

# **Screening for colorectal cancer in Italy**

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**European Conference on Colon Cancer  
Prevention 2007**

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MINISTERO DELLA SALUTE  
CENTRO NAZIONALE PER LA PREVENZIONE  
E IL CONTROLLO DELLE MALATTIE



CONFERENZA DEI PRESIDENTI DELLE  
REGIONI E DELLE PROVINCE AUTONOME



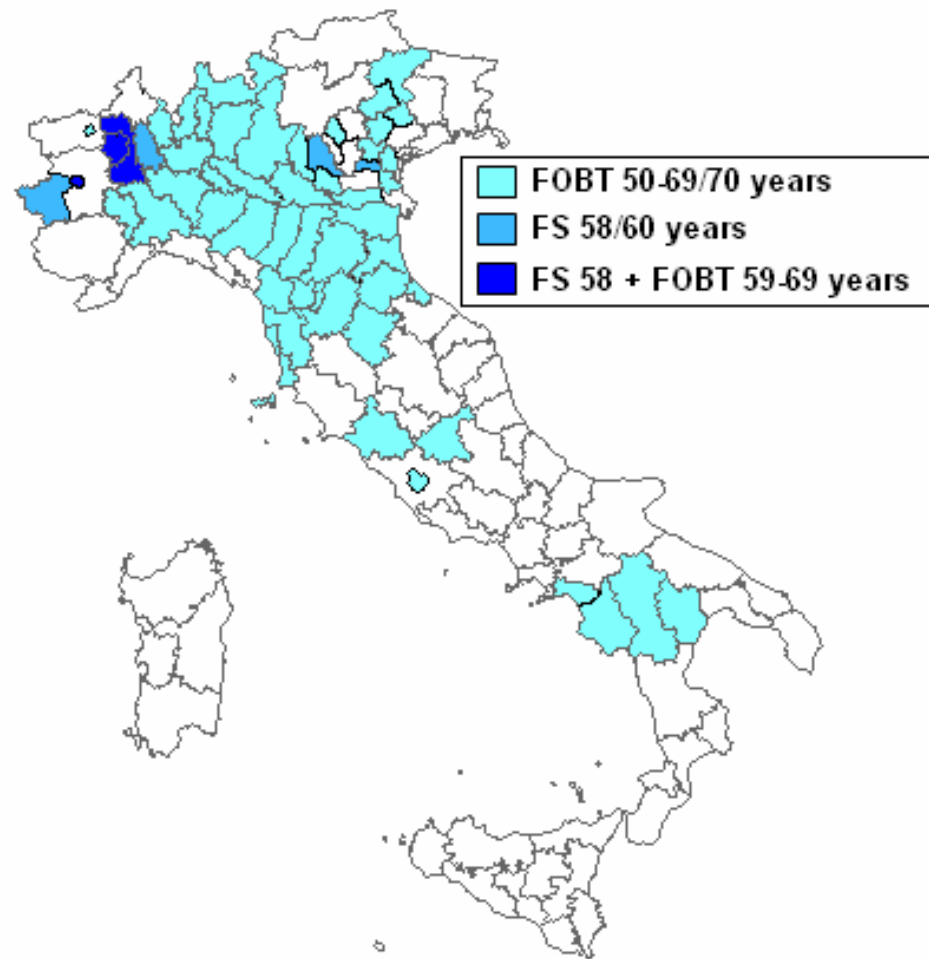
**OSSERVATORIO  
NAZIONALE  
SCREENING**

# **Colorectal Cancer Screening Data on activity 2005**



**Manuel Zorzi and GISCOR (Gruppo Italiano per lo Screening del carcinoma del Colon Retto) working group**

## Colorectal cancer screening programmes: first level test and target population



# **SCREENING TEST - FOBT**

- ***IMMUNOLOGICAL TEST***
- ***AUTOMATED READING IN A CENTRAL LABORATORY***

## Theoretical extension in 2004 and 2005 by geographical area. 50-69 year old subjects

	<b>2004</b>		<b>2005</b>	
	Pop. 50-69		Pop. 50-69	
	N°	%*	N°	%*
<b>ITALY</b>	1,008,000	7.3	4,730,000	33.8
<b>North</b>	412,000	6.2	3,431,000	51.5
<b>Centre</b>	584,000	21.1	810,000	29.0
<b>South - Islands</b>	13,000	0.3	489,000	10.8

\*proportion of eligible subjects residing in areas covered by organised screening programmes

## Coverage levels by Region

<b>FOBT</b>	Number of programmes	Screened subjects in 2005	Theoretical extension (1)
PIEMONTE	3	6.800	11,6
LOMBARDIA	12	49.500	72,0
VENETO	11	80.300	44,5
EMILIA-ROMAGNA	11	102.100	100
TOSCANA	8	121.300	80,1
LAZIO	1	2.100	7,6
CAMPANIA	3	2.400	5,9
BASILICATA	1	11.400	100
<b>TOTALE</b>	<b>52</b>	<b>376.000</b>	<b>34,1</b>
<b>RS</b>			
PIEMONTE	4	4.300	20,7
VENETO	2	1.600	-

**(1) Amount of residents in areas covered by screening**

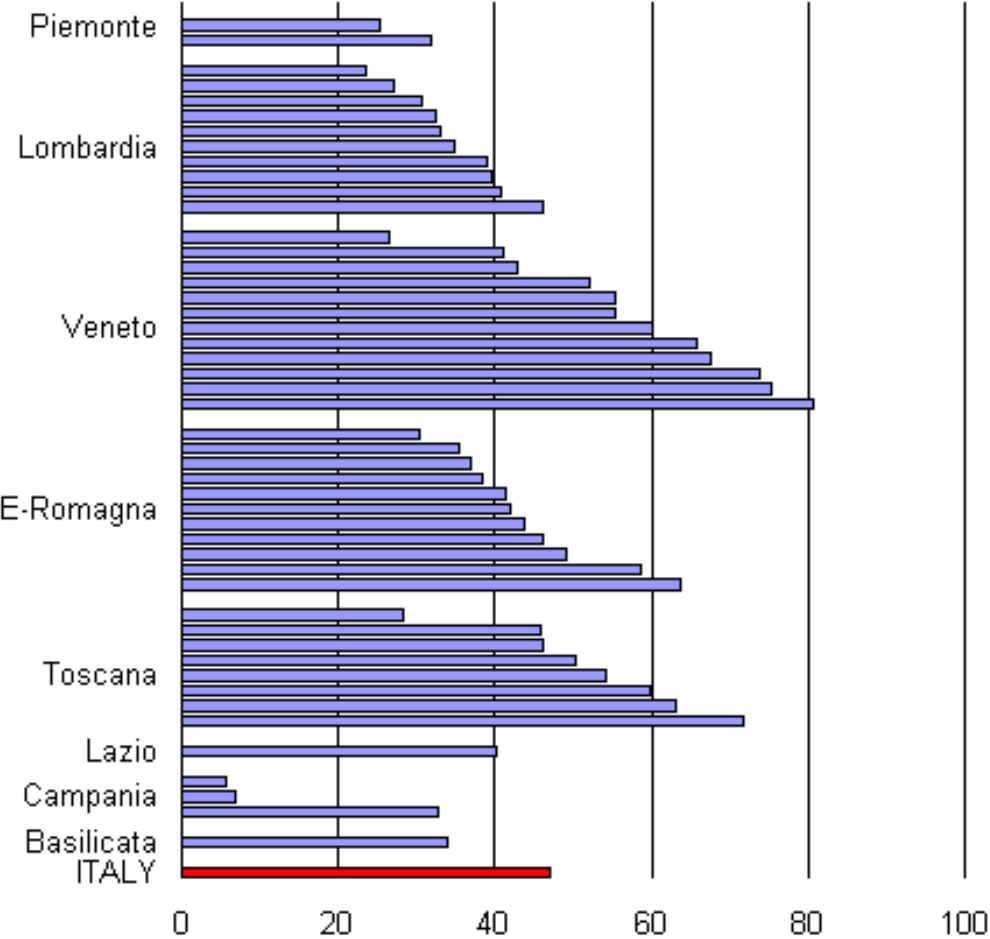
## Main data of FOBT programmes by Region. 50-69 year old subjects.

Region	Subjects residing in the Region (n)	Subjects residing in areas with a programme	Theoretical extension (%) <sup>1</sup>	Invited subjects (n)	Actual extension (%) <sup>2</sup>	Screened subjects (n)	Adjusted compliance (%)
<b>Basilicata</b>	137,265	137,265	100	34,113	49.7	11,445	33.8
<b>Campania</b>	1,196,771	351,472	5.9	28,830	16.4	2,611	15.9
<b>Emilia-Romagna</b>	1,054,614	1,054,614	100	225,395	42.7	102,147	46.2
<b>Lazio</b>	1,278,082	96,960	7.6	7,087	14.6	2,101	40.3
<b>Lombardia</b>	2,346,075	1,699,242	72.0	150,454	17.7	49,472	34.3
<b>Piemonte</b>	1,137,877	113,114	11.6	21,951	38.8	6,817	29.1
<b>Toscana</b>	927,854	713,381	80.1	239,478	67.1	121,342	51.6
<b>Veneto</b>	1,135,755	563,945	44.5	120,165	42.6	80,305	67.6
<b>ITALY</b>	13,993,865	4,729,993	33.8	827,473	35.0	376,240	47.1

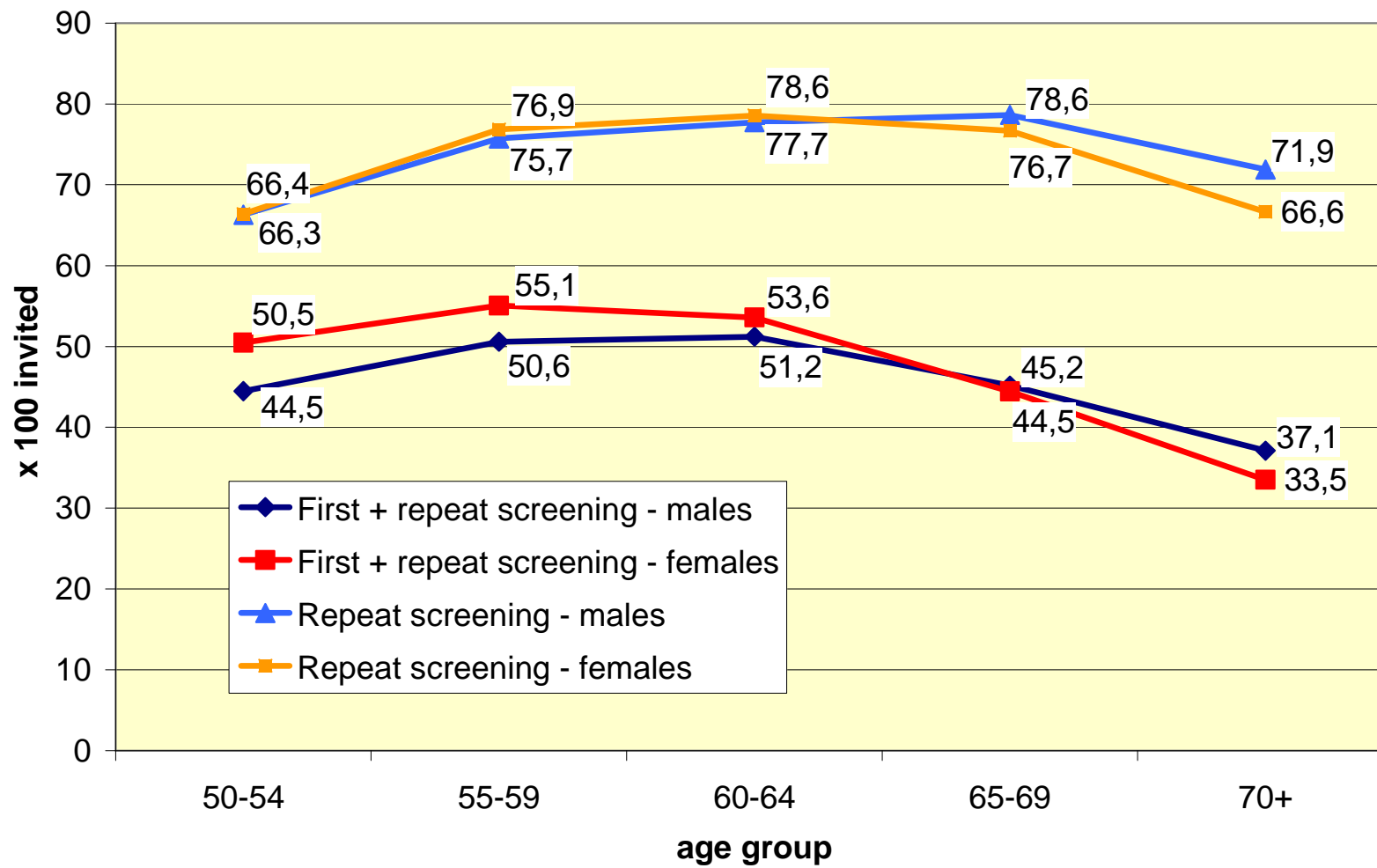
1 Proportion of subjects residing in areas with a programme

2 Proportion of subjects who were sent an invitation to screening

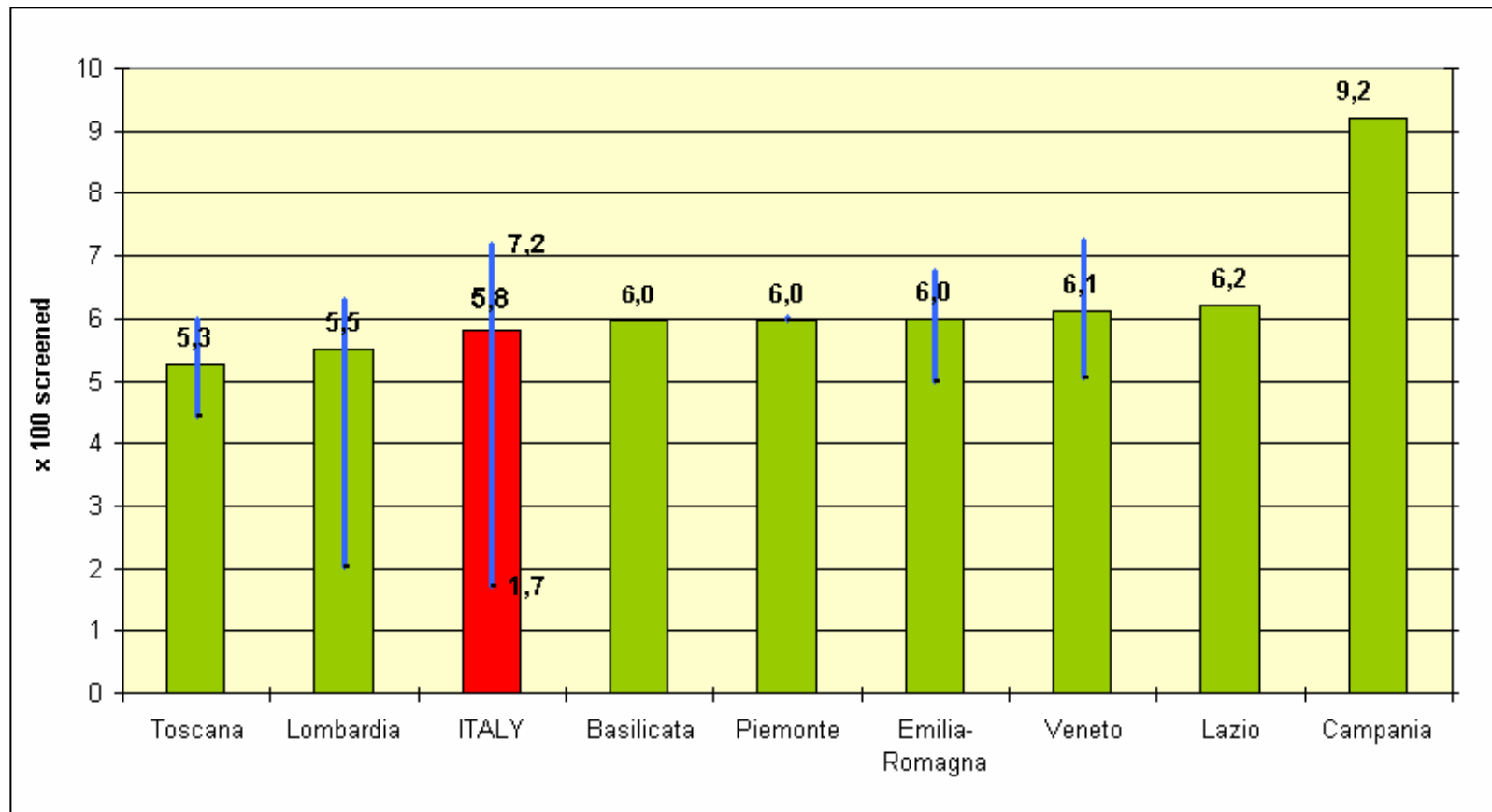
# FOBT programmes: adjusted attendance of single programmes, by Region



## FOBT programmes: adjusted attendance by age and gender.

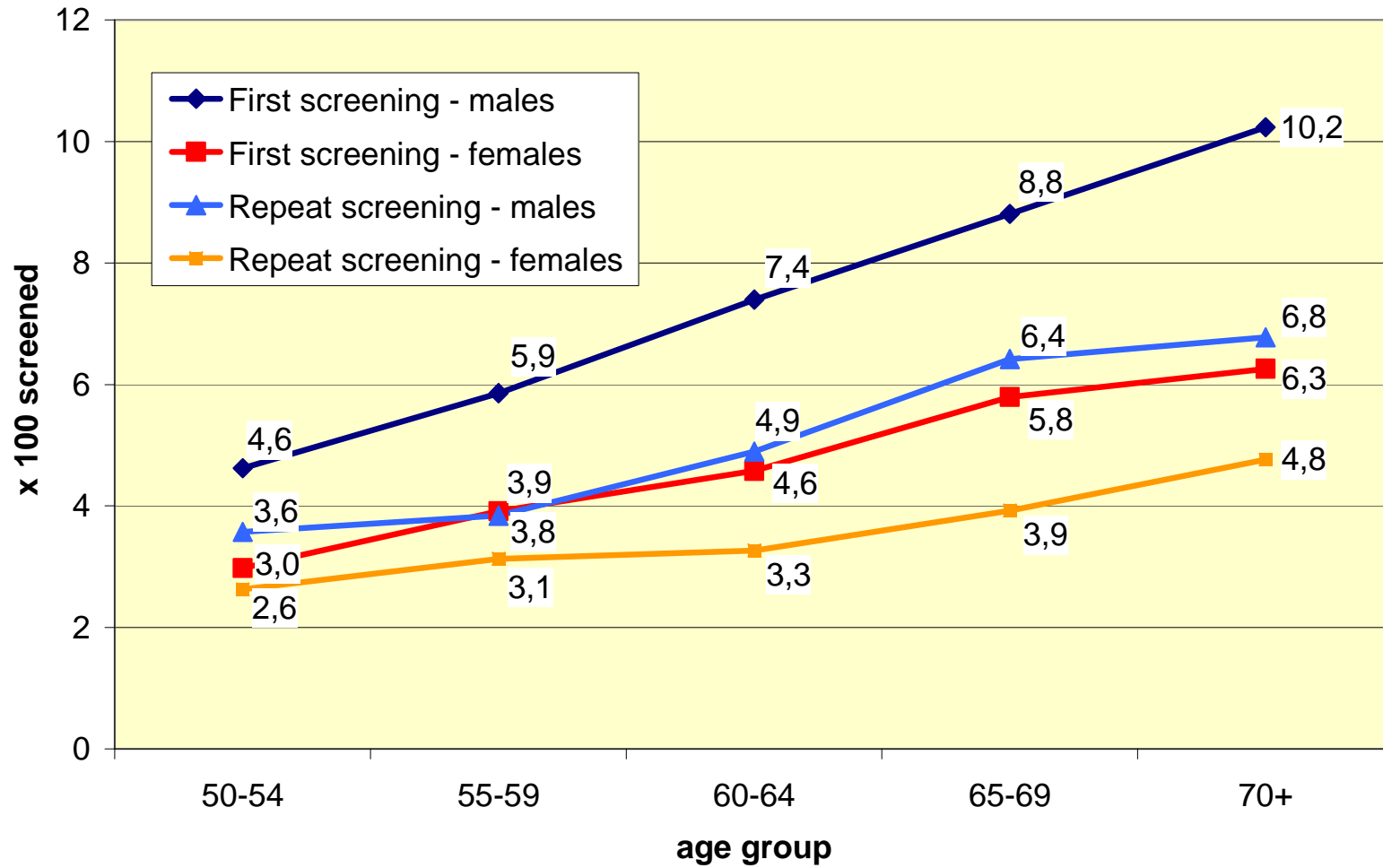


## Standardised\* proportion of FOBT+ by Region and range of single programmes at first exams.

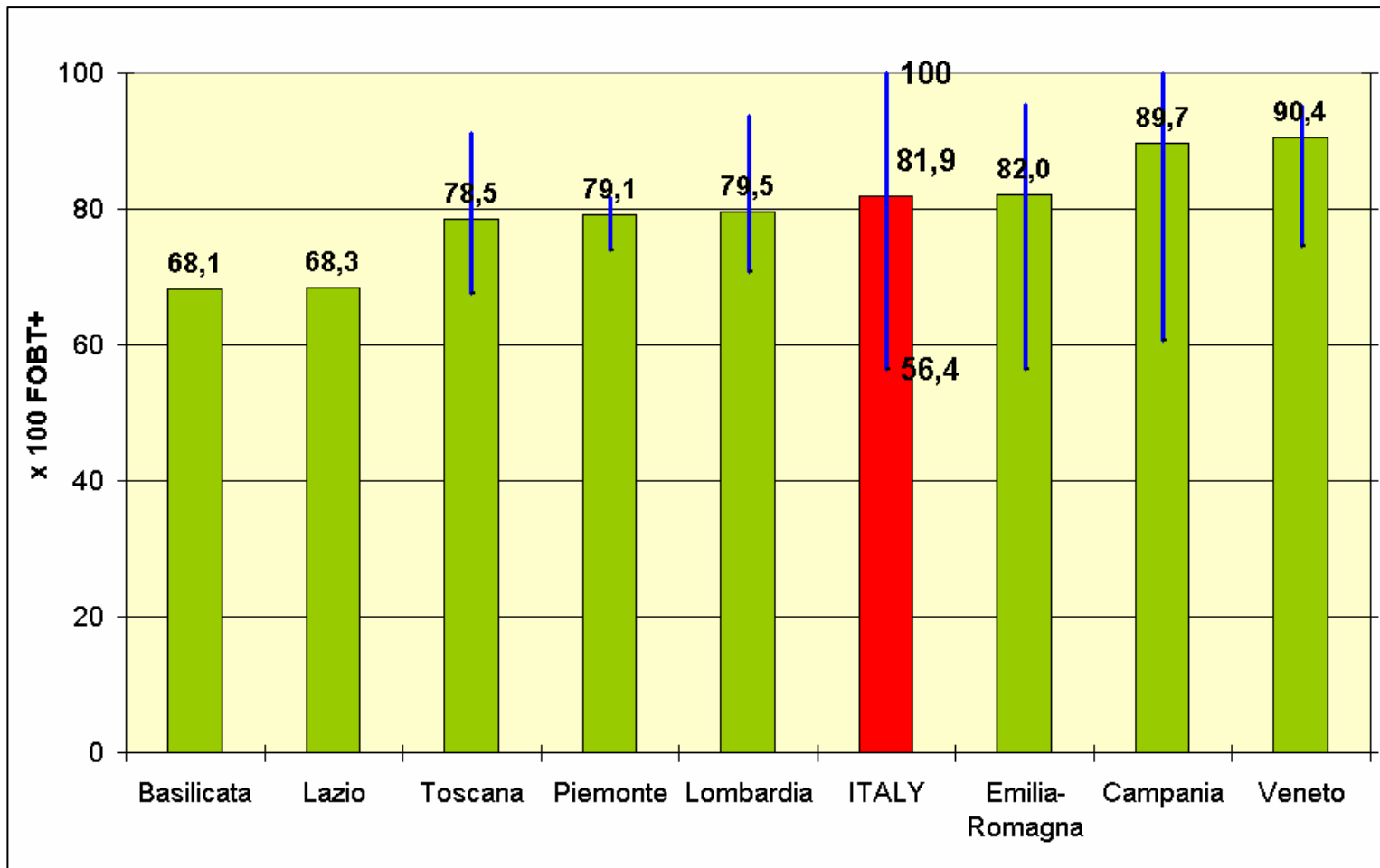


\* by age and gender

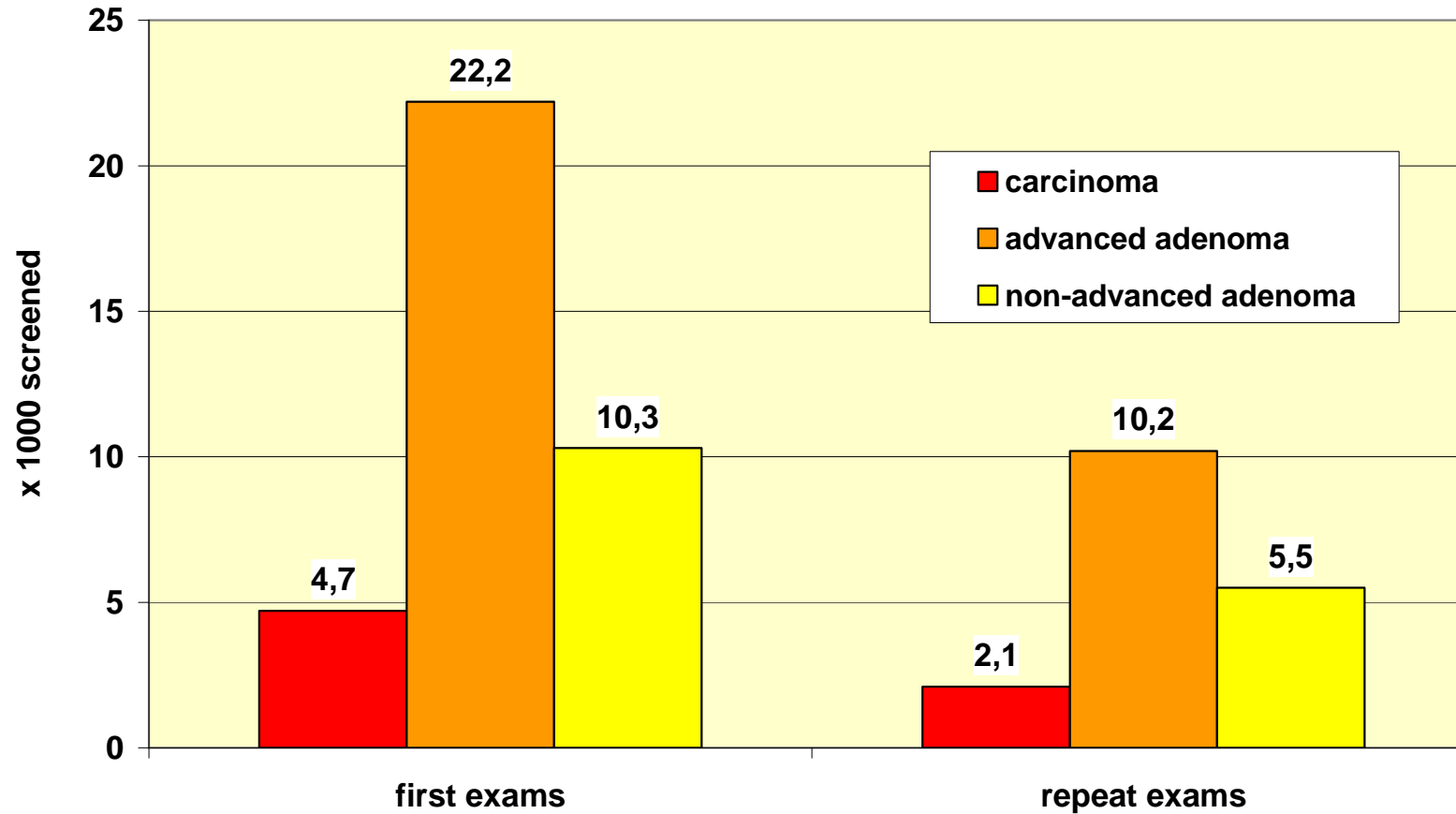
## Proportion of FOBT+ by age and gender



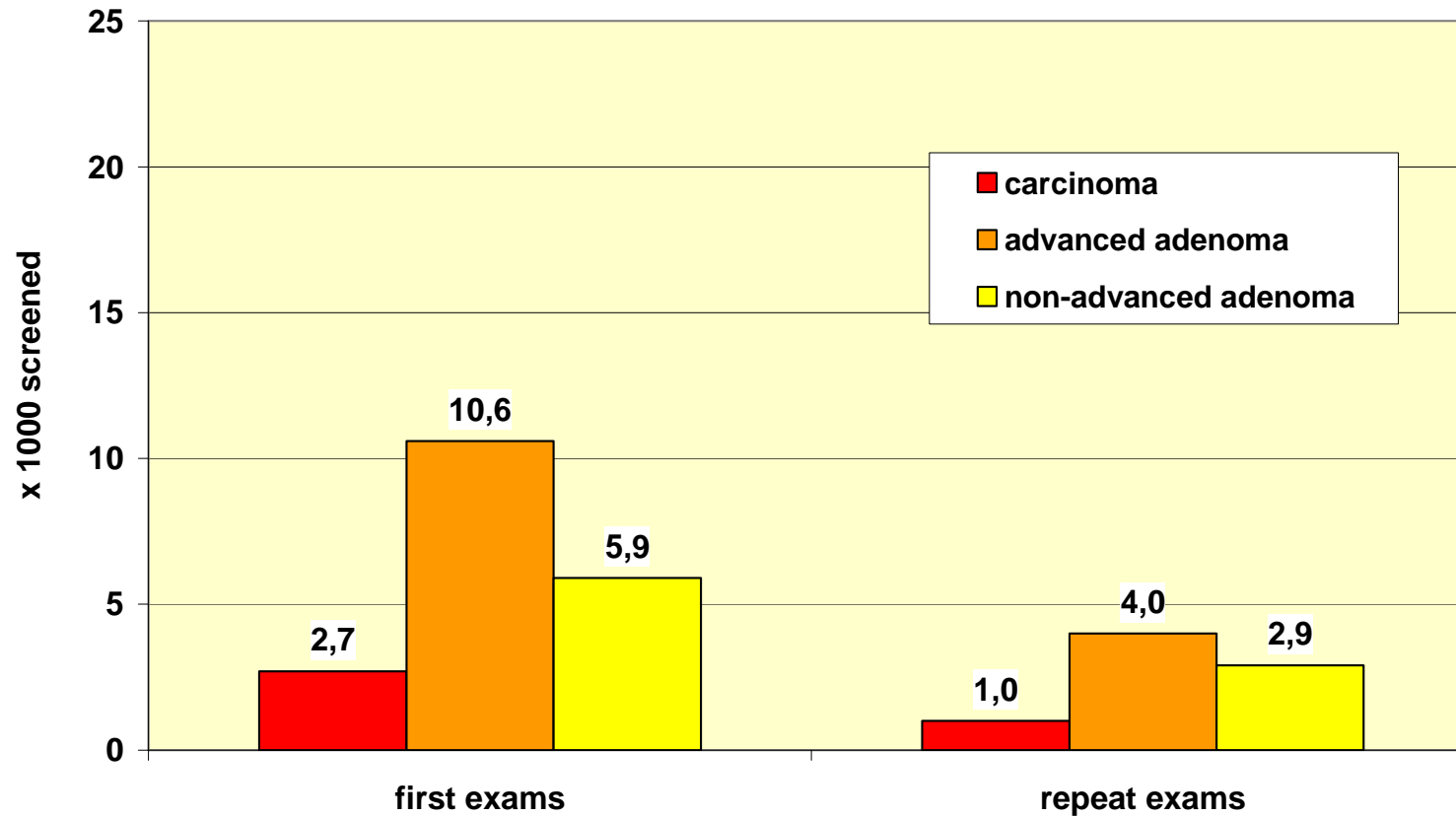
## FOBT programmes. Attendance to colonoscopy by Region and range of single programmes



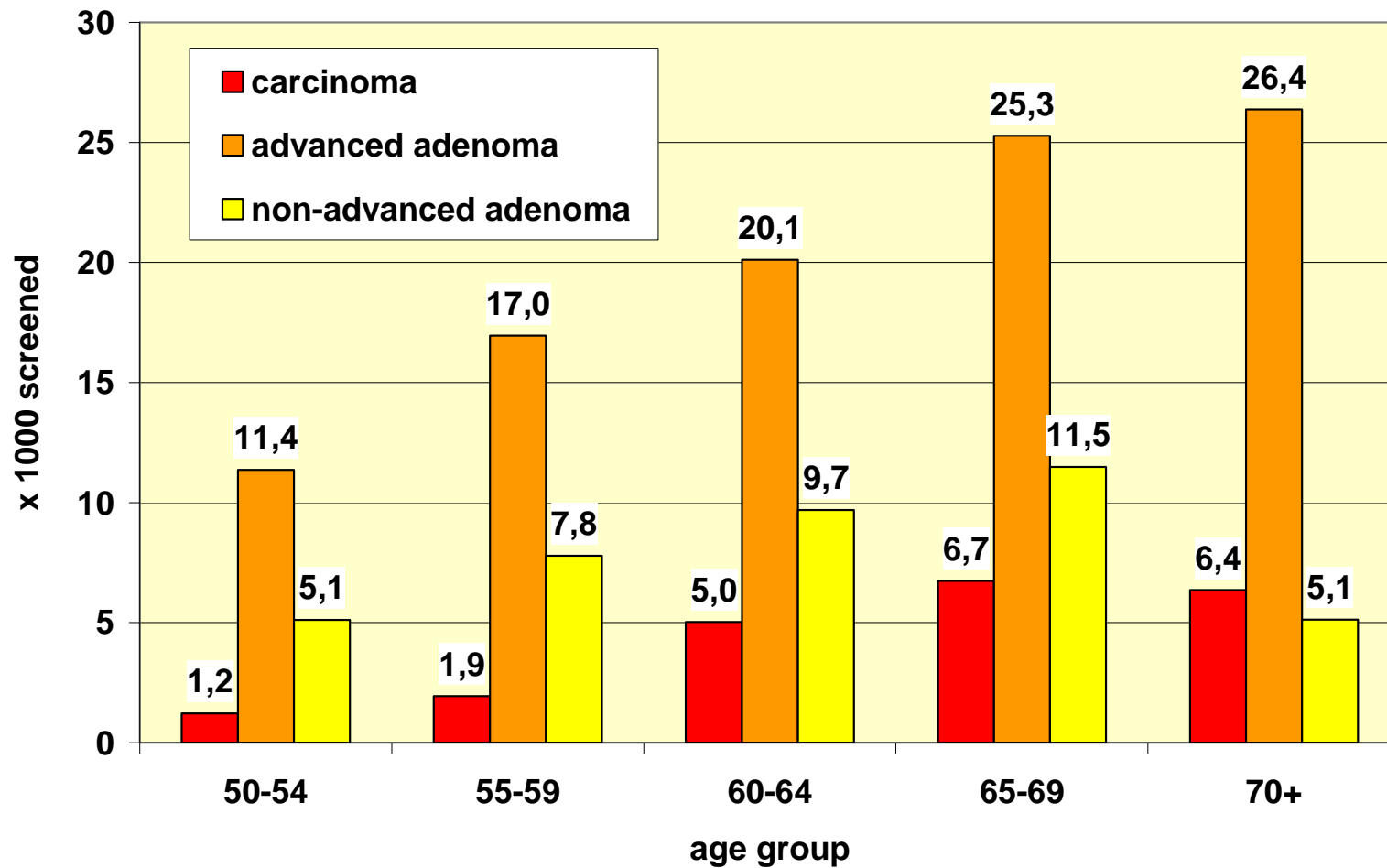
**FOBT programmes: detection rates of carcinoma, advanced adenoma and non-advanced adenoma at first and repeat exams.  
Males**



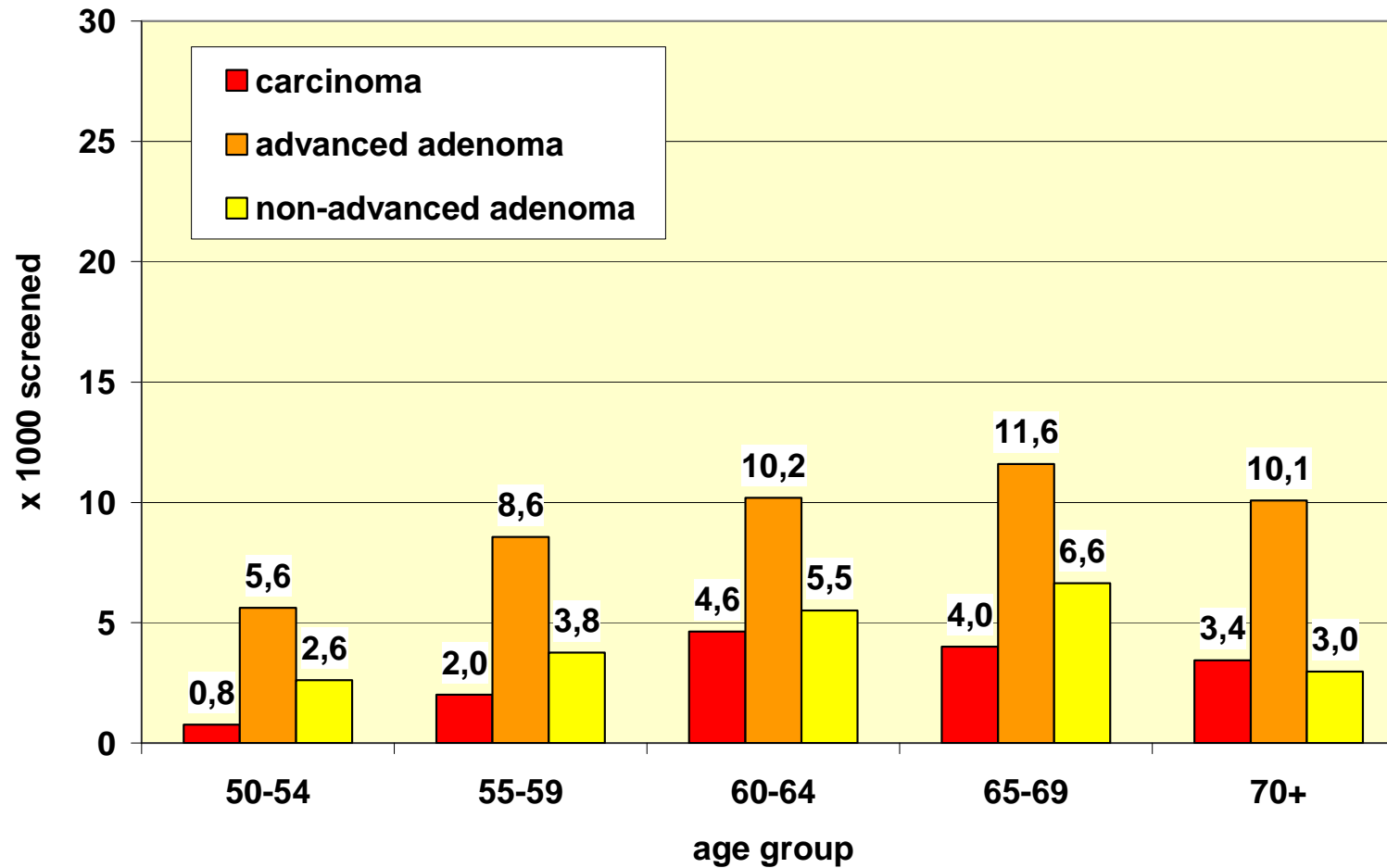
**FOBT programmes: detection rates of carcinoma, advanced adenoma and non-advanced adenoma at first and repeat exams.  
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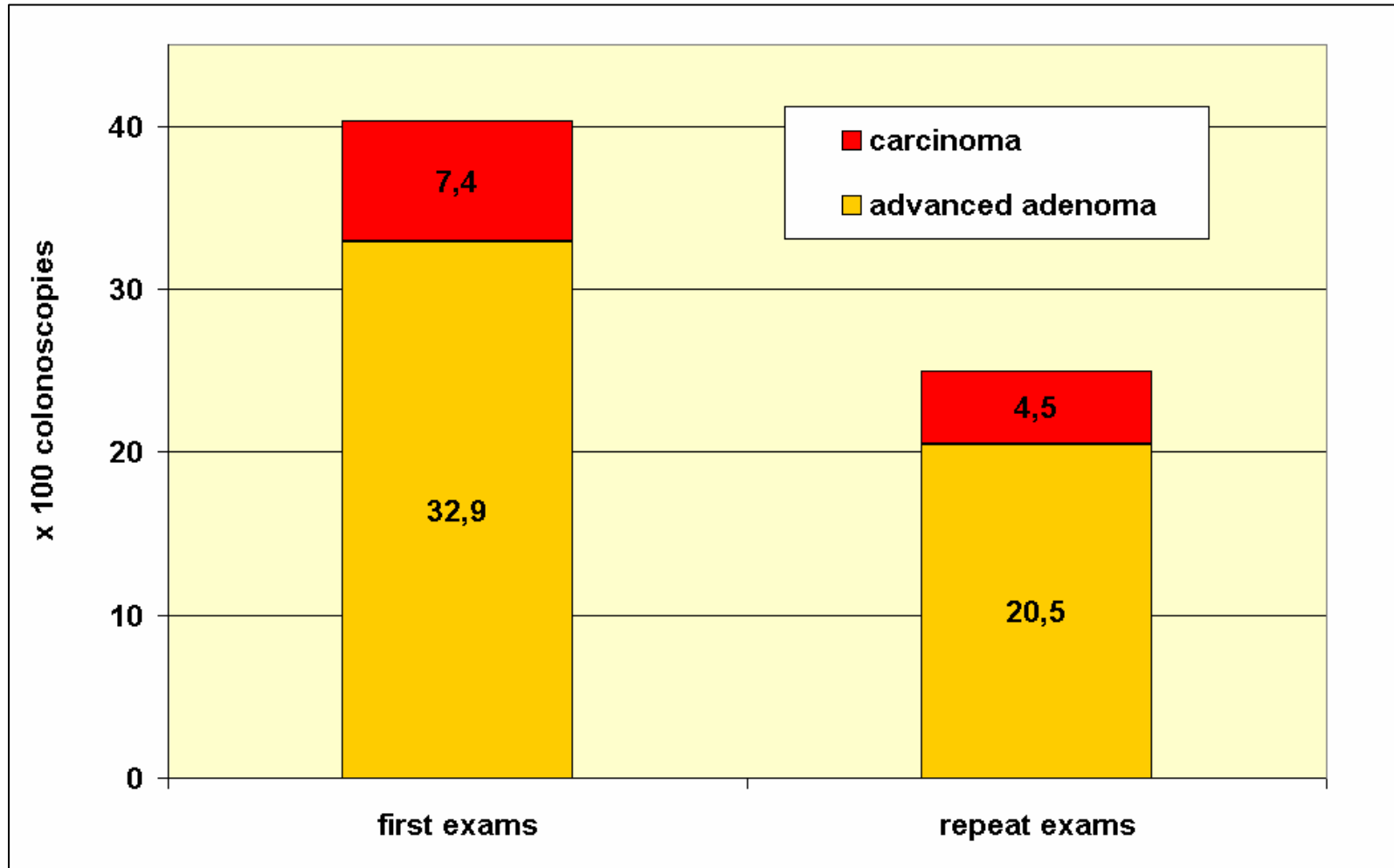
**FOBT programmes: detection rates of carcinoma, advanced adenoma and non-advanced adenoma by age at first exams. Males.**



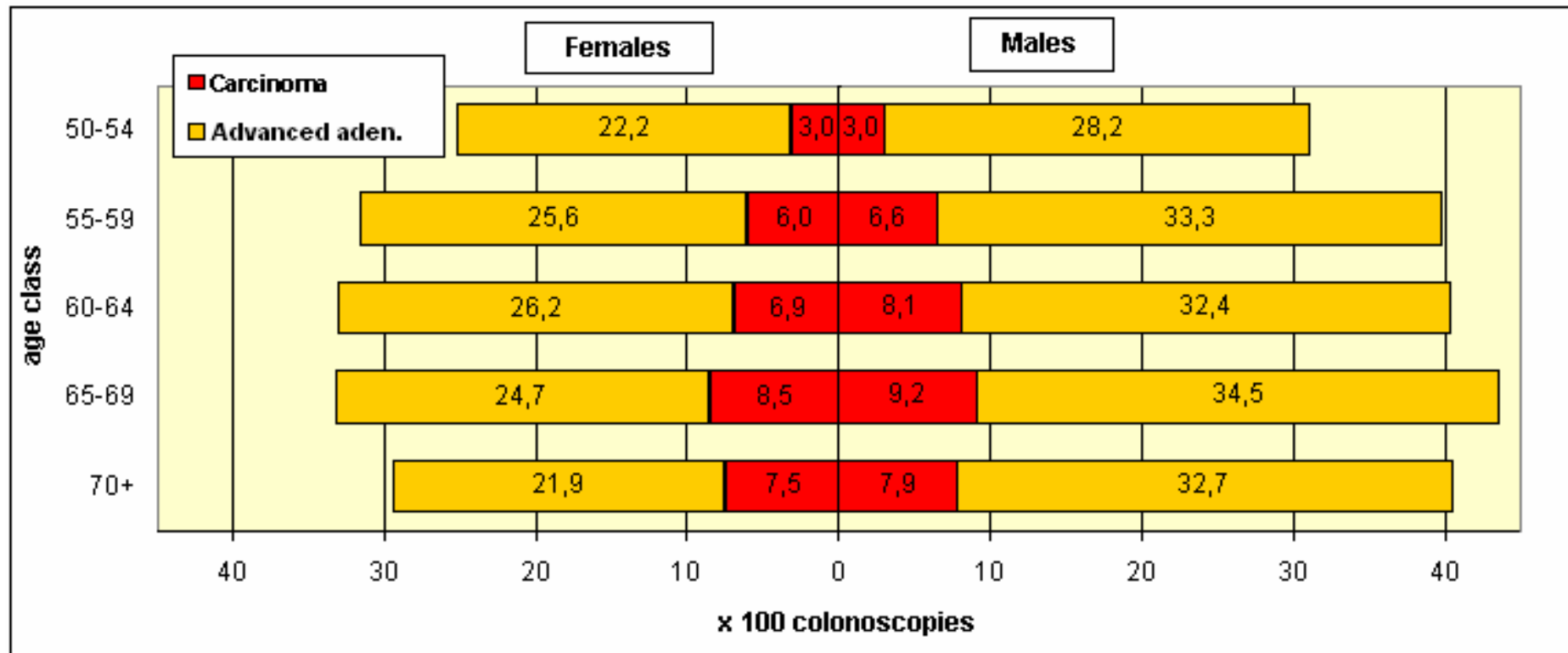
**FOBT programmes: detection rates of carcinoma, advanced adenoma and non-advanced adenoma by age at first exams. Females.**



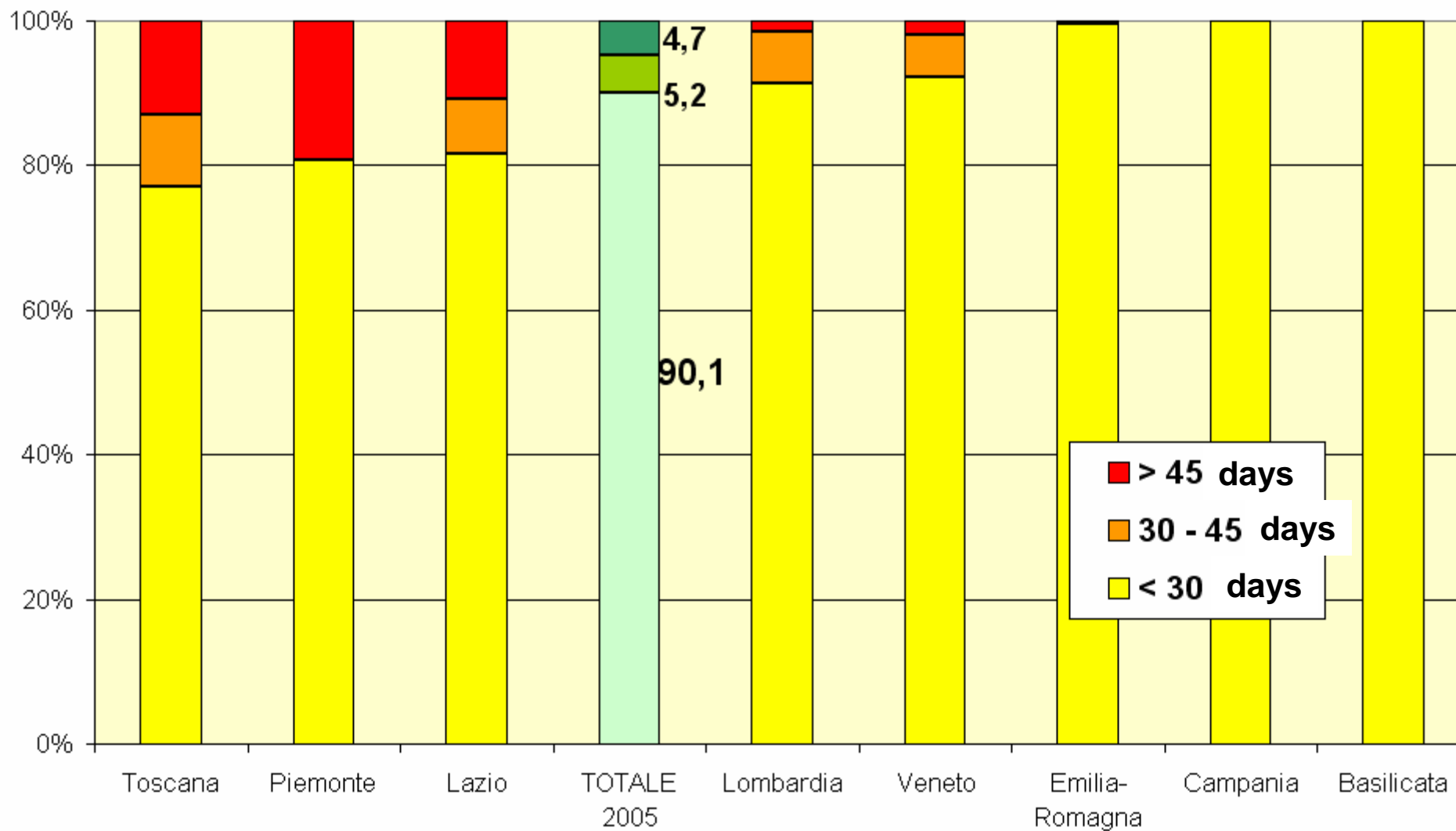
**FOBT programmes. Positive Predictive Value of colonoscopy for carcinoma and advanced adenoma at first and repeat exams.**



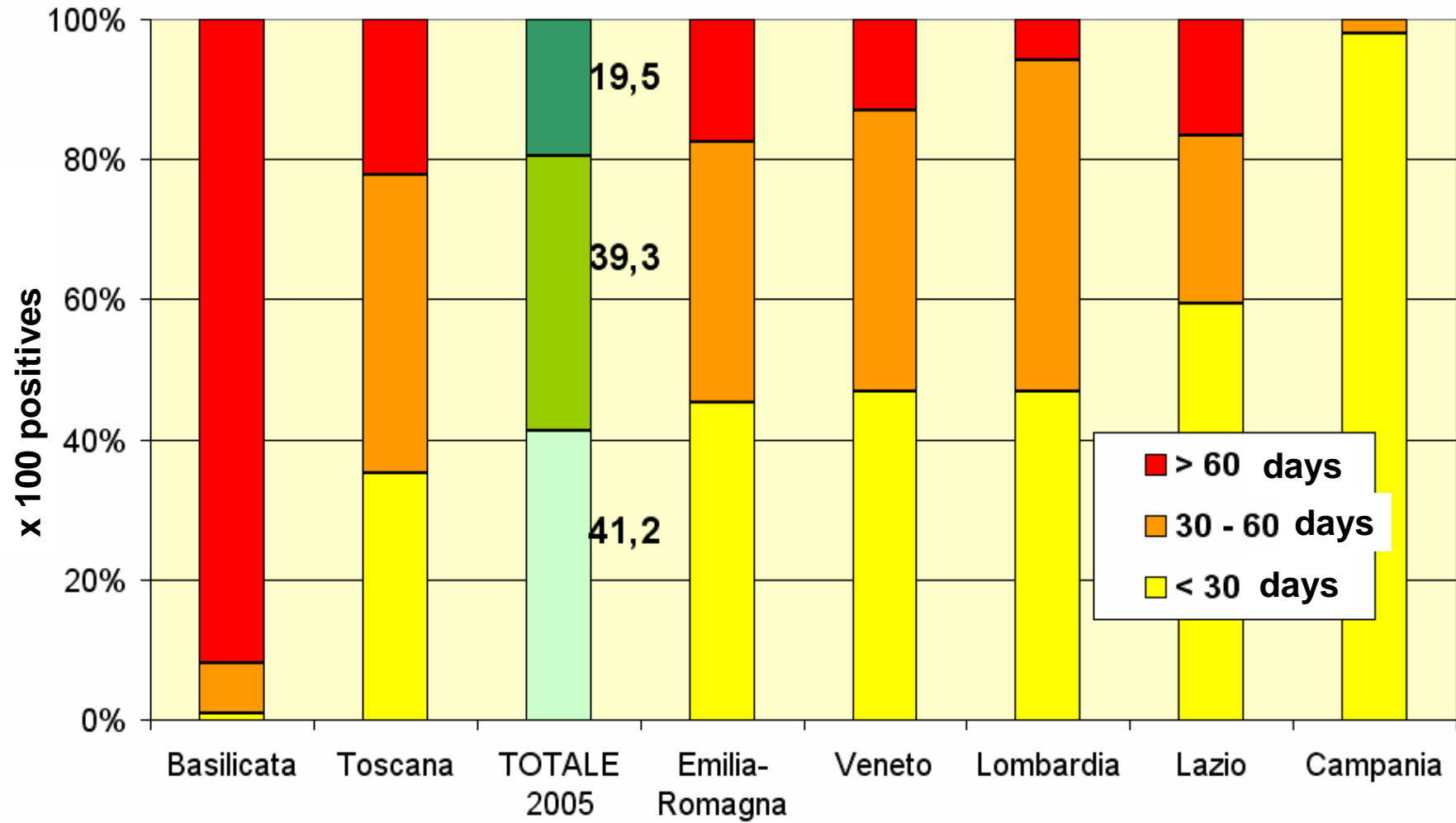
**FOBT programmes. Positive Predictive Value of colonoscopy for carcinoma and advanced adenoma by age and gender at first exams.**



## Distribution of time by sending of negative report



## Distribution of time by colonoscopy invitation



## Main results of FS programmes.

	<b>Males</b>	<b>Females</b>	<b>Total</b>
<b>Screened (n)</b>	2,763	3,058	5,821
<b>Reason prompting colonoscopy (%)</b>			
<b>Advanced adenoma*</b>	7.8	3.7	5.9
<b>Other**</b>	5.9	4.4	5.2
<b>Detection Rate (‰)***</b>			
<b>Carcinoma</b>	2.9	2.2	2.6
<b>Advanced adenoma</b>	64.4	30.0	48.1
<b>Non-advanced adenoma</b>	77.8	46.3	62.9
<b>PPV (%)****</b>			
<b>Carcinoma</b>	0.3	0.0	0.2
<b>Advanced adenoma</b>	7.9	5.0	6.9

\* at least one advanced adenoma (with a diameter  $\geq$  1 cm, with villous/tubulo-villous type or with high-grade dysplasia); 3 or more adenomas with diameter  $<$ 10 mm, with tubular type and low grade dysplasia; carcinoma

\*\* all centres: inadequate preparation with adenoma; Verona: at least one adenoma or polyp  $\geq$ 5 mm

\*\*\* estimates

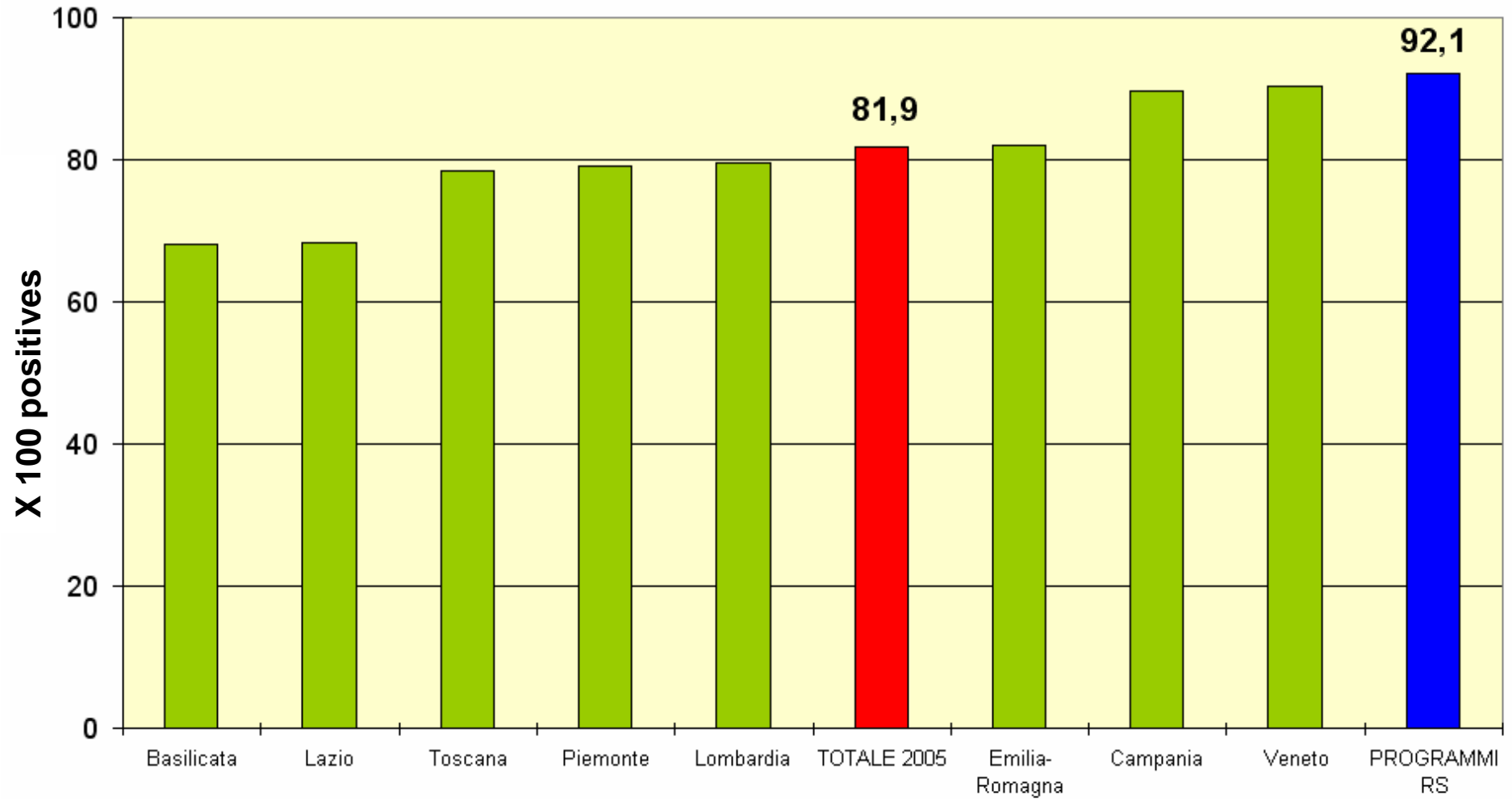
\*\*\*\* lesions of the proximal colon

**Odds ratio for advanced adenomas in FOBT and sigmoidoscopy arms by age and sex and among all patients examined, excluding those in the patient's choice arm, by age, sex, and screening test (2) - Table 5**

	<b>n</b>	<b>OR* (95% CI)</b>
<b>ALL PATIENTS EXAMINED (excluding those in patient's choice arm)</b>		
<b>FOBT arms</b>	<b>2336</b>	<b>1.00 (referent)</b>
<b>Sigmoidoscopy arms</b>	<b>4025</b>	<b>3.58 (2.49-5.14)</b>
<b>55-59 yrs</b>	<b>2578</b>	<b>1.00 (referent)</b>
<b>60-64 yrs</b>	<b>3783</b>	<b>1.32 (1.01-1.72)</b>
<b>Women</b>	<b>3316</b>	<b>1.00 (referent)</b>
<b>Men</b>	<b>3045</b>	<b>1.61 (1.24-2.090)</b>

\* Multivariable ORs adjusted for screening center and for all the other variables in the table

## Compliance to colonoscopy in FOBT and FS



**Stage distribution of screen detected cancers during 2005 (all programmes), compared to a clinical series observed in the absence of organised screening.**

<b>Stage</b>	<b>2005 screening (n=891)</b>	<b>Reggio Emilia and Parma 1994-2003 (n=3353)**</b>
<b>I</b>	40%	20%
<b>I*</b>	15%	-
<b>II</b>	17%	29%
<b>III-IV</b>	20%	51%
<b>Unknown</b>	8%	0%

Stage I: T1 or T2, N0, M0

Stage I\*: malignant adenomas treated by endoscopic excision only

Stage II: T3 or T4, N0, M0

Stage III-IV: lymph-node involvement or distant metastases