

Finalborgo, 19-20 maggio 2016  
Workshop GISMa - ONS

# **Lo screening mammografico in Europa**

**Antonio Ponti e Mariano Tomatis**  
**CPO-Piemonte**

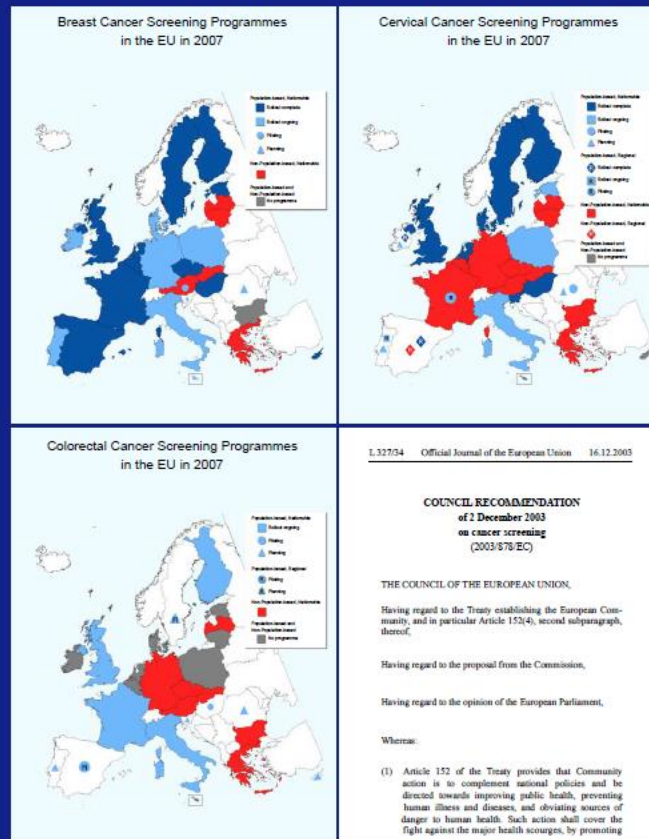
Implementation of EB cancer screening programmes,  
with an organised, population based approach with  
QA at all appropriate levels

**(Raccomandazione del Consiglio Europeo del 2003)**

# **The European Screening Implementation report**

**(previsto dalla raccomandazione del Consiglio Europeo del 2003)**

# First report 2008



## Cancer screening in the European Union

Report on the implementation of the Council Recommendation on cancer screening

First Report



European Commission

# **The European Screening Implementation report**

## **Definitions needed:**

Programme y/n

Organised y/n

Pop based y/n

If yes, roll out complete ...

# **The European Screening Implementation report**

## **Results:**

**22 / 28 Population based**

**11 / 22 Roll out complete**

## Second report on the implementation of population cancer screening in the European Union

Ponti A<sup>1</sup>, Tomatis M<sup>1</sup>, Ronco G<sup>1</sup>, Signore C<sup>1</sup>, Villain P<sup>2</sup>, Giordano L<sup>1</sup>,  
Casella D<sup>1</sup>, Anttila A<sup>3</sup>, Suonio E<sup>2</sup>, Segnan N<sup>1</sup>, vonKarsa L<sup>2</sup>

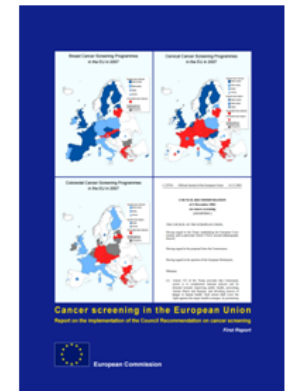
<sup>1</sup> CPO Piemonte, SCDO Epidemiologia dei tumori, A.O.U. Città della Salute e della Scienza di Torino, Torino, Italy

<sup>2</sup> Quality Assurance Group, International Agency for Research on Cancer, Lyon, France

<sup>3</sup> Mass Screening Registry/Finnish Cancer Registry, Helsinki, Finland.

**Background** The Council of the European Union (EU) recommended in 2003 to set up population-based screening for breast, cervix and colorectal cancer in all Member States in compliance with the European Guidelines for Quality Assurance in cancer screening and diagnosis. A key element in the Council Recommendation is that the Member States report periodically to the EU Commission on the implementation of the Recommendation. Therefore, a *First report on the implementation of the Council Recommendation on cancer screening* has been published in 2008 (von Karsa et al).

The European Commission now requested a Second report. The project is led by the International Agency for Research on Cancer (IARC) in collaboration with CPO-Piemonte and the Cancer Society of Finland.



[Download from here the Data Call.](#)

Data collection for each screening is in two steps.

## Breast Screening

1) Fill in all the 10 sections of this questionnaire:



**Breast screening questionnaire**

...then **click on the button FINALIZE** at the bottom right corner of the page.

2) Download and fill in this Excel file:



[SR Tables BREAST.xls](#)

Instructions can be downloaded from [here](#)

## Cervical Screening

1) Fill in all the 10 sections of this questionnaire:



**Cervical screening questionnaire**

...then **click on the button FINALIZE** at the bottom right corner of the page.

2) Download and fill in this Excel file (target population):



[SR Tables CERVIX 1.xls](#)

...then download this Excel file:



[SR Tables CERVIX 2.xls](#)

Instructions for the two Excel files

## Colorectal Screening

1) Fill in all the 10 sections of this questionnaire:



**Colorectal screening questionnaire**

...then **click on the button FINALIZE** at the bottom right corner of the page.

Can you provide separately data for males and females?

Yes

No

2) Download and fill in this Excel file (for both males and females):



[SR Tables COLON.xls](#)

Instructions can be downloaded from [here](#)



### 3. Data collection and analysis

3.1. Are there screening registers at the REGIONAL or LOCAL level (for collection, management and analysis of screening data)?

☐ No ☒ Yes ☐ Don't know

3.2. Number of regional / local screening registers

5



3.3. Are there screening registers at the NATIONAL level (for collection, management and analysis of screening data)?

☐ No ☒ Yes ☐ Don't know

3.4. Are data at the national collecting center collected as aggregated data?

☐ No ☒ Yes ☐ Don't know

3.5. Are data at the national collecting center collected as individual data?

☐ No ☒ Yes ☐ Don't know

3.6. Are data regarding opportunistic and invitational tests stored in the same manner?

☐ No ☒ Yes ☐ Don't know

3.7. Are screening data linked with cancer registries?

☐ No ☒ Yes ☐ Don't know

3.8. On a regular basis?

☐ No ☒ Yes ☐ Don't know

3.9. How often?

It depends on the region

3.10. For which purposes?

## 4. Quality control & reporting

4.1. Is there any system of quality control of data collection?

☐ No ☒ Yes ☐ Don't know

4.2. Does the system produce routine feedbacks on data inconsistencies?

☐ No ☒ Yes ☐ Don't know

4.3. Are screening monitoring results produced?

☐ No ☒ Yes ☐ Don't know

4.4. On a regular basis?

☐ No ☒ Yes ☐ Don't know

4.5. How often?

annually e.g.

4.6. For which purposes?

4.7. Are reports published?

☐ No ☒ Yes ☐ Don't know

4.8. Please briefly describe and send a copy or the URL

4.9. As a result of collecting and analyzing screening programme data, have changes been made to the screening programme, and when were they made?

Yes

## 8. Monetary costs, cost effectiveness and equity

8.8. Is in principle the screening test free of charge (no copayment) for the screenee?

☐ No ☒ Yes ☐ Don't know

8.9. Is in principle the assessment free of charge (neither full payment nor copayment) for the screenee?

☐ No ☒ Yes ☐ Don't know

8.10. Are any of the assessment costs reimbursed/covered by public sources?

☐ No ☒ Yes ☐ Don't know

8.11. Are there exceptions to what is indicated in the answers to the previous questions?

☐ No ☒ Yes ☐ Don't know

8.12. Describe

8.13. Have you studied screening costs or cost-effectiveness in your country/region?

☐ No ☒ Yes ☐ Don't know

8.14. Specify the source of the publication

8.15. What cost has been studied (type of cost and amount in euros)?

8.16. Are you aware of any population group not covered by screening?

☐ No ☒ Yes ☐ Don't know

8.18. Is participation rate periodically analysed according to socio-economic status, education or ethnicity?

No

Yes

Don't know

8.19. Describe

8.20. Have barriers to participation been studied and identified or has any kind of intervention to reduce inequalities been conducted?

No

Yes

Don't know

8.21. Describe and provide references as PDF copies

8.22. Notes

# Table 1 Population

Country/Region

Index year

A

B

	Target population	Screening interval in years	Annual target population
40-44		1	0
45-49		1	0
50-54		1	0
55-59		1	0
60-64		1	0
65-69		1	0
70-74		1	0
75-79		1	0
Unknown *		1	0
Total	0		0

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

# Table 2 Screening tests

C

D

E

	Individuals personally invited in	Individuals screened of invited in	Individuals screened in
40-44			
45-49			
50-54			
55-59			
60-64			
65-69			
70-74			
75-79			
Unknown *			
Total	0	0	0
	^ Invited between Jan 1 - Dec 31,	^ Screened between Jan 1, - June 30, 1	^ Screened between Jan 1 - Dec 31, regardless of when invited

## Invitation coverage

	Individuals personally invited in	Target population ÷ screening interval	%
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	

## Participation rate

	Individuals screened of invited in	Individuals personally invited in	%
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	

## Examination coverage

	Individuals screened of invited in	Target population ÷ screening interval	%
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	

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

# Table 3 Further assessment indication

		F	G	H	Further assessment rate		
		Individuals screened of invited in	Positive	Negative	Total	Unknown	Positive    Total    %
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	
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	
Unknown if initial or subs.	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	

# Table 4 Further assessment participation

		I	J	K			F.A. participation rate		
		Positive	Further assessment performed	Further assessment not performed	Total	Unknown	F.A. performed	Total	%
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			
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			
Unknown if initial or subs.	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			



# Table 5 Further assessment outcome

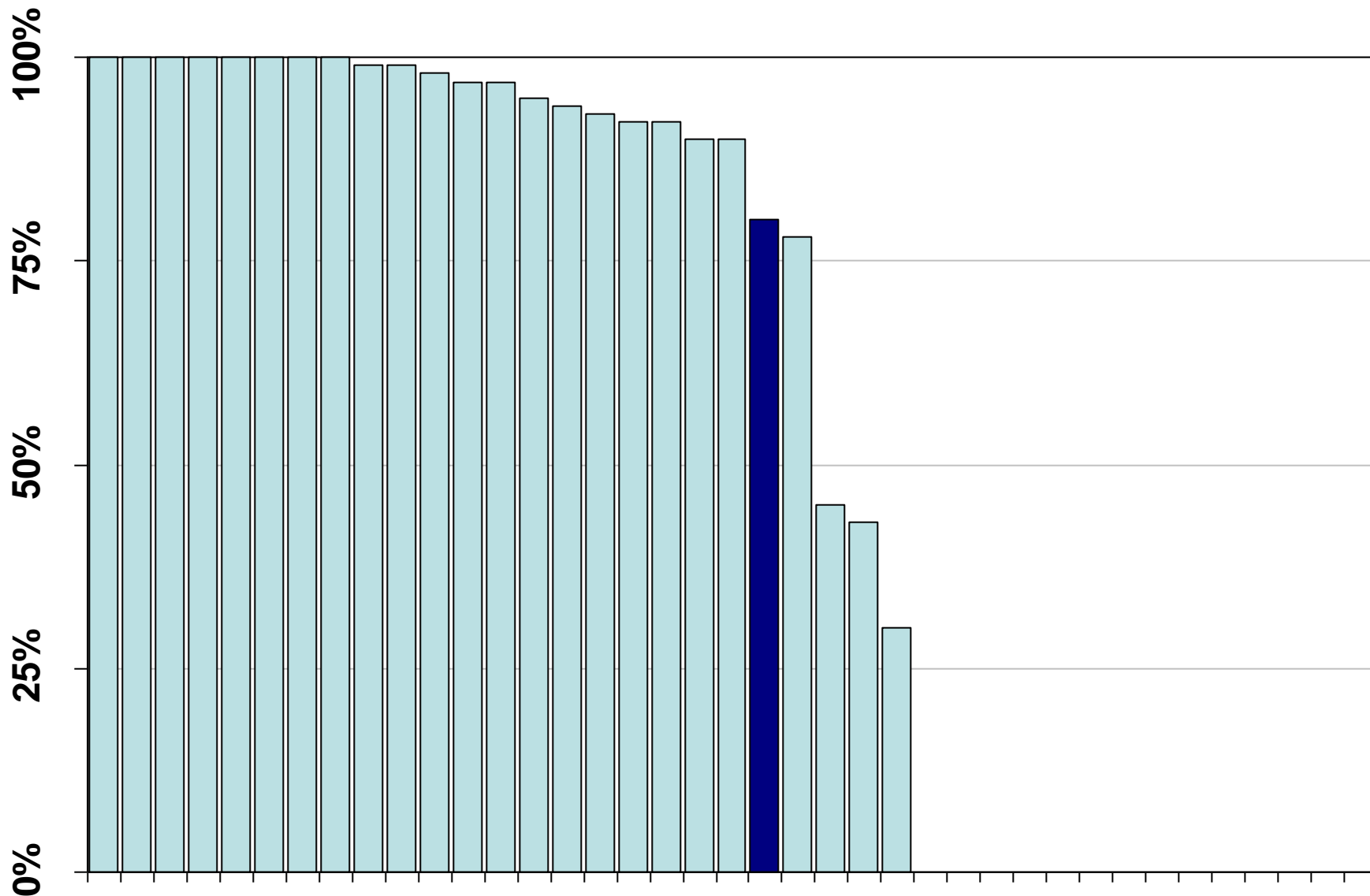
	L	M	N	O			Treatment referral rate (x1000)		
	Individuals screened of invited in	Further assessment performed	Treatment/Surgery referral or inoperable ca	Negative	Total	Unknown	Treatment referral or inoperable ca	Individuals screened of invited in	Rate
Initial screening	40-44	0	0		0	0			
	45-49	0	0		0	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			
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			
	Unknown *	0	0		0	0			
	Total	0	0	0	0	0			
Unknown if initial or subs.	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			

Table 6 Outcome

		P	Q	R	S	T	U			Detection Rate			PPV			
		Individuals screened of invited in	Further assessment performed	Benign lesions or no lesion	CIS detected	Invasive breast cancers detected	Other histology	Total	Unknown	Total (x1000)	CIS (x1000)	Invasive (x1000)	Total (of recall)	% CIS	Benign treatment rate	B / M ratio
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							
	Unknown *	0	0					0	0							
	Total	0	0	0	0	0	0	0	0							
Unknown if initial or subs.	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							

# Proportion of women with complete information in 39 countries/regions \*

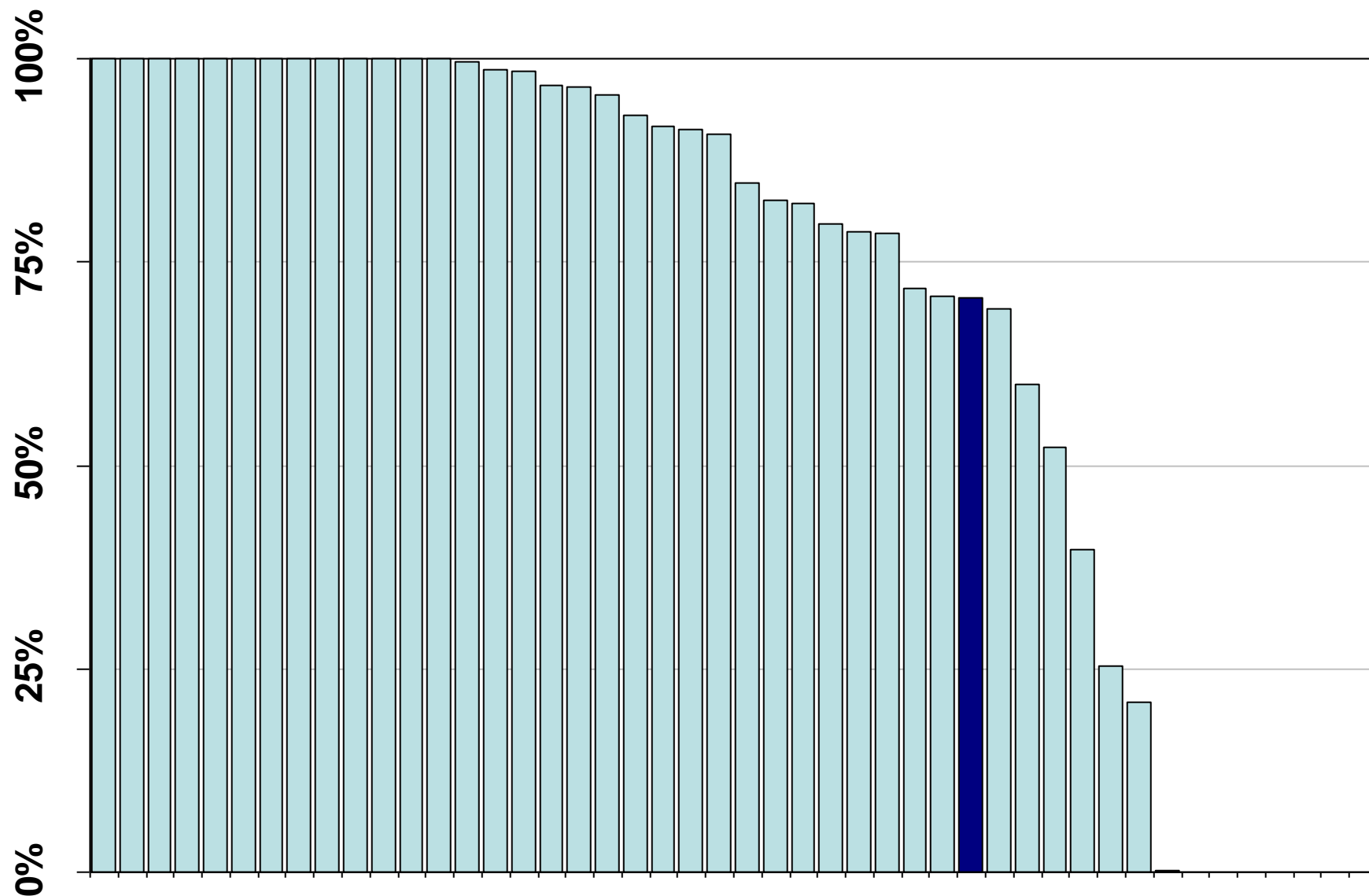
**Italy: 80%**



\* Areas providing data for 50-69 years

# Invitation coverage in 46 countries/regions \*

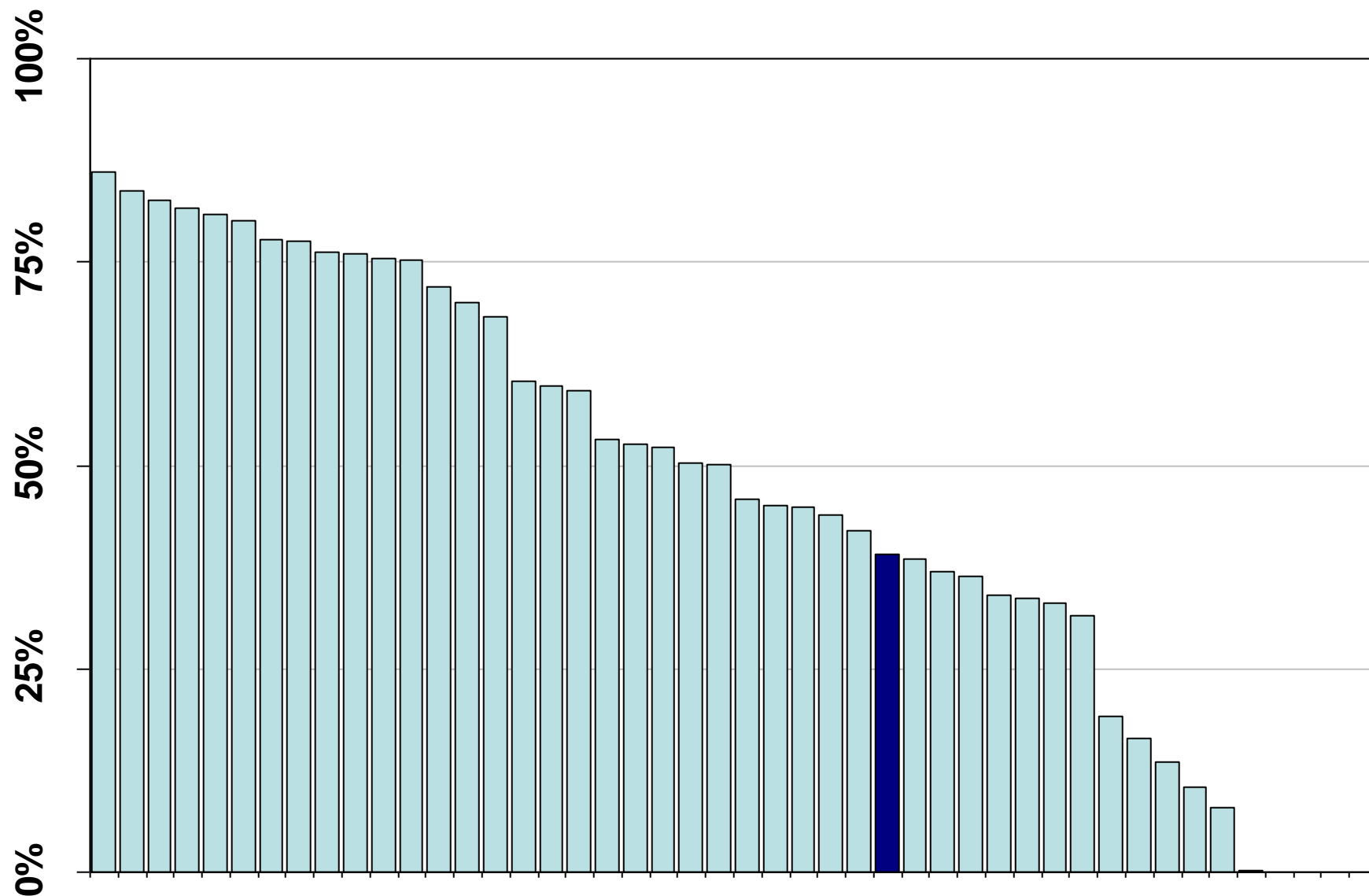
**Italy: 70,6%**



\* Areas providing data for 50-69 years

# Examination coverage in 46 countries/regions \*

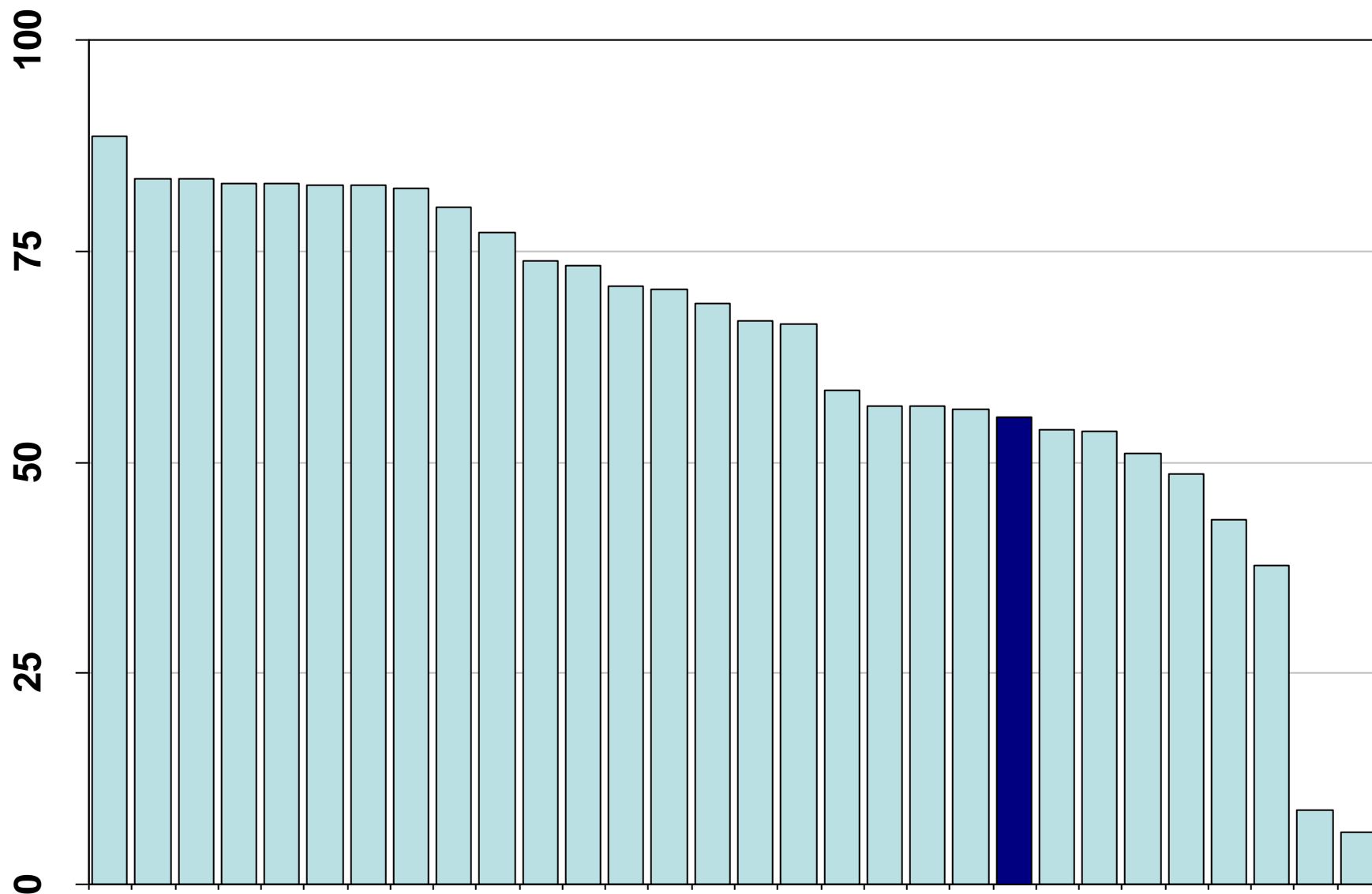
**Italy: 39,1%**



\* Areas providing data for 50-69 years

# Participation rate in 30 countries/regions \*

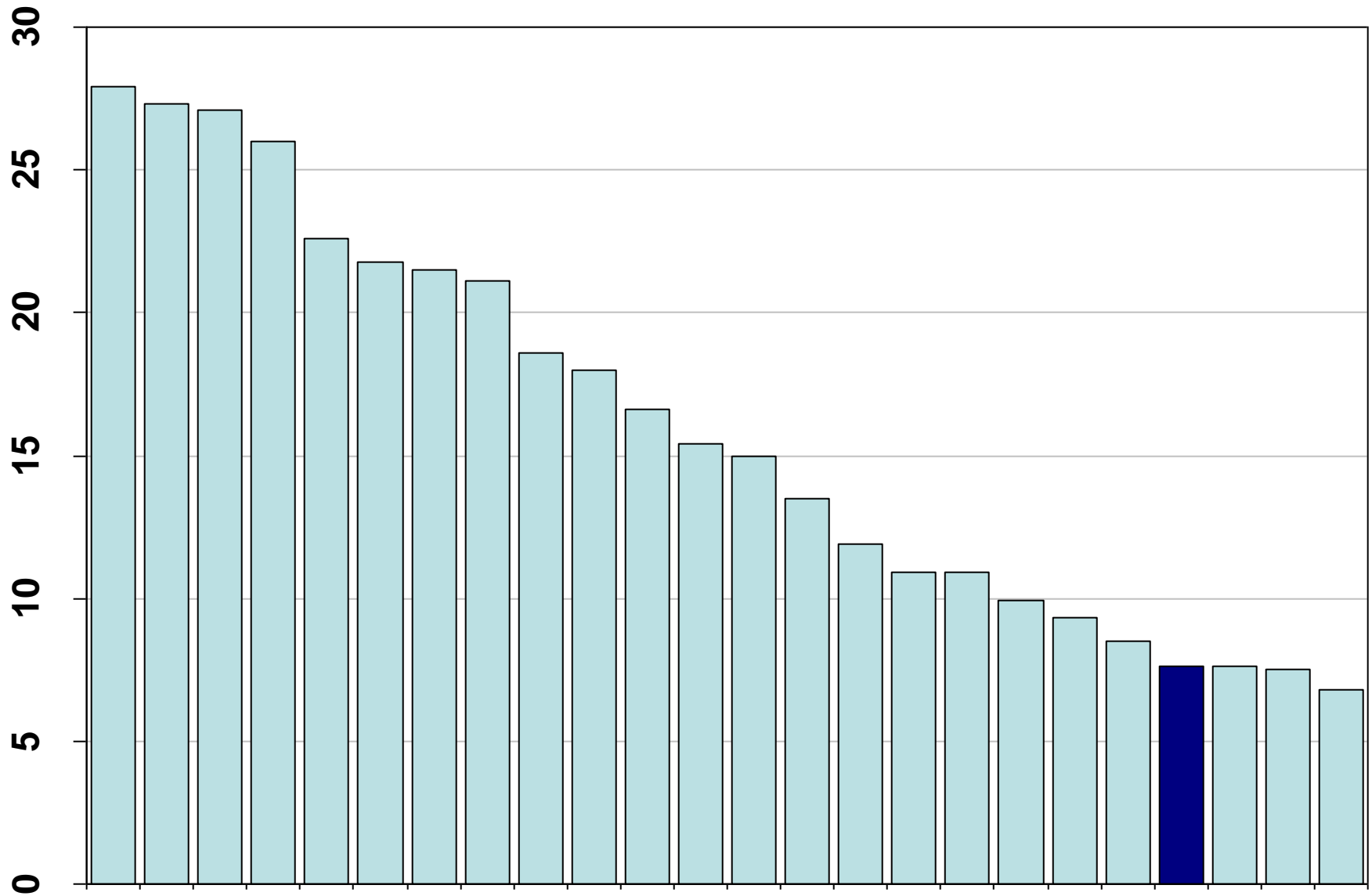
**Italy: 55,4%**



\* Areas providing data for 50-69 years. Initial and subsequent invitations.

# PPV (%) of a positive screening test in 24 countries/regions \*

**Italy: 7,6%** (FA 5.8%; DR 4.3 per 1000)



\* Areas providing data for 50-69 years. Initial and subsequent tests.

## **A precursor: the EUNICE project and monitoring system**



# Mammographic screening programmes in Europe: organization, coverage and participation

**Livia Giordano, Lawrence von Karsa, Mariano Tomatis, Ondrej Majek, Chris de Wolf,  
Lesz Lancucki, Solveig Hofvind, Lennarth Nyström, Nereo Segnan, Antonio Ponti and The  
Eunice Working Group (Eunice Working Group members are listed at the end of the paper)**

.....

*J Med Screen* 2012;**19 Suppl 1**:72–82

DOI: 10.1258/jms.2012.012085

# False-positive results in mammographic screening for breast cancer in Europe: a literature review and survey of service screening programmes

Solveig Hofvind, Antonio Ponti, Julietta Patnick, Nieves Ascunce, Sisse Njor, Mireille Broeders, Livia Giordano, Alfonso Frigerio and Sven Törnberg The EUNICE Project and Euroscreen Working Groups (Members of the EUNICE Project and Euroscreen Working Groups listed at end of paper)

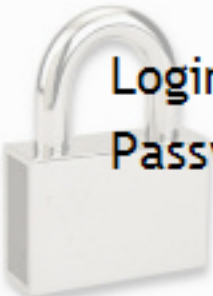
.....

*J Med Screen* 2012;**19** Suppl 1:57–66

DOI: 10.1258/jms.2012.012083

# EUNICE BREAST SCREENING MONITORING

**Insert login & password  
and click on “Login”**




Login:

Password:

Login

# Selection of the area

**In order to see the total results  
of examined areas, select  
“Summary of all areas”  
and click on “View”**




Select the area:

Summary of all areas ▼

[View](#) [Logout](#)

# Selection of the period

**Select the period to be analyzed.  
In order to analyze all available  
periods select “All”.  
Click on “View”.**



Select a period:

Summary of all areas ▾	2004 ▾
View	2004
	2005
	2006
	2007
	All

# Analysis of data from all areas

Indicators have a green background: they can be clicked in order to get the stratified results

## EUNICE Breast Screening Monitoring

Summary of main indicators (Age 50-69) (summary, 2006)

Indicators

Indicator	Result
No invitations	3255851
Invitation coverage %	101.9%
Examination coverage %	63.7%
Participation rate %	66.9%

Indicators by type of exam

Indicator	Initial scr.ex.	Subsequent scr.ex.	?	Total
Tests	432405	2008678	28639	2469722
SD Cancers	3094	13028	71	16193
F.A. rate %	9.7%	4.5%	2.4%	5.3%
F.A. on recall %	103.5%	81.5%	NA	76.3%
Invasive assessment	2.6%	1.3%	NA	1.5%
F.A. participation rate %	99.3%	98.9%	93.3%	99%
Invitation coverage %	101.9%	101.9%	101.9%	101.9%

# Analysis of data from all areas

In the list you can find areas, numerators & denominators of the indicator and its results.

## EUNICE Breast Screening Monitoring

Summary of main indicators (Age 50-69) (summary, 2006)

### Examination coverage % (Result) - Period: 2006

Area	N	D	Result	Bar
	254986	681647	37.4%	
	20773	89940	23.1%	
	163309	450912	36.2%	
	191155	260098	73.5%	
	85838	129648	66.2%	
	27934	30330	92.1%	
	164335	223949	73.4%	
	1561392	2010011	77.7%	

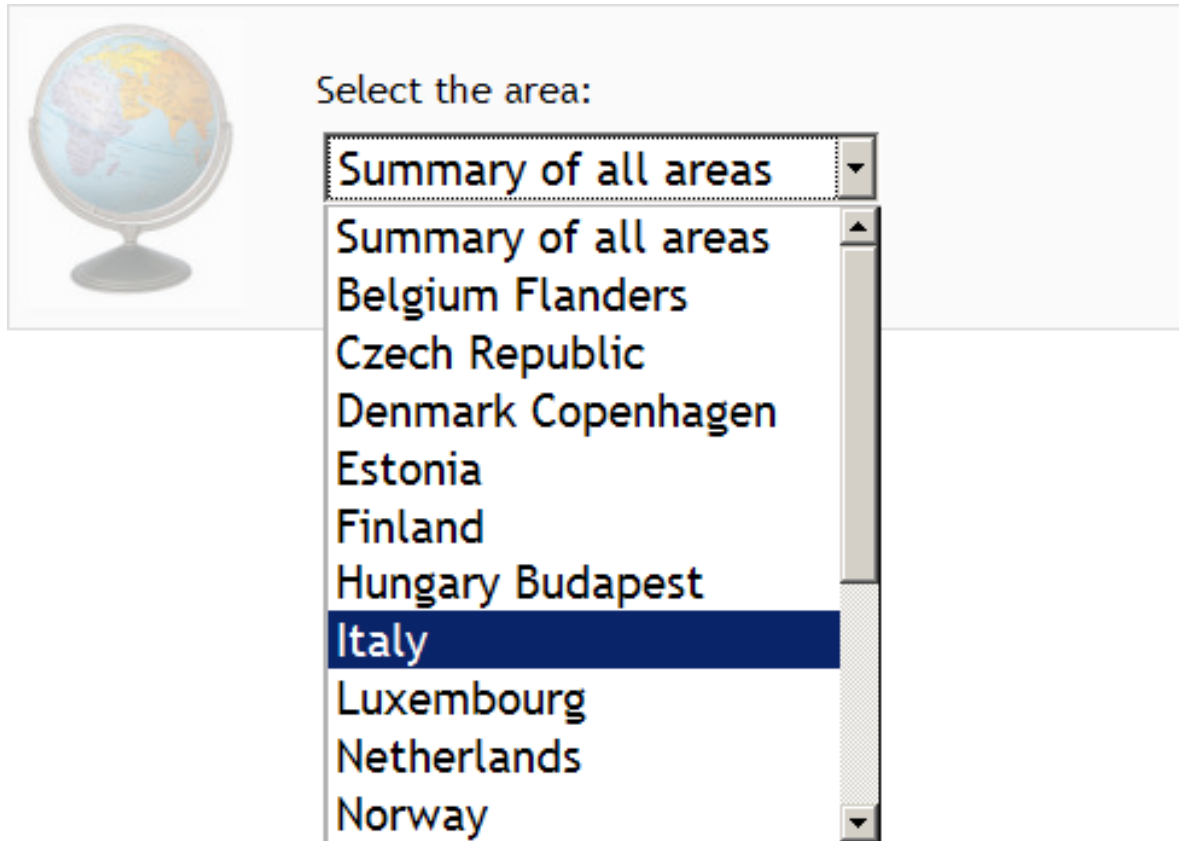
Source: EUNICE Monitoring System

F.A. participation rate % 99.3% 98.9% 93.3% 99%

Source: EUNICE Monitoring System

# Selection of the area to be analyzed

**In order to see the data of a single area, select it and click on “View”.**





# Analysis of selected areas

22 forms are available, and they can be accessed through the **combo box at the bottom** or browsable with the two icons (Previous/Next).

Section  
title

## EUNICE Breast Screening Monitoring

### Annual coverage and participation

Age groups	Target population	Women invited in index year	Women screened (of invited)	Women screened in index year	Invitation coverage (%)	Examination coverage (%)	Participation rate (%)
45-49	2015641	33615	18300	22438	3.3%	2.2%	54.4%
50-54	1887488	448478	242829	240343	47.5%	25.5%	54.1%
55-59	1917781	495171	292404	291248	51.6%	30.4%	59.1%
60-64	1707702	414711	247993	249903	48.6%	29.3%	59.8%
65-69	1727599	422122	237408	225054	48.9%	26.1%	56.2%
70-74	1594401	38656	21866	21955	4.8%	2.8%	56.6%
50-69 NOS	0	62637	23704	21416			
Total 50-69	7240570	1843119	1044338	1027964	50.9%	28.4%	56.7%
Total	10850612	1915390	1084504	1072357	35.3%	19.8%	56.6%

Green  
background

clickable  
indicators

Screening interval in months (according to screening protocols)

Months 24

Notes



Previous form

Select the form from this list:

Annual coverage and participation

Next form

Welcome All, you are logged in as a coordinator.

Change area

Logout

# Analysis of selected areas

In the “Outcome of surgical referral” form you’ll find a link to a more detailed report on data (click on “[detailed report](#)” to open it)

## EUNICE Breast Screening Monitoring

Outcome of surgical referral (outcome measures)






Initial screening examination within the programme

Age groups	Surg.ref. rate x1000	DR (Total) x1000	DR (Invasive) x1000	DR (CIS) x1000	CIS (%)	Benign surgical biopsies rate x1000	B/M ratio	DR (Total) /IR	DR (Invasive) /IR ( <a href="#">detailed report</a> )	PPV (%) Screen pos.
45-49	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
50-54	5.75	4.29	3.93	0.36	8.5%	1.13	0.26	1.93	1.77	13.5%
55-59	5.66	4.49	3.95	0.53	11.9%	0.70	0.16	1.99	1.75	19.7%
60-64	6.31	4.90	4.51	0.38	7.8%	0.69	0.14	2.47	2.28	22.7%
65-69	7.19	6.63	5.97	0.66	10%	0.66	0.10	3.15	2.84	38%
70-74	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total 50-69	5.85	4.54	4.10	0.44	9.7%	0.90	0.20	2.10	1.90	17.1%
Total	5.85	4.54	4.10	0.44	9.7%	0.90	0.20	2.10	1.90	17.1%

# Analysis of selected areas

## Incidence\* and DR (Age 50-69) Initial screening examination

\* Download [from here](#) the list of data sources for incidence.

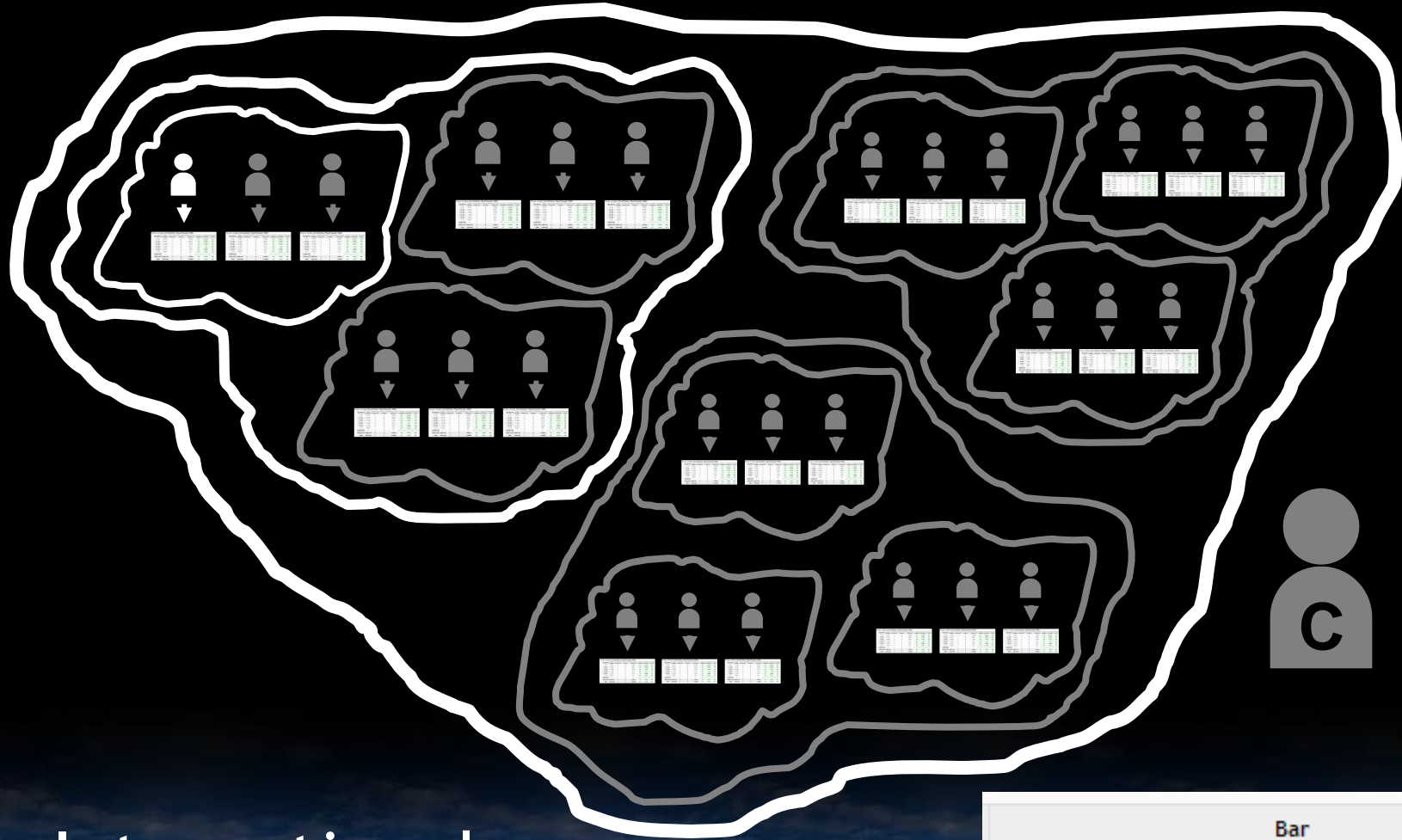
Area		Incidence (invasive) x1000	DR (invasive) x1000	DR/IR	No cases (invasive)
		1.1	2.96	2.7	60
		1.43	2.96	2.06	49
		1.44	2.08	1.44	45
		1.44	3.95	2.73	840
		1.58	5.08	3.22	193

itoring

invasive) /IR	PPV (%) Screen pos.
<a href="#">Detailed report</a>	
NA	NA

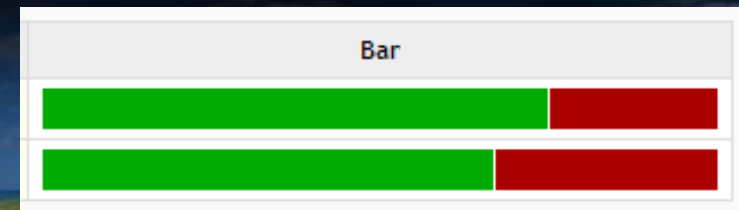
50-54	5.75	4.29	3.93	0.36	8.5%	1.13	0.26	1.93	1.77	13.5%
55-59	5.66	4.49	3.95	0.53	11.9%	0.70	0.16	1.99	1.75	19.7%
60-64	6.31	4.90	4.51	0.38	7.8%	0.69	0.14	2.47	2.28	22.7%
65-69	7.19	6.63	5.97	0.66	10%	0.66	0.10	3.15	2.84	38%
70-74	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total 50-69	5.85	4.54	4.10	0.44	9.7%	0.90	0.20	2.10	1.90	17.1%
Total	5.85	4.54	4.10	0.44	9.7%	0.90	0.20	2.10	1.90	17.1%

# One data collection, many points of view



International

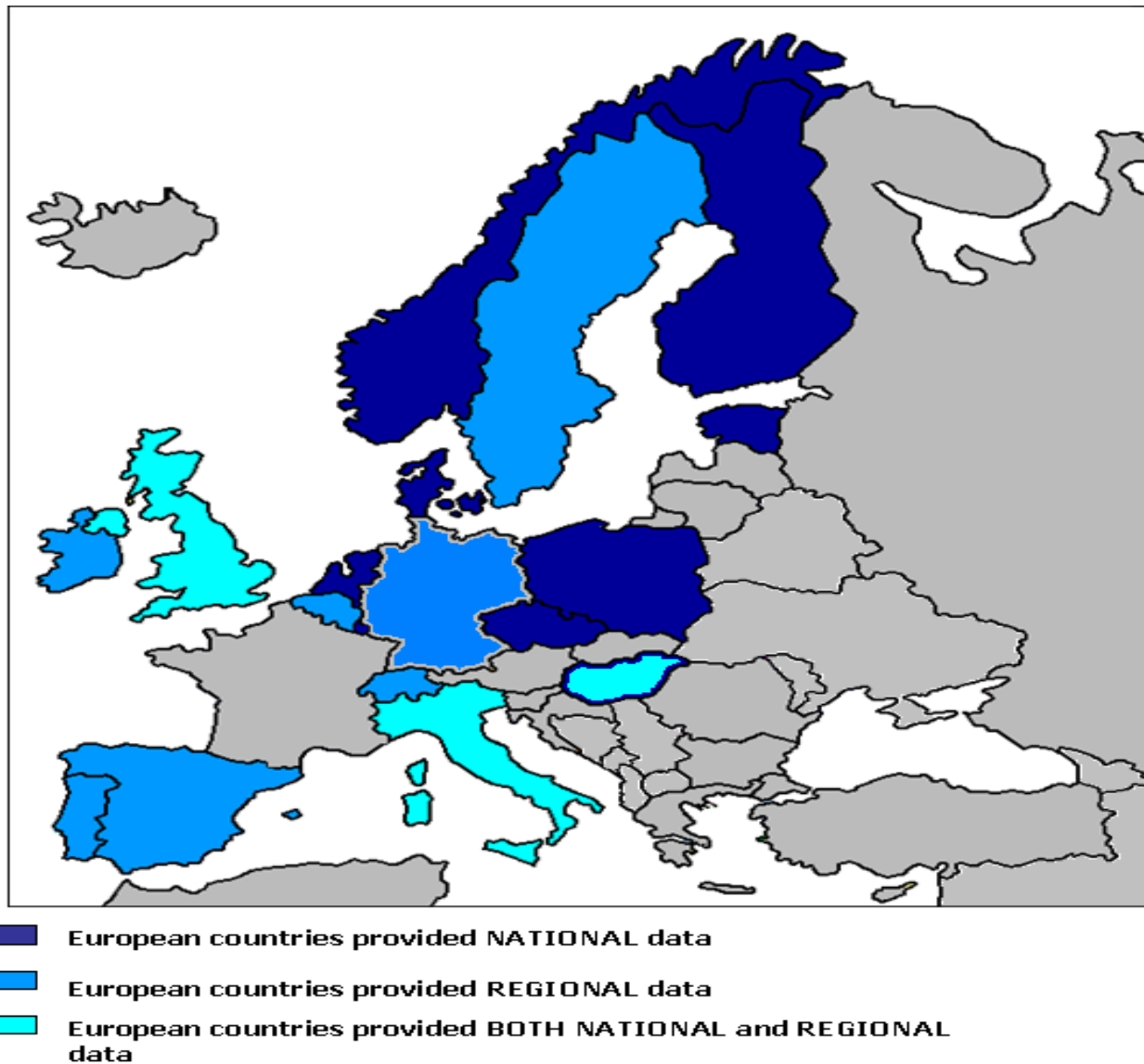
You  
International mean



**In attesa dei dati del secondo Screening Report ...**

**...Qualche altro risultato da Eunice**

## Pilot study: respondent European Countries (n=18)



# Reported screening tests 50-69

Area	Period	Initial	Subsequent	Unknown	Total
Belgium Flanders	2005	47104	87252	0	134356
Czech Republic	2005-2006	256425	234900	0	491325
Denmark Copenhagen	2005	3681	13216	0	16897
Estonia (50-59)	2005-2006	20555	0	17112	37667
Finland	2005	0	211183	0	211183
Germany	2001-2004	0	0	80388	80388
Hungary (50-65)	2005-2006	0	347601	0	347601
Italy	2005	170427	576207	22177	768811
Luxembourg	2004-2005	5094	22923	0	28017
Netherlands	2005	62025	668238	0	730263
Norway	2005-2006	76058	283184	11536	370778
Poland	2007	403596	531820	0	935416
Portugal centre	2005	13841	44606	0	58447
Portugal north	2005	12299	12709	0	25008
Republic of Ireland (East) (50-64)	2005	18744	41098	0	59842
Spain Galicia (50-66)	2005-2006	28774	142902	0	171676
Spain Navarra	2005-2006	734	54139	0	54873
Spain Pais Vasco (50-64)	2005	0	0	74636	74636
Spain Valencia	2005-2006	15826	304442	0	320268
Sweden Sodermanland	2005	0	0	12192	12192
Sweden Stockholm	2005	8102	63870	0	71972
Sweden Vastmanland	2005	0	0	12138	12138
Switzerland Fribourg	2005	5790	0	1096	6886
UK England	2005-2006	531870	2582335	285832	3400037
<b>All Areas</b>		<b>1680945</b>	<b>6222625</b>	<b>517107</b>	<b>8420677</b>

Breast cancer screening programmes features:

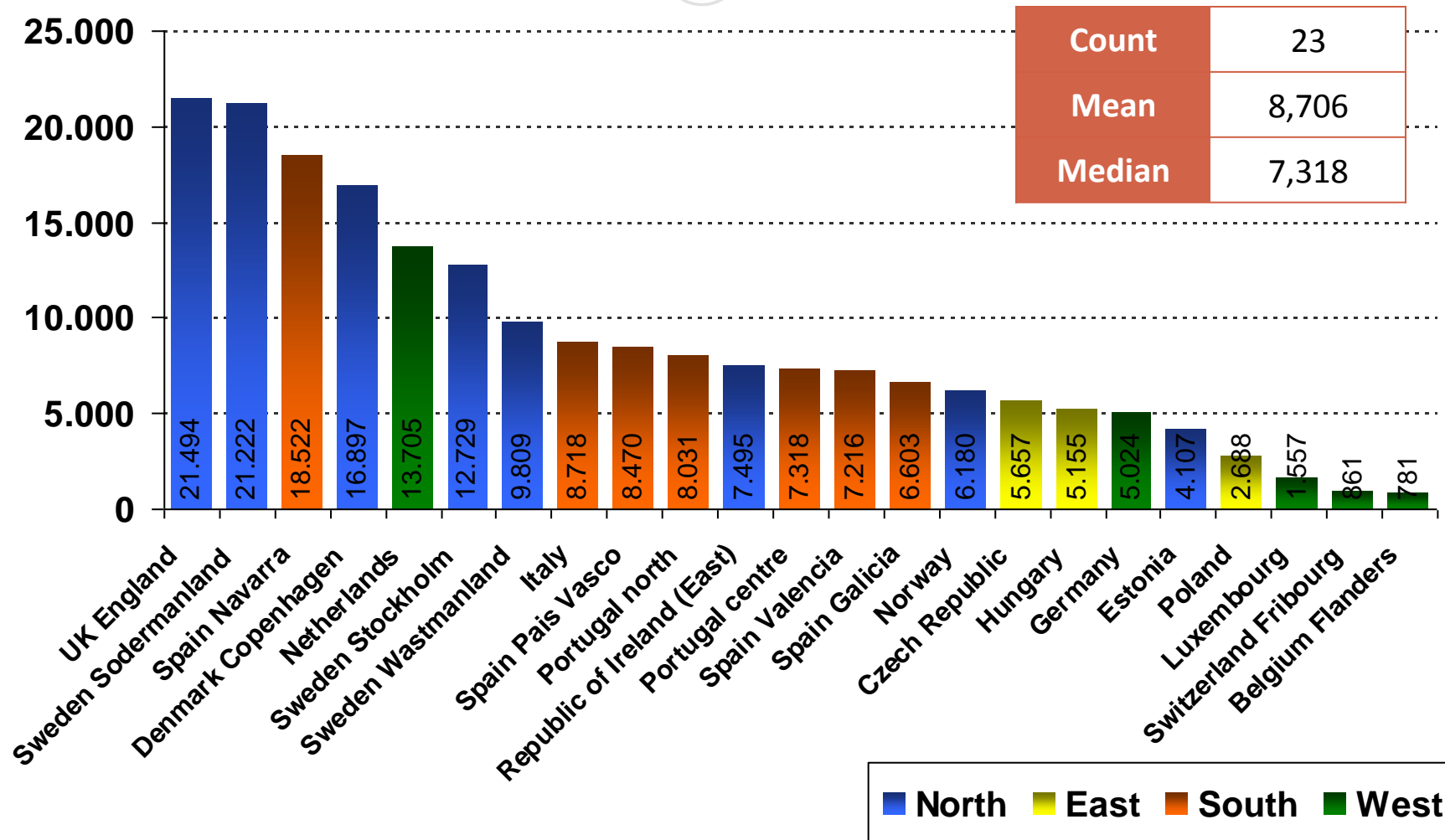
DIAGNOSTIC PROCESS

Country, area	Mammography views at screening		Double reading	Further assessment on recall	
	Any additional test	Intermediate mammograms			
Belgium Flanders	2	no (except US in case of breast implants)	yes	yes	occasionally after SC only
Czech Republic	2	no	no	no	occasionally after SC and after FA
Denmark Copenhagen	2 at first screening; 1 at subsequent screening	no	yes	yes	no
Estonia	2	no	yes	yes	occasionally after FA only
Finland		no	yes	yes	
Germany	2	no	yes	yes	occasionally after FA only
Hungary	2	physical examination (100%)	yes	yes	occasionally after SC and after FA
Italy	2 at first screening; 1 at subsequent screening	no	yes	yes	occasionally after SC and after FA
Luxembourg	2	no	yes	yes	occasionally after SC only
Netherlands	2 at first screening; 1 at subsequent screening	no	yes	yes	
Norway	2	no	yes	yes	
Poland	2	no	no	yes	occasionally after SC and after FA
Portugal centre	2	no	yes	yes	occasionally after FA only
Portugal north	2	no	yes	yes	occasionally after FA only
Republic of Ireland (East)	2	no	yes	yes	occasionally after FA only
Spain Galicia	2	no	yes	yes	occasionally after SC and after FA
Spain Navarra	2	no	no	yes (in 98% of cases)	occasionally after SC and after FA
Spain Pais Vasco	2	no	no	yes	occasionally after SC and after FA
Spain Valencia	2 at first screening; 1 at subsequent screening*	no	yes	yes	occasionally after SC and after FA
Sweden Sodermanland	2 at first screening; 1 at subsequent screening	no	no		
Sweden Stockholm	2 at first screening; 1 at subsequent screening	no	yes	yes	
Sweden Vastmanland	2 at first screening; 1 at subsequent screening	no	yes	yes	
Switzerland Fribourg	2 at first screening; 1 at subsequent screening	no	yes	yes	occasionally after FA only
UK England	2	no	yes	yes	occasionally after FA only



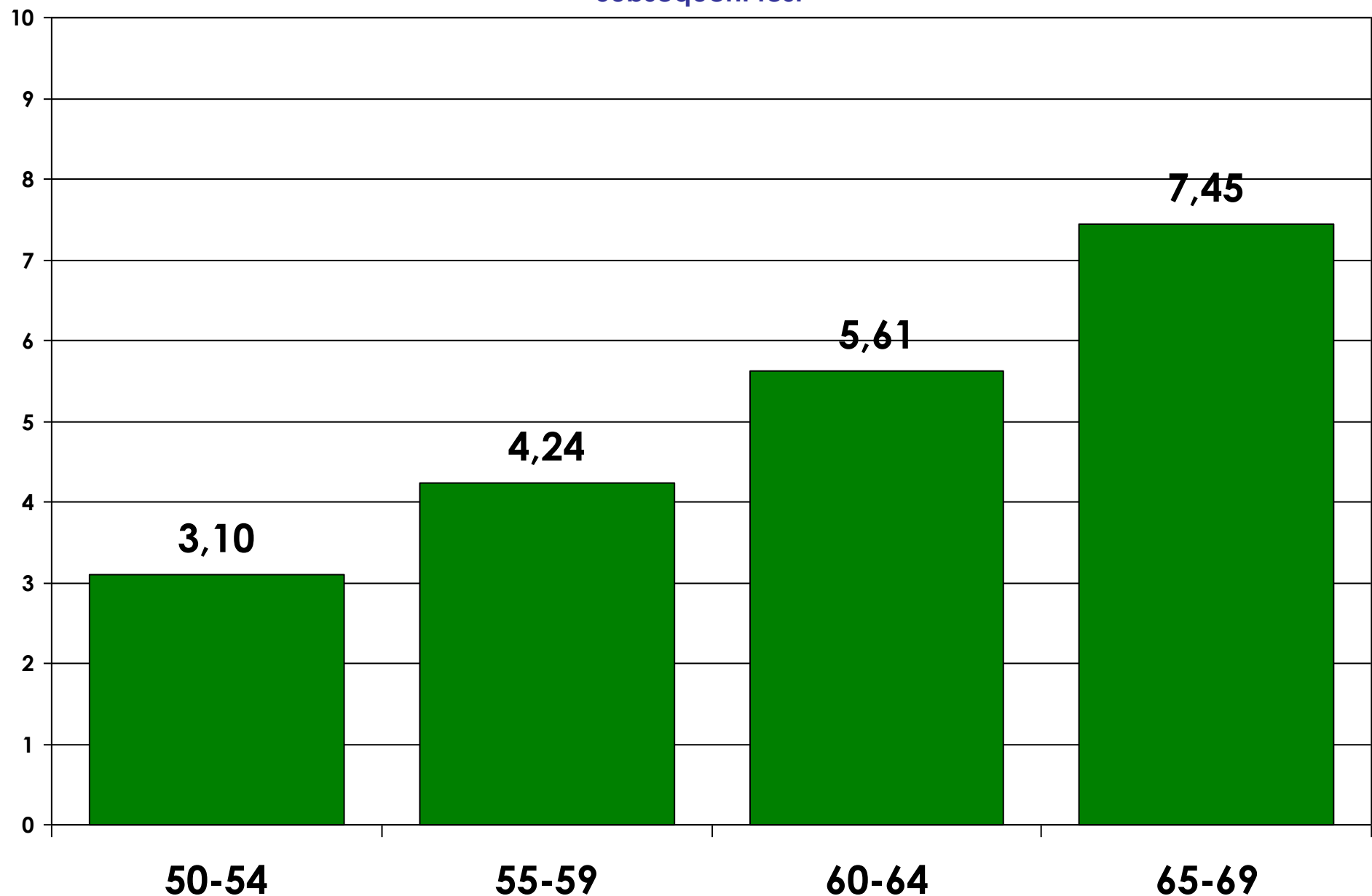
# Average number of tests per unit

## centralization of screening



# DR (invasive) rate (Overall 4.94 per 1000, 1.6-9.2)

Subsequent test



50-54

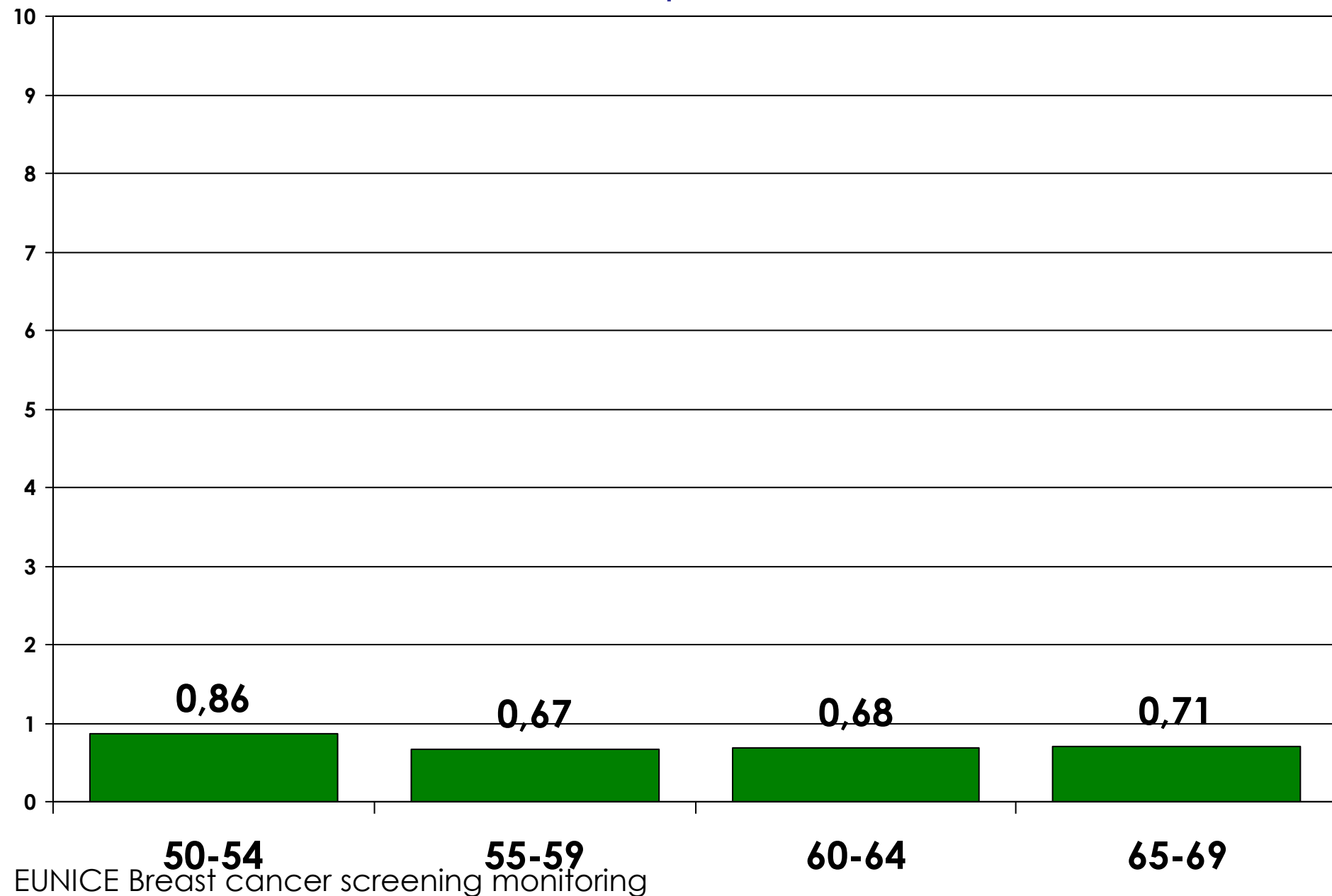
55-59

60-64

65-69

# Benign surgical biopsies rate (Overall 0.76 per 1000, 0.3-1.4)

Subsequent test



## Subsequent screening tests

Indicator	Regular	Irregular
<b>F.A. rate %</b>	<b>3.1%</b>	<b>5%</b>
<b>DR Total x1000</b>	<b>6.27</b>	<b>12.03</b>
<b>DR Invasive x1000</b>	<b>5.05</b>	<b>9.76</b>
<b>DR CIS x1000</b>	<b>1.22</b>	<b>2.27</b>
<b>CIS %</b>	<b>19.4%</b>	<b>18.8%</b>
<b>Benign surgical biopsies rate x1000</b>	<b>0.63</b>	<b>1.05</b>
<b>B/M ratio</b>	<b>0.09</b>	<b>0.08</b>
<b>Stage II+ rate x1000</b>	<b>1.19</b>	<b>2.06</b>

# Conclusioni

**Il monitoraggio Europe-wide di indicatori di processo dello screening per mezzo di una raccolta dati standardizzata è fattibile e la qualità dei dati è ragionevolmente buona.**

**Con organizzazione e risorse adeguate questa attività potrebbe diventare stabile e assumere un ruolo di sostegno e di salvaguardia della qualità dello screening in Europa attraverso un utilizzo distribuito e l'emissione di report periodici.**