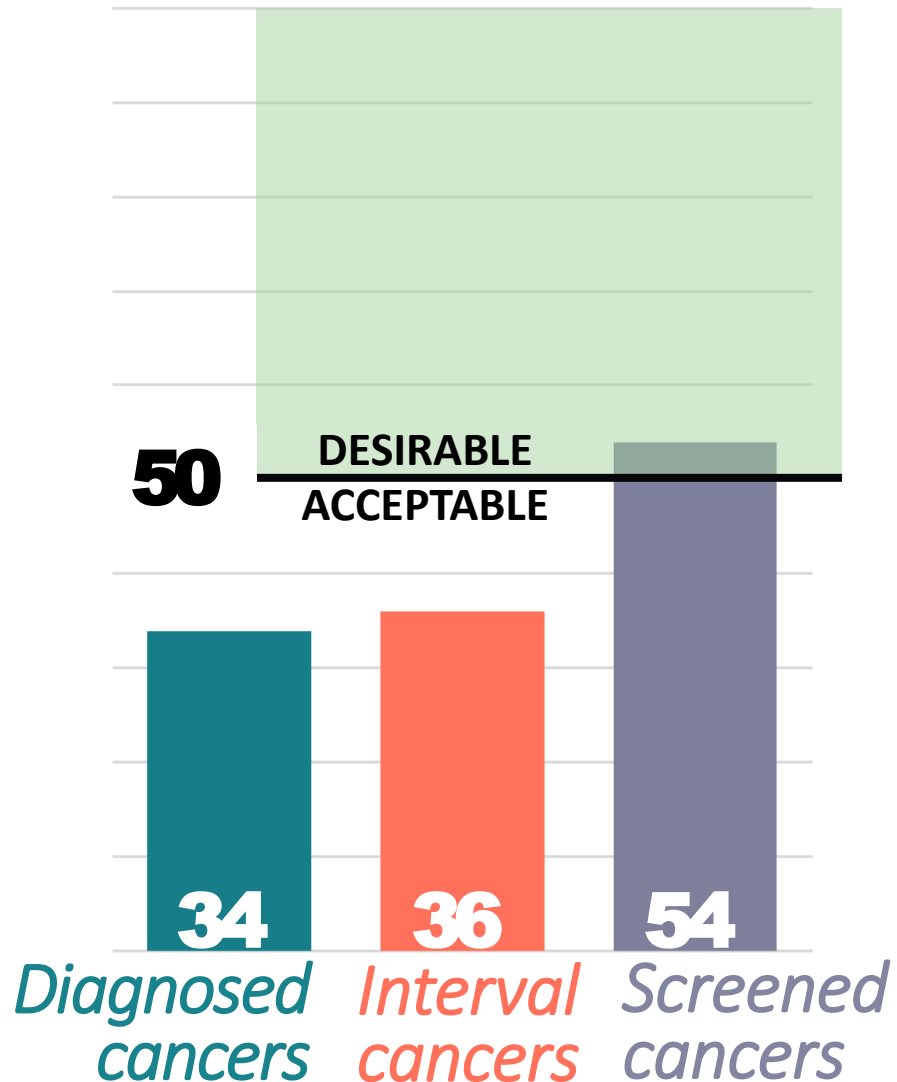


Some indicators by modes of detection

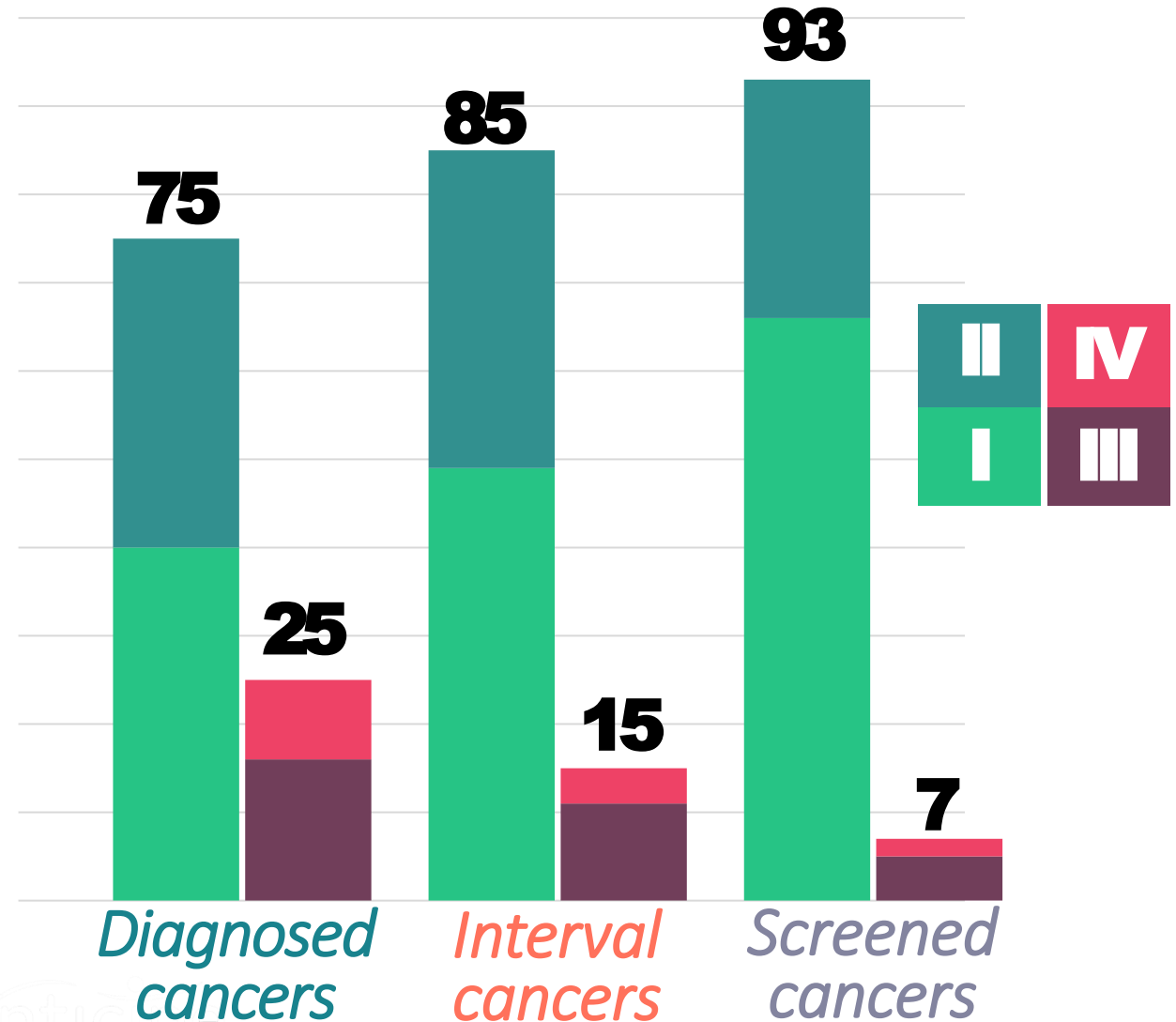


Some indicators by modes of detection

% of invasive cancers that are **< 15 mm** in size



% of invasive cancers by **stage at diagnosis**



Screened cancers showed **signs of earlier detection**
and **better prognostic outcomes** compared to
diagnosed and interval cancers

BUT

SELECTION BIAS
LENGTH TIME BIAS
OVERDIAGNOSIS

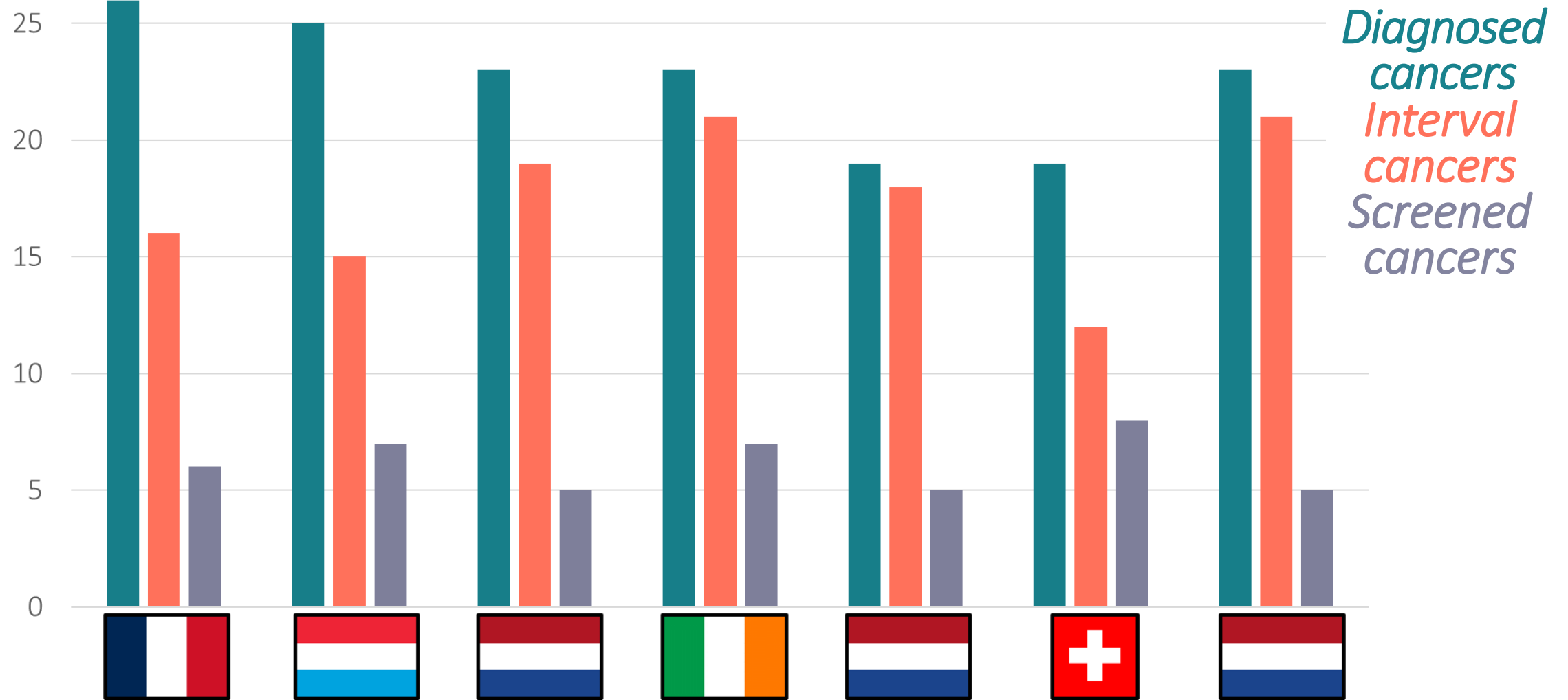
Other indicators
Other groups
Social inequities
Continuous evaluation
Other cancers

Multiple stakeholders
Government, Registry,
Programme

Time consuming
Pseudonymisation, export,
preparation

Important
Better understanding
Better communication
Better information

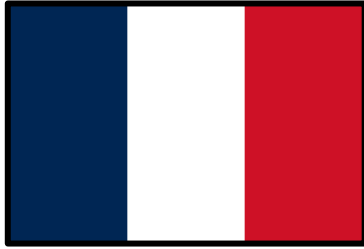
International comparisons – Stage III & IV at diagnosis



Understanding
differences

Identifying the
best practices

Social inequities in participation



Number of studies of the association between area-based deprivation and uptake

x4

x3

x1

x1

x1

x1

Number of studies reporting a negative association

x4

x2

x1

x1

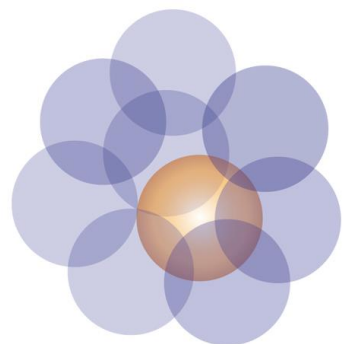
x1

x1

Quantify the impact
Understanding differences
Identifying the best practices

From Smith et al. The breast cancer paradox: A systematic review of the association between area-level deprivation and breast cancer screening uptake in Europe, 2019, Cancer epidemiology.

Acknowledgements



Registre National
du Cancer | Lux



PROGRAMME
MAMMOGRAPHIE



LE GOUVERNEMENT
DU GRAND-DUCHÉ DE LUXEMBOURG
Ministère de la Santé

Direction de la santé



LUXEMBOURG
INSTITUTE
OF HEALTH



Centre Hospitalier
de Luxembourg



CHEM
Centre Hospitalier
Emile Mayrisch



HÔPITAUX
ROBERT
SCHUMAN



Centre François Baclesse

Thank you for your attention
Quentin.rollet@lih.lu