

CANCER SCREENING (NON-)ATTENDANCE: DETERMINANTS, BARRIERS AND MOTIVATIONS

A surprisingly complicated journey from Measuring to Understanding

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ACKNOWLEDGEMENTS



Aktion Österreich-schechien, AÖCZ-Semesterstipendien

funded by Federal Ministry of Education, Science and Research (BMBWF)

OeAD - Austria's Agency for Education and Internationalisation,
Mobility Programmes and Cooperation



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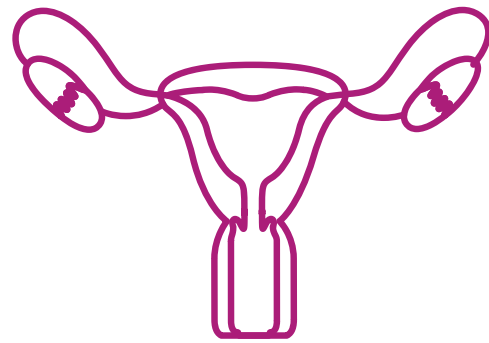
GA UK No. 640120

NPO "Systemic Risk Institute" No. LX22NP LX22NPO5101O5101

funded by European Union - Next Generation EU (Ministry of Education, Youth and
Sports, NPO: EXCELES)

RESEARCH: BACKGROUND

What do the stats say:



58,000 cases (10.7 per 100,000)
and 26,000 deaths (3.8 per 100,000)
in Europe

750 cases (9.1 per 100,000)
and 293 deaths (2.7 per 100,000)
in Czechia



531,000 cases (74.3 per 100,000)
and 142,000 deaths (84.9 per 100,000)
in Europe

7,256 cases (72.35 per 100,000)
and 1,710 deaths (12.27 per 100,000)
in Czechia

(in 2020)

RESEARCH: BACKGROUND

What do the stats say:

WHAT CAN WE DO ABOUT IT?

10.7 cases per 100,000 females
and 26,000 deaths in Europe

750 cases (9.1 per 100,000)
and 293 deaths in Czechia

7,256 cases (69.6 per 100,000)
and 1,710 deaths in Czechia

(in 2020)

CANCER SCREENING

“Screening is the **systematic application of a test** or inquiry to identify those **individuals at sufficient risk** of a specific disorder to benefit from further investigation or direct preventive action, among persons who have **not sought medical attention on account of symptoms of that disorder.**”

Wald, 2008

CANCER SCREENING

~40-90% cervical cancer deaths can be prevented

~20-50% breast cancer deaths can be prevented

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EU GUIDELINES (2003):

♀ ~20-60 y.o.

every 3-5 years → cervical
cytology

♀ 50-69 y.o.

every 2 years → mammography

CZECH GUIDELINES:

♀ 15+ y.o.

every year → cervical cytology

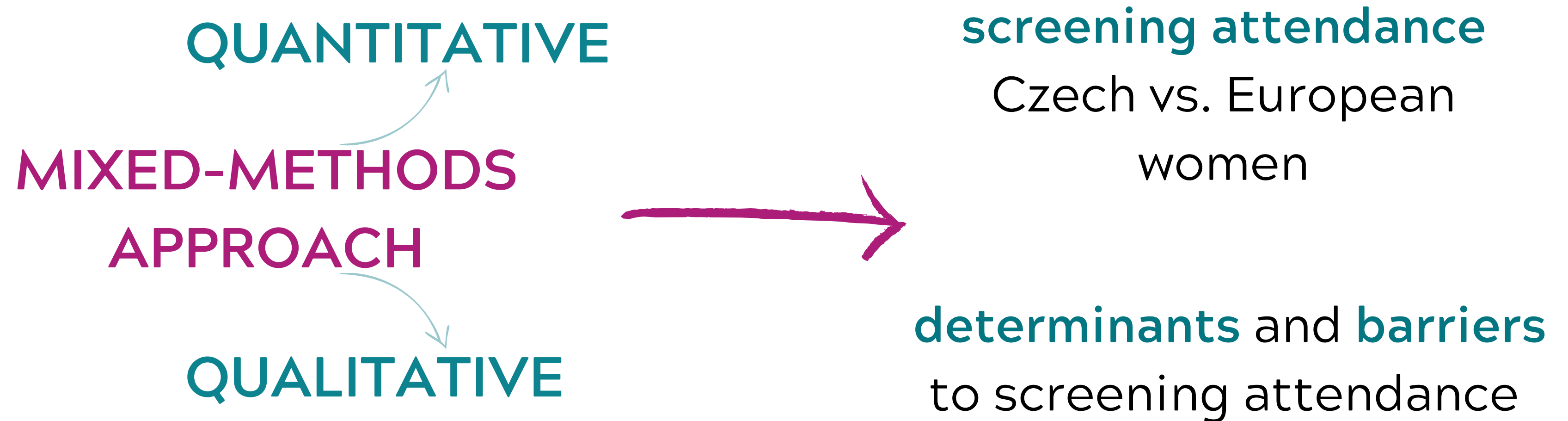
♀ 45+ y.o.

every 2 years → mammography

MY RESEARCH



MY RESEARCH



Part One

HOW MANY WOMEN ATTEND SCREENING IN EUROPE?

AND ARE THERE ANY INEQUALITIES?

HOW MANY WOMEN ATTEND SCREENING IN EUROPE?

Country	Group	Target age	Screening interval (years/age group)	Year of programme initiation
Belgium	1	25–64	3	2013
Czechia	1	15+	1	2008
Denmark	1	23–64	3 (23–49); 5 (50–64)	2007
Estonia*	2	30–55	5	2006
Spain	2	25–64	3 (25–34); 5 (35–64)	2019
Finland	2	25–65	5	1963
Croatia	1	20–64	3	2012
Hungary	1	25–65	3	2003
Germany†	1	20+	1 (20–34); 3 (35+)	2020
Ireland	2	25–60	3 (25–44); 5 (45–60)	2008
Iceland	1	23–69	3	1964
Italy	1	25–65	3 (25–64)	2014
Lithuania	1	29–59	3	2004
Latvia	1	25–69	3	2009
Malta**	2	27–64	3	2016
the Netherlands	2	30–65	5	1970
Norway	1	25–69	3	1995
Poland	1	25–59	3	2006
Portugal‡	1	20–64	3	1995
Romania	2	25–64	5	2012
Serbia	1	25–69	3	2012
Sweden	1	23–64	3 (23–50); 7 (51–64)	1967
Slovenia***	1	20–64	3	2003
Slovakia***	1	23–64	3	2008

* In Estonia since 2021 target age was expanded to 65 years of age.

**In Malta women at age 40–64 are still screened opportunistic.

***In Slovenia, Slovakia the first two screenings are in 1-year intervals, then 3-year intervals.

† In Germany, a population-based cervical cancer screening program was introduced as of January 2020. Data for EHIS 2019 were collected in 2020 in Germany.

‡ In Portugal a population-based CCS program is implemented that covers all the regions of the country, except for Madeira Autonomous Region. There are also variations in the CCS program specificities across regions in terms of primary screening test (HPV test, liquid-based cytology, or conventional cytology), periodicity (every 3 or every 5 years), and target age groups (women aged 25–60, 25–64 or 30–65 years old).

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group 2 = 5-year screening intervals in all or major part of age-groups + Malta

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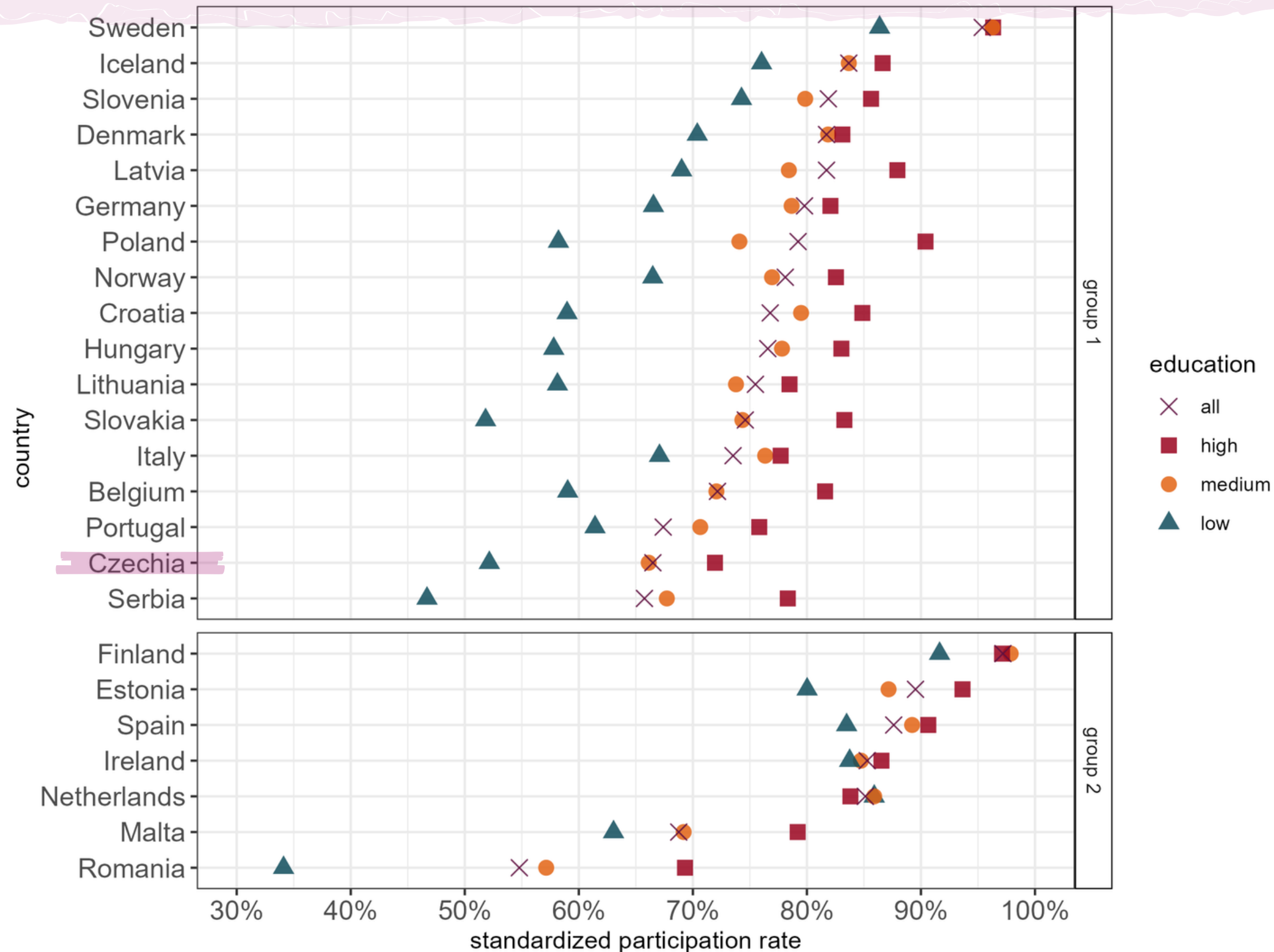
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HOW MANY WOMEN ATTEND SCREENING IN EUROPE?

- data: **EHIS 2019**
 - self-reported
- **“Last time of cervical smear test”**
 - within the past 12 months, 1 to less than 2 years, 2 to less than 3 years, more than 3 years, never
- **up-to-date** participation based on country-specific screening interval
 - “ability” of women to use the offered preventive care
 - group 2: ever screened

HOW MANY WOMEN ATTEND SCREENING IN EUROPE?



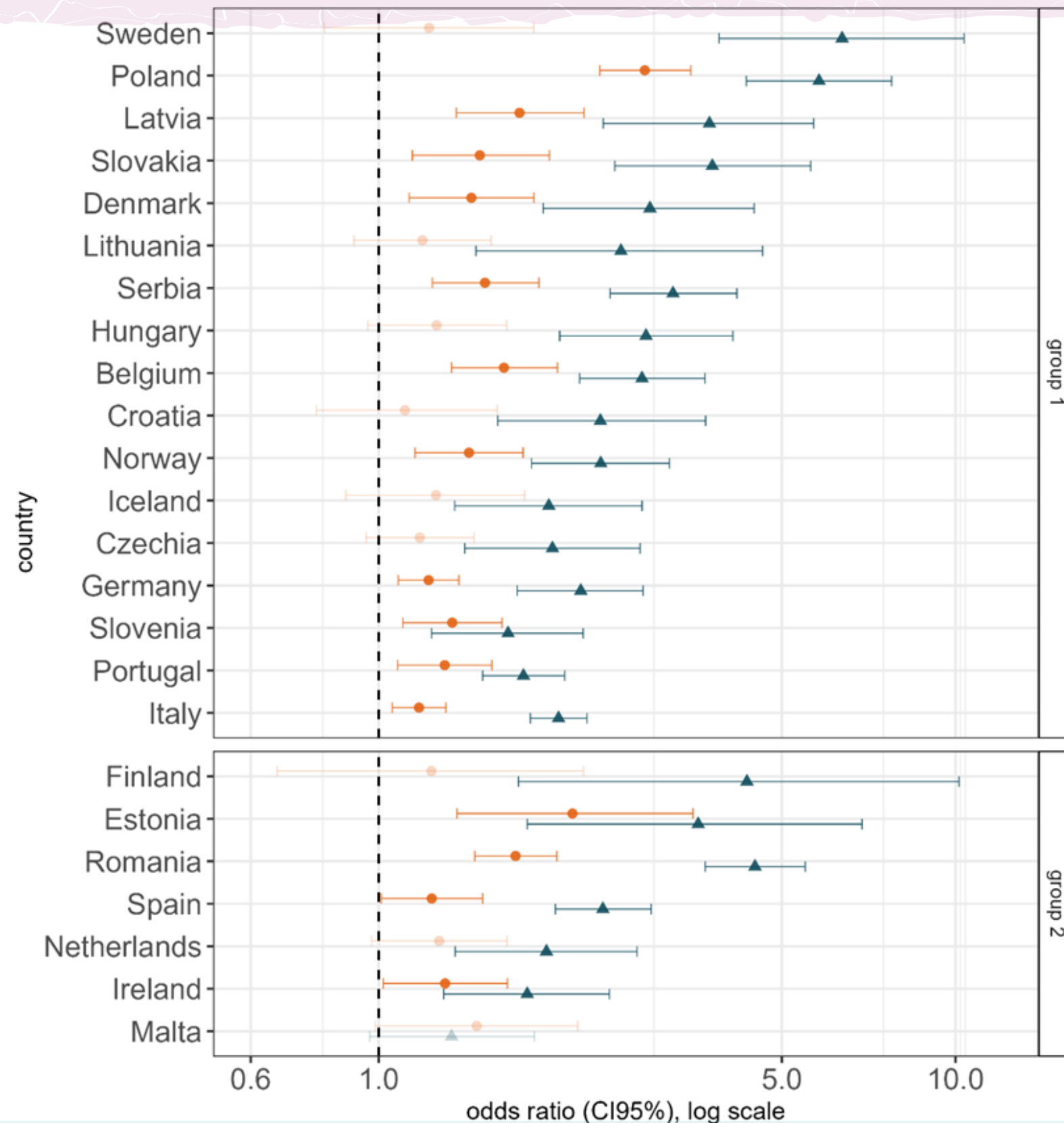
large differences - within and between countries

group 1 - all:
highest: Sweden, 95.4%
lowest: Serbia, 65.8%

Czechia: **66.5%**

- high edu: 71.9%
- low edu: 52.2%

... AND YES, THERE ARE INEQUALITIES



chances of up-to-date
non-participation by education
compared to high education

LOW-HIGH:

group 1

Sweden OR= 6.36 (95%CI 3.89-10.35)

Slovenia OR = 1.67 (95%CI 1.24-2.26)

group 2

Romania OR = 4.49 (95%CI 3.68-5.49) Ireland

OR = 1.81 (95%CI 1.30-2.51)

Part Two

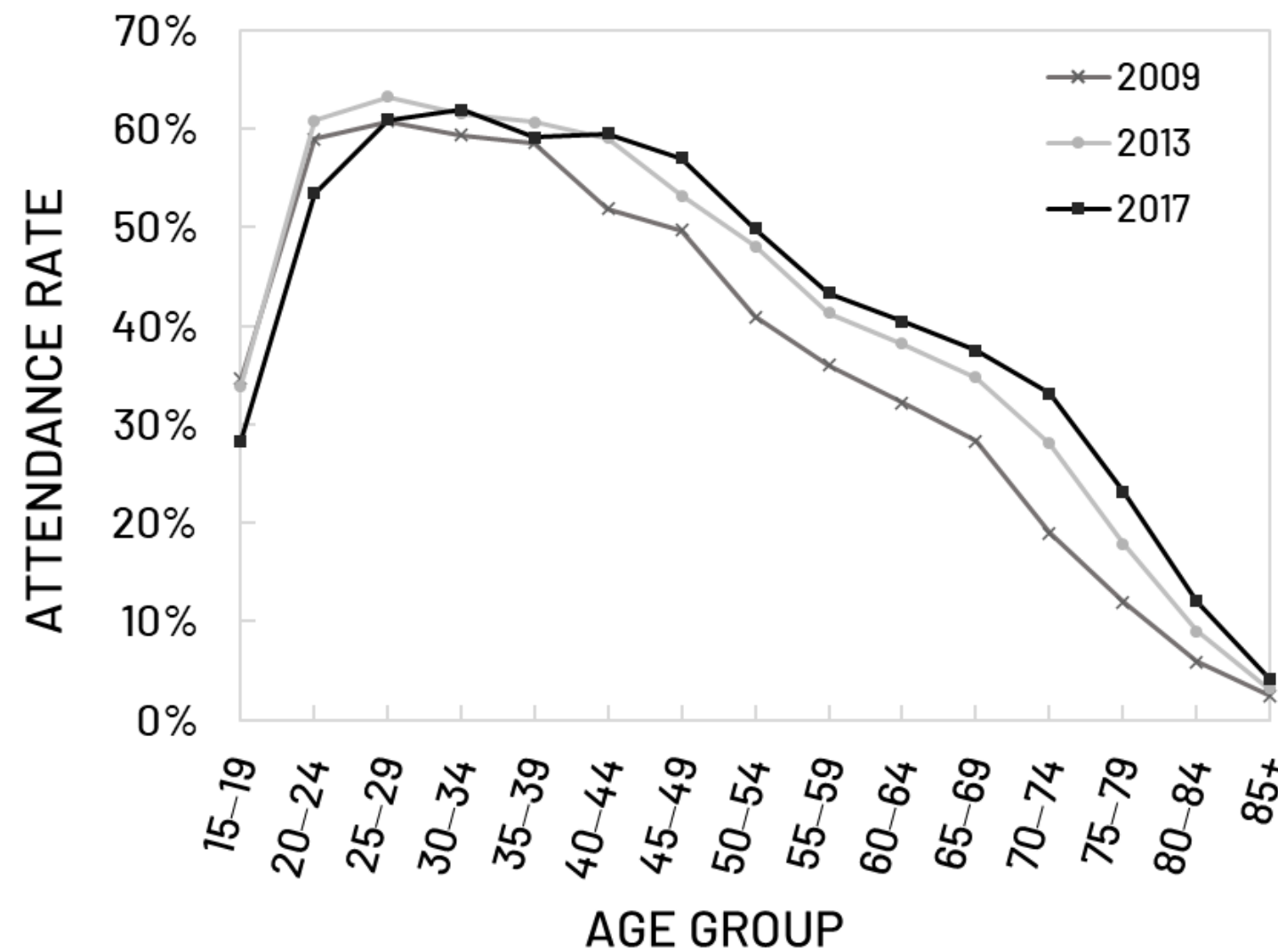
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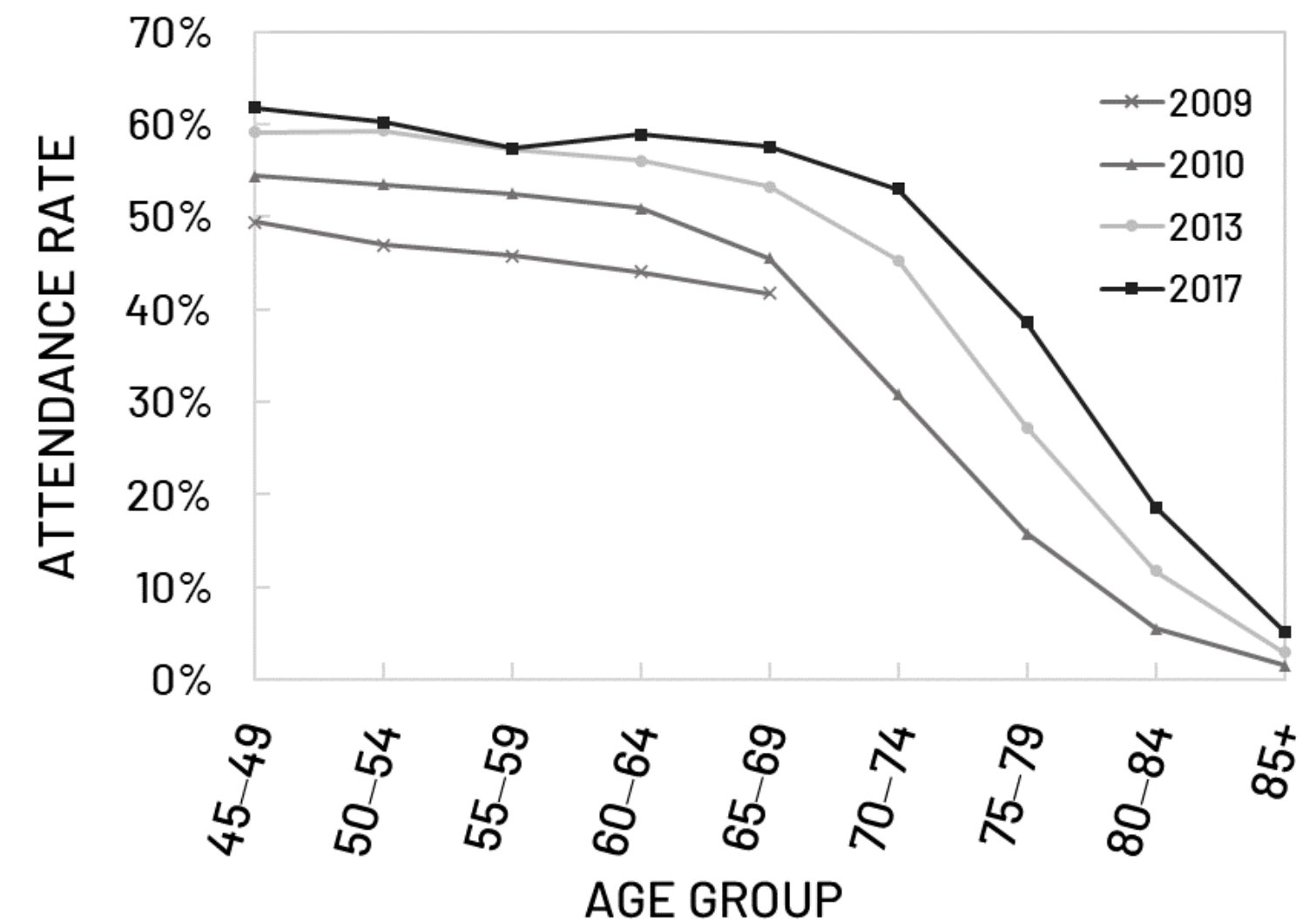
- data: VZP - administrative data from largest health insurance company (~2.5 milion women)
- standardized and age-specific attendance rates
- regional attendance?

HOW MANY WOMEN ATTEND SCREENING IN CZECHIA?

46% cervical cancer screening



52% breast cancer screening



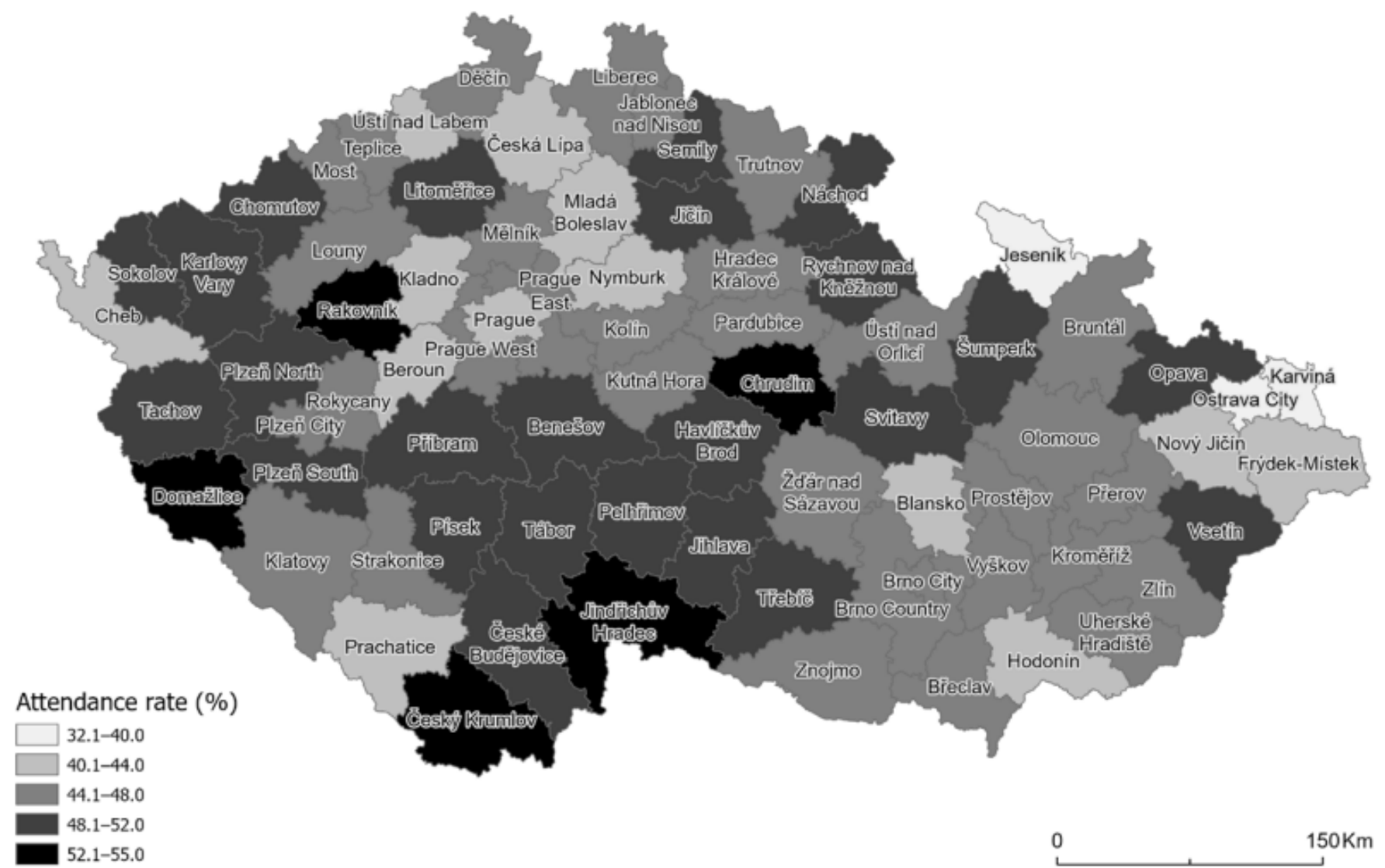
HOW MANY WOMEN ATTEND SCREENING IN CZECHIA?

standardized cervical screening attendance rates by region

2010



2017



HOW MANY WOMEN ATTEND SCREENING IN CZECHIA?

standardized cervical screening attendance rates by region

2010



what a mystery...

2017



Part Three

WHO ARE THE WOMEN NOT-ATTENDING SCREENING?

WHAT ARE THEIR REASONS?
AND DO WOMEN DIFFER BY REASON?

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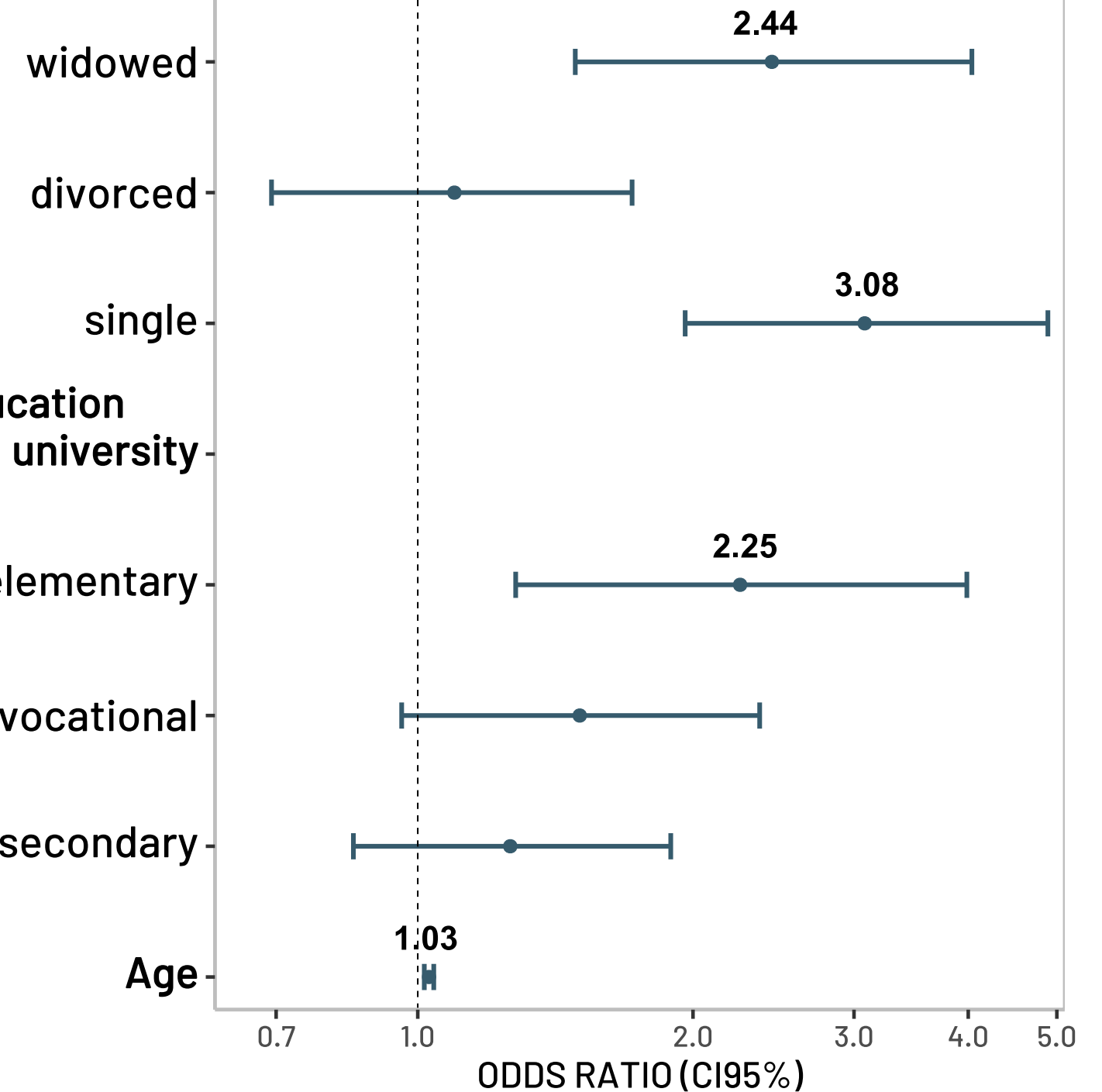
- data: representative questionnaire survey, N=902 women
- non-attendee: >2 years OR not regularly

WHO ARE THE WOMEN NOT-ATTENDING SCREENING?

- data: representative questionnaire survey, **N=902 women**
- **non-attende**e: >2 years OR not regularly

35.5% non-attendees
in cervical screening

Marital status
ref: married/partnered

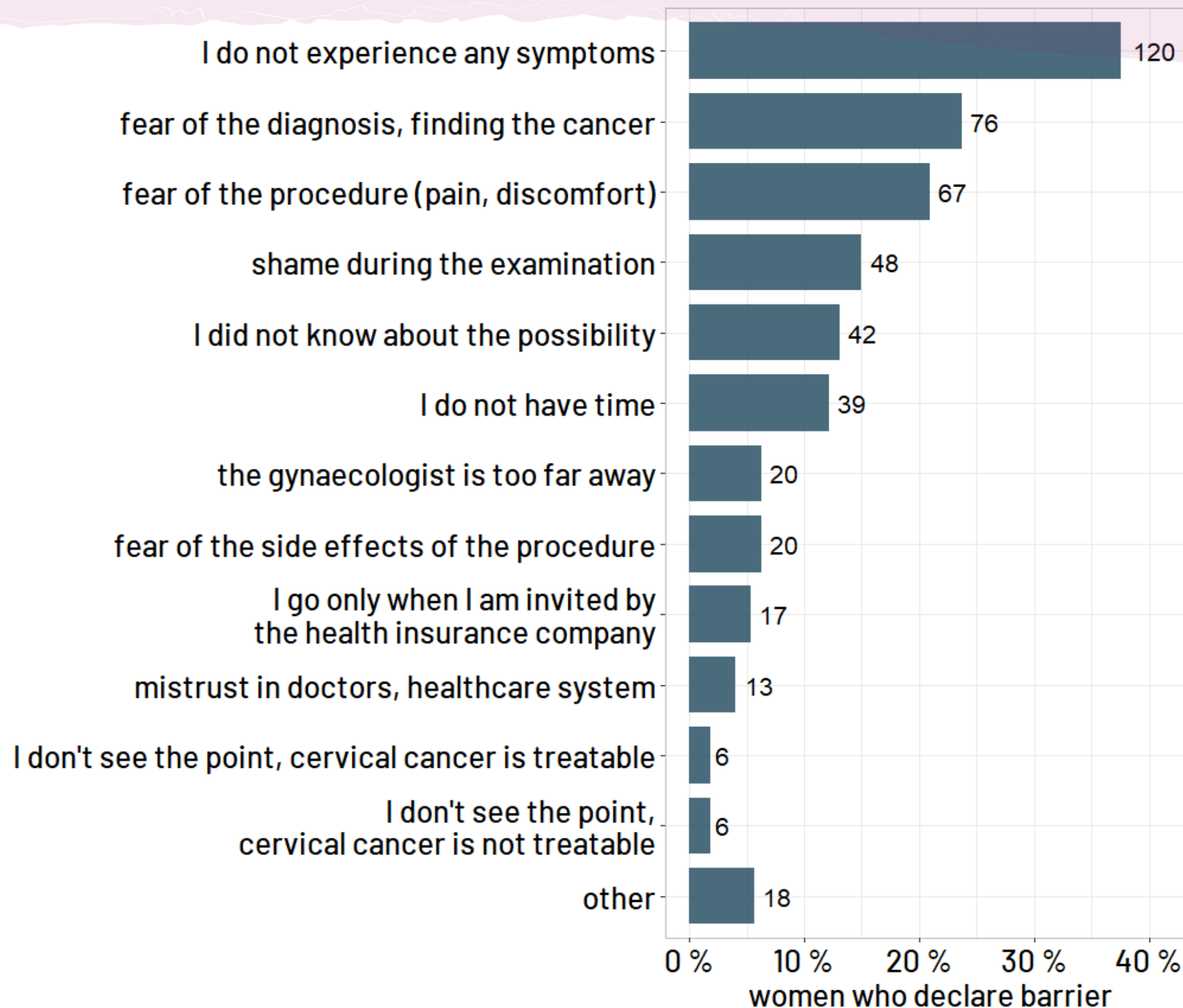


AND WHAT ARE THEY REASONS?

37.5% I do not experience any symptoms

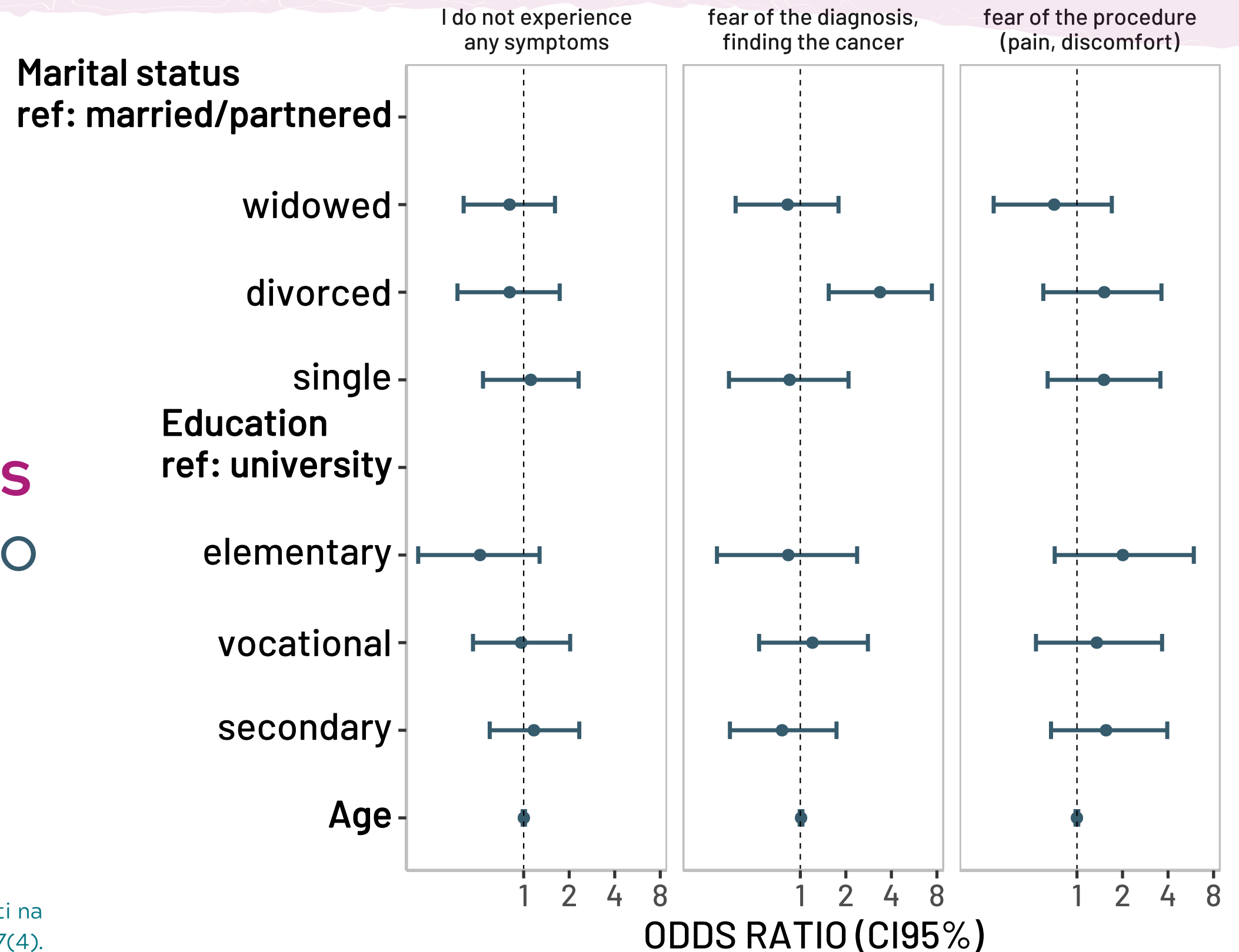
23.8% fear of the diagnosis

20.9% fear of the procedure



DO THE REASONS DIFFER AMONG NON-ATTENDEES?

(almost) **no differences**
between women who do
and do not
declare particular
barriers



Altová, A., & Lustigová, M. (2022). Bariéry českých žen v účasti na screeningu karcinomu děložního hrdla. Česká gynekologie, 87(4).

Part Four

IS THERE MORE TO THAT?

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- semi-structured interviews,
N=10 women (non-attendees)

IS THERE MORE TO THAT?

- semi-structured interviews,
N=10 women (non-attendees)

YES

IS THERE MORE TO THAT?



perceived risk of cancer and a healthy lifestyle

“I think that I have such a good lifestyle that I've reduced the risk, so it will only begin to increase as I get older. I don't smoke, I don't drink, I don't eat cancer-causing products. I think I have nothing to worry about.”



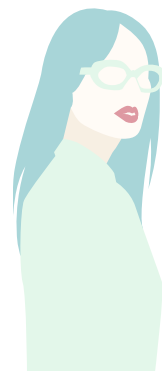
health literacy and awareness

“I mean, it's not smallpox, it's not some sort of thing that's worthy of eradication... Because for me, cervical cancer, and in general, bottom problems, breast problems, everything, are really linked to disrespecting yourself. It is just connected with the psychological stuff.”



previous experiences with healthcare and healthcare professionals

“When I was a kid, I wasn't thin. And we had a doctor who was constantly scolding my mom for that and yelling at me.”



traditional barriers

“There are very few doctors here in [my hometown]. If I want to find a good doctor, I go to Prague, right? But I don't really want to go to Prague to see a gynecologist...”



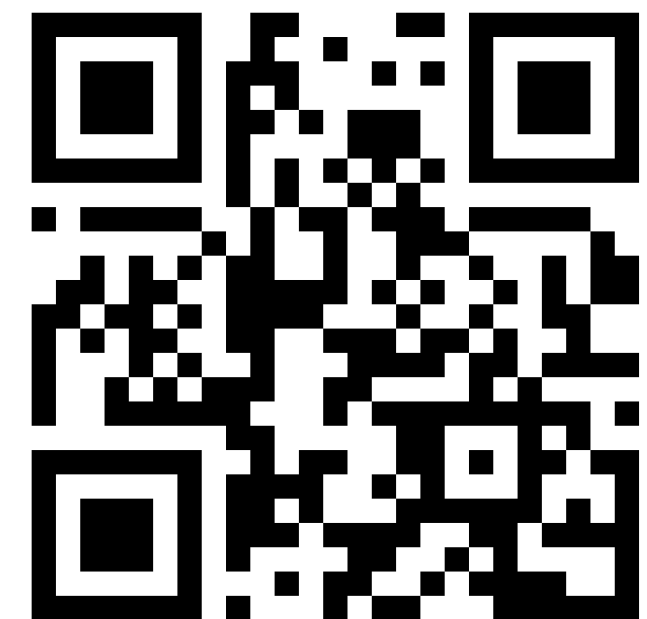
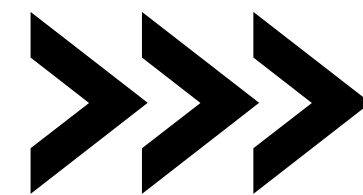
personal traits

“I wish I hadn't neglected [my health] as much as I did my entire life. But I can't change that now.”

*Time for
commercial break*

We want you to
submit your research
to the
15th Conference of
#YoungDemographers

7-9 February 2024, Prague
deadline: 20 October 2023



youngdemographers.github.io

CONCLUSION



attendance is
still quite low

A pink line graph with an upward-pointing arrow at the end. The line starts at a low point, dips slightly, then rises in a series of small steps, ending with a larger upward arrow.

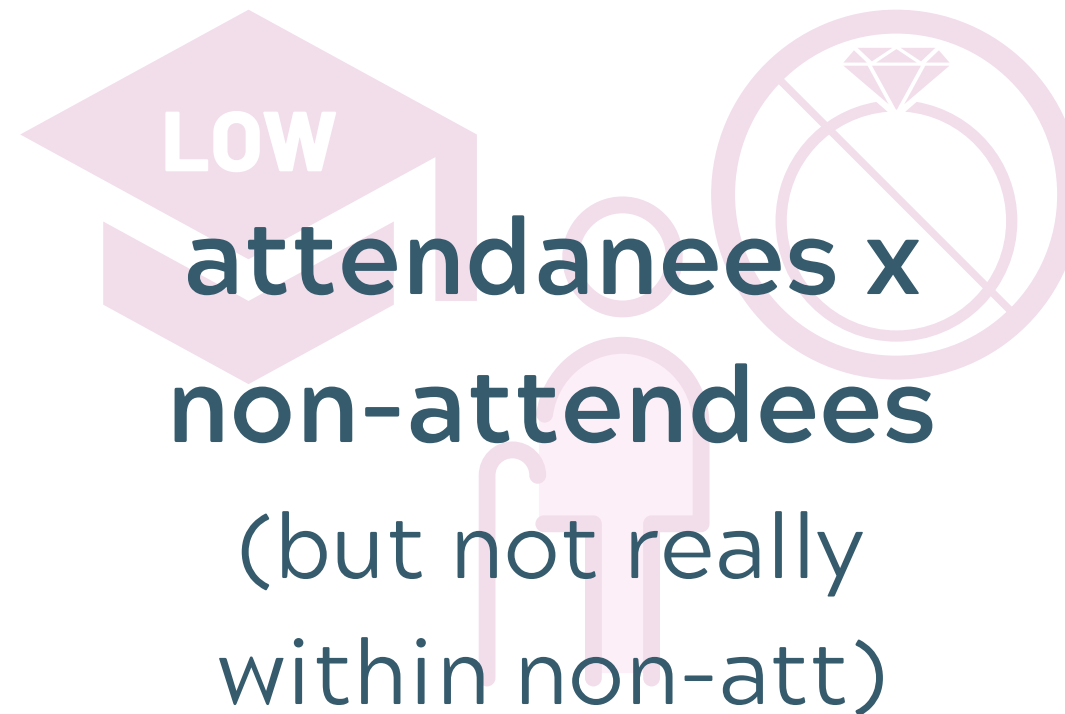
CONCLUSION



attendance is
still quite low

A pink line graph with an upward-pointing arrow is positioned behind the text "attendance is still quite low".

LOW
attendanees x
non-attendees
(but not really
within non-att)

In the background of this text block are three faint pink icons: a graduation cap, a stylized person, and a diamond ring with a diagonal line through it.

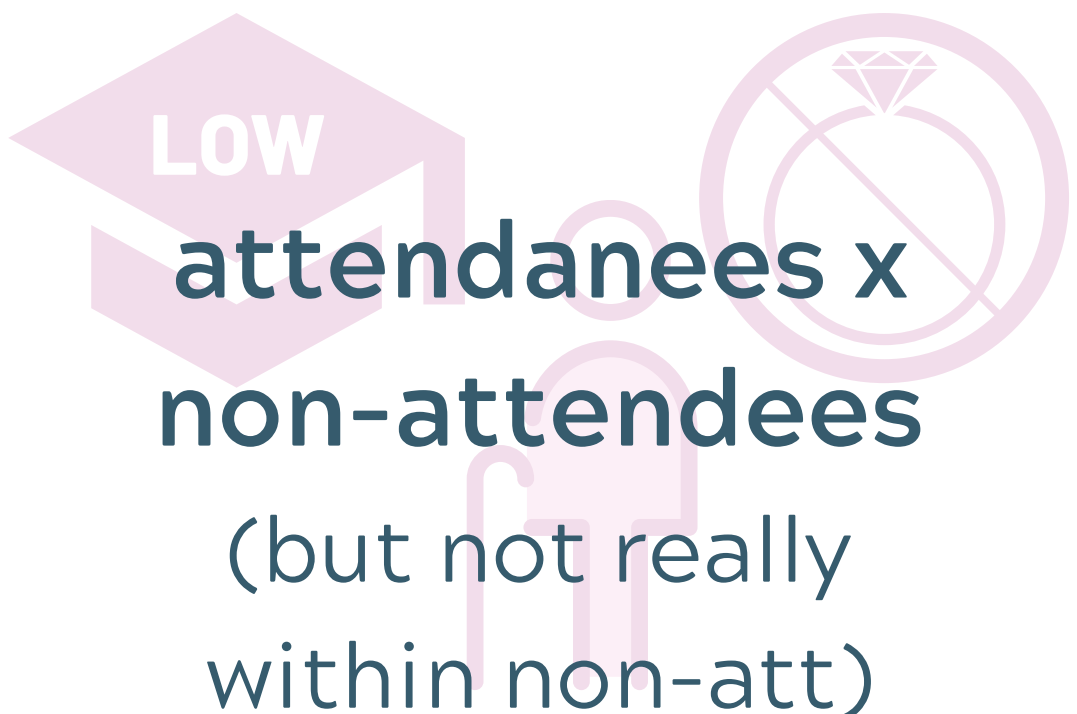
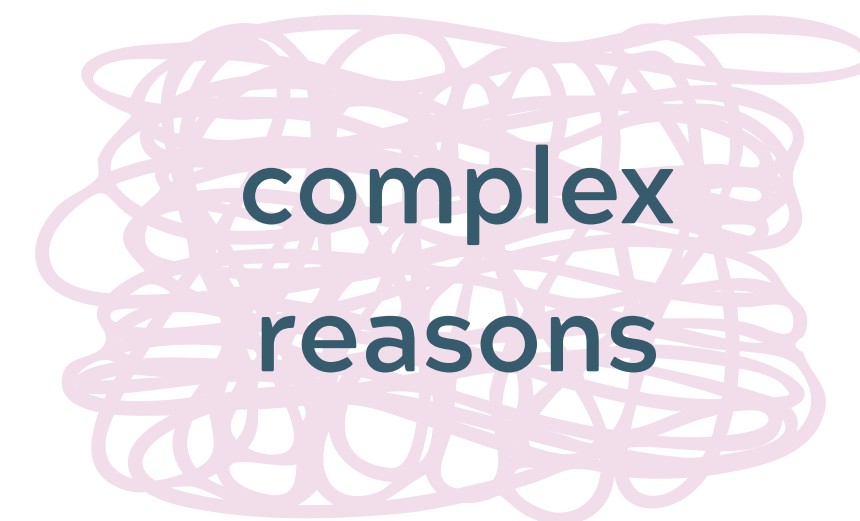
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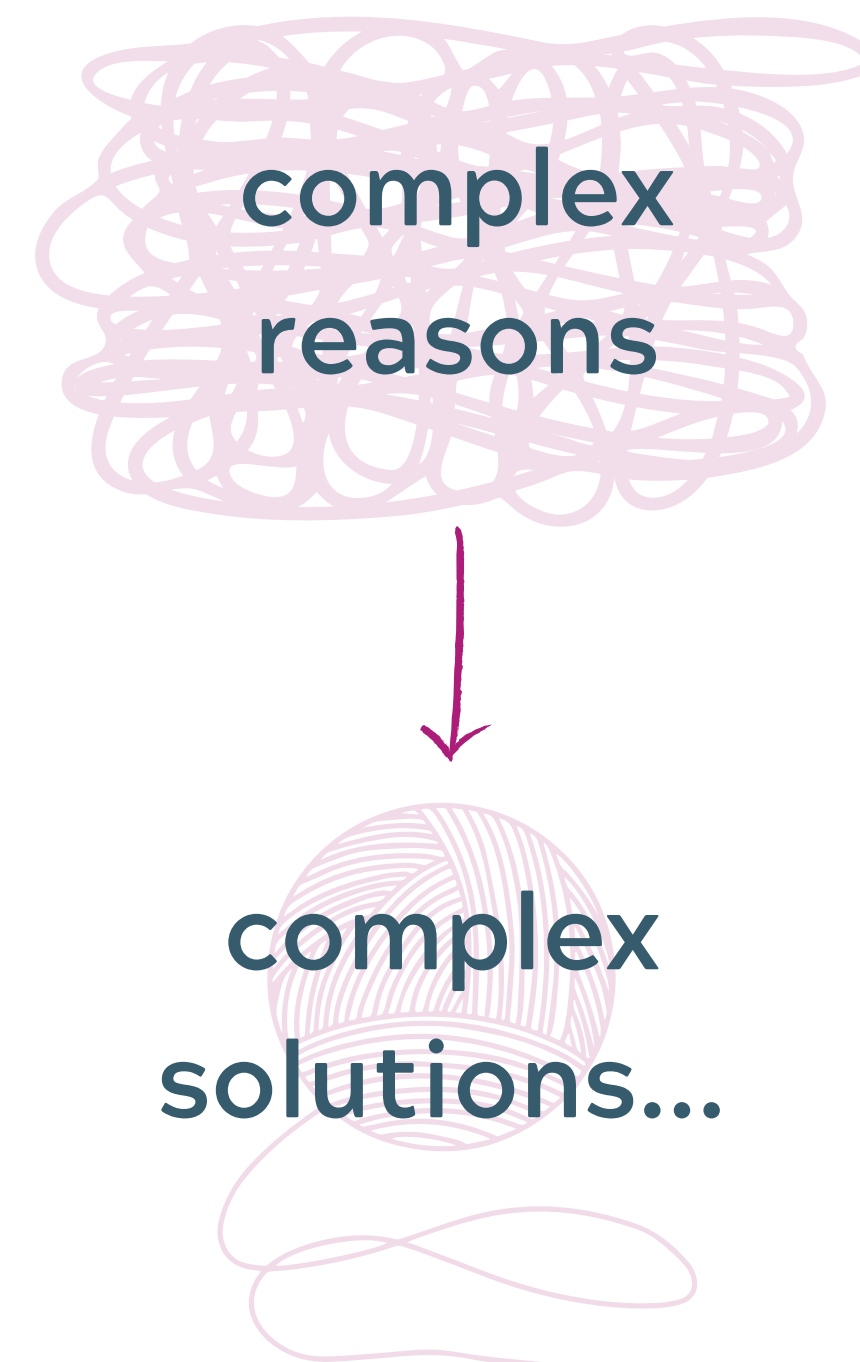
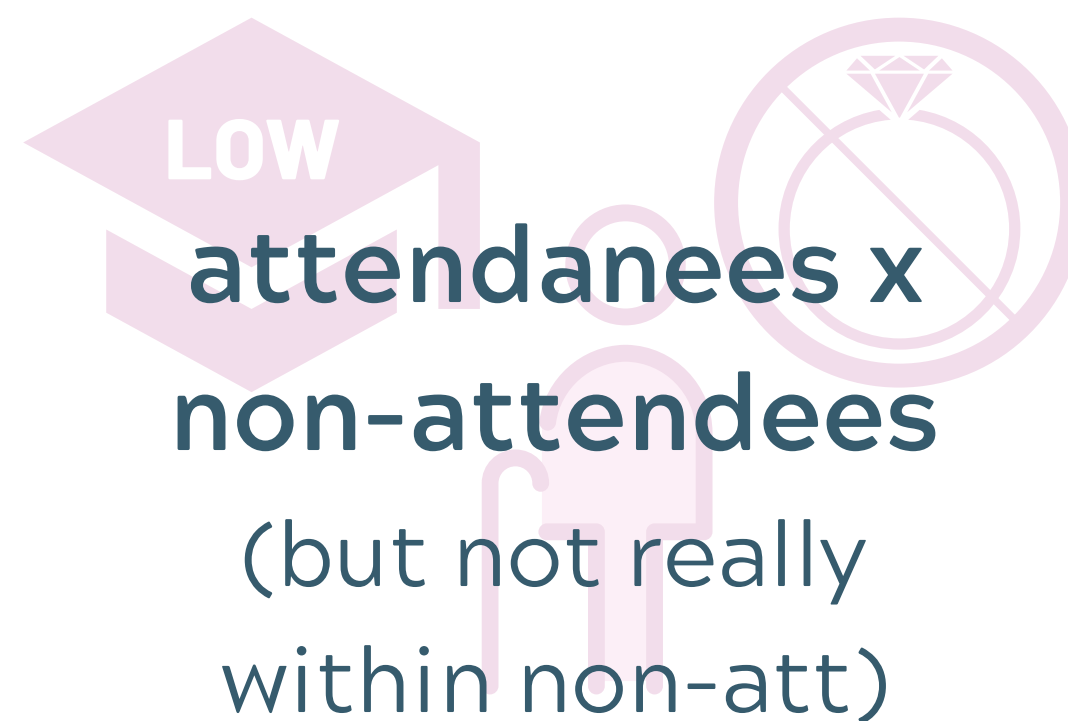
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CONCLUSION



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... COMPLEX SOLUTIONS?

- switching from the **opt-in** to **opt-out** invitations
- educating healthcare professionals in **communication**
- raising **health literacy** and screening awareness



**DON'T FORGET ABOUT
PREVENTION AND GO GET
SCREENED!**



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