A survey aimed to collect quantitative information about screening activity during the pandemic emergency

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WEO
The voice of world endoscopy

ICSN
International Cancer
Screening Network

Centro di Riferimento per l'Epidemiologia
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No conflict of interest to declare

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Thank you!

Modeling the impact of disruption

Experts from all around the world joined forces in the **COVID-19 and Cancer Global Modelling Consortium (ccgmc.org)** to simulate different scenarios of disruption and recovery strategies and predict both long-term health outcomes and short- and long-term costs and savings.

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 inform and validate modelling

- information

  ❑ 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

COMMENTARIES

Colorectal Cancer Screening in the Novel Coronavirus Disease-2019 Era

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On behalf of the Expert Working Group
on COVID-19 of the WEO Colorectal
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 has designed a project, aimed to collect aggregated quantitative

data about screening activity and outcomes, 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 collection

Data are stratified by

- Sex

- Age

- Screening history

Collected for 2020 and for the corresponding period in 2019 or 2018 (reference year for comparison)

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

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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	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	0

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Invitation coverage
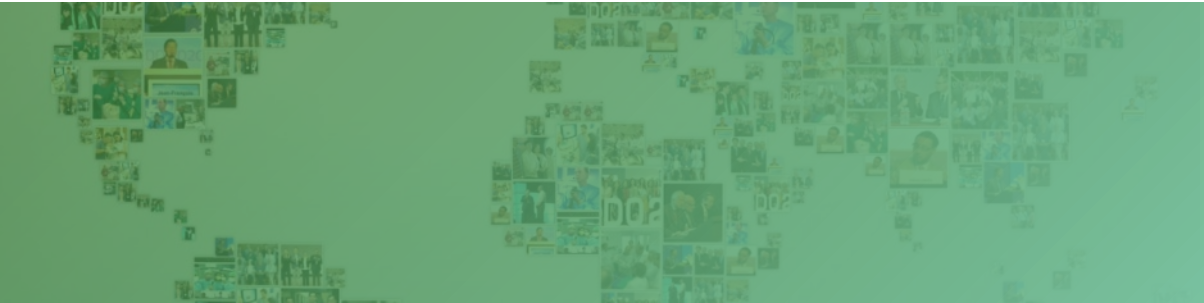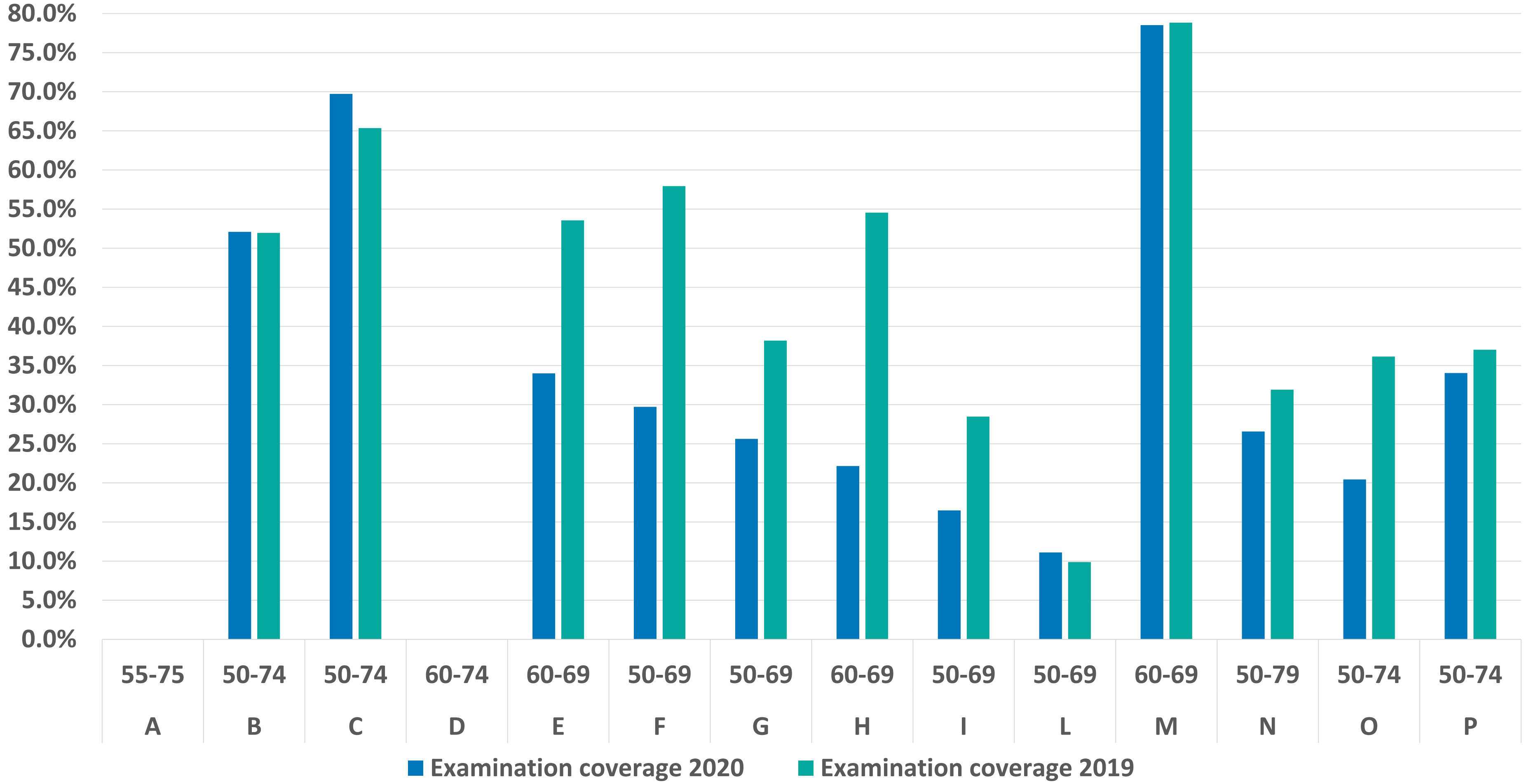# Participation

N subjects invited in the year/Annual target population

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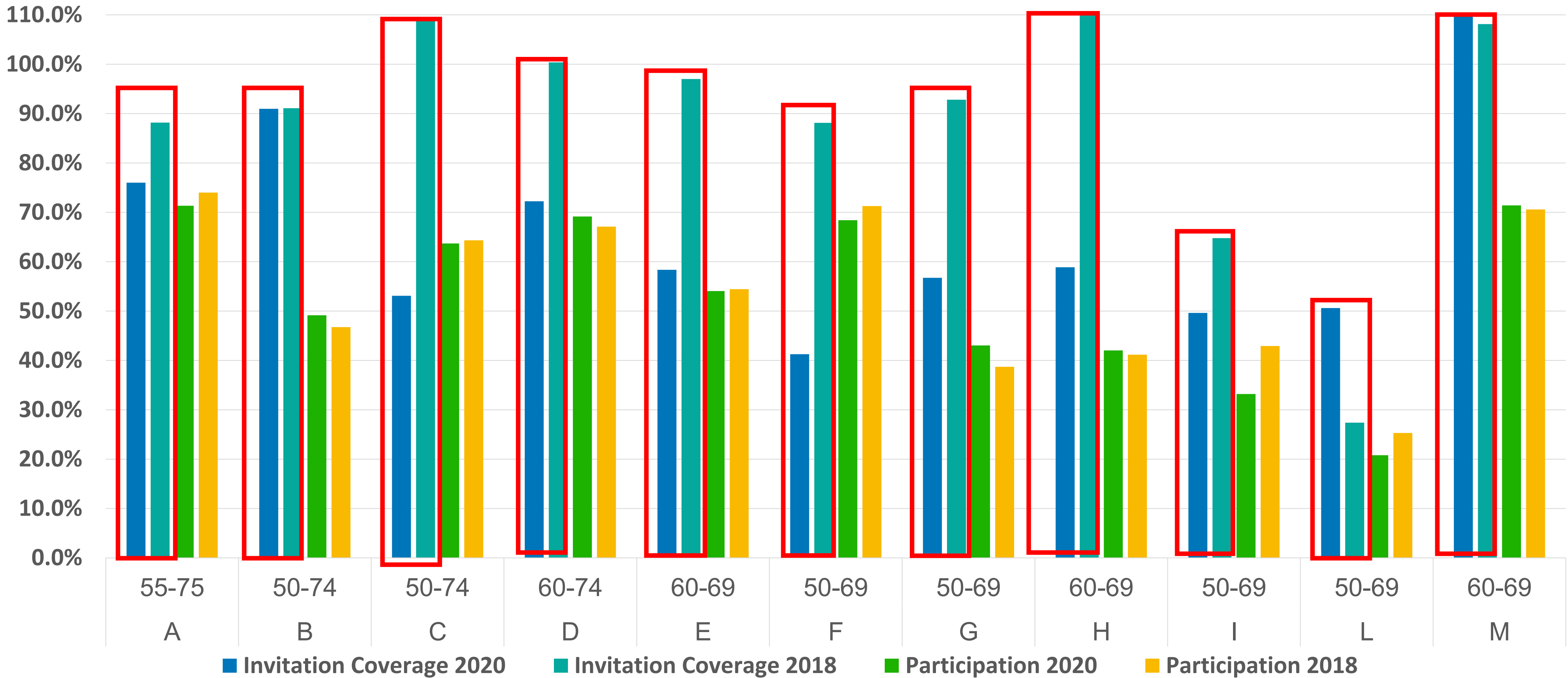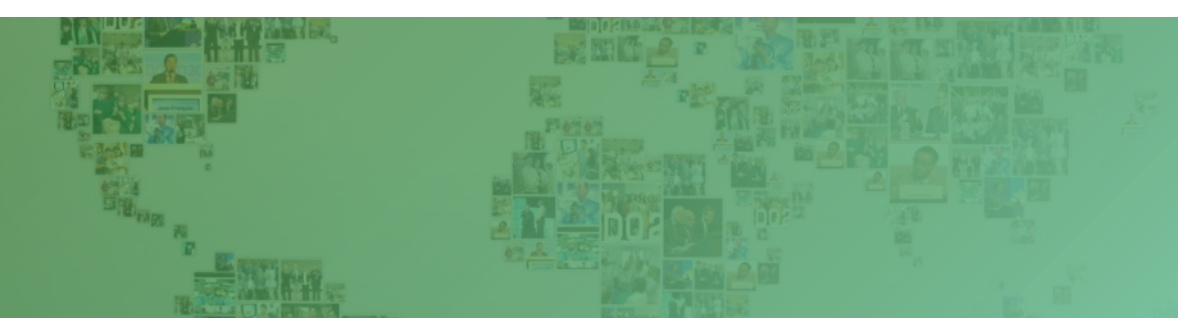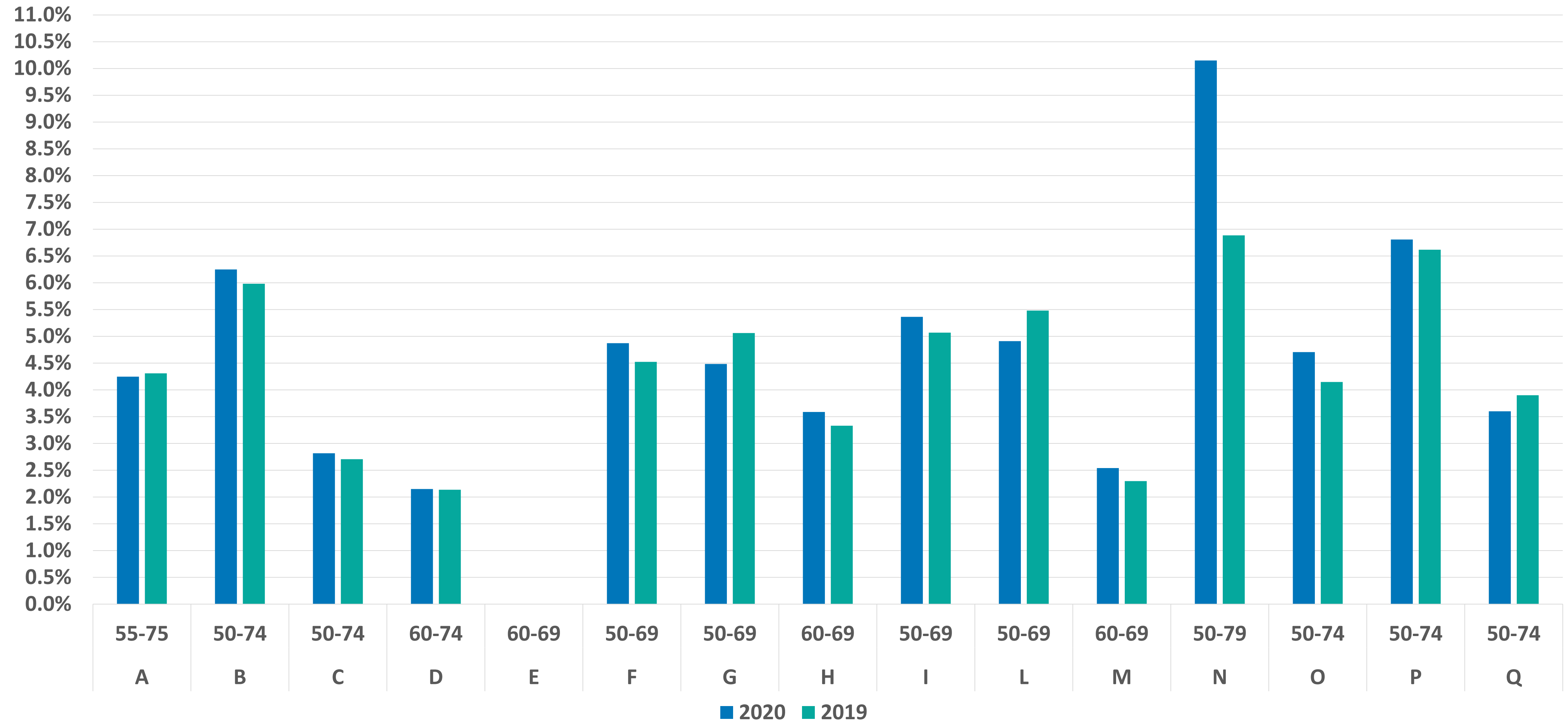
Examination coverage

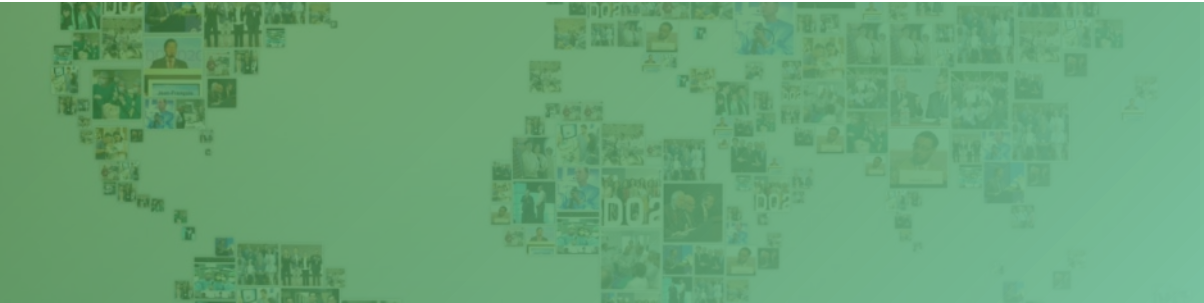## N subjects examined in the year/Annual target population

■ Examination coverage 2020　　■ Examination coverage 2019

Positivity rate

N subjects with a FIT+ results/N subjects with a valid FIT result

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
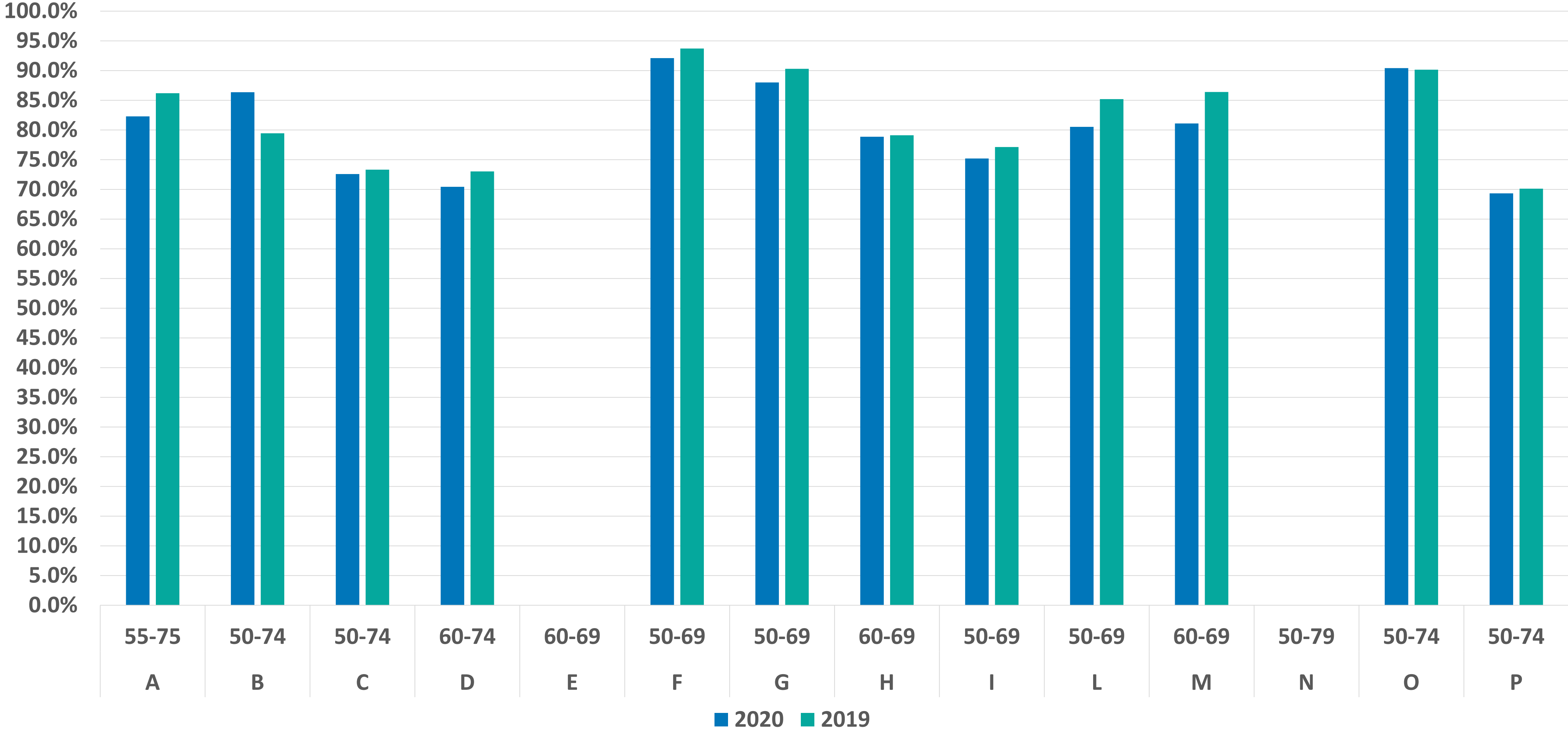
Detection rate   CRC - Adenoma

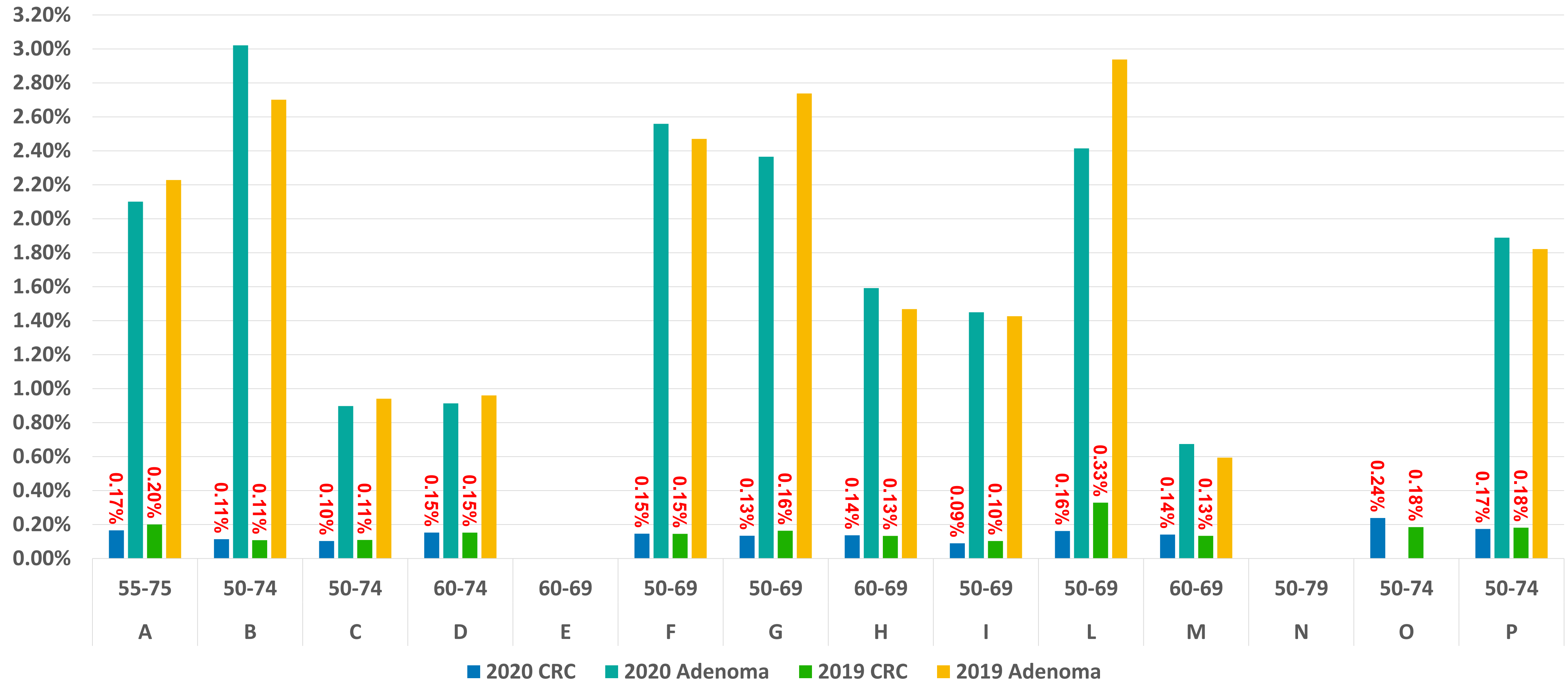## N subjects detected with CRC-Adenoma /N subjects examined

	A	B	C	D	E	F	G	H	I	L	M	N	O	P
Age range	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
2020 CRC	0.17%	0.11%	0.10%	0.15%		0.15%	0.13%	0.14%	0.09%	0.16%	0.14%		0.24%	0.17%
2019 CRC	0.20%	0.11%	0.11%	0.15%		0.15%	0.16%	0.13%	0.10%	0.33%	0.13%		0.18%	0.18%

Legend: ■ 2020 CRC   ■ 2020 Adenoma   ■ 2019 CRC   ■ 2019 Adenoma

Detection rate - stage III-IV CRC
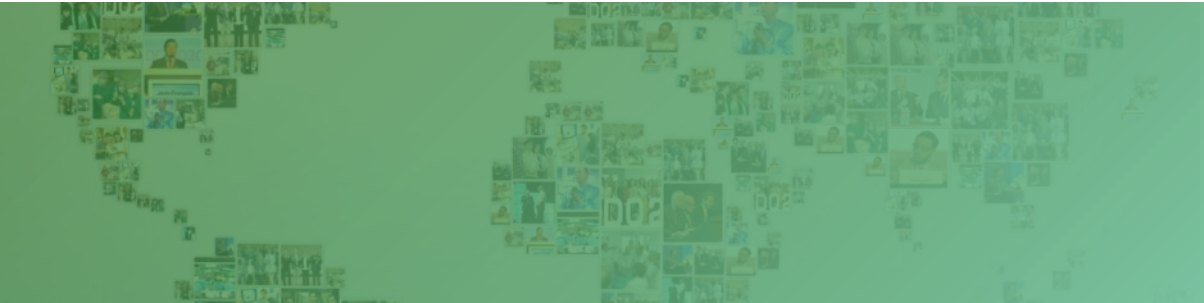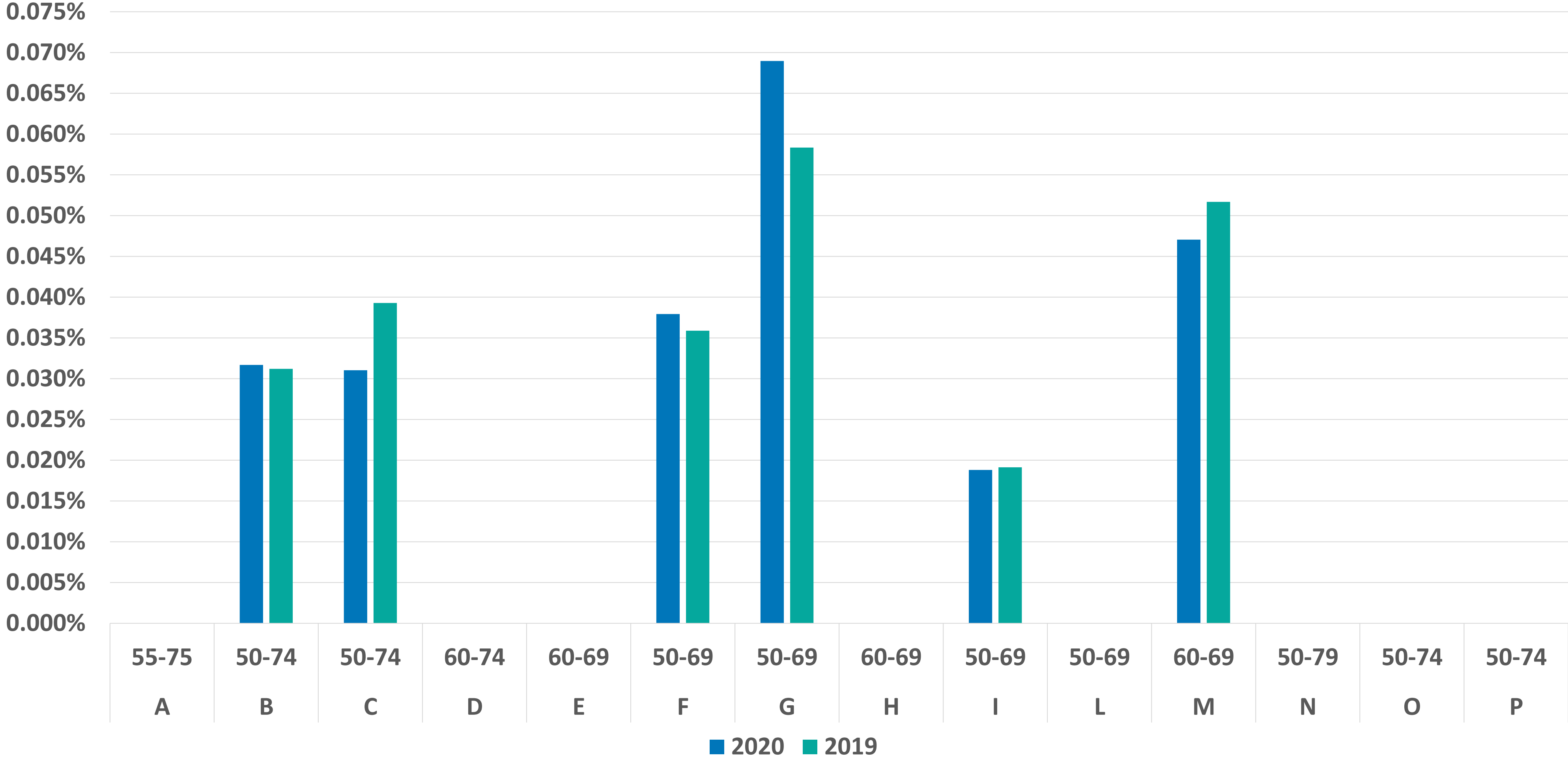
Conclusions

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 sharp decline

        effective recovery plans during the second half of the year

        prioritization schemes

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

        most programs did not stop performing assessment TC for FIT + subjects

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
Iris Lansdorp-Vogelaar
Doug Puricelli-Perin

Thank you for your attention

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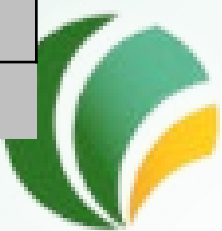## Table 4 : Participation in follow-up colonoscopy for further assessment after a positive screening test

		E1	E2a	E2b	E2c	E3	Total known colonoscopy performance status	Unknown colonoscopy performance status
		Positive screening tests in 2020	Follow-up colonoscopy performed within 3 months from positive screening test	Follow-up colonoscopy performed between 3 and 9 months from positive screening test	Follow-up colonoscopy performed > 9 months from positive screening test	Follow-up colonoscopy not performed yet		
Initial screening	40-44	0					0	0
	45-49	0					0	0
	50-54	0					0	0
	55-59	0					0	0
	60-64	0					0	0
	65-69	0					0	0
	70-74	0					0	0
	75-79	0					0	0
	Unknown *	0					0	0
	Total	0	0	0	0	0	0	0
Subsequent screening	40-44	0					0	0
	45-49	0					0	0
	50-54	0					0	0
	55-59	0					0	0
	60-64	0					0	0
	65-69	0					0	0
	70-74	0					0	0
	75-79	0					0	0
	Unknown *	0					0	0
	Total	0	0	0	0	0	0	0

Follow-up colonoscopy performance rate

Follow-up colonoscopy performed within 3 months from positive screening test	Follow-up colonoscopy performed between 3 and 9 months from positive screening test	Total known colonoscopy performance status	%

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

Table 6 : Staging of screen detected cases

CRCs diagnosed among subjects screened in 2020		H1	H2	H3	H4			
		Stage I	**Stage II**	**Stage III**	**Stage IV**	**Stage ?**	**Colorectal cancers**	**Refused treatment**
Initial screening	**40-44**					0	0	
	45-49					0	0	
	50-54					0	0	
	55-59					0	0	
	60-64					0	0	
	65-69					0	0	
	70-74					0	0	
	75-79					0	0	
	Unknown *					0	0	
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Subsequent screening	**40-44**					0	0	
	45-49					0	0	
	50-54					0	0	
	55-59					0	0	
	60-64					0	0	
	65-69					0	0	
	70-74					0	0	
	75-79					0	0	
	Unknown *					0	0	
	Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**