WORKSHOP SCREENING MAMMOGRAFICO

2 Dicembre 2015

Lo screening mammografico in Europa

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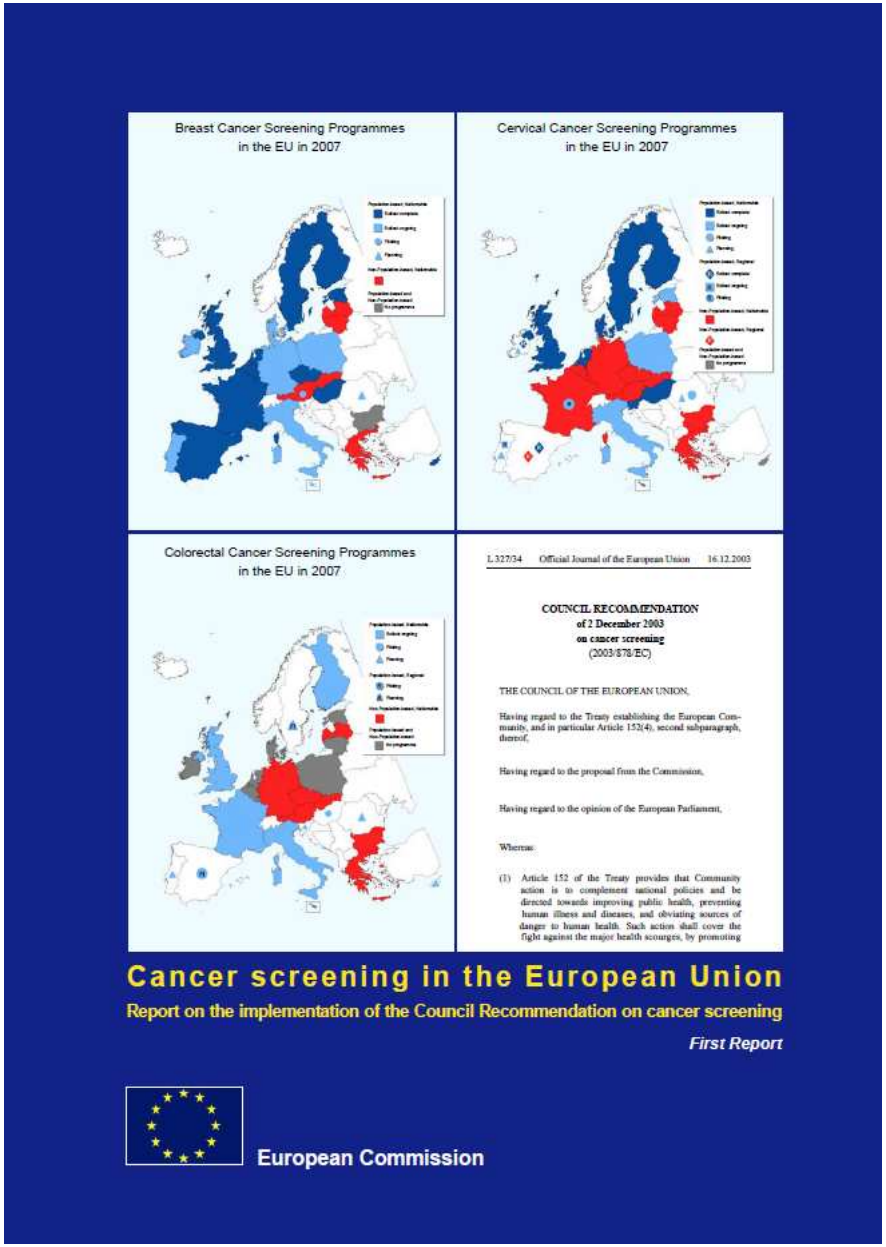
The European Screening Implementation report

(previsto dalla raccomandazione del Consiglio Europeo del 2003)

First report
2008



International Agency for Research on Cancer

World Health Organization

Centro di Riferimento per l'Epidemiologia e la Prevenzione Oncologica in Piemonte

AZIENDA OSPEDALIERO - UNIVERSITARIA
Città della Salute e della Scienza di Torino

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

Ponti A[1], Tomatis M[1], Ronco G[1], Senore C[1], Villain P[2], Giordano L[1],
Casella D[1], Anttila A[3], Suonio E[2], Segnan N[1], vonKarsa L[2]

[1] CPO Piemonte, SCDO Epidemiologia dei tumori, A.O.U. Città della Salute e della Scienza di Torino, Torino, Italy
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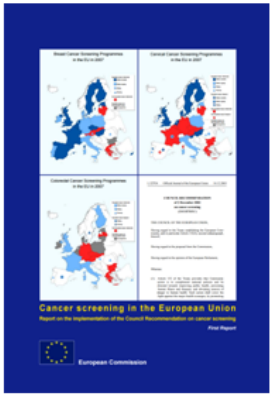
Background The Council of the European Union (EU) recommended in 2003 to set up population-based screening for breast, cervix and colorectal cancer in all Member States in compliance with the European Guidelines for Quality Assurance in cancer screening and diagnosis. A key element in the Council Recommendation 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.



Poster at the ICSN Meeting, 2015

Methods Structured questionnaires on organisation of breast, cervix and colorectal cancer screening programmes and on aggregated data collection, with related documentation, have been prepared based on experience from the First report and from other collaborative European projects and have been piloted. They will be sent to representatives and to screening experts from all Member States. Assistance will be provided by a telephone hot line, e-mail and videoconferences. Automated calculation of process indicators have been embedded in the data collection forms, so that respondents will immediately receive a feed back on their results, as well as from a web application. The call for data is underway.

Results The organisation of cancer screening programmes in the Member States will be described. Quantitative results will also be shown. Since coverage, compliance and cancer or cancer precursor detection rates are fundamental determinants of programme impact they will be given high priority. Results will include also indicators of potentially negative effects of screening like recall rates or invasive interventions on benign lesions.

Screenshot from the web-based data collection.

Table 3 Colposcopy referral

		Individuals screened in 2012	Referred to colposcopy	Not referred	Total	Unknown	Referral to colposcopy rate: Referred to colposcopy	Total	%
Initial screening	Up to 19				0	0			
	20-24	6618	352	6266	6618	0	352	6618	5.3%
	25-29	96215	4591	91624	96215	0	4591	96215	4.8%
	30-34	60970	2590	58380	60970	0	2590	60970	4.2%
	35-39	64141	2273	61868	64141	0	2273	64141	3.5%
	40-44	61794	2073	59721	61794	0	2073	61794	3.4%
	45-49	55624	1687	53937	55624	0	1687	55624	3.0%
	50-54	52358	1421	50937	52358	0	1421	52358	2.7%
	55-59	48167	1048	47119	48167	0	1048	48167	2.2%
	60-64	40883	595	40288	40883	0	595	40883	1.5%
	65-69	2561	39	2522	2561	0	39	2561	1.5%
	70-74				0	0			
	75-79				0	0			
	Unknown	5184	442	4742	5184	0	442	5184	8.5%
	Total	494515	17111	477404	494515	0	17111	494515	3.5%
Subsequent screening	Up to 19				0	0			
	20-24	859	13	846	859	0	13	859	1.5%
	25-29	46010	1681	44329	46010	0	1681	46010	3.7%
	30-34	83138	2625	80513	83138	0	2625	83138	3.2%
	35-39	117982	3061	114921	117982	0	3061	117982	2.6%
	40-44	143633	3343	140190	143633	0	3343	143633	2.3%
	45-49	164443	3151	161292	164443	0	3151	164443	2.0%
	50-54	137730	2133	135597	137730	0	2133	137730	1.5%
	55-59	127962	1263	126699	127962	0	1263	127962	1.0%
	60-64	129111	867	128244	129111	0	867	129111	0.7%
	65-69	5073	37	5036	5073	0	37	5073	0.7%
	70-74				0	0			
	75-79				0	0			
	Unknown	11780	89	11691	11780	0	89	11780	0.8%
	Total	957621	18263	939358	957621	0	18263	957621	1.9%

Screenshot from the *Excel* data collection of aggregated data.

Conclusions The survey methods that have been set up for the Second report on the implementation of cancer screening in Europe can be replicated periodically in order to allow consistent and continuous monitoring of screening performance indicators in Europe or elsewhere.

Poster at the ICSN Meeting, 2015

EU Cancer Screening Report

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 if 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

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	

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	

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	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			
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			

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							

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)

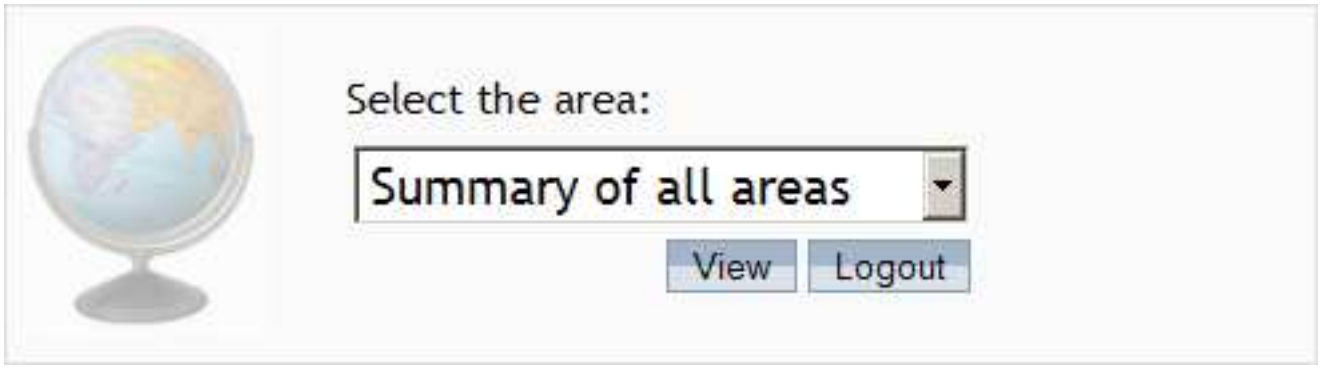
J Med Screen 2012;**19 Suppl 1**:57–66
DOI: 10.1258/jms.2012.012083

EUNICE BREAST SCREENING MONITORING

Insert login & password
and click on “Login”

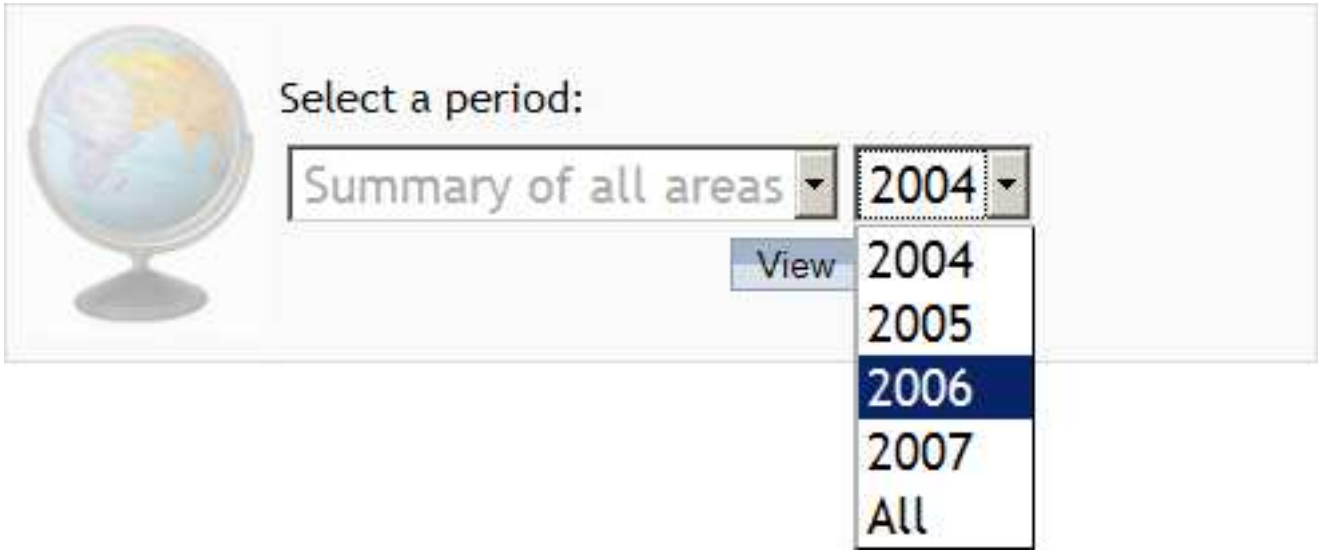
Selection of the area

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



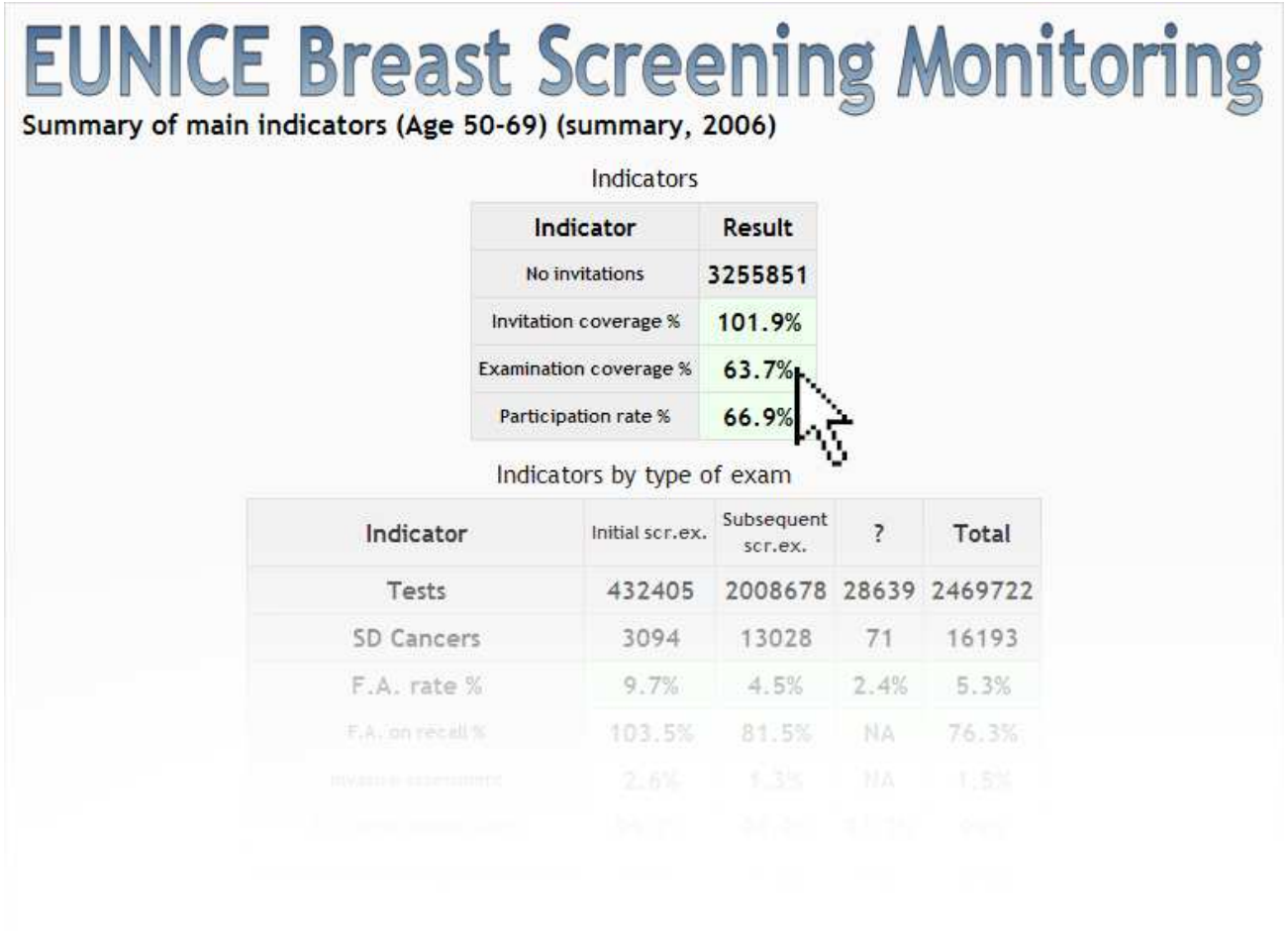
Selection of the period

Select the period to be analized.
In order to analize all available periods select “All”.
Click on “View”.



Analysis of data from all areas

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



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

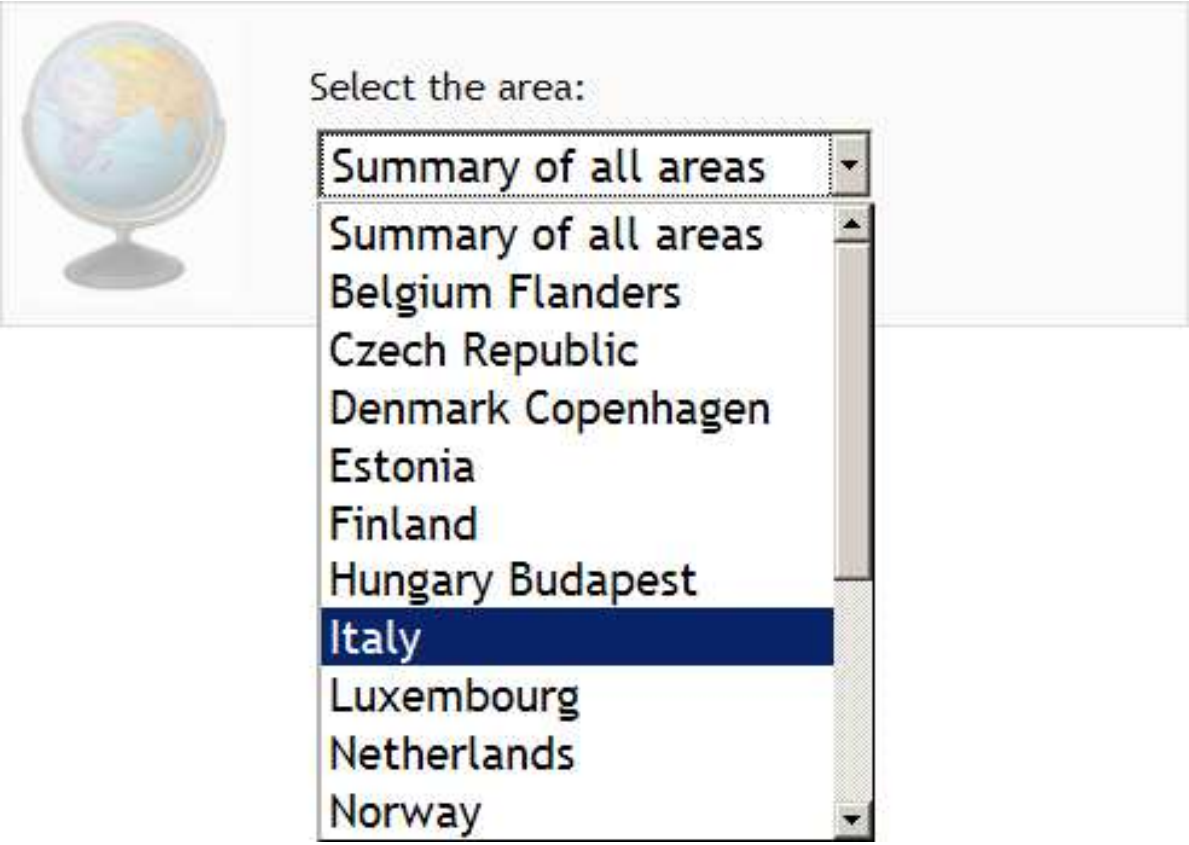
Summary of main indicators (Age 50-69) (summary, 2006)

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%	

Selection of the area to be analized

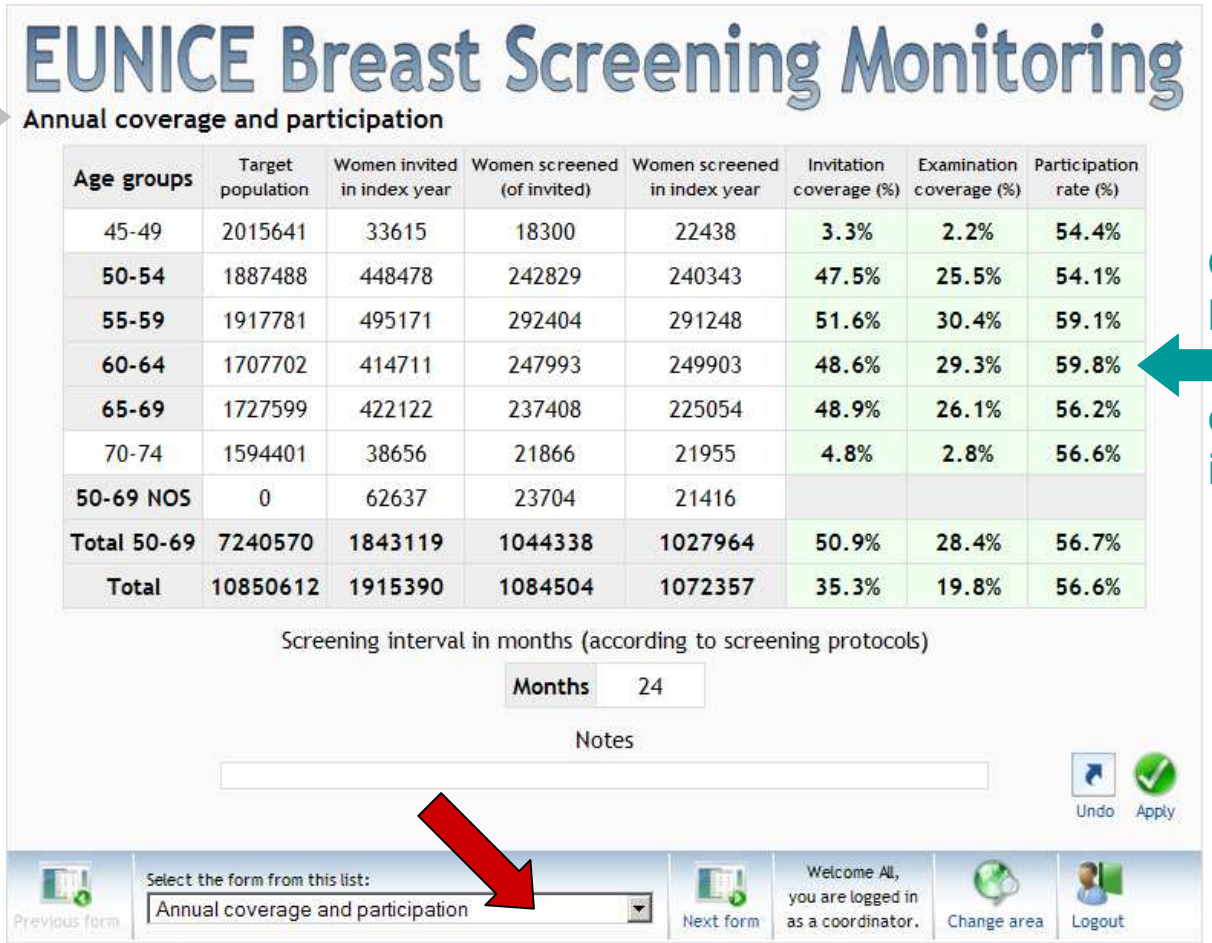
In order to see the data of a single area, select it and click on “View”.



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



Green background

clickable indicators

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 (detailed report)	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

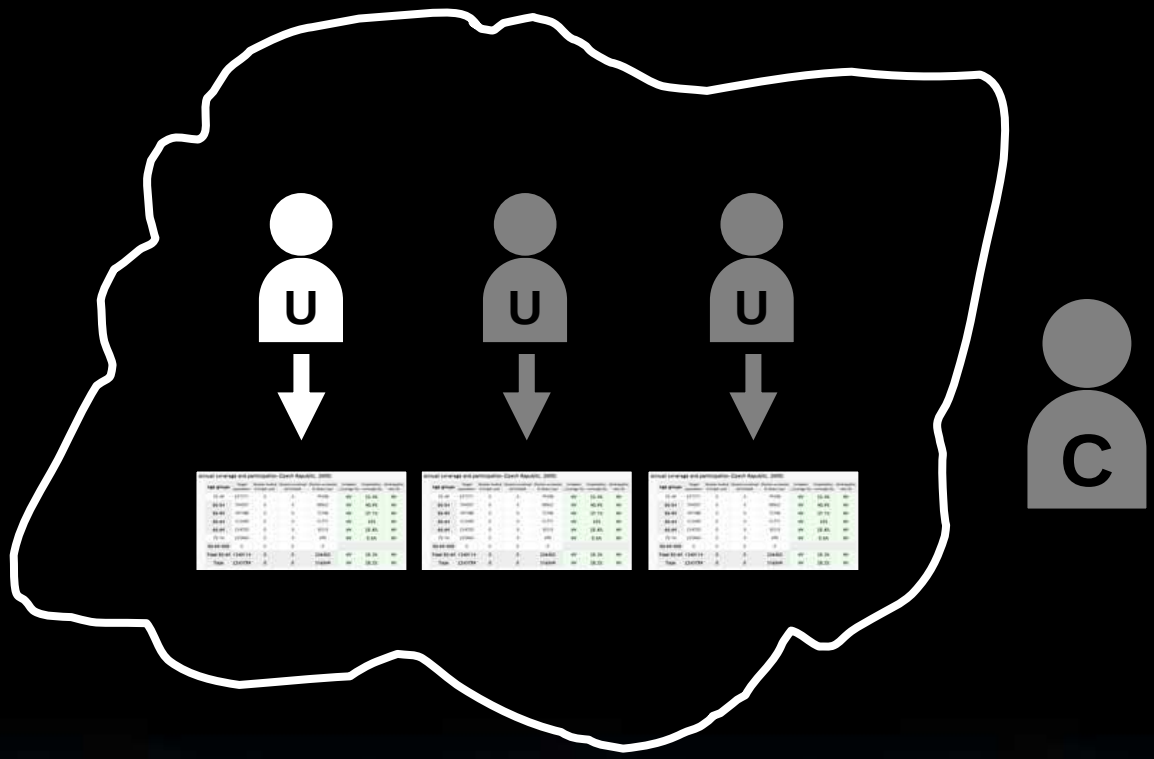
* Download from here the list of data sources for incidence.

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

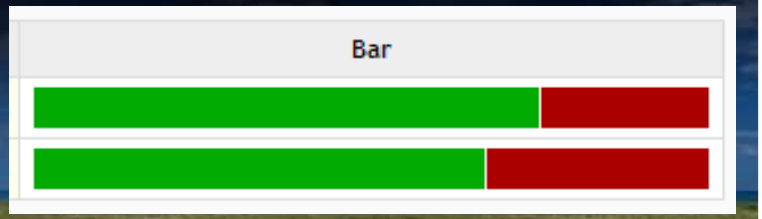
itoring

										nvasive) /IR etailed eport)	PPV (%) Screen pos.
										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



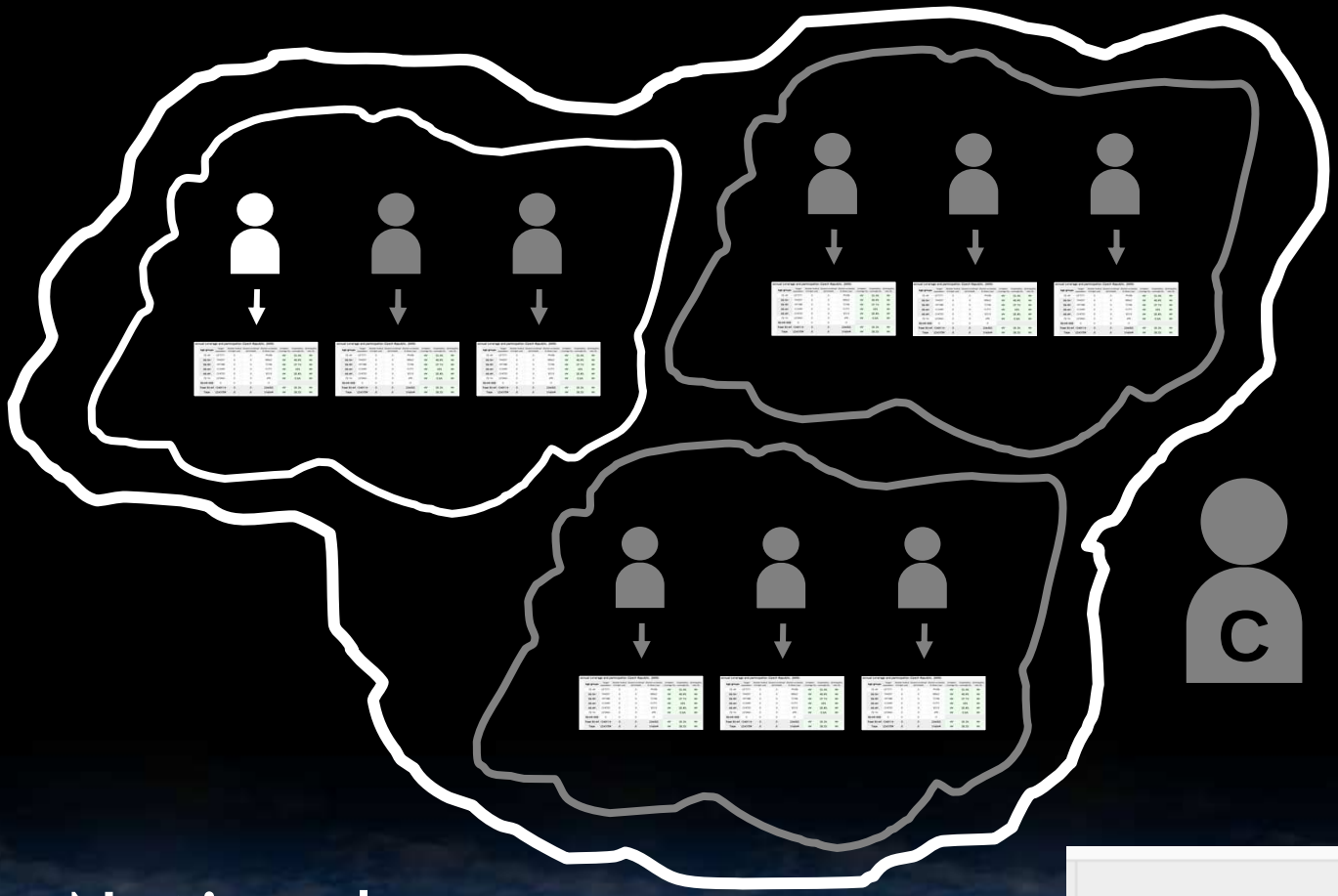
Regional



You

Regional mean

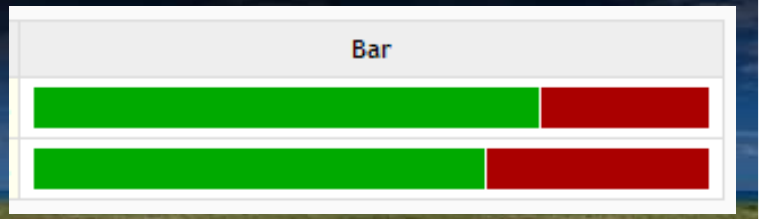
One data collection, many points of view



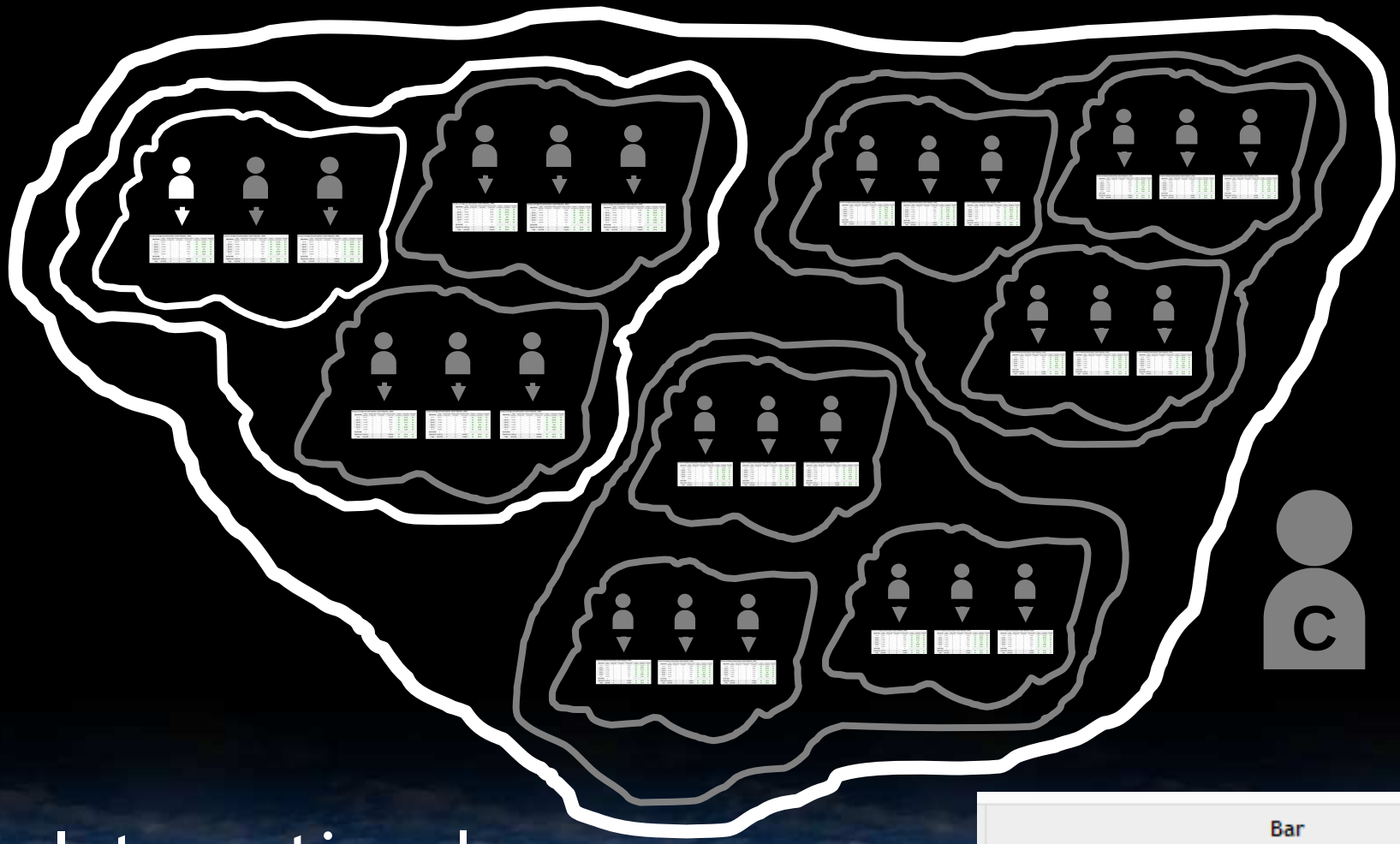
National

You

National mean



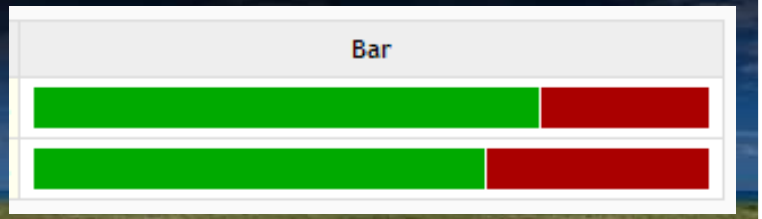
One data collection, many points of view



International

You

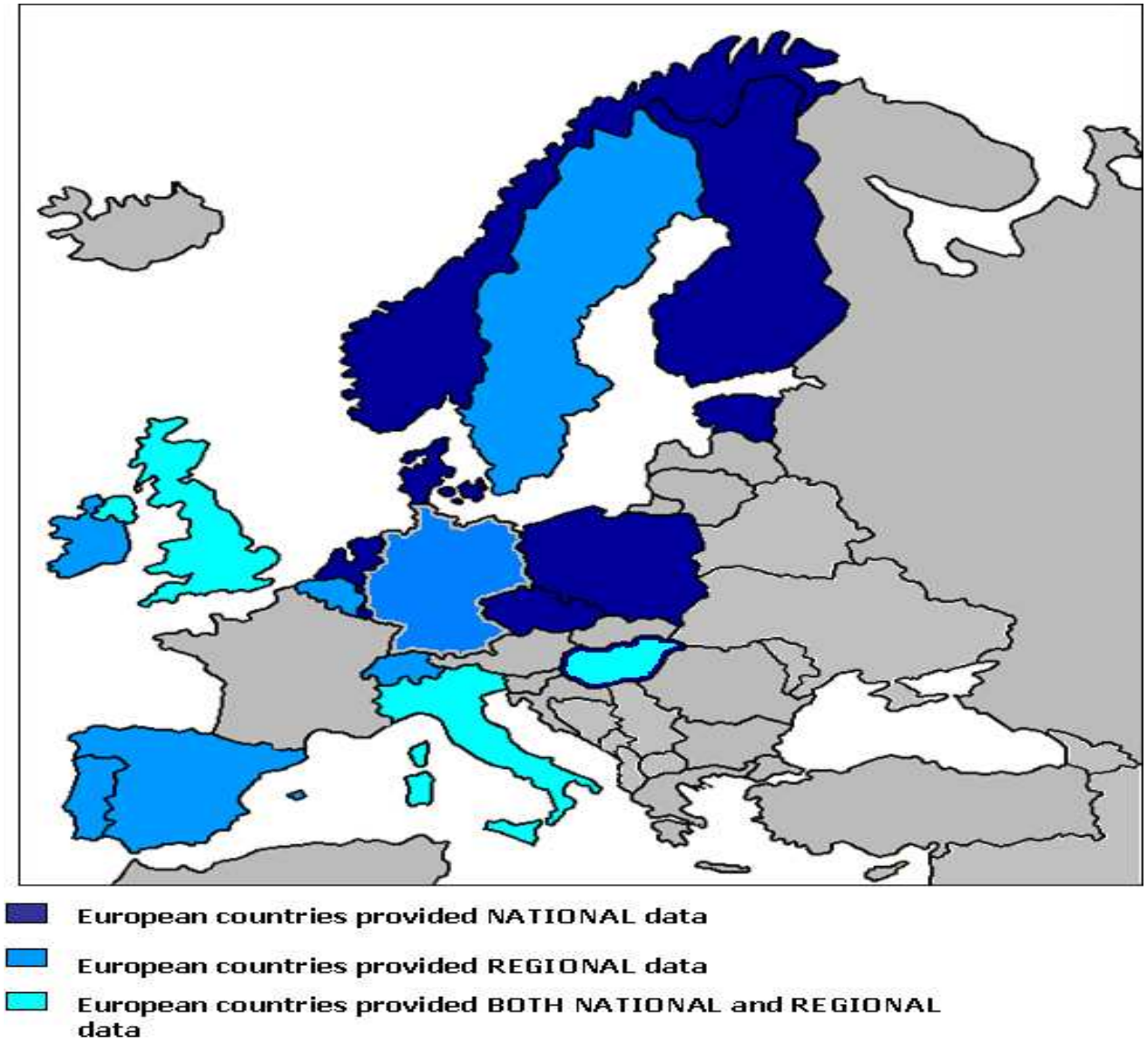
International mean



In attesa dei dati del secondo Screening Report …

…Qualche 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
All Areas		**1680945**	**6222625**	**517107**	**8420677**

Breast cancer screening programmes features: INVITATION PROCESS

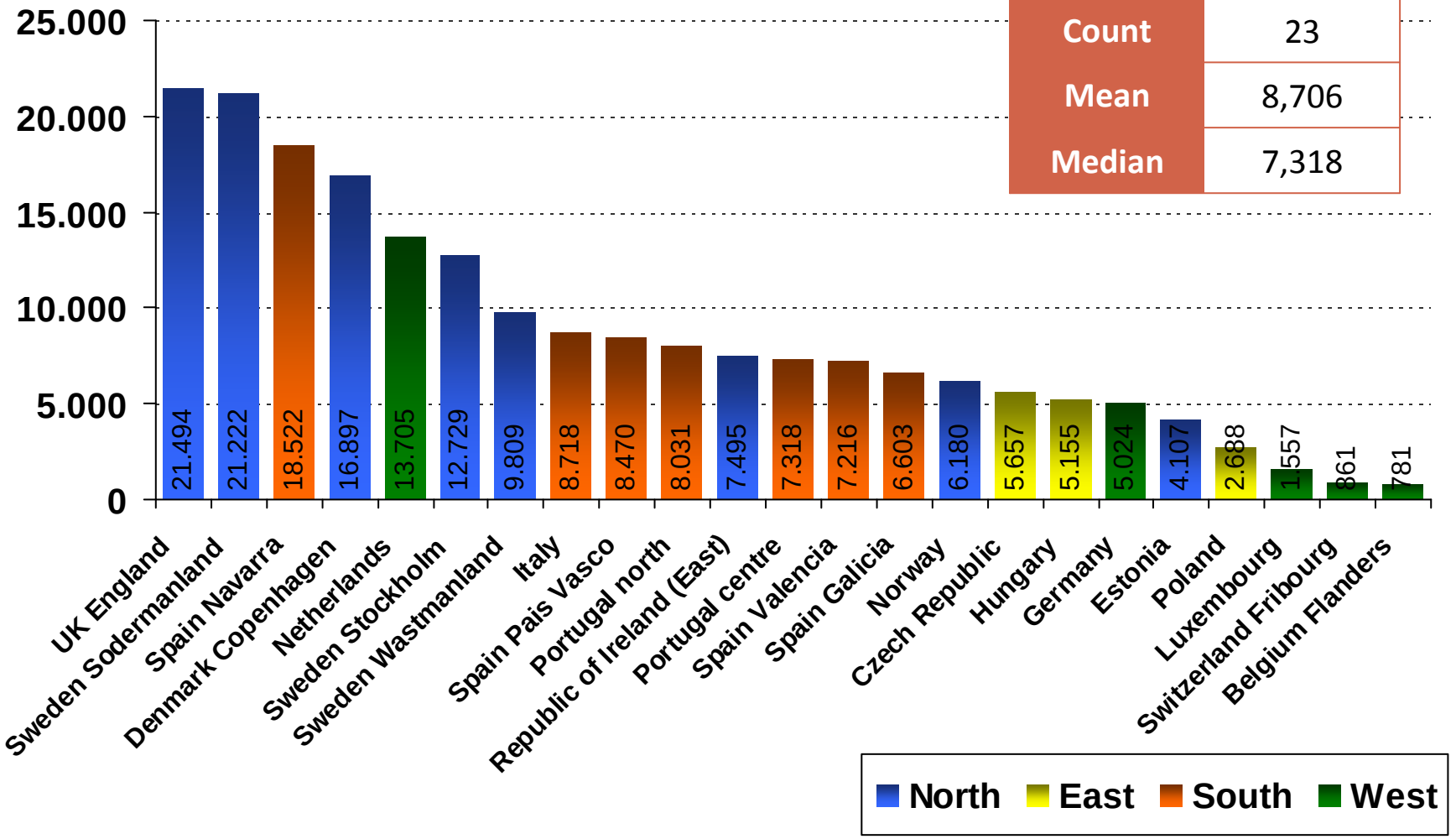
Country, area	*Programme starting year*	*Target age*	*Exclusion critera*
Belgium Flanders	2001	**50-69**	
Czech Republic	2002	45-69	symptomatic women
Denmark Copenhagen	1992	**50-69**	
Estonia	2002	50-59	previous breast cancer, uninsured women
Finland	1989	**50-69**	
Germany	2001	50-70	previous breast cancer
Hungary	2002	45-65	
Italy	1990	**50-69**	recent mammogram, follow-up women
Luxembourg	1992	**50-69**	
Netherlands	1988	**50-75**	known with screen-detected or interval cancers
Norway	1996	**50-69**	
Poland	2007	50-59	symptomatic women, previous breast cancer, recent mammogram, previous mastectomy
Portugal centre	1990	45-69	symptomatic women, previous breast cancer, previous mastectomy, recent mammogram, physical incapacitated
Portugal north	1990	45-69	previous breast cancer, pregnant women, breast implants, recent mammogram
Republic of Ireland (East)	1989	50-64	previous bilateral mastectomy, symptomatic women, physical incapacitated, over 65, terminal illness
Spain Galicia	1992	50-66	previous breast cancer, recent mammogram, physical incapacitated
Spain Navarra	1990	45-69	
Spain Pais Vasco	1990	50-64	previous breast cancer
Spain Valencia	1992	45-69	previous breast cancer
Sweden Sodermanland	1990	**40-74**	
Sweden Stockholm	1989	40-69	
Sweden Vastmanland	1989	40-69	
Switzerland Fribourg	2004	50-70	previous breast cancer, breast implants, high risk groups, recent mammogram
UK England	1988	50-70	

Breast cancer screening programmes features: DIAGNOSTIC PROCESS

Country, area	*Mammography views at screening*	*Any additional test*	*Double reading*	*Further assessment on recall*	*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

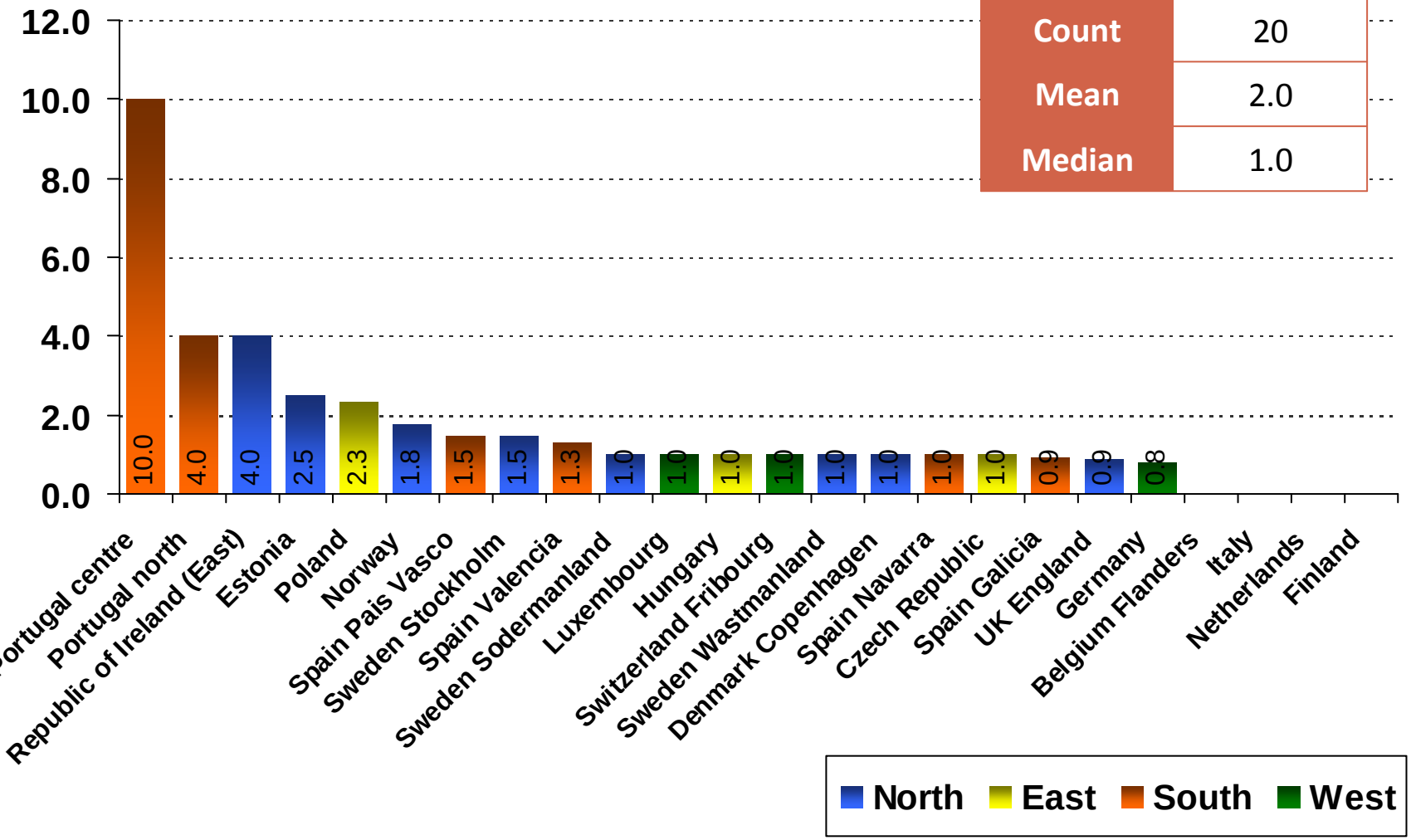
Average number of tests per unit

centralization of screening

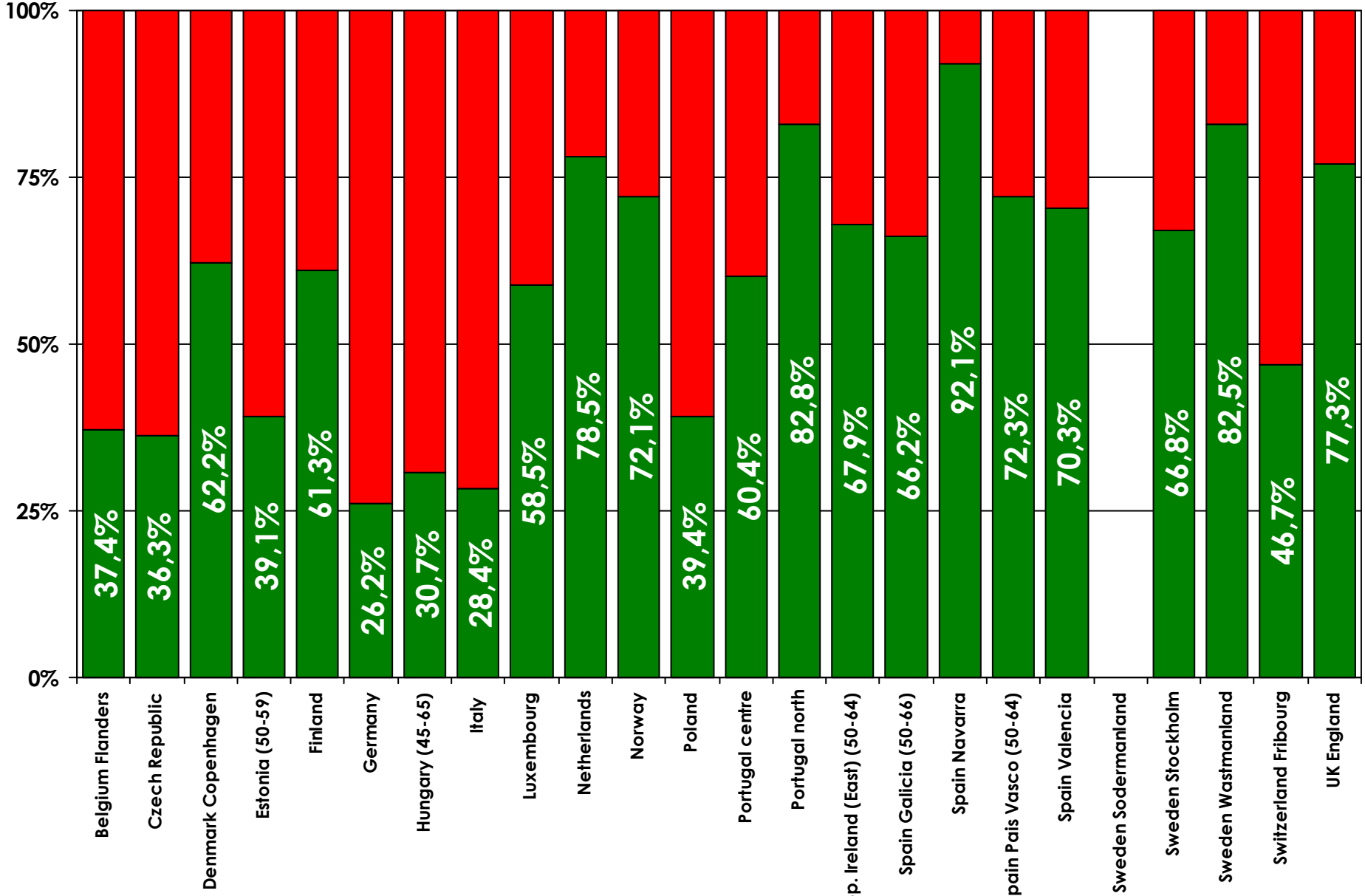


Number of screening units per one assessment unit

centralization of further assessment

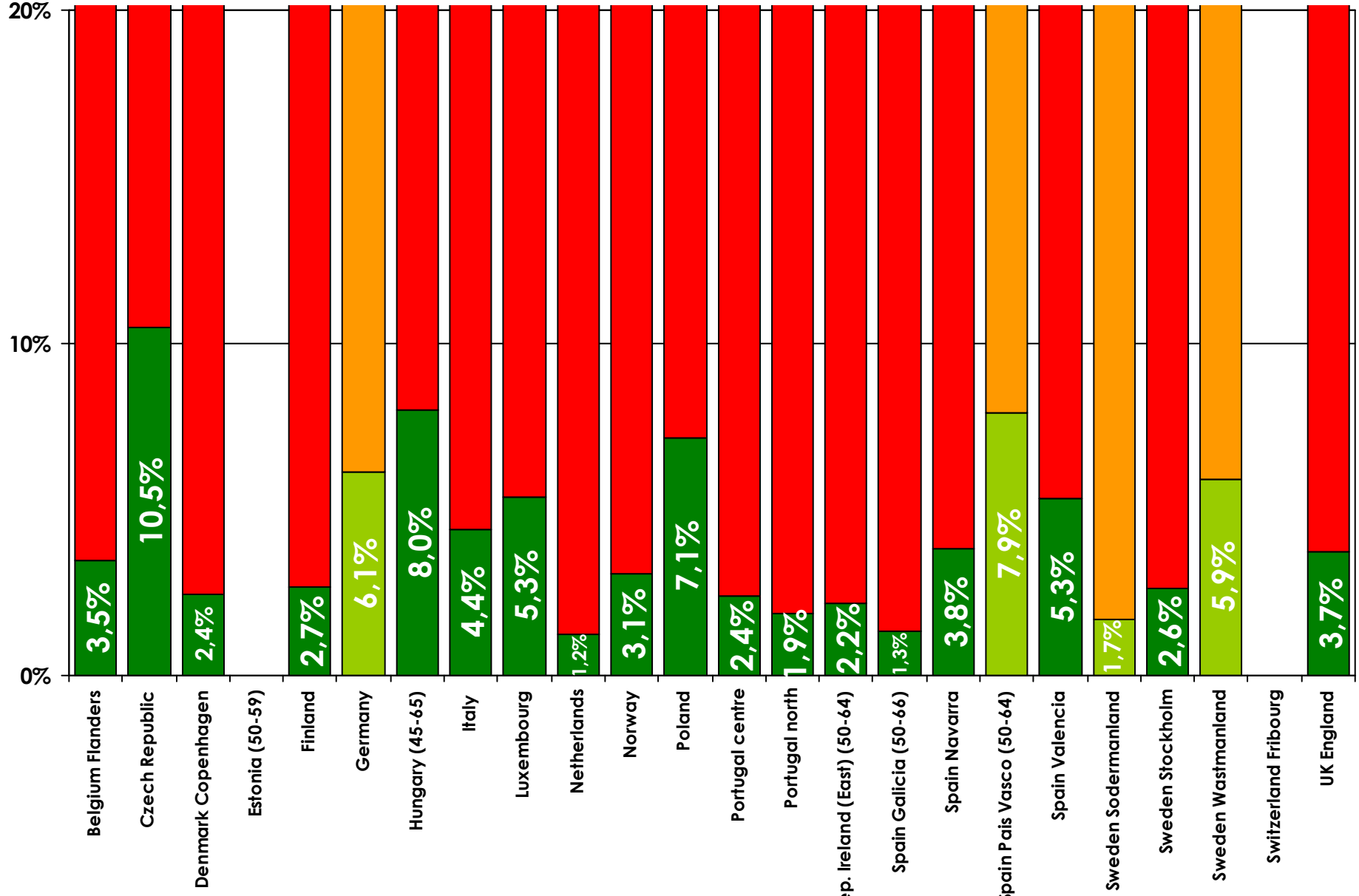


Examination coverage age 50-69
Overall 51.9% (26.2%-92.1%)



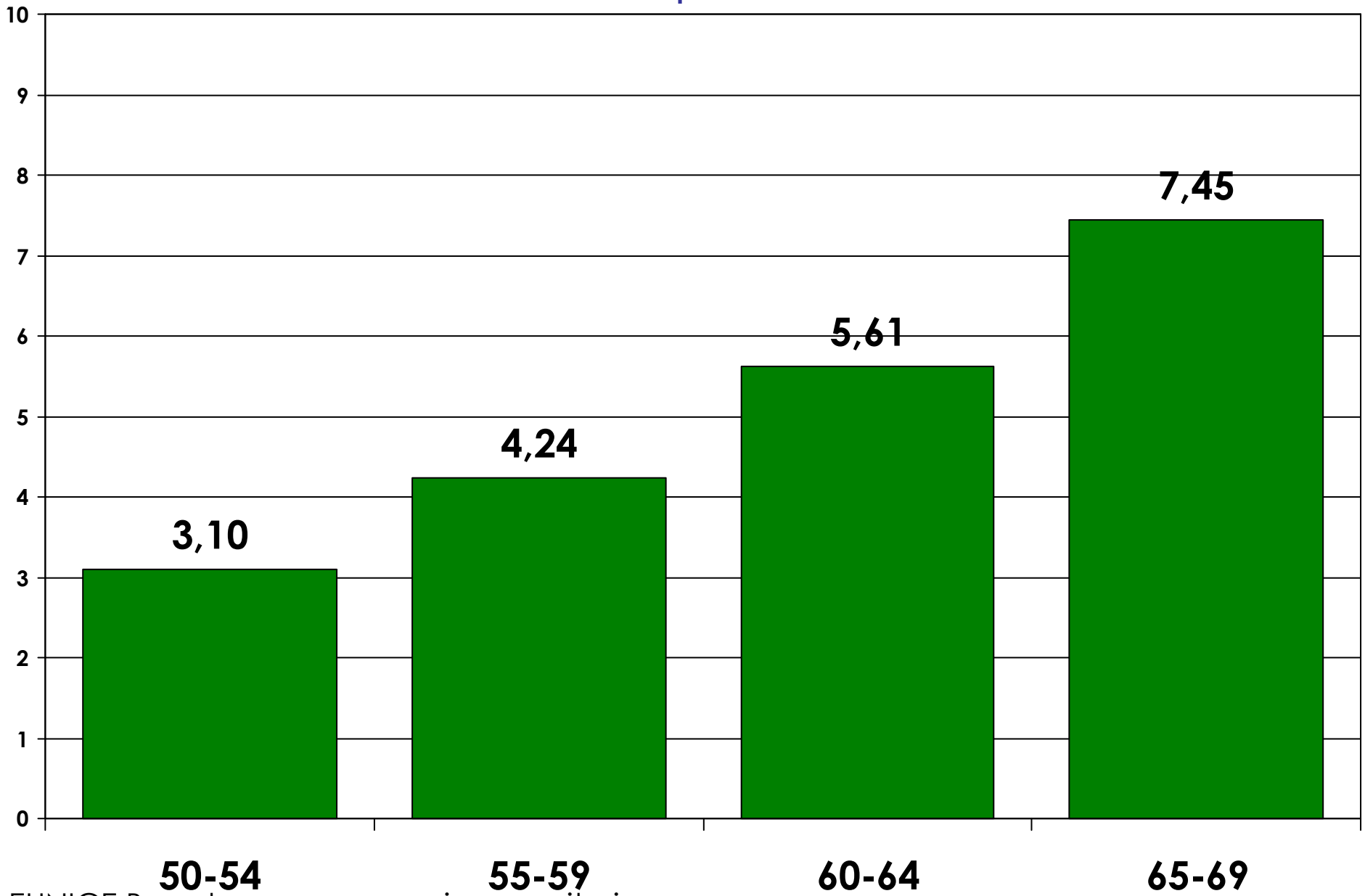
EUNICE Breast cancer screening monitoring

Further Assessment Rate 50-69 Subsequent tests
Overall 4.2% (1.2%-10.5%)



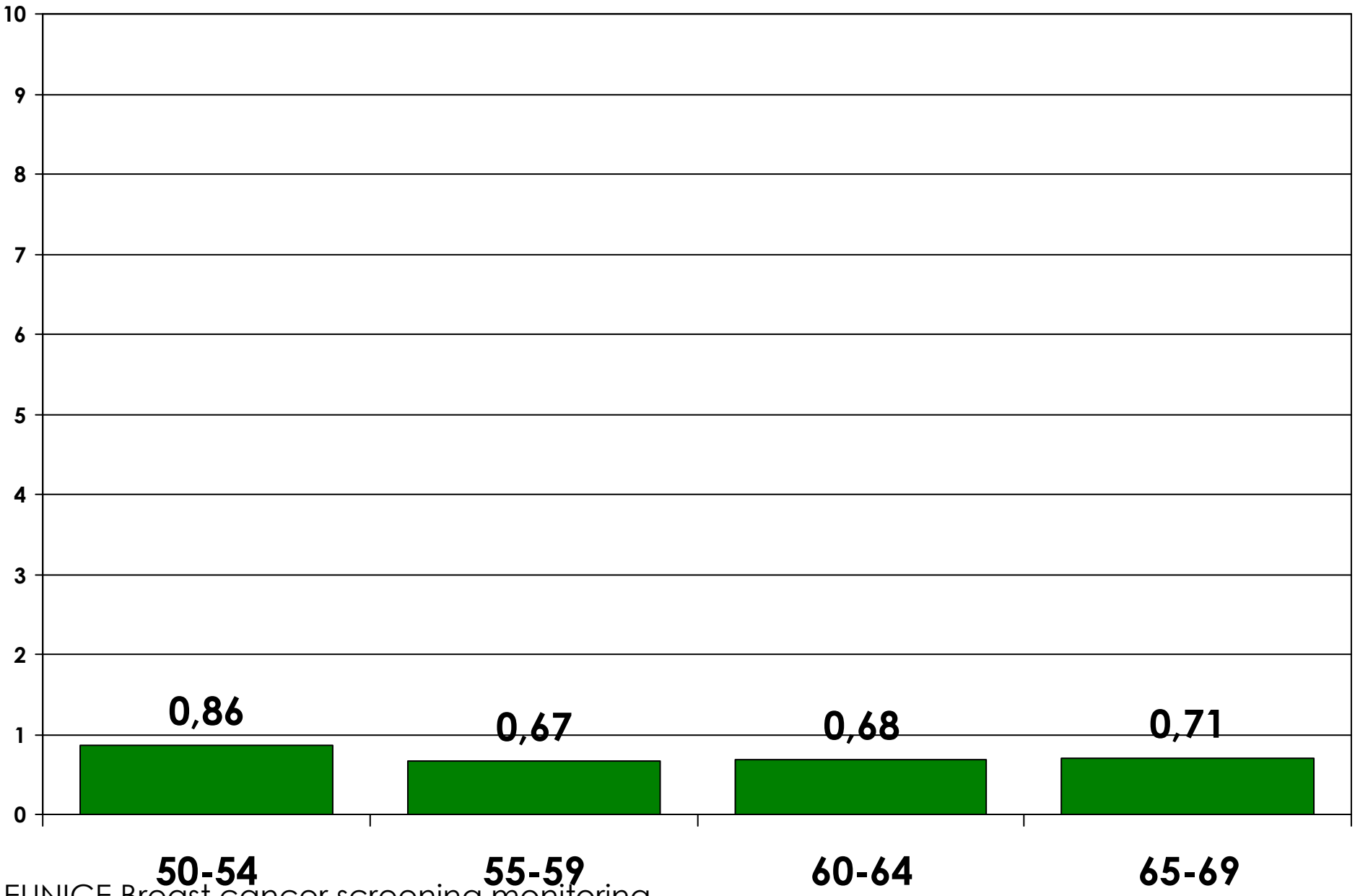
EUNICE Breast cancer screening monitoring

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



EUNICE Breast cancer screening monitoring

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



EUNICE Breast cancer screening monitoring

Subsequent screening tests

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

Individual data record

		Field	Format	Length	Available values	Unknown
01	A01	Personal ID				
02	A02	Date of birth	DATE	10	DD/MM/YYYY	01/01/0001
03	A03	Regional ID				
04	A04	Screening program ID				
05	A05	Number of episode for this patient	INTEGER	2	1...N	
06	A06	Date first invitation in this episode	DATE	10	DD/MM/YYYY	01/01/0001
07	A07	Date of examination	DATE	10	DD/MM/YYYY	01/01/0001
08	A08	Self referral	INTEGER	2	0/1	-1
09	A09	Screening centre code	TEXT			
10	A10	Type of unit	INTEGER	2	1/2	-1
11	A11	Rank	INTEGER	2	1...N	
12	A12	1st level mammogram result	INTEGER	2	0/1/2/3/4	-1
13	A13	Result of the episode	INTEGER	2	1/2/3/4/5/6	-1
14	A14	Date of first breast intervention	DATE	10	DD/MM/YYYY	01/01/0001
15	A15	Histological diagnosis	INTEGER	2	1/2/3/4/5	-1
16	A16	pT	INTEGER	2	0/1/2/3/4/5/6/7/8/9/10/12/13/14	-1
17	A17	Pathological size (mm)	INTEGER	3	0-999 mm.	-1
18	A18	Lymphnodal status	INTEGER	2	0/1	-1
19	A19	TNM stage	INTEGER	2	1/2/3/4/5/6/7	-1
20	A20	Grade	INTEGER	2	0/1/2/3	-1
21	A21	Type of final intervention	INTEGER	2	0/1/2	-1
22	A22	Episode classification	INTEGER	2	1/2/3	-1
23	A23	Number of assessment for this episode	INTEGER	2	1...N	
24	A24	Assessment centre code	TEXT			
25	A25	Assessment date	DATE	10	DD/MM/YYYY	01/01/0001
26	A26	FNA result	INTEGER	2	0/1/2/3/4/5	-1
27	A27	Core Biopsy result	INTEGER	2	0/1/2/3/4/5	-1
28	A28	Result of the assessment	INTEGER	2	1/2/3	-1
29	A29	Date of final report	DATE	10	DD/MM/YYYY	01/01/0001

Data about invitation
Data about 1st level
Data about 2nd level
Data about surgery

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.