Results of the
ICSN Colorectal Cancer Screening Interest Group
Survey on the Impact of COVID-19

Webinar November 7th, 2022

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No conflict of interest to declare

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Thank you!

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Screening Programme Stopped

February

Hong Kong

Early March

Italy 8th
Spain *(Basque)* 9th
Poland - 16th
Slovenia - 16th
Guernsey - 16th
Norway 16th

Late March

Finland -
Netherlands - 18th
Argentina - 19th
Canada *(Ontario)* - 23th
England - 23th
S Ireland - 23th
Wales - 20th
Scotland - 30th
New Zealand - 23th
USA *Kaiser Permanente*
Belgium

April

Sweden
Chile
N Ireland
Japan

Did Not Stop!

Denmark

No National Screening Policy

Germany

January February March April May June July August September October November December

1   100   10k   1M   10...

Screening Programme Started

January   February   March   April   May   June   July   August   September   October   November   December

April

Hong Kong 3rd

May

Netherlands 12th
Finland 18th
Spain 18th
Belgium *(Flemish)* 12th

June

Japan
New Zealand 4th
Italy 30th

July

Canada *(Ontario)*
Poland
Slovenia
Finland
England
Malta
Wales

August

Norway 3rd
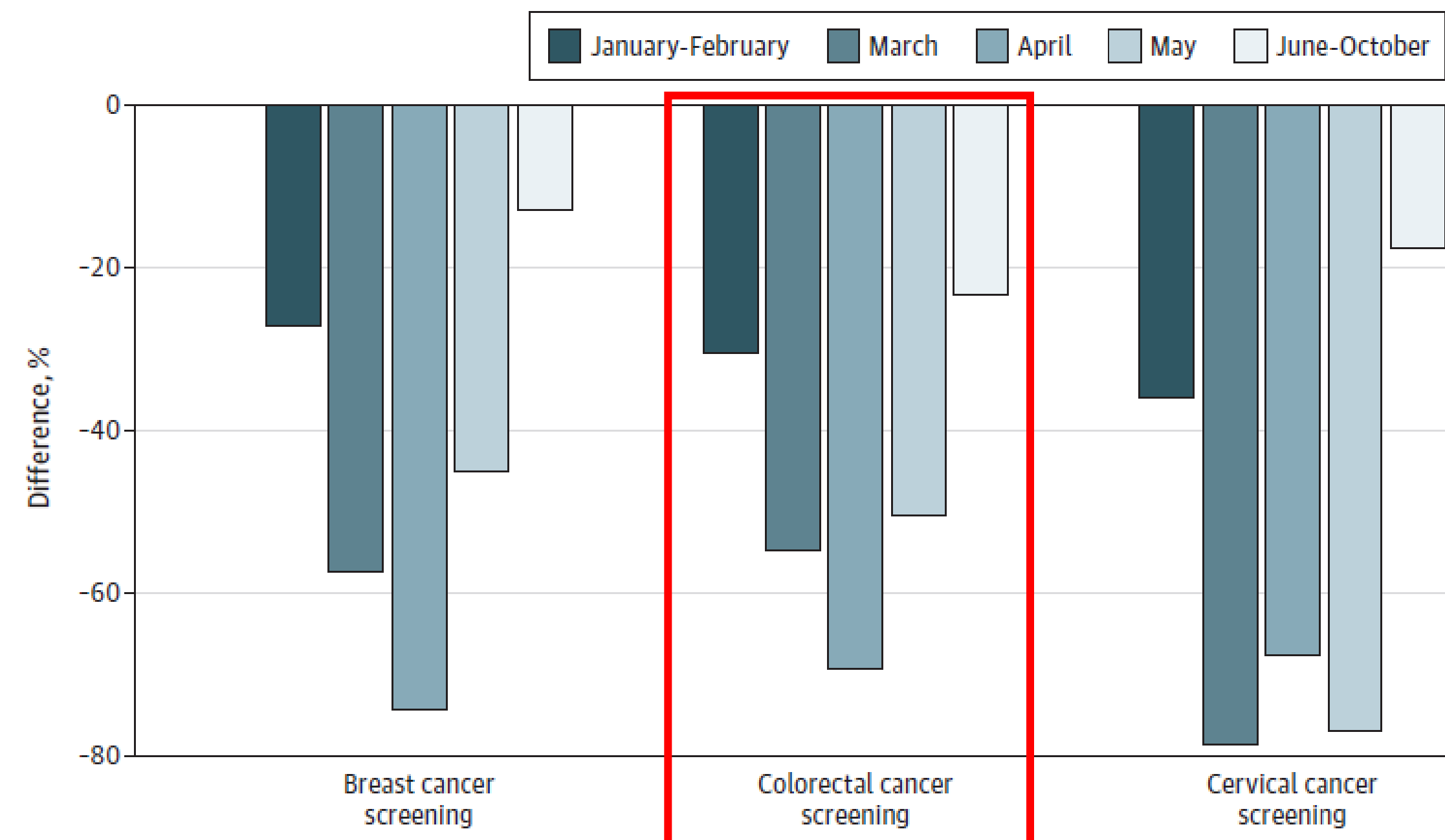
September

USA *Kaiser Permanente*

1   100   10k   1M   10...

The impact of disruption

Programmes were often **not able to restart at full capacity**, as the **volume of procedures was lower** even without restricting the opening time, as a result of **more stringent infection control and physical distancing** measures

A part of the population experienced a longer delay than the duration of the disruption

Global Association of COVID-19 Pandemic Measures With Cancer Screening
A Systematic Review and Meta-analysis

Federica Teglia, MD; Marco Angelini, MD; Laura Astolfi, MD; Giulia Casolari, MD; Paolo Boffetta, MD

Figure 2. Weighted Average Variation of Screening Tests Performed From January to October 2020 Compared With the Prepandemic Period, by Cancer Type and Period

The impact of disruption

Real world data about the impact of screening delays on morbidity are lacking and therefore indications to inform decision making for screening programs are coming in this first phase mainly from well-established and validated decision models.

Experts from all around the world joined forces in the **COVID-19 and Cancer Global Modelling Consortium (now International Partnership for Resilience in Cancer Systems - I-PaRCS**) **to simulate different scenarios of disruption and recovery strategies** and predict both long-term outcomes as well as short-term and long-term costs and savings.

Modeling the impact of disruption

Modelling results are suggesting that **screening interruptions**

- would **increase the number of late stage cancers and of deaths**.

- may have a **higher impact in the older age groups**

Their impact is related to

Duration of the disruption

Participation during the recovery period

Catch-up strategy

Monitoring the impact of disruption

Close monitoring of established indicators of screening performance to document the impact of the pandemic providing input

❑ to estimate the long-term impact of the delay

❑ to estimate expected time to a complete recovery

❑ to assess the ability of the program to achieve the expected targets and to make quick adjustments as problems became apparent.

❑ to assess the effect of measures implemented to restart programs and possibly increase the screening uptake

❑ to inform and validate modelling

COMMENTARIES

Colorectal Cancer Screening in the Novel Coronavirus Disease-2019 Era

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Cancer Screening Committee

International Cancer Screening Network

Colorectal Cancer Screening Interest Group
Iris Lansdorp-Vogelaar   Co-Chair
Carlo Senore   Co-Chair

Monitoring screening during the COVID-19 emergency

The ICSN CRC interest group designed a project, aimed to collect aggregated quantitative data about screening activity and outcomes during the pandemic emergency, using a standardized data template, to calculate key indicators of activity and performance

Data collection

- Volume of activity: invitations and examinations

- Participation

- Screening tests results

- Compliance with colonoscopy assessment

- Waiting time for colonoscopy

- Screening outcomes

  - neoplasia yield

  - stage distribution of screen-detected CRCs

- Interval cancer rate

Data collected for 2020 and for the corresponding period in 2019 or 2018
       stratified by
- Sex   (3 programs)
- Age   (all programs)
- Screening history   (13 programs)

Historic information

| Year of screening introduction | |

Current screening strategy

	Screening test	Age		Interval
		from:	to:	
	FIT			2

Index year	Reference year - exams	Reference year - Invitations	Reference period - activity	Reference period - invitations	Refernce period - participation
2020	2018	2018	January - June	January - June	January - September

Table 1: Population (Men+Women)

A

	Target population	Screening interval	Screening test	Annual target population
40-44		2	FIT	0
45-49		2	FIT	0
50-54		2	FIT	0
55-59		2	FIT	0
60-64		2	FIT	0
65-69		2	FIT	0
70-74		2	FIT	0
75-79		2	FIT	0
Unknown *		2	FIT	0
Total	0			0

* Only enter applicable data here ('Unknown') that cannot be broken down by age group

Table 3: Further assessment indication

		D1	D2	D3	D4			Rate of indication for follow-up colonoscopy					D1_r	D2_r	D3_r	D4_r		
		Individuals screened in 2020	Positive screening tests	Negative screening tests	Total adequate tests	Inadequate screening tests	Test result unknown	Positive	Total	%			Individuals screened in 2018	Positive screening tests	Negative screening tests	Total adequate tests	Inadequate screening tests	Test result unknown
Initial screening	40-44				0		0					Initial screening	40-44			0		0
	45-49				0		0						45-49			0		0
	50-54				0		0						50-54			0		0
	55-59				0		0						55-59			0		0
	60-64				0		0						60-64			0		0
	65-69				0		0						65-69			0		0
	70-74				0		0						70-74			0		0
	75-79				0		0						75-79			0		0
	Unknown *				0		0						Unknown			0		0
	Total	0	0	0	0	0	0						Total	0	0	0	0	0
Subsequent screening	40-44				0		0					Subsequent screening	40-44			0		0
	45-49				0		0						45-49			0		0
	50-54				0		0						50-54			0		0
	55-59				0		0						55-59			0		0
	60-64				0		0						60-64			0		0
	65-69				0		0						65-69			0		0
	70-74				0		0						70-74			0		0
	75-79				0		0						75-79			0		0
	Unknown *				0		0						Unknown *			0		0
	Total	0	0	0	0	0	0						Total	0	0	0	0	0

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Results

16 programs from 13 countries

> 11 European countries
>
> Taiwan
>
> Ontario (Canada)

3 programs piloting / early roll-out phase

1 program providing data for the two-year rounds 2018-2019 and 2020-2021

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Invitation coverage

N subjects invited in the year/Annual target population

Participation

N subjects attending screening within June 30th of the following year / N subjects invited in the year

	55-75	50-74	50-74	60-74	60-69	50-69	50-69	60-69	50-69	50-69	60-69
	A	B	C	D	E	F	G	H	I	L	M

■ Invitation Coverage 2020　　■ Invitation Coverage 2018　　■ Participation 2020　　■ Participation 2018

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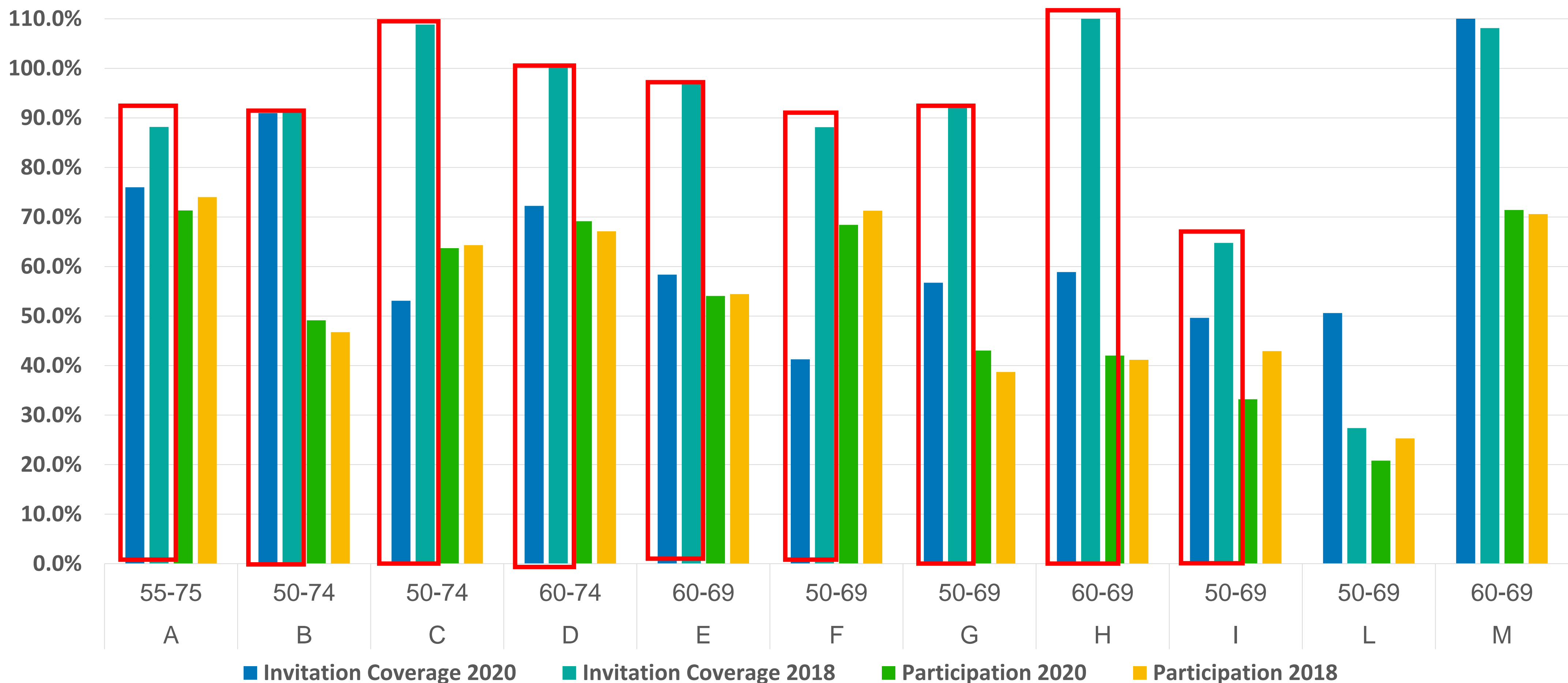
Examination coverage

N subjects examined in the year/Annual target population

Legend: Examination coverage 2020 (blue) / Examination coverage 2019 (teal)

Age group	55-75	50-74	50-74	60-74	60-69	50-69	50-69	60-69	50-69	50-69	60-69	50-79	50-74	50-74
Country	A	B	C	D	E	F	G	H	I	L	M	N	O	P
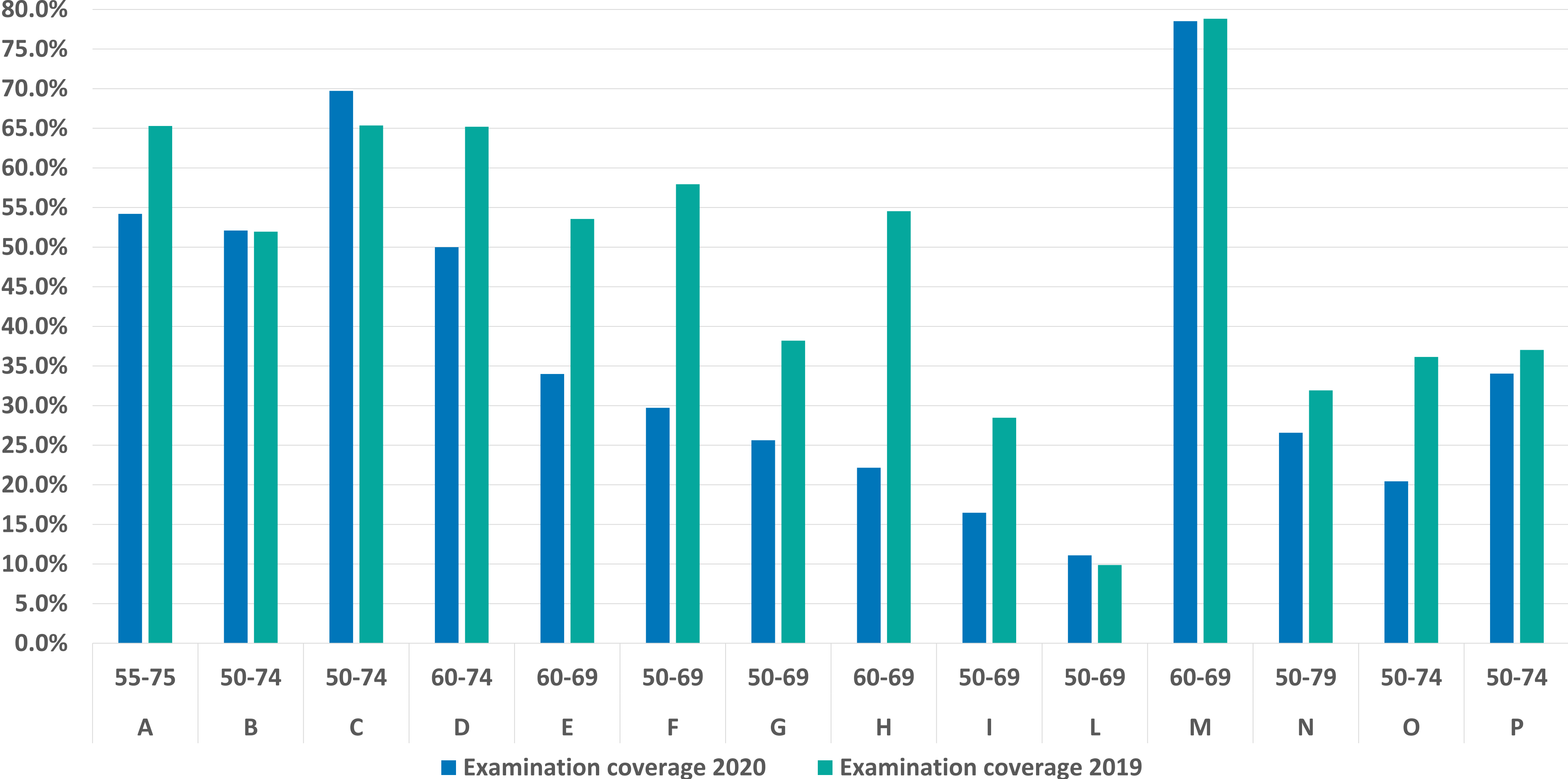
Delay – months of regular activity

	55-75	50-74	50-74	60-74	60-69	50-69	50-69	60-69	50-69	50-69	60-69	50-79	50-74	50-74
	A	B	C	D	E	F	G	H	I	L	M	N	O	P
Value	2.0	0.0	0.0	2.8	4.4	5.8	3.9	7.1	5.1	0.0	0.0	2.0	5.2	1.0

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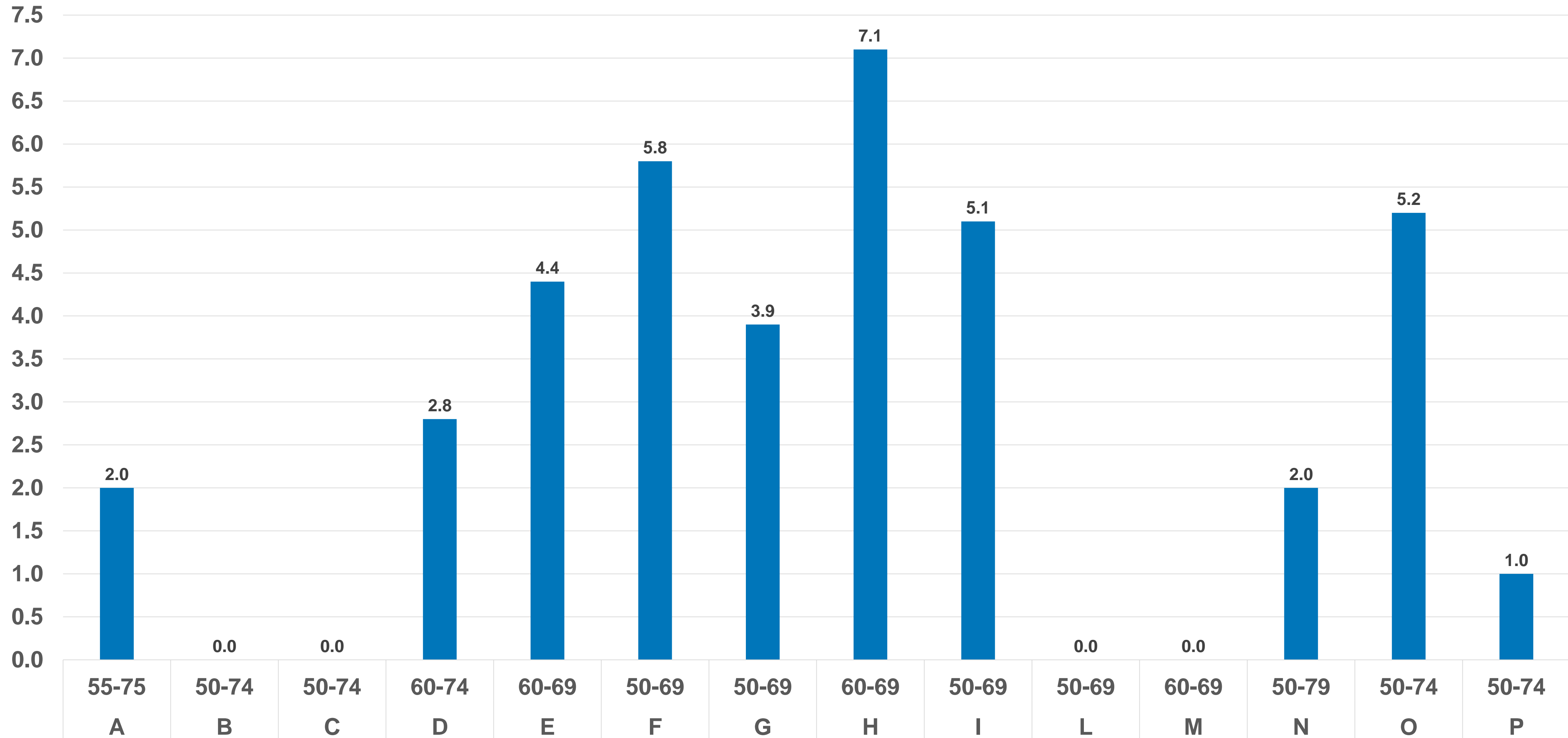
Positivity rate
N subjects with a FIT+ results/N subjects with a valid FIT result
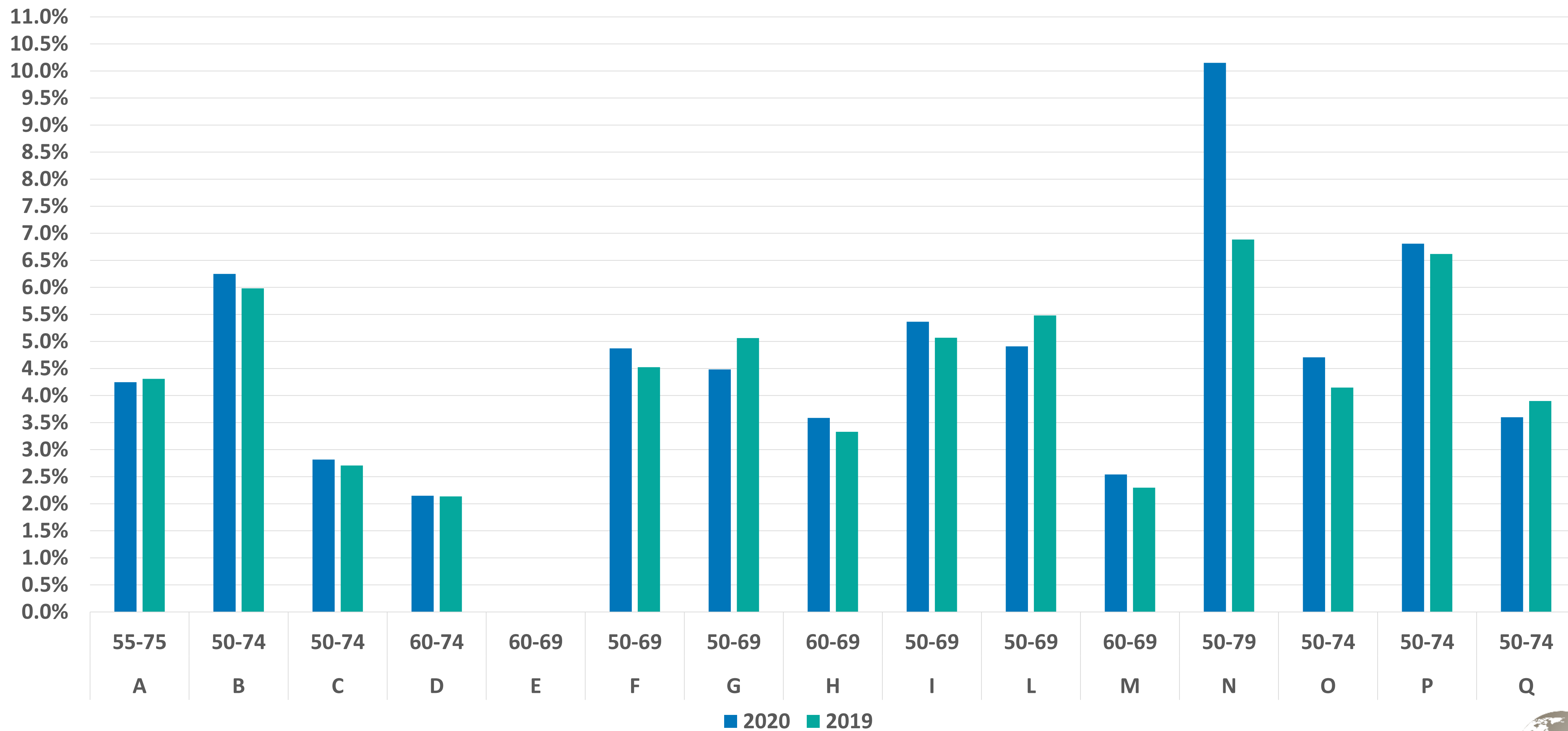
	55-75	50-74	50-74	60-74	60-69	50-69	50-69	60-69	50-69	50-69	60-69	50-79	50-74	50-74	50-74
	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q

■ 2020   ■ 2019

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Compliance with colonoscopy referral - FIT + subjects

N subjects performing a TC/N subjects with FIT+ result in the year

	55-75	50-74	50-74	60-74	60-69	50-69	50-69	60-69	50-69	50-69	60-69	50-79	50-74	50-74
	A	B	C	D	E	F	G	H	I	L	M	N	O	P
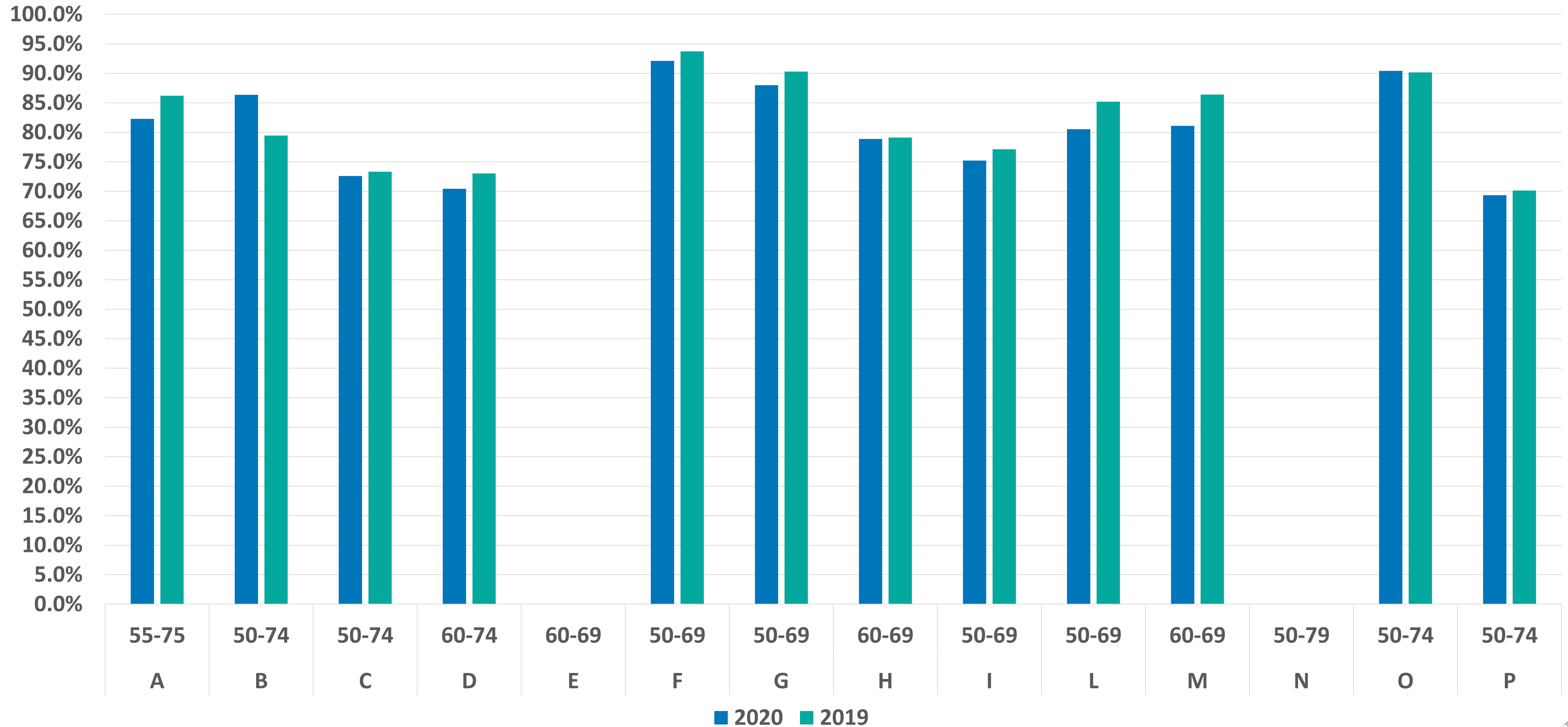
■ 2020 ■ 2019

2020 versus 2019   **- 2.2%**   **(-5.3% to 0.3%)**

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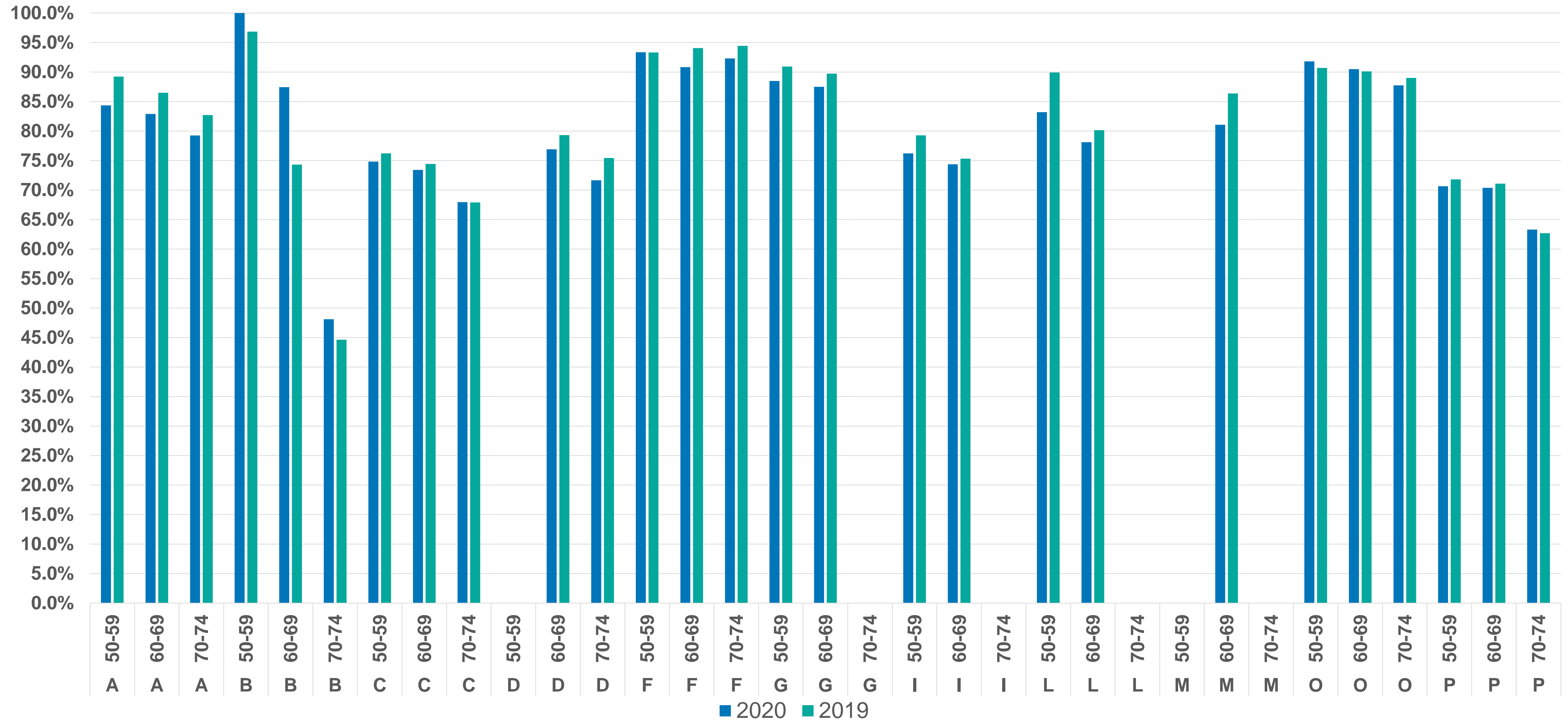
Compliance with colonoscopy referral - FIT + subjects, BY AGE

N subjects performing a TC/N subjects with FIT+ result in the year
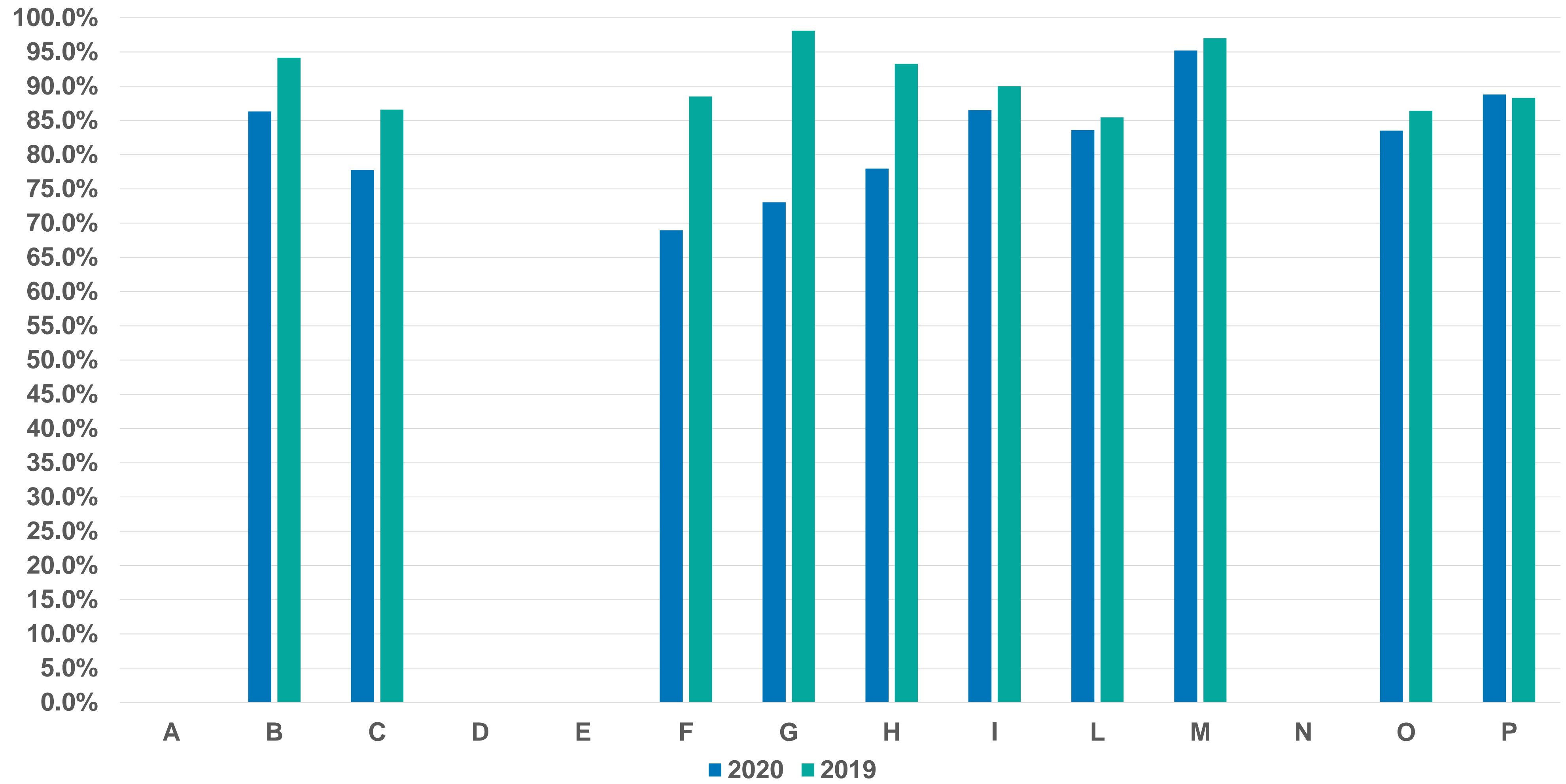
■ 2020 ■ 2019

2020 versus 2019

Age 50-59: - 1.6% (-6.7% to 4.0%)   Age 60-69: - 2.1% (-5.4% to 0.4%)   Age 70-74: - 0.9% (-3.8% to 3.5%)

Waiting time for TC - FIT + subjects

N subjects performing a TC within 3 months since FIT+ /
N subjects performing a TC following a FIT+ result in the year
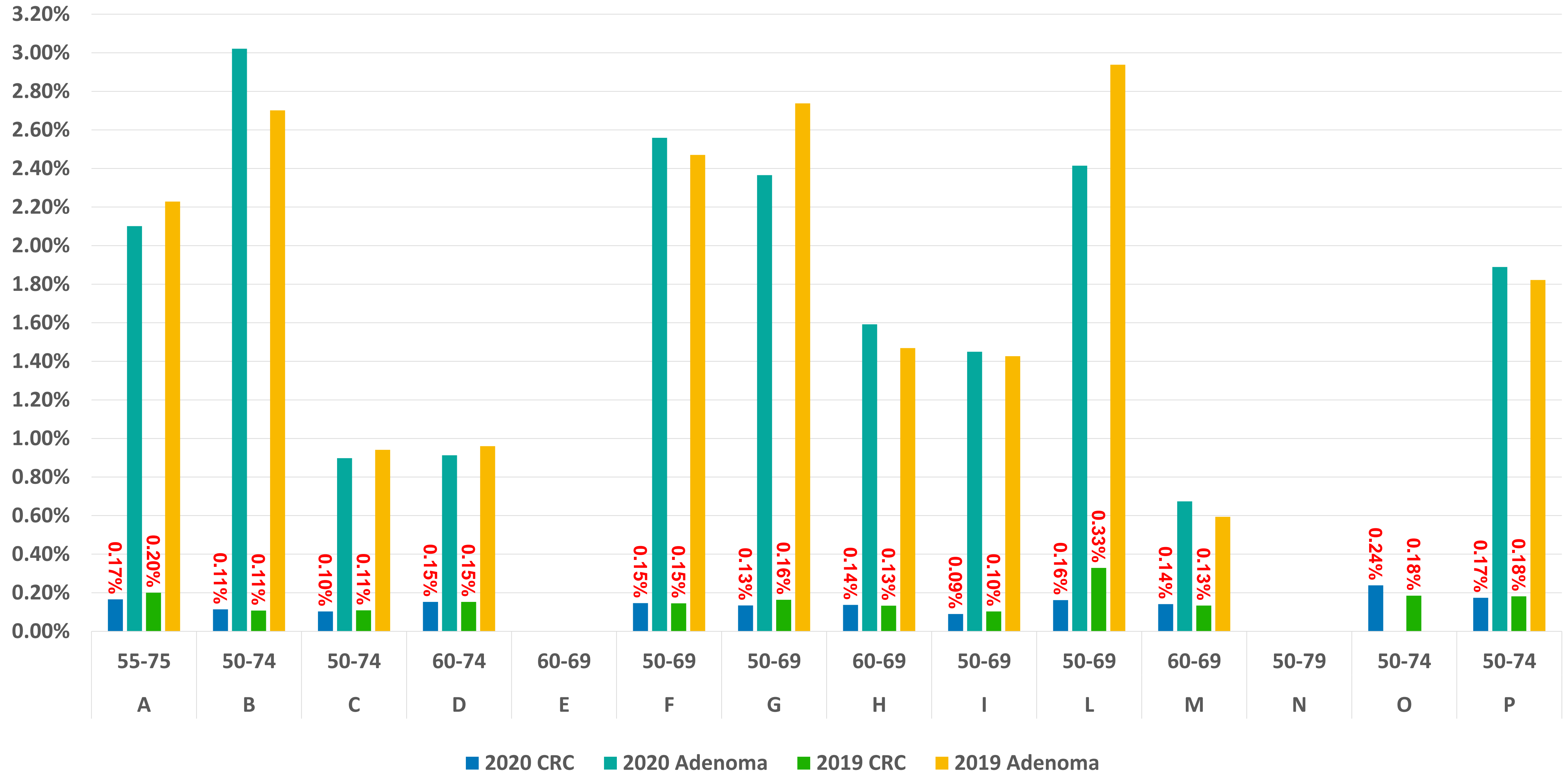
■ 2020 ■ 2019

Interval between FIT+ and TC > 3 months: **17.8%** (range 4.8%-31.0%) **in 2020**

9.2% (range 1.9%-14.6%) **in 2019**   No difference by age

Detection rate   CRC - Adenoma

N subjects detected with CRC-Adenoma /N subjects examined

Estimated proportion of missed CRCs

N missed CRCs in 2020 / N CRCs detected in 2019

17.2%	0.0%	0.0%	39.9%		48.3%	33.0%	59.5%	42.1%	0.0%	0.0%		43.4%	8.1%
55-75	50-74	50-74	60-74	60-69	50-69	50-69	60-69	50-69	50-69	60-69	50-79	50-74	50-74
A	B	C	D	E	F	G	H	I	L	M	N	O	P

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Screening Network
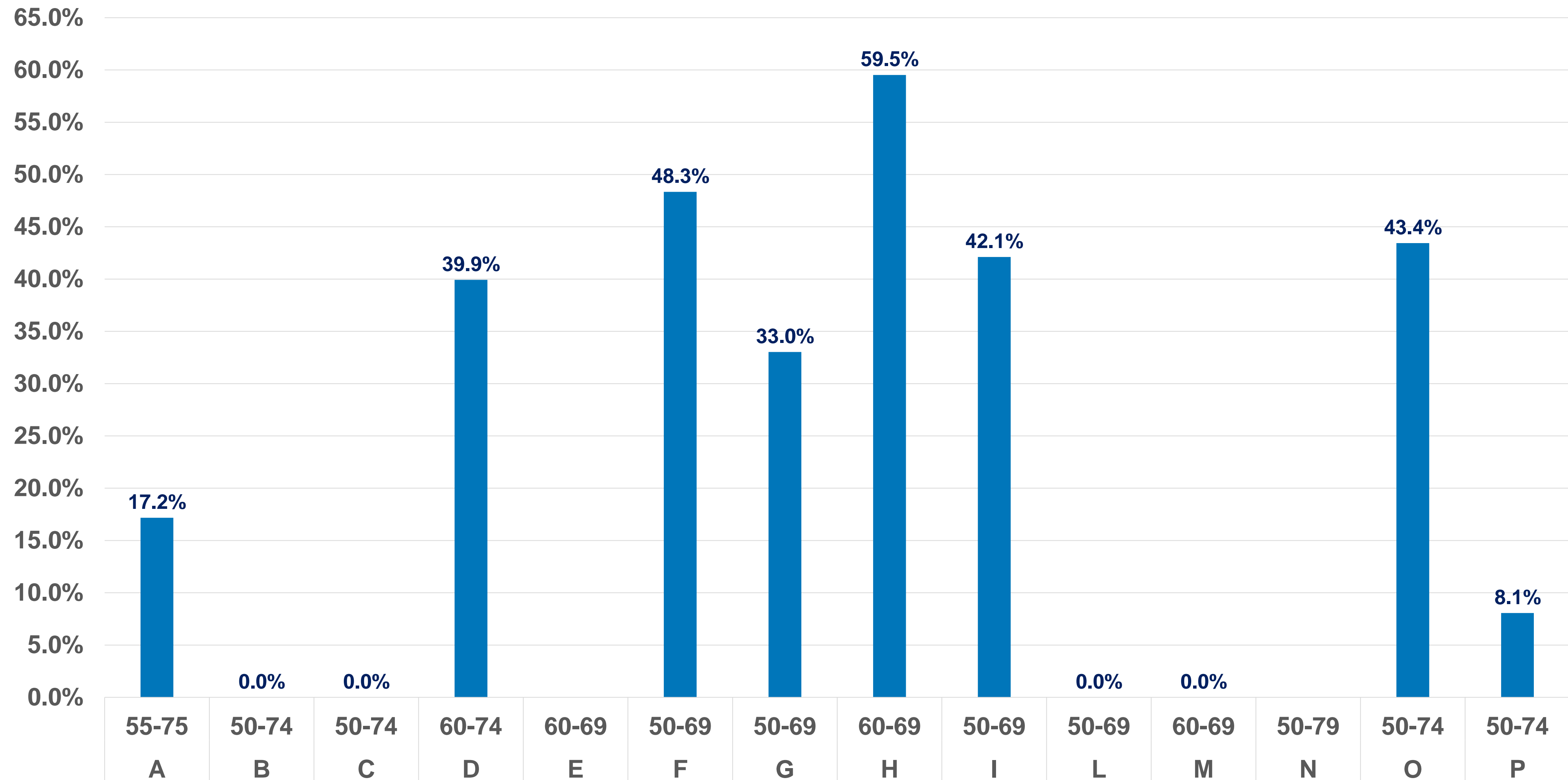
Detection rate - stage III-IV CRC
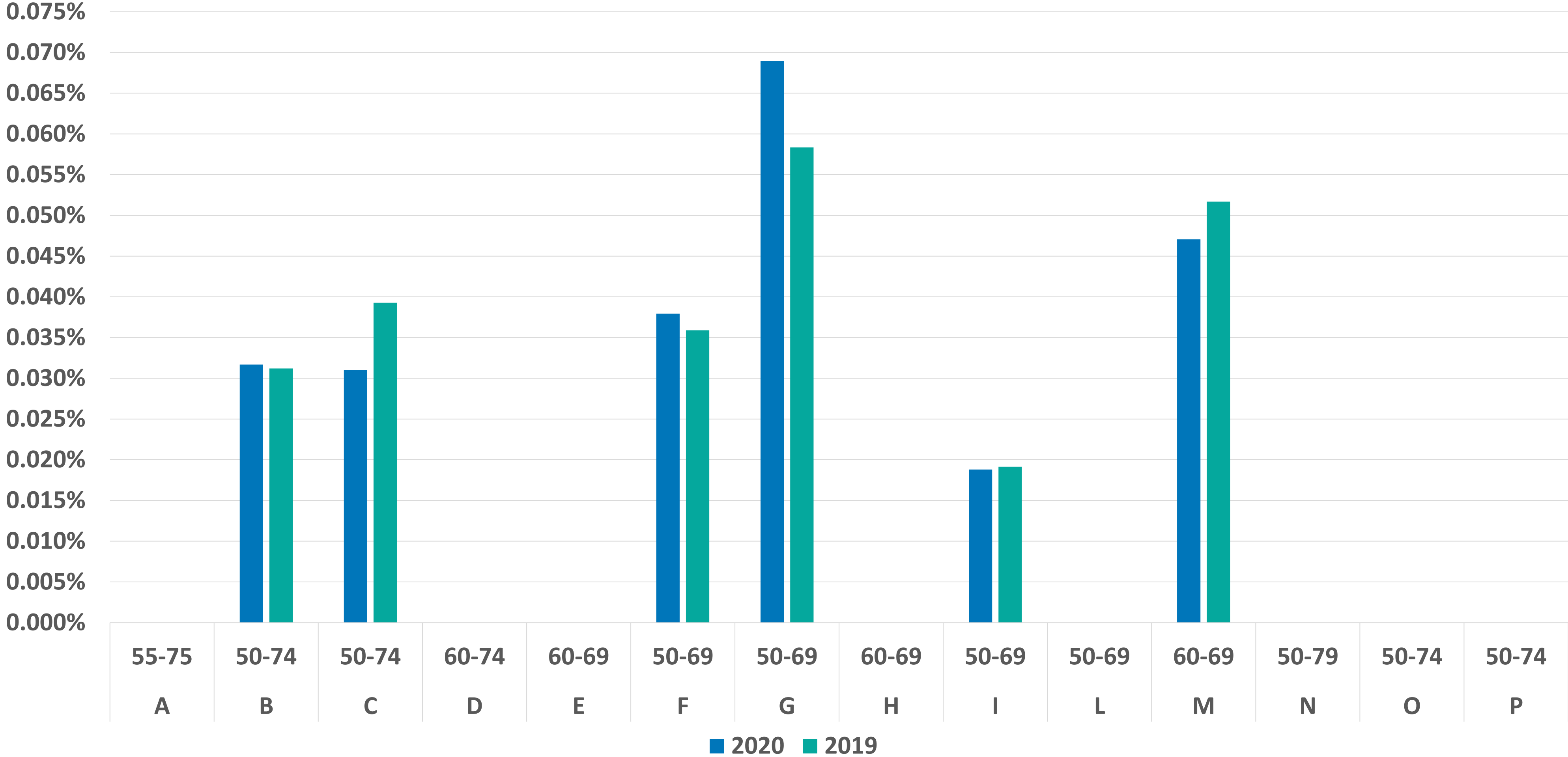
Conclusions

Quantitative data collection is feasible

changing the timing and the format of the monitoring reports

might be difficult in some countries

Participation rates were not showing a sharp decline

effective recovery plans during the second half of the year

prioritization schemes

Compliance with referral for TC assessment among FIT + subjects was slightly decreased

the decrease was higher in the age group 60 to 69

The DR of CRC and the stage distribution of SD CRCs was similar in 2020 as in 2019

the proportion of missed (delayed diagnosis) lesions was substantial in several programs

Conclusions

We are observing screening outcomes of people invited in 2020 when the delay was likely still limited

Most programs were not able to cover their annual target population

a backlog was therefore maintained also in 2021

We would then need to get information about screening outcomes of people who could not be invited in 2020

Thank you to

Mireille Broeders
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Beate Jahn
Sharon McCarthy
Linda Rabeneck
Nereo Segnan

Thank you for your attention

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Table 5 : Screening outcome

| | | G1 | G2 | G3 | G4 | G5 | G6 | | |
		Adequate tests in 2020	Follow-up colonoscopy performed	No lesion detected	Adenomas	Colorectal cancers	Other lesions	Total screening outcome known	Screening outcome unknown
Initial screening	40-44	0	0					0	0
	45-49	0	0					0	0
	50-54	0	0					0	0
	55-59	0	0					0	0
	60-64	0	0					0	0
	65-69	0	0					0	0
	70-74	0	0					0	0
	75-79	0	0					0	0
	Unknown *	0	0					0	0
	Total	0	0	0	0	0	0	0	0
Subsequent screening	40-44	0	0					0	0
	45-49	0	0					0	0
	50-54	0	0					0	0
	55-59	0	0					0	0
	60-64	0	0					0	0
	65-69	0	0					0	0
	70-74	0	0					0	0
	75-79	0	0					0	0
	Total	0	0	0	0	0	0	0	0