

**GISCoR**

gruppo italiano screening coloretale

**XII CONGRESSO  
NAZIONALE 2017**

7-8 Novembre 2017

**CORSO PRE-CONGRESSO**

7 Novembre 2017

# I tempi di attesa per l'accesso alla colonscopia

**Manuel Zorzi**

Registro Tumori del Veneto  
Regione del Veneto

**Anna Turrin**

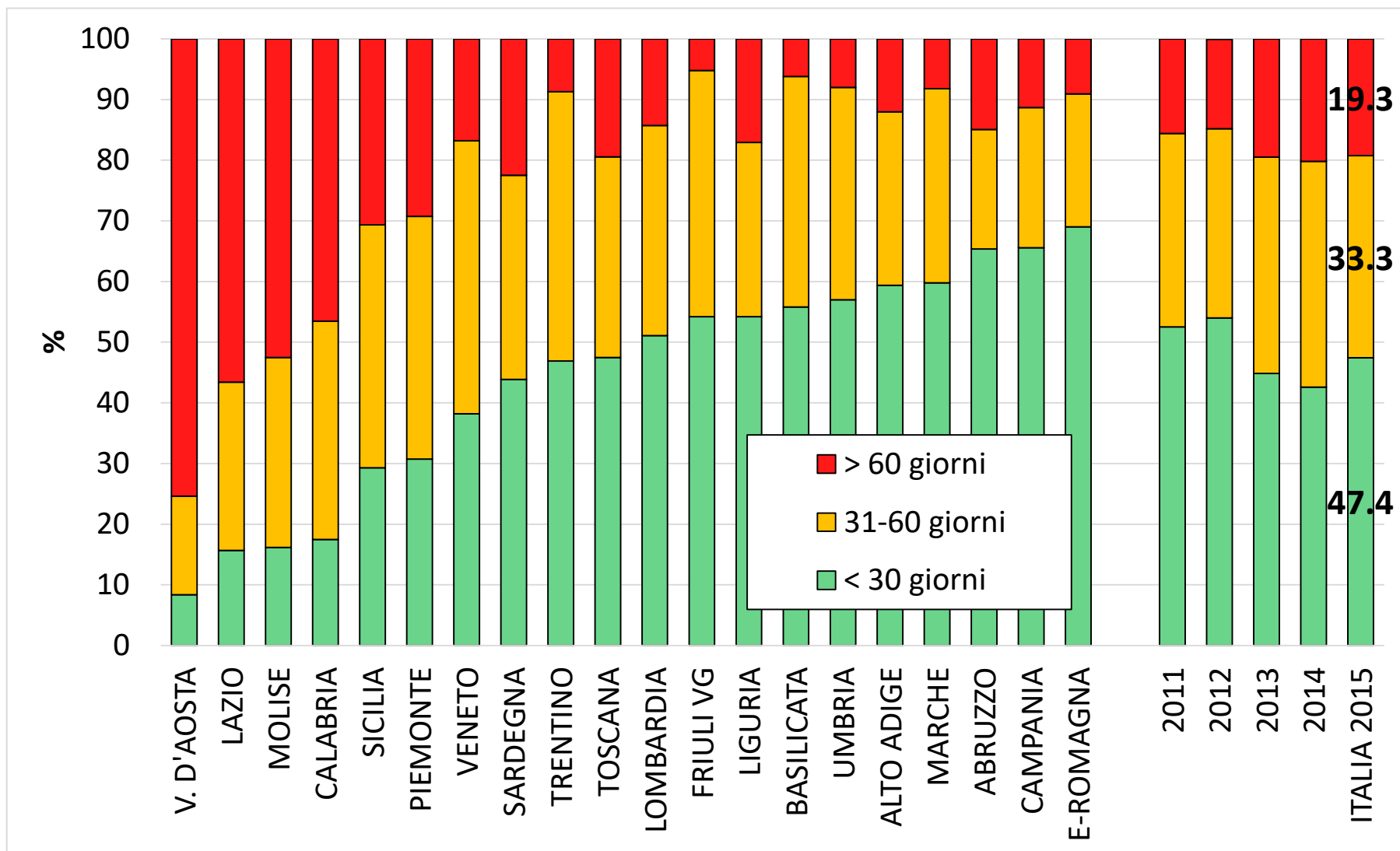
Direzione Prevenzione, Sicurezza  
Alimentare, Veterinaria  
Regione del Veneto

# In programma...

- Stato dell'arte in Italia
- I due spauracchi

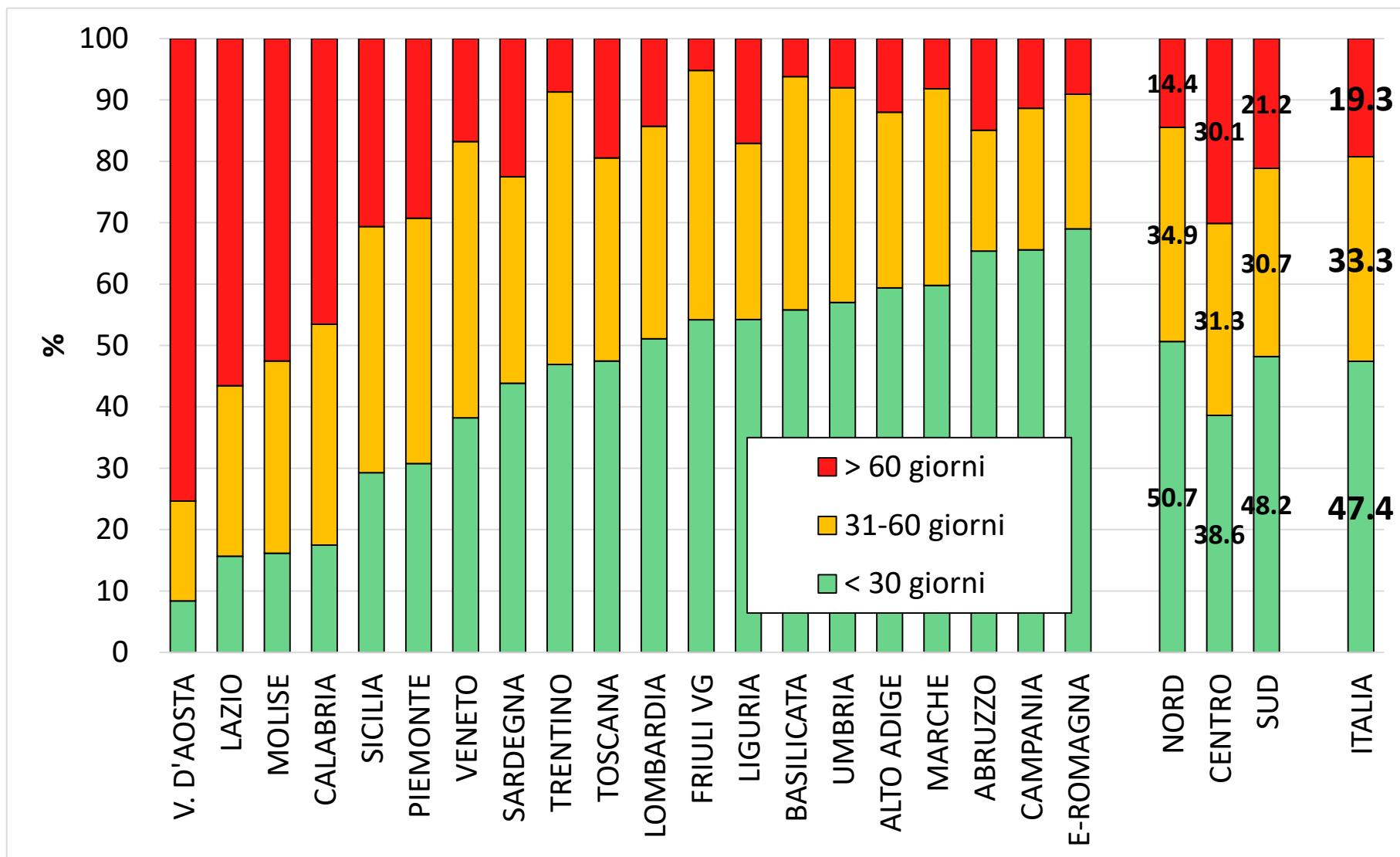
**Conflitto di interessi: ancora niente**

# Tempo per l'esecuzione della colonscopia di approfondimento



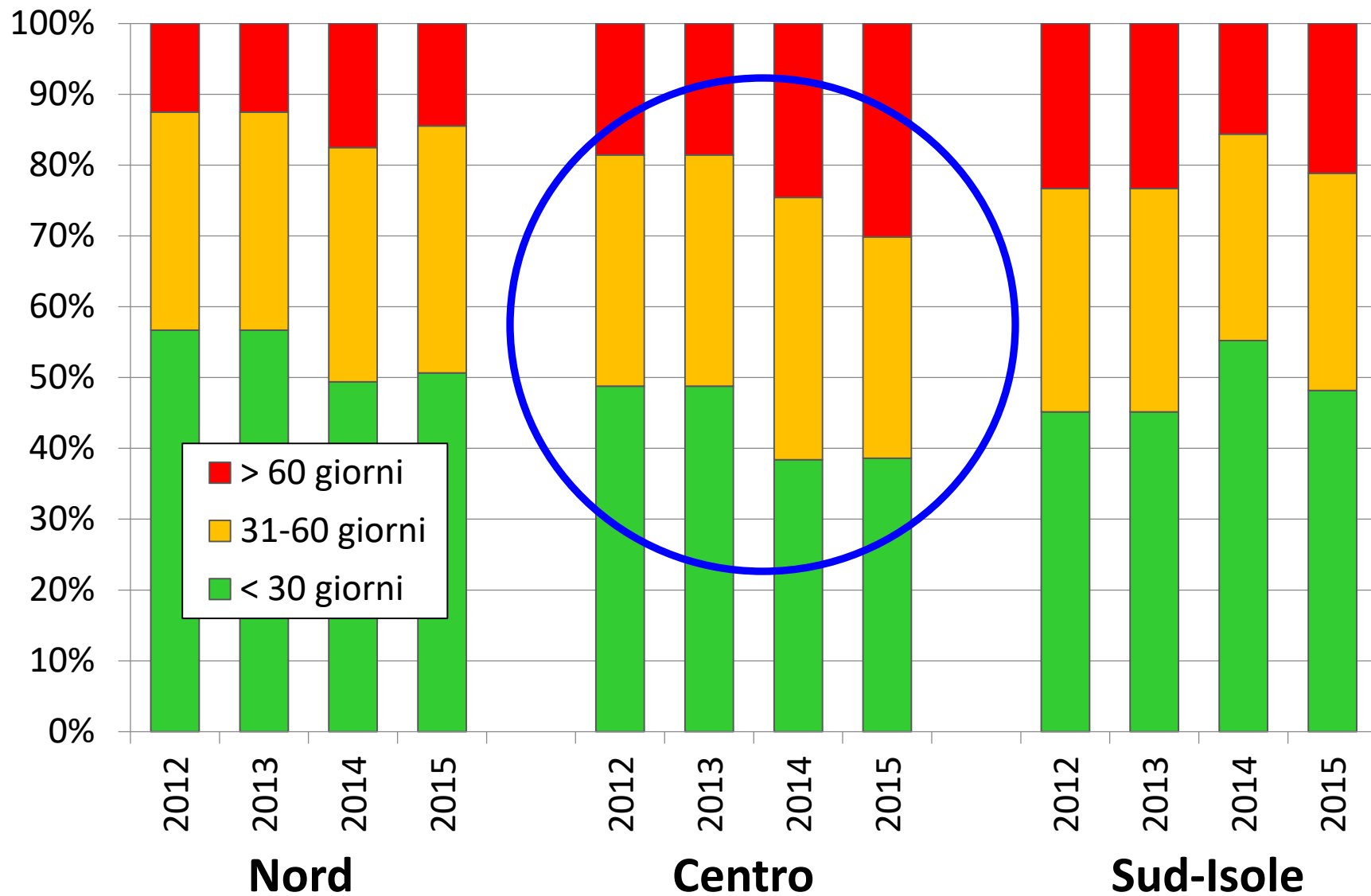
**Standard accettabile >90% entro 30 gg, desiderabile >95% entro 30 gg**

# Tempo per l'esecuzione della colonscopia di approfondimento

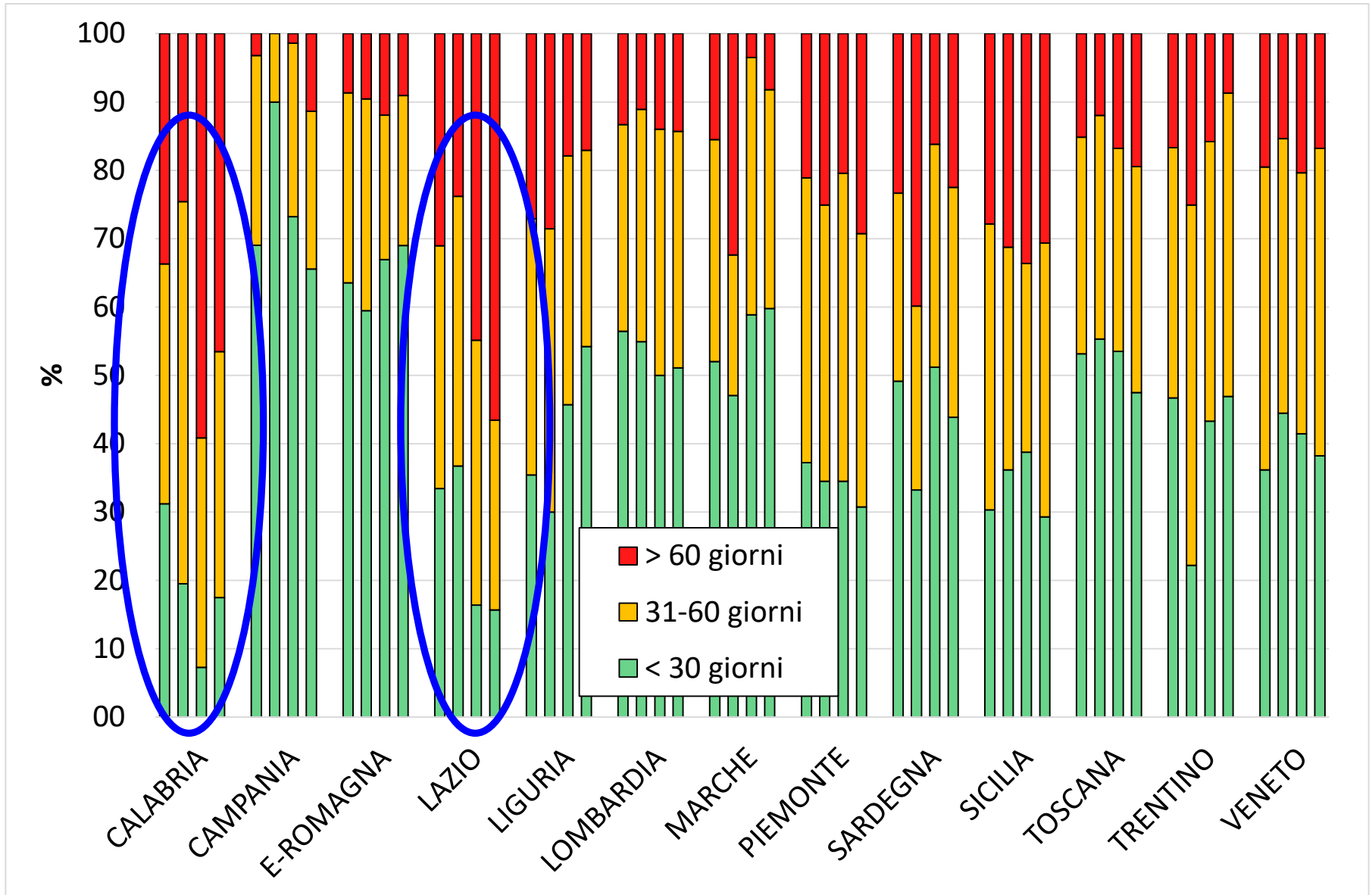


**Standard accettabile >90% entro 30 gg, desiderabile >95% entro 30 gg**

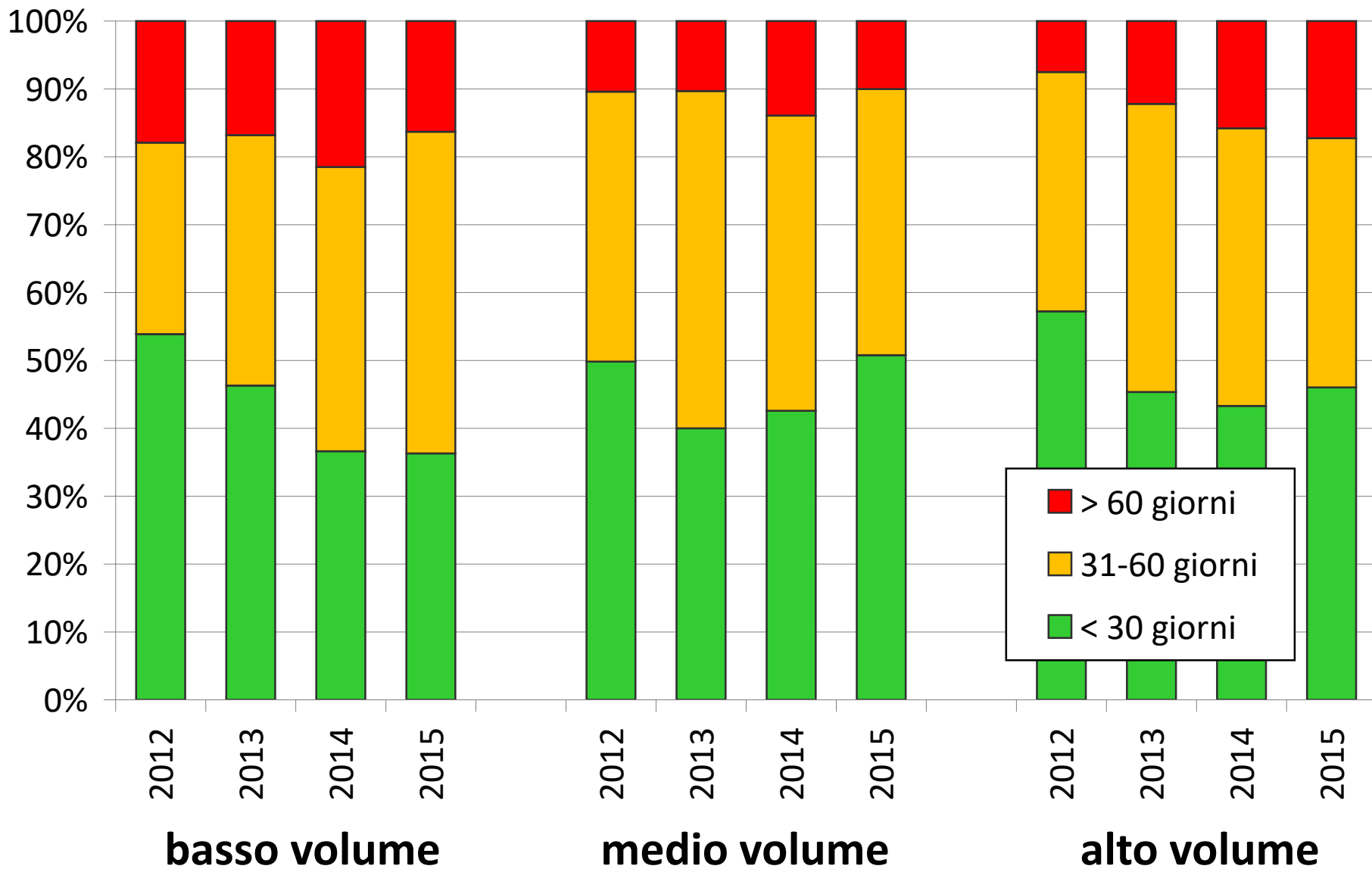
# Tempo per l'esecuzione della colonscopia di approfondimento per macroarea – 2012-2015



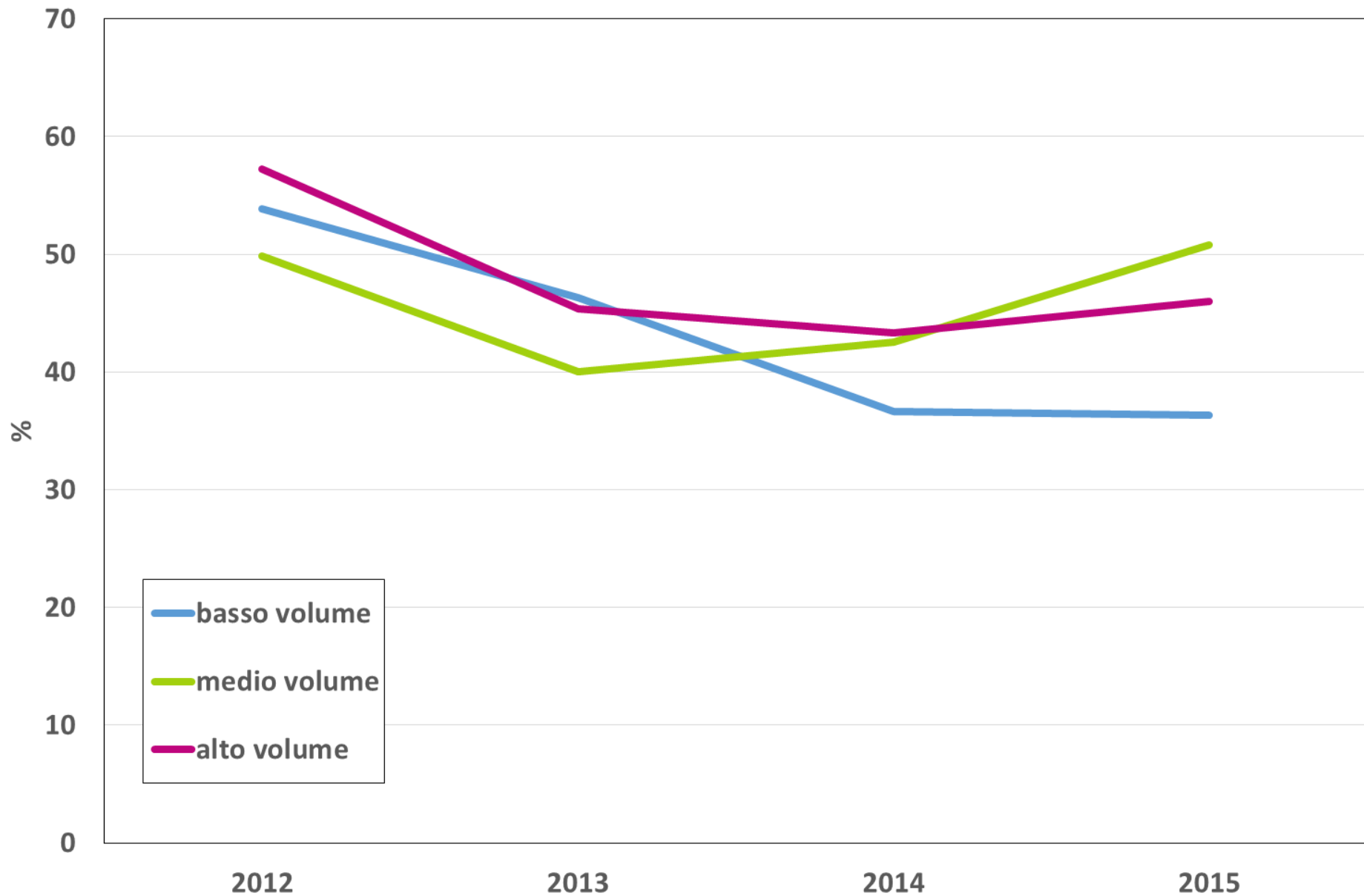
# Tempo per l'esecuzione della colonscopia di approfondimento per Regione – 2012-2015



# Tempo per l'esecuzione della colonscopia per terzile di volume di attività – 2012-2015

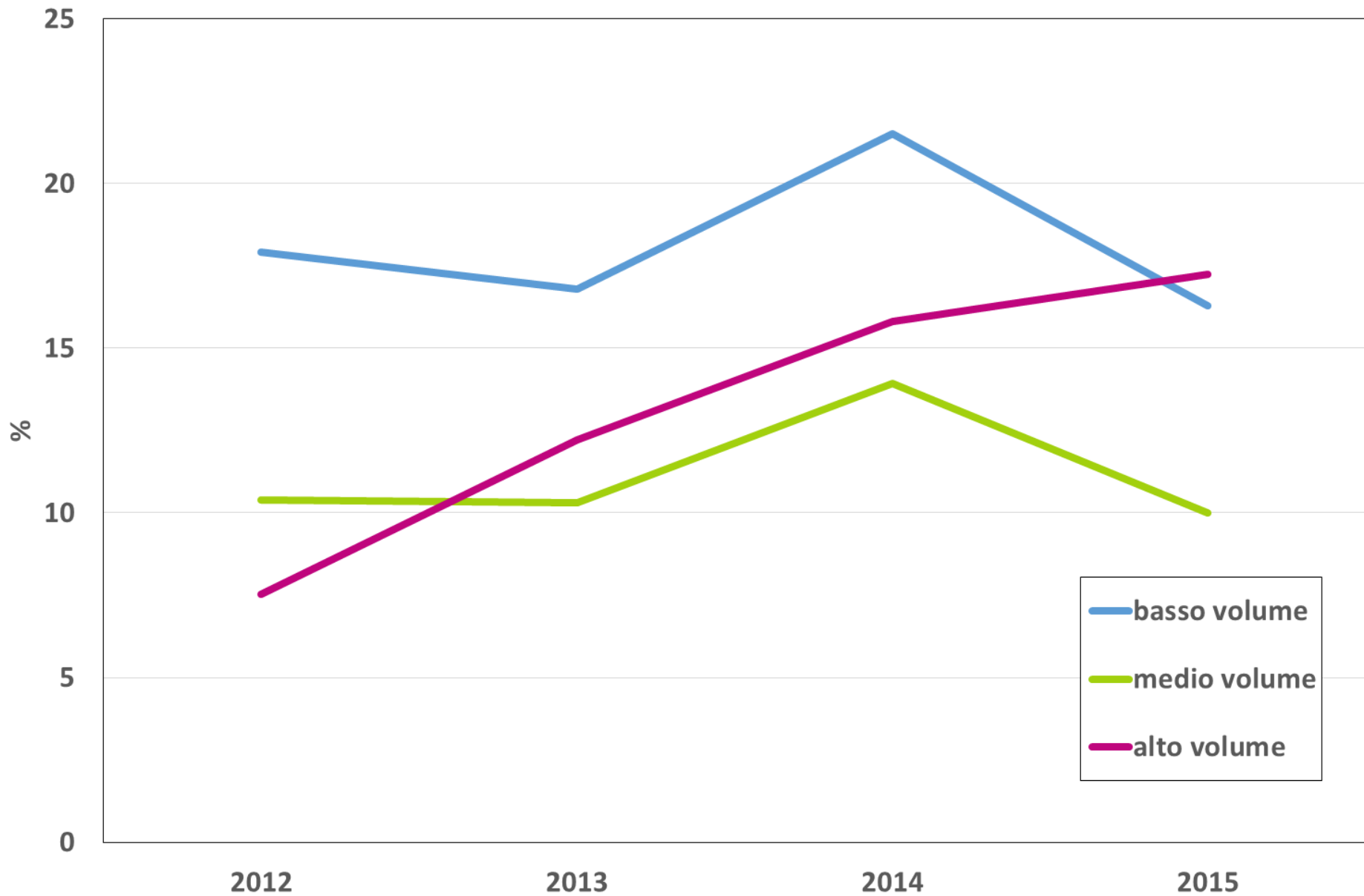


# % di soggetti inviati a colonscopia entro 30 giorni per terzile di volume di attività e per anno



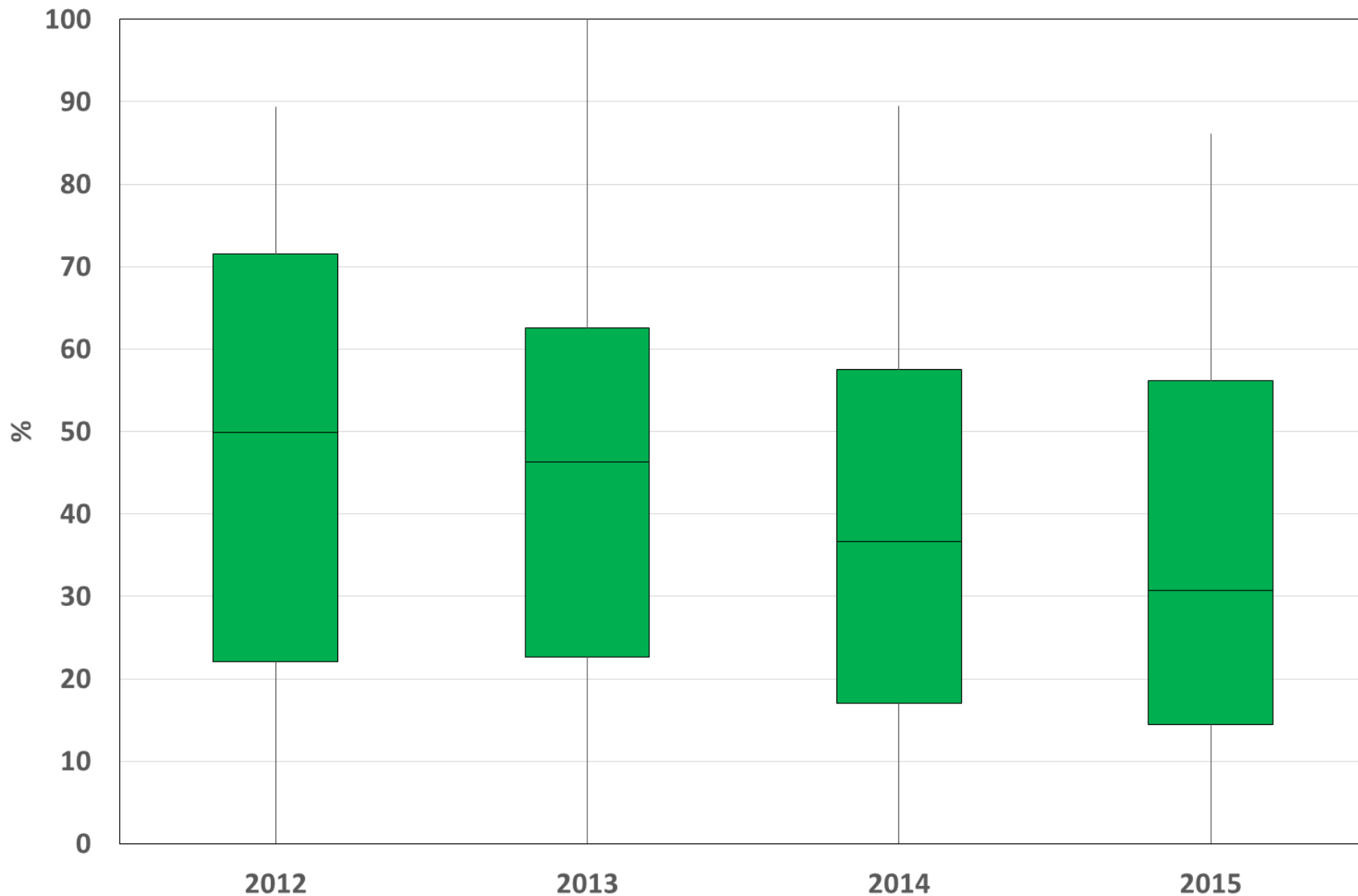


# % di soggetti inviati a colonscopia oltre 60 giorni per terzile di volume di attività e per anno



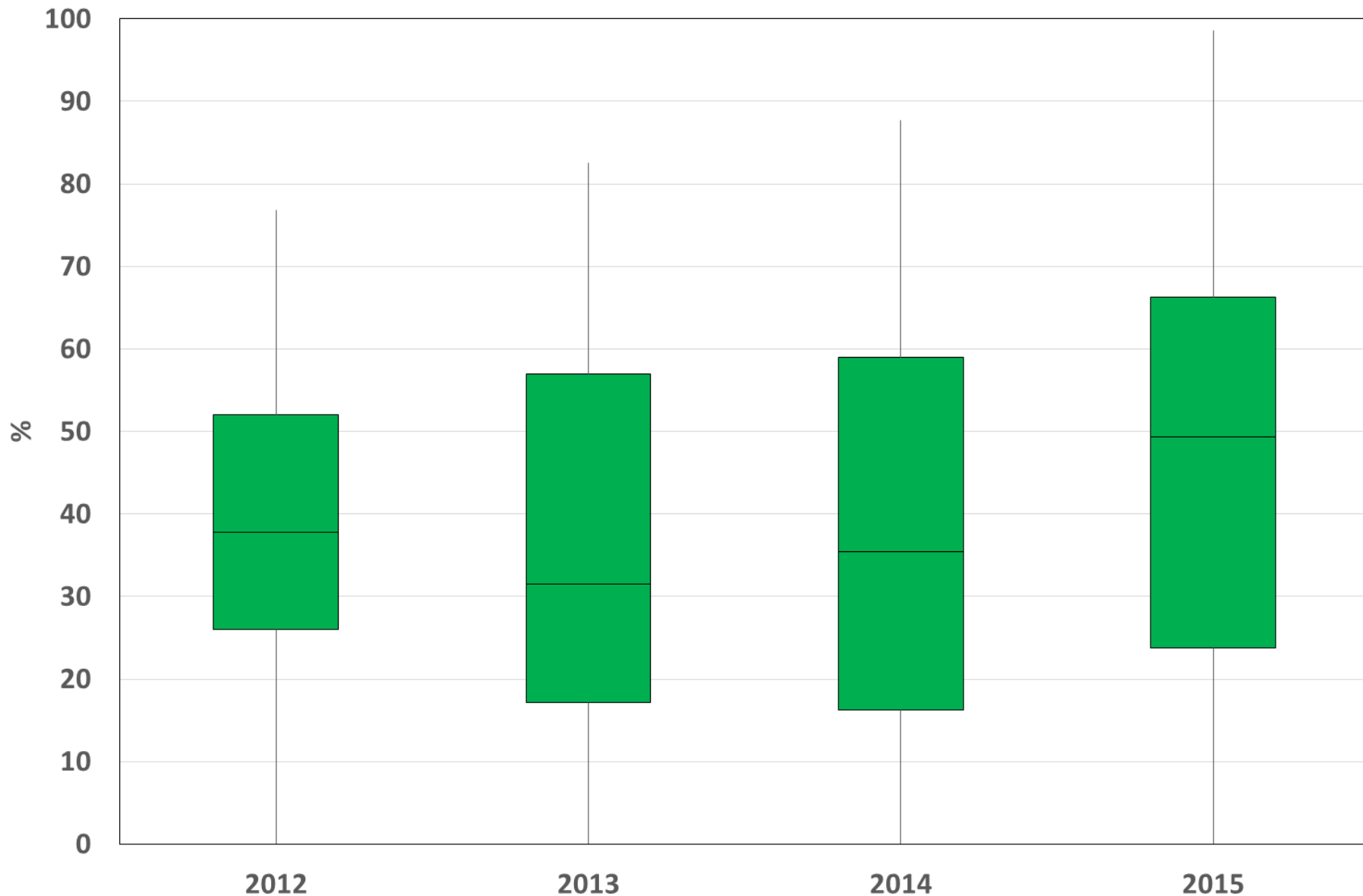
# Programmi con **bassi volumi** di attività

## % di soggetti inviati a colonscopia entro 30 giorni, per anno



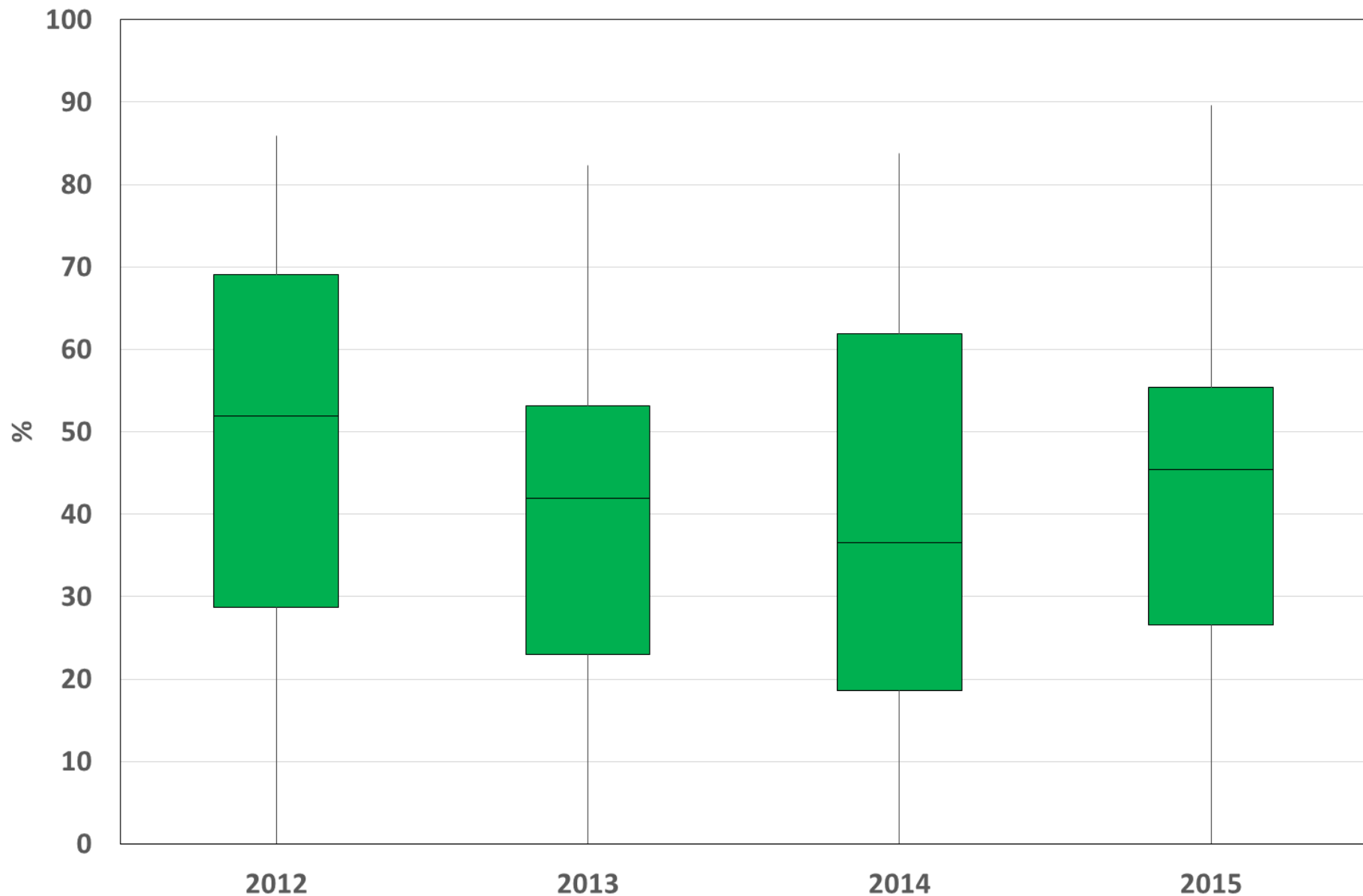
# Programmi con **medi volumi** di attività

% di soggetti inviati a colonscopia entro 30 giorni, per anno



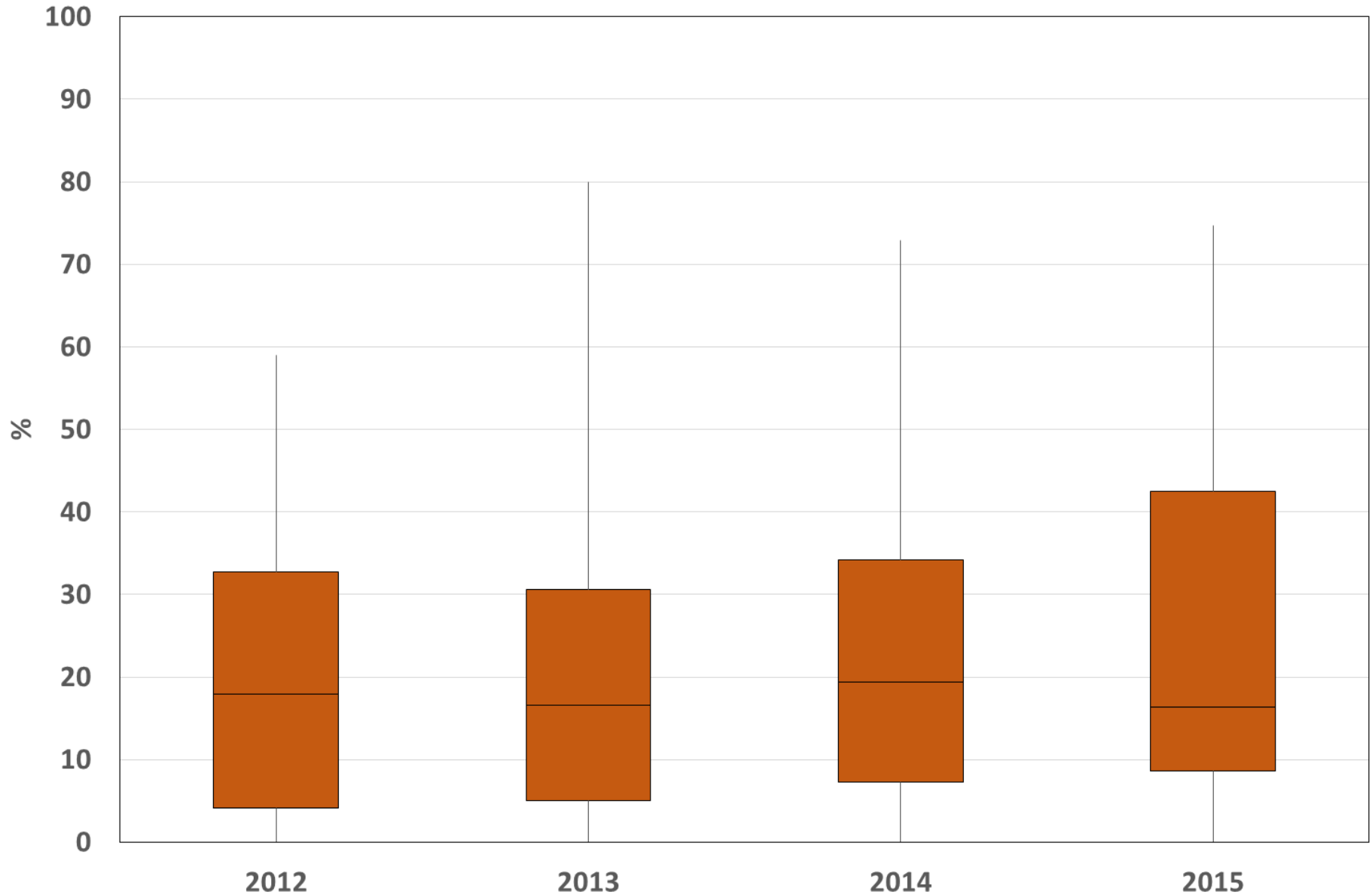
# Programmi con **elevati volumi** di attività

## % di soggetti inviati a colonscopia entro 30 giorni, per anno



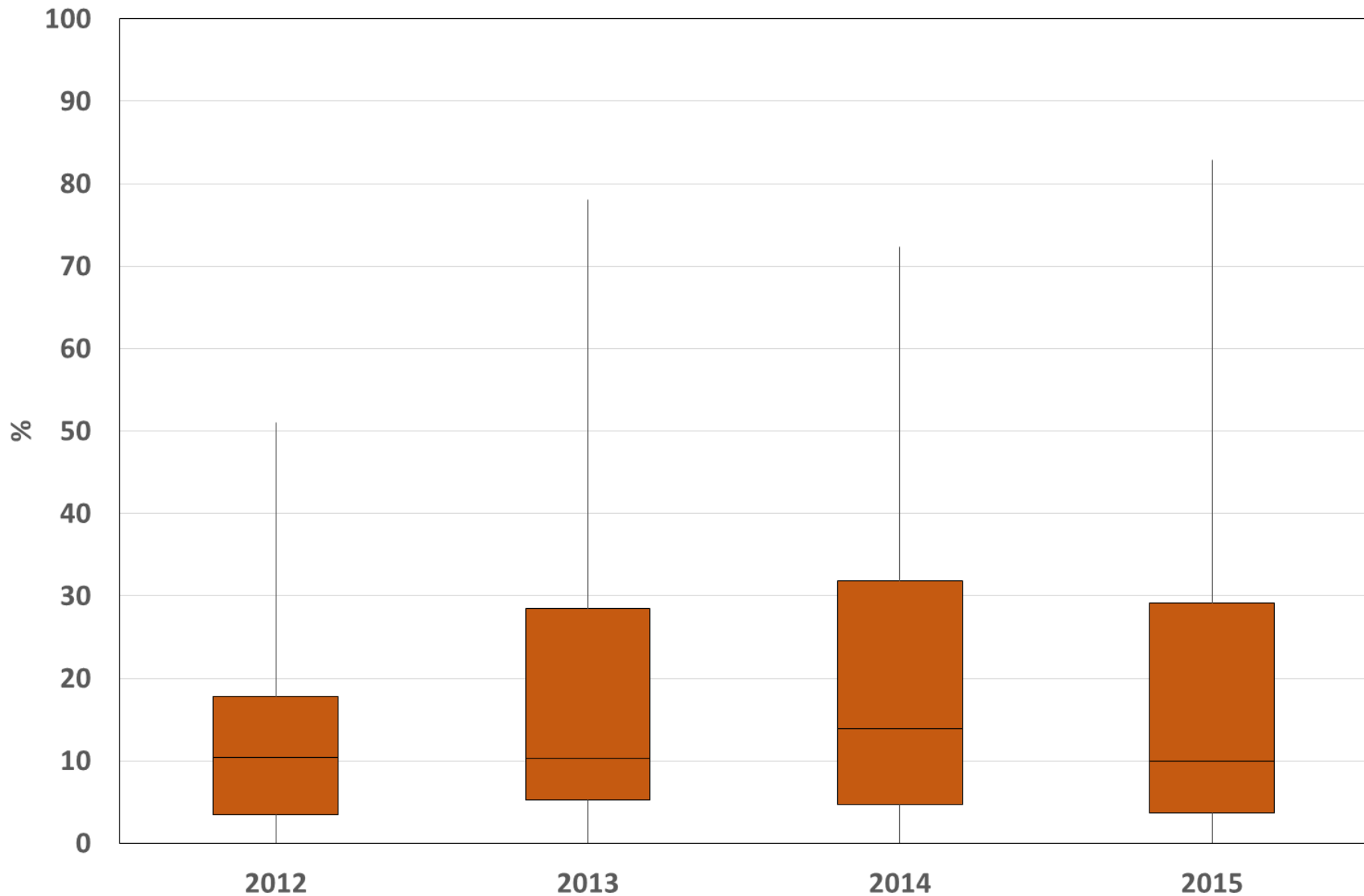
# Programmi con **bassi volumi** di attività

## % di soggetti inviati a colonscopia oltre 60 giorni, per anno



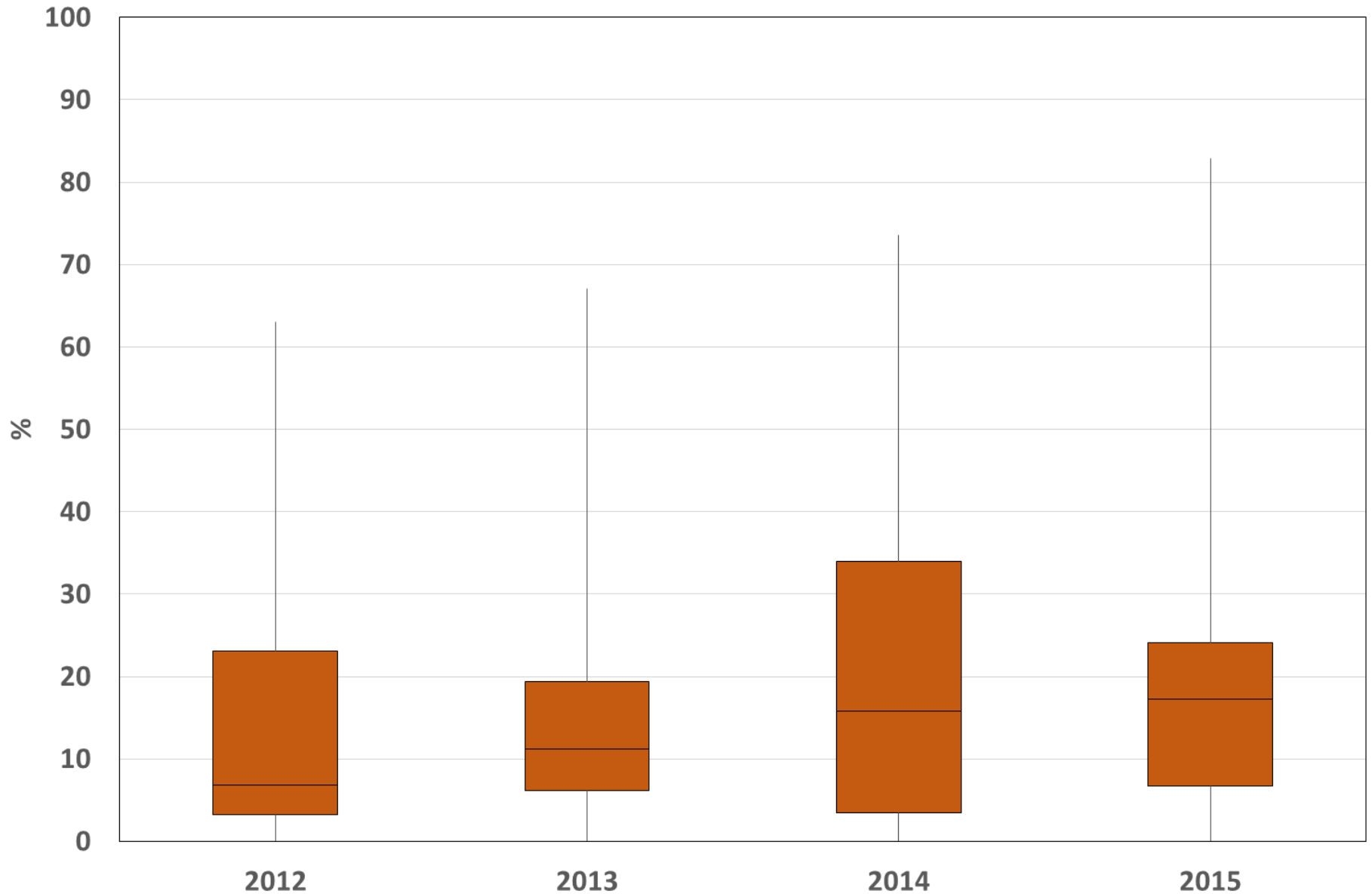
# Programmi con **medi volumi** di attività

## % di soggetti inviati a colonscopia oltre 60 giorni, per anno



# Programmi con **elevati volumi** di attività

## % di soggetti inviati a colonscopia oltre 60 giorni, per anno

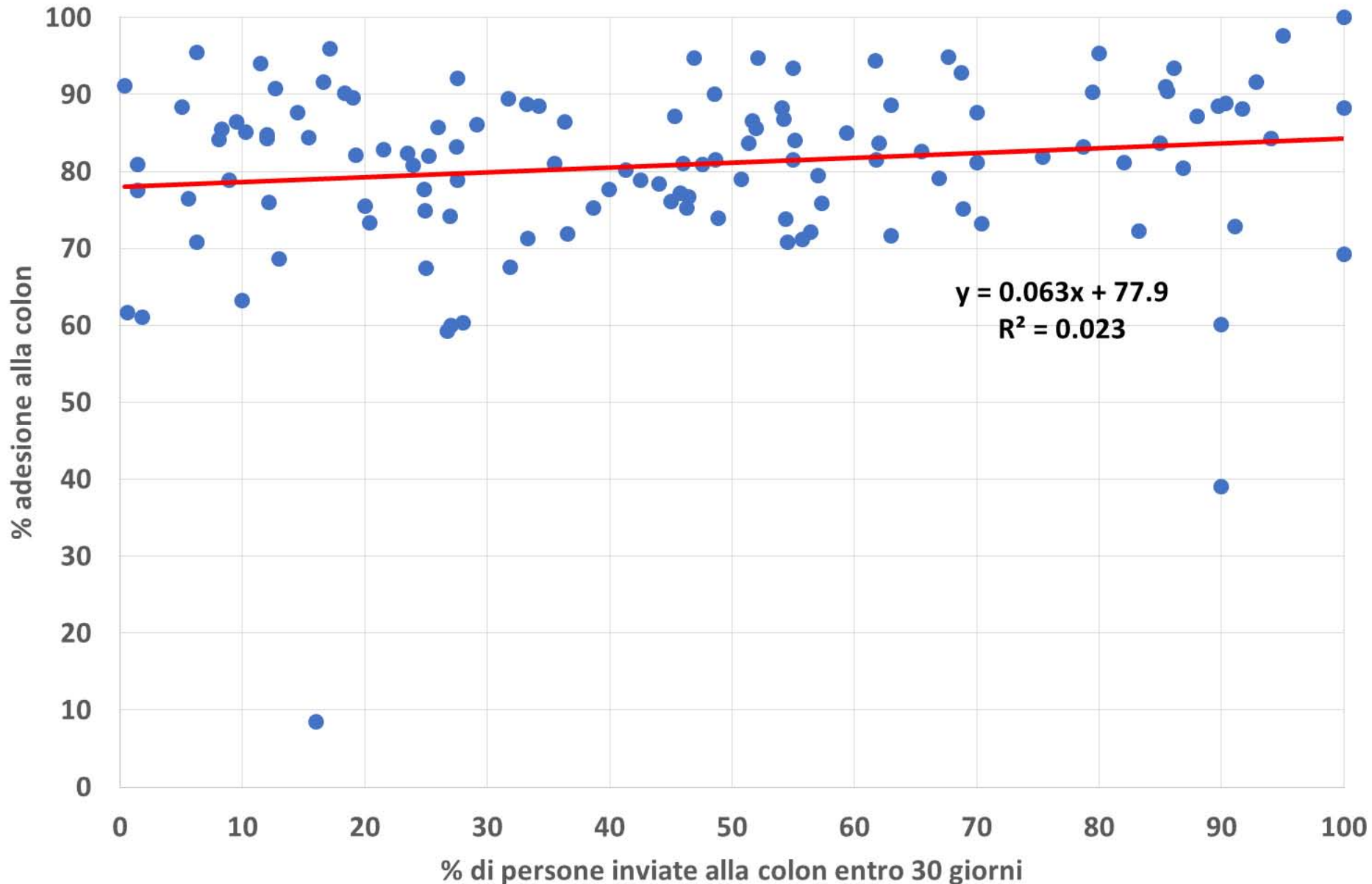


# Primo spauracchio

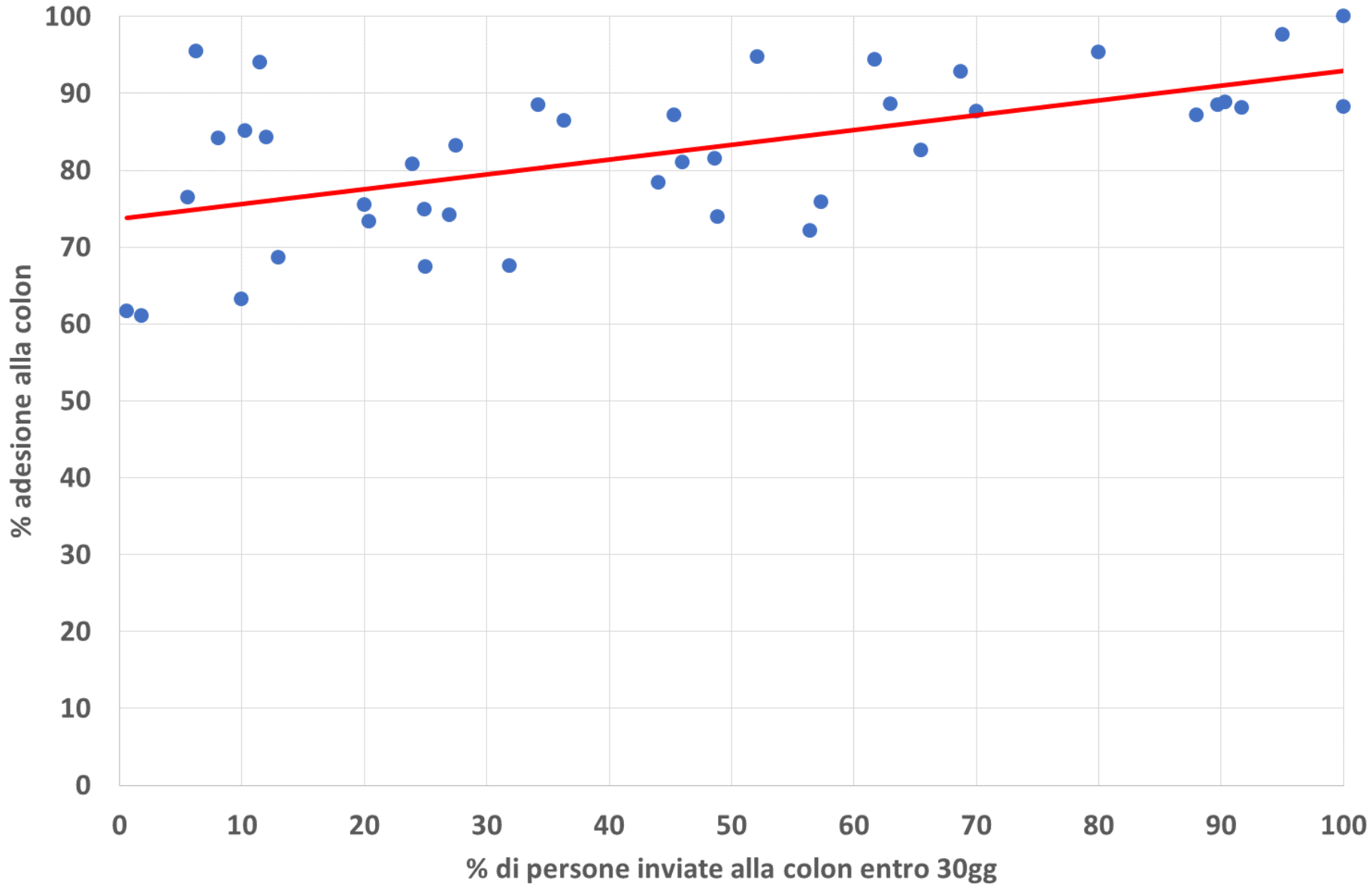
Tempi di attesa troppo lunghi  
riducono l'adesione alla  
colonscopia?



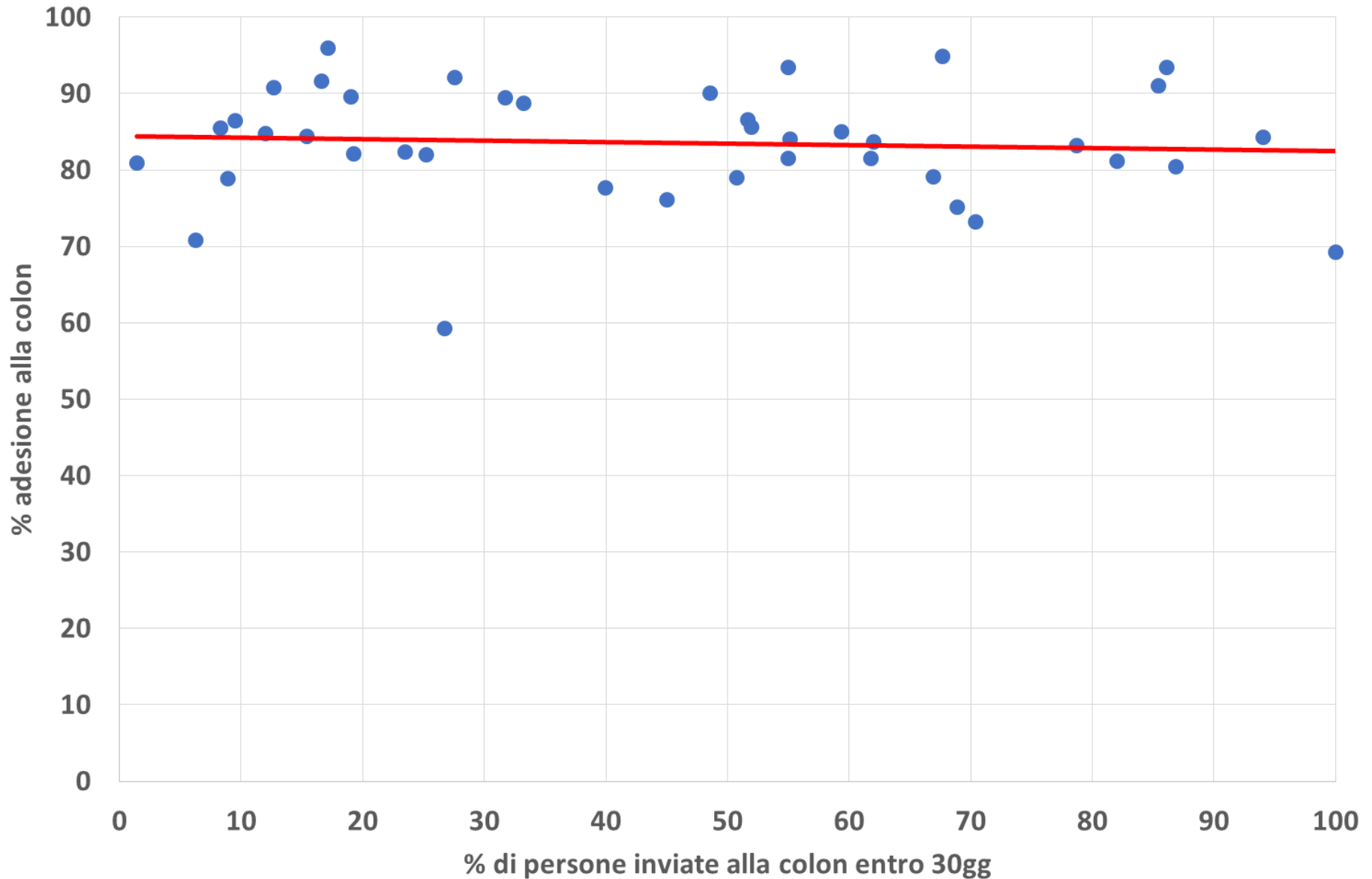
# Correlazione tra tempo di attesa < 30 giorni e adesione alla colonscopia. Anno 2015



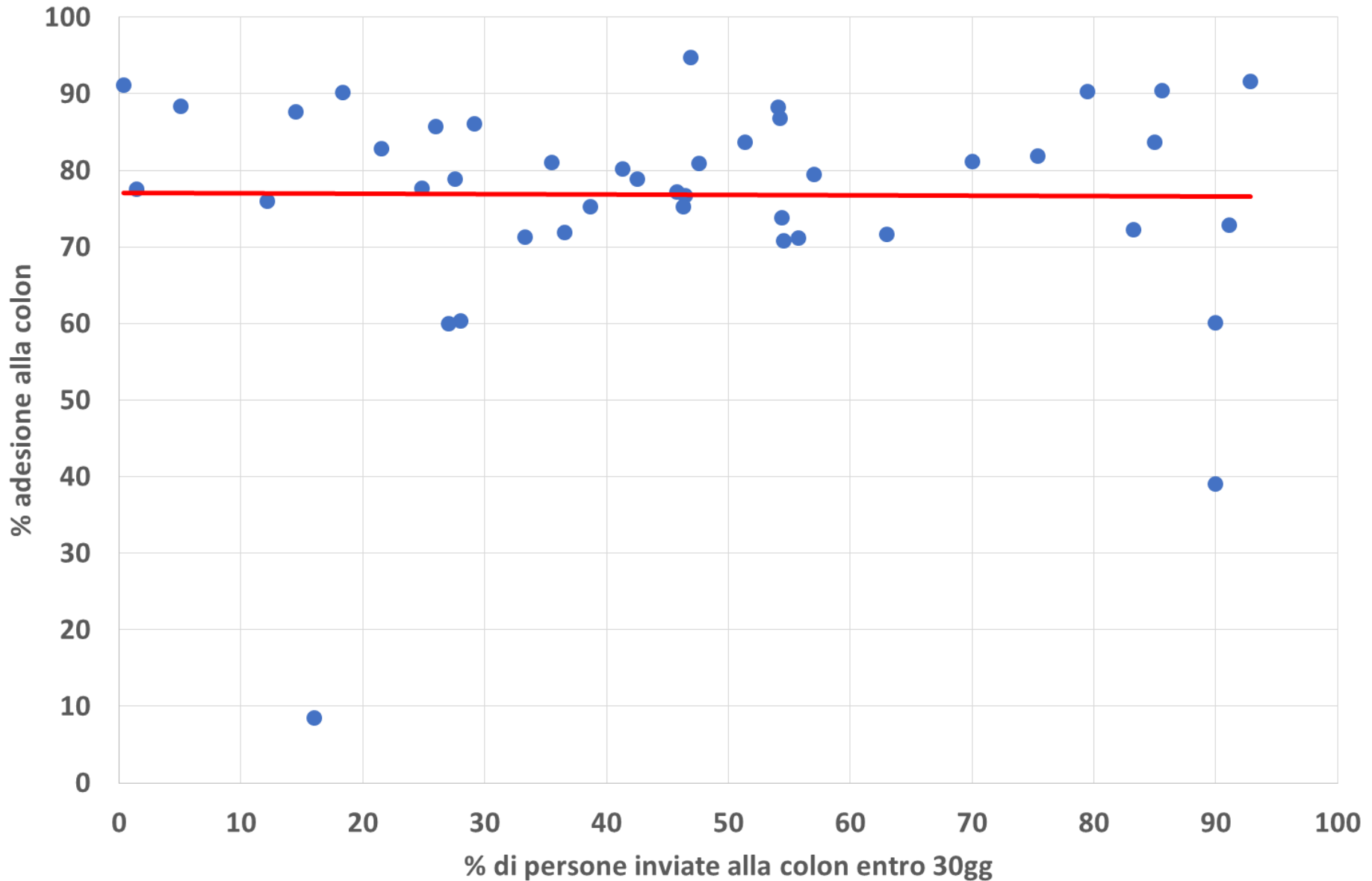
# Correlazione tra tempo di attesa <30gg e adesione alla colonscopia. Programmi con **bassi volumi** di attività. Anno 2015



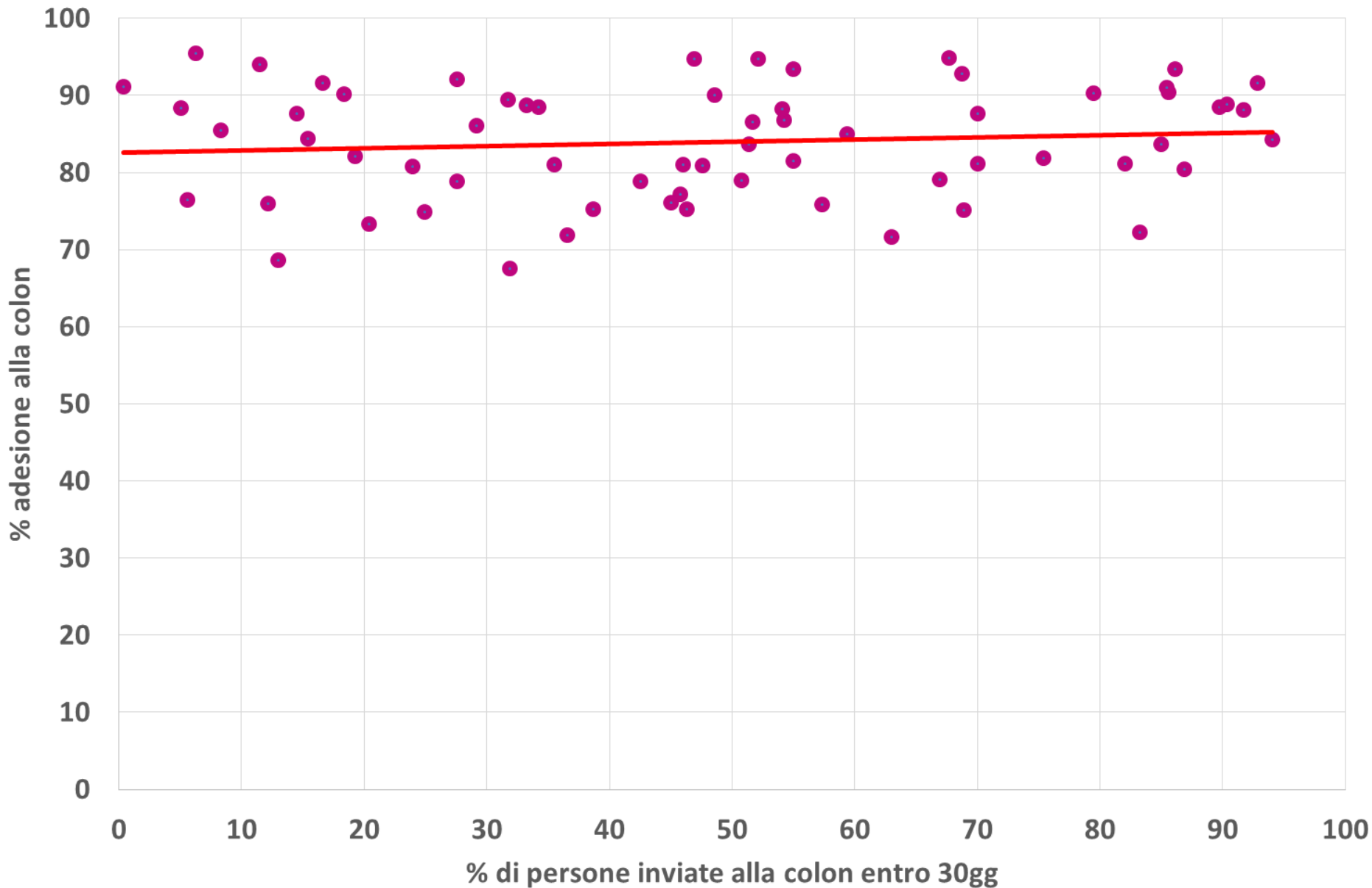
# Correlazione tra tempo di attesa <30gg e adesione alla colonscopia. Programmi con **medi volumi** di attività. Anno 2015



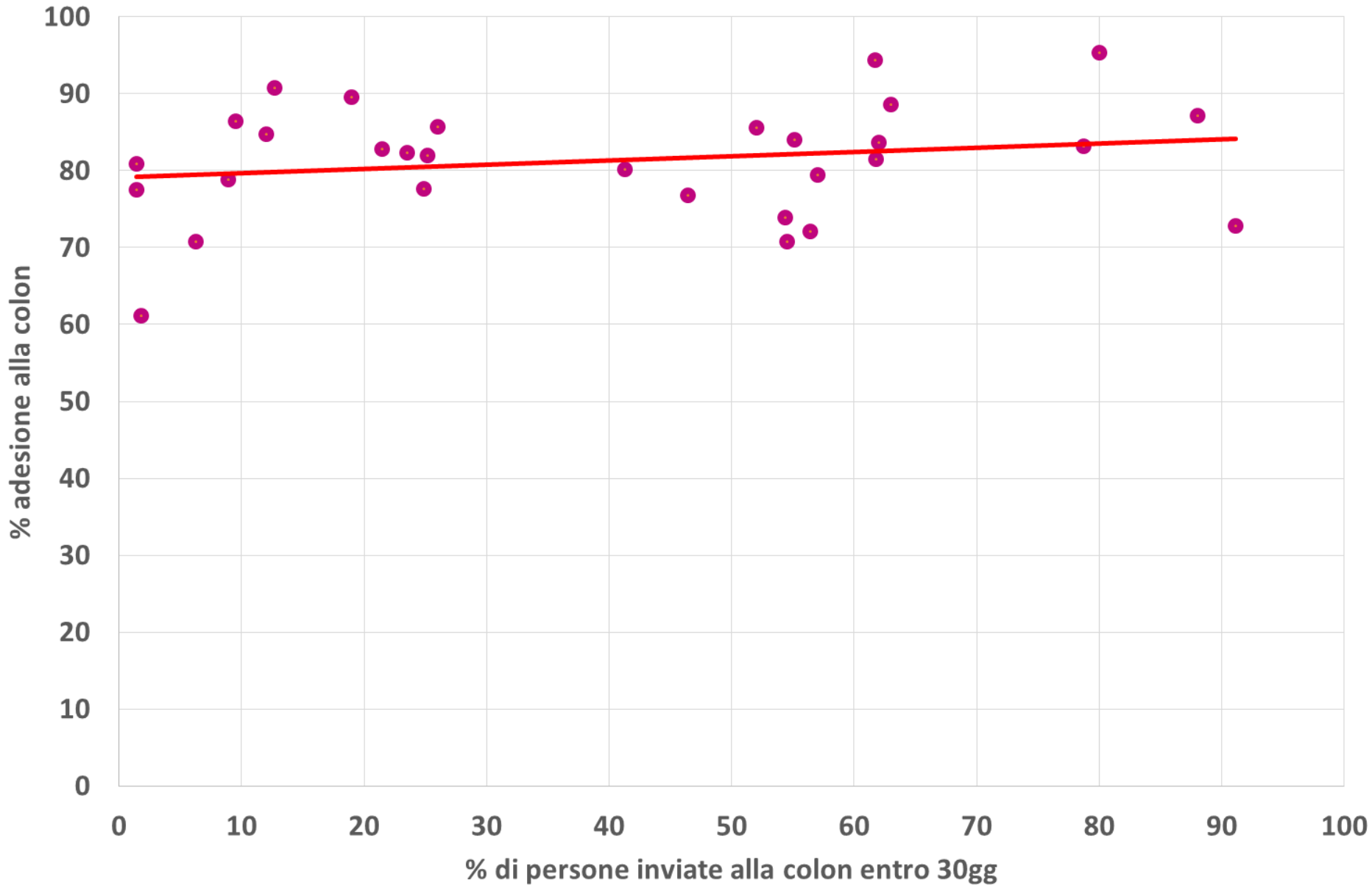
# Correlazione tra tempo di attesa <30gg e adesione alla colonscopia. Programmi con **alti volumi** di attività. Anno 2015



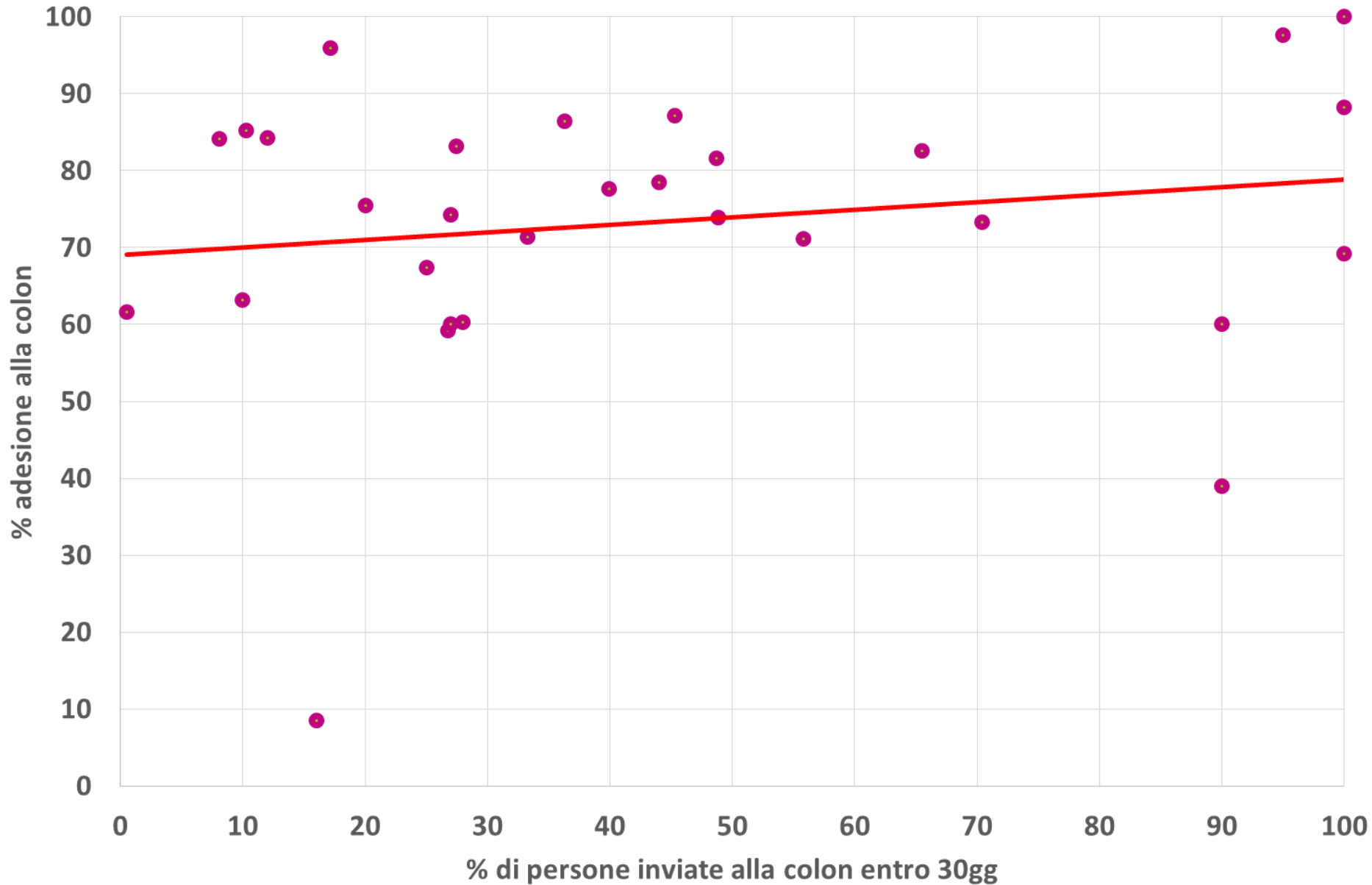
# Correlazione tra tempo di attesa <30gg e adesione alla colonscopia. Programmi del **NORD**. Anno 2015



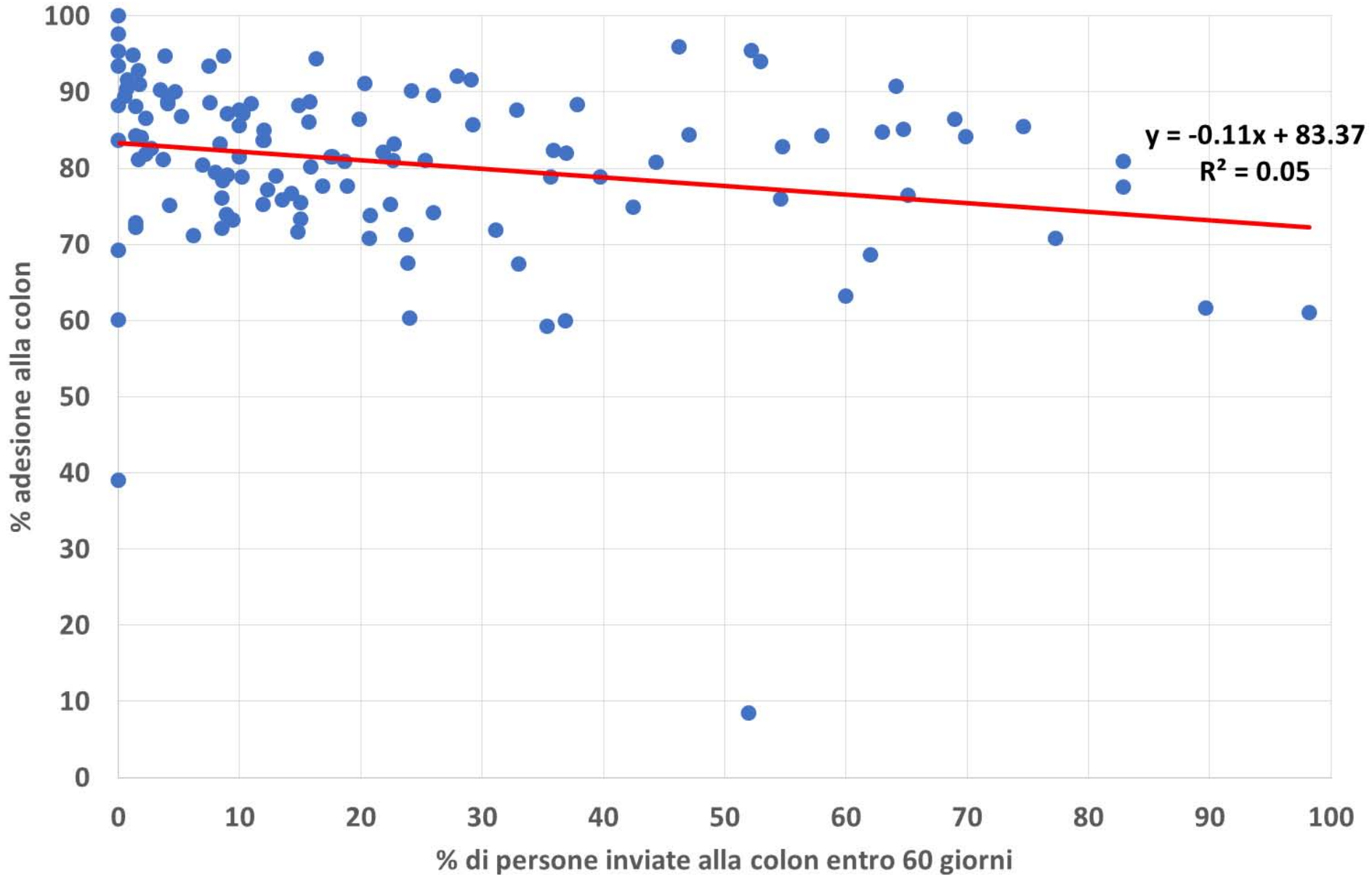
# Correlazione tra tempo di attesa <30gg e adesione alla colonscopia. Programmi del **CENTRO**. Anno 2015



# Correlazione tra tempo di attesa <30gg e adesione alla colonscopia. Programmi del SUD. Anno 2015

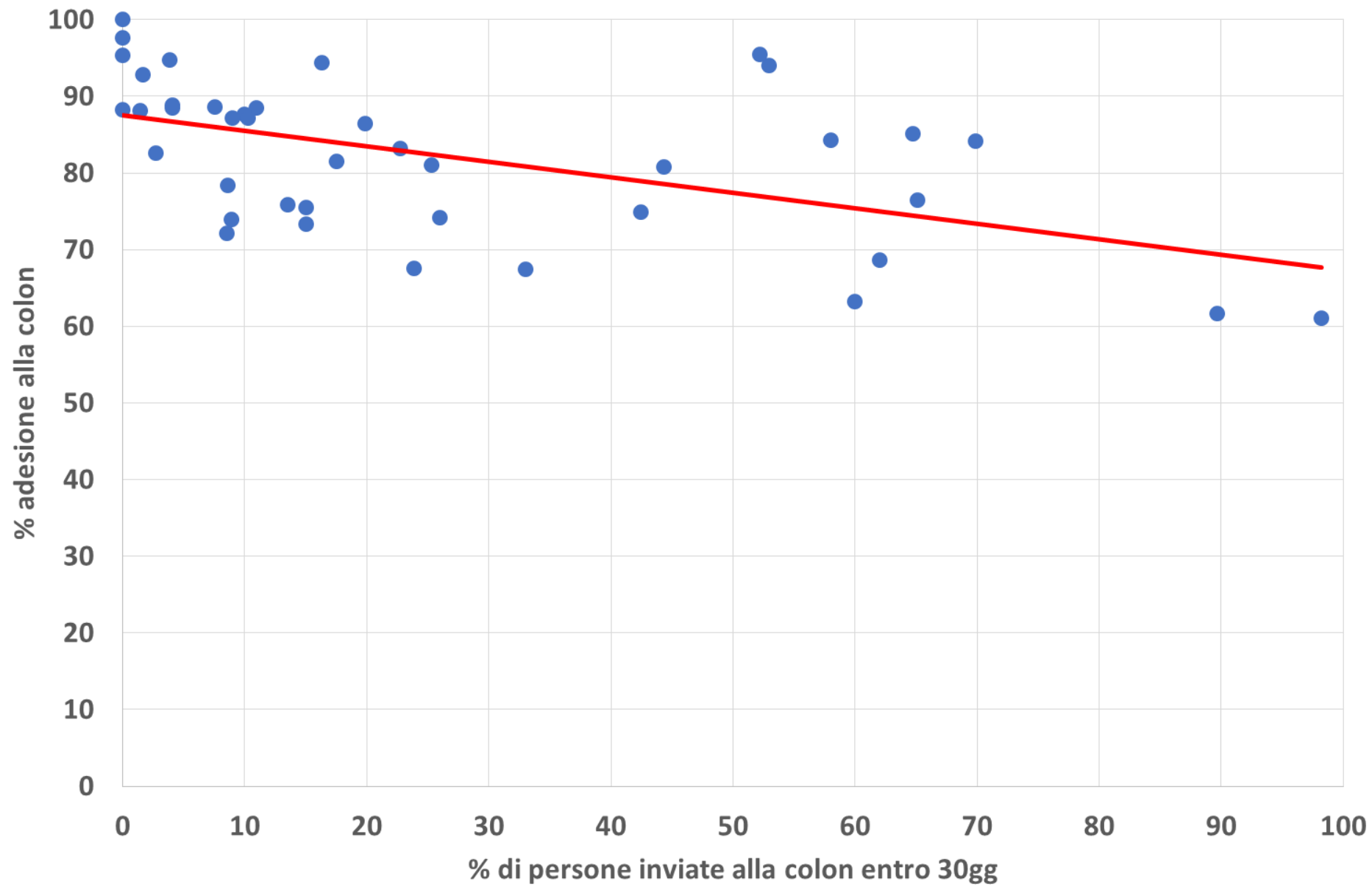


# Correlazione tra tempo di attesa > 60 giorni e adesione alla colonscopia. Anno 2015

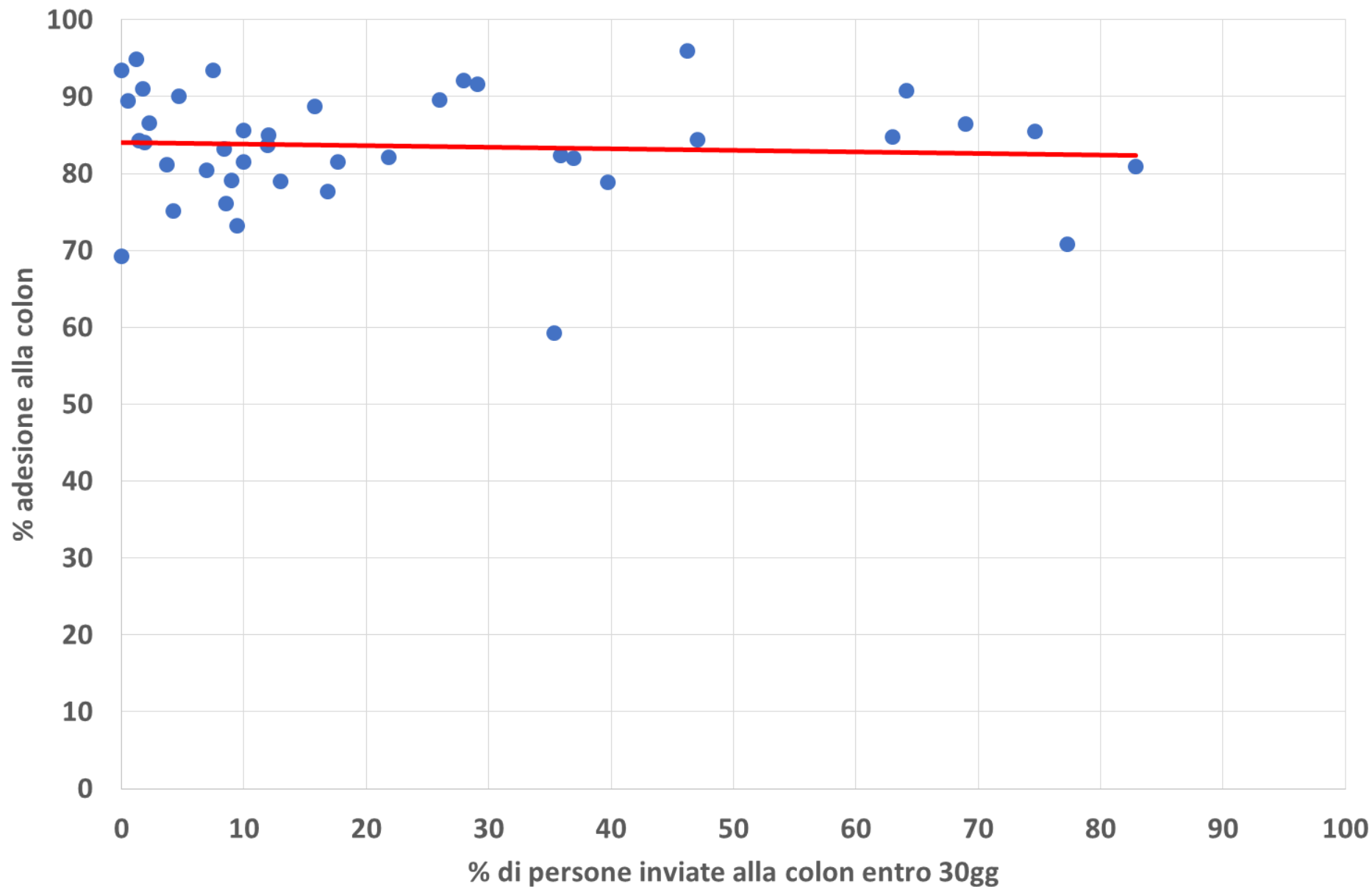




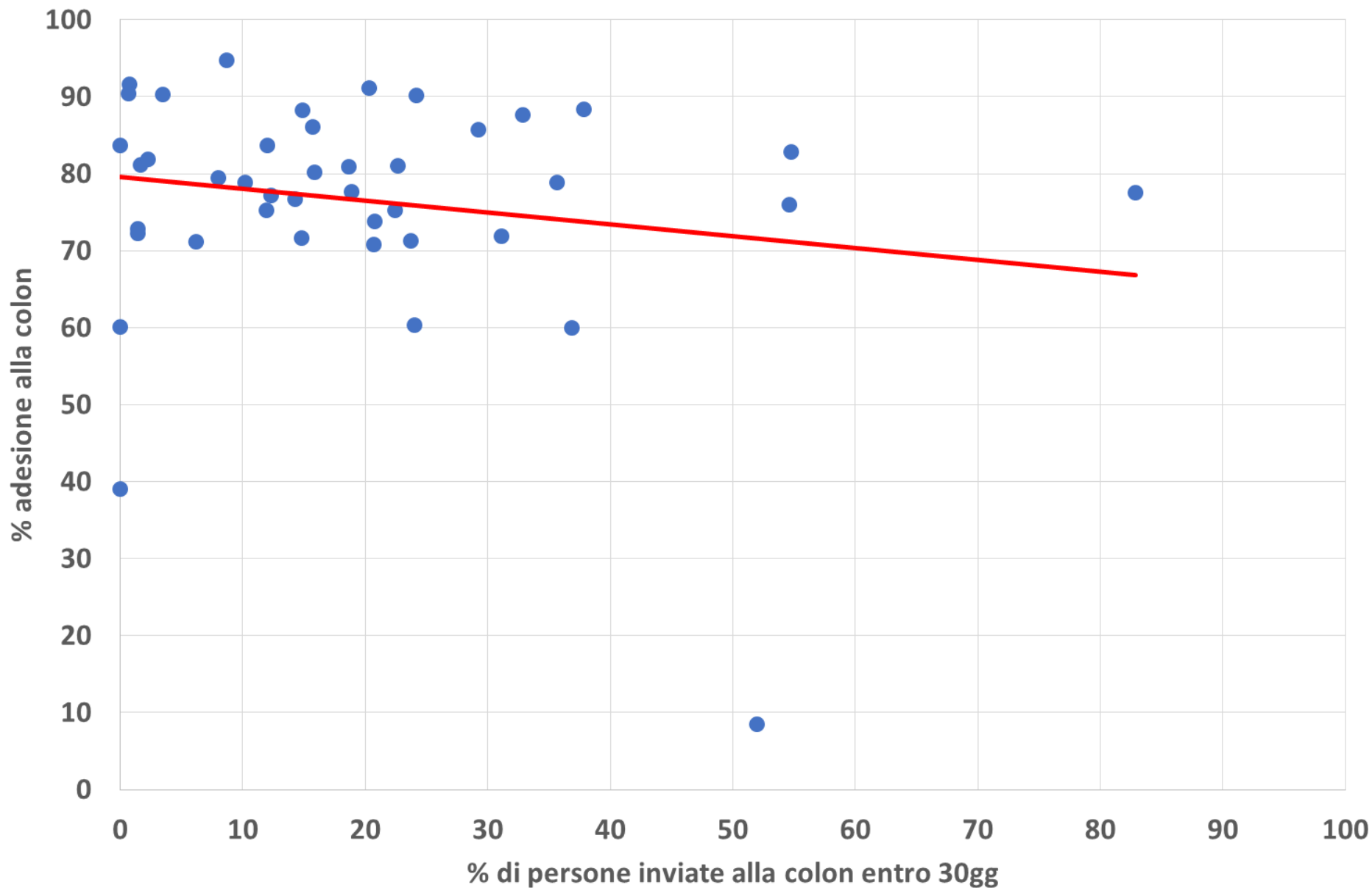
# Correlazione tra tempo di attesa >60gg e adesione alla colonscopia. Programmi con **bassi volumi** di attività. Anno 2015



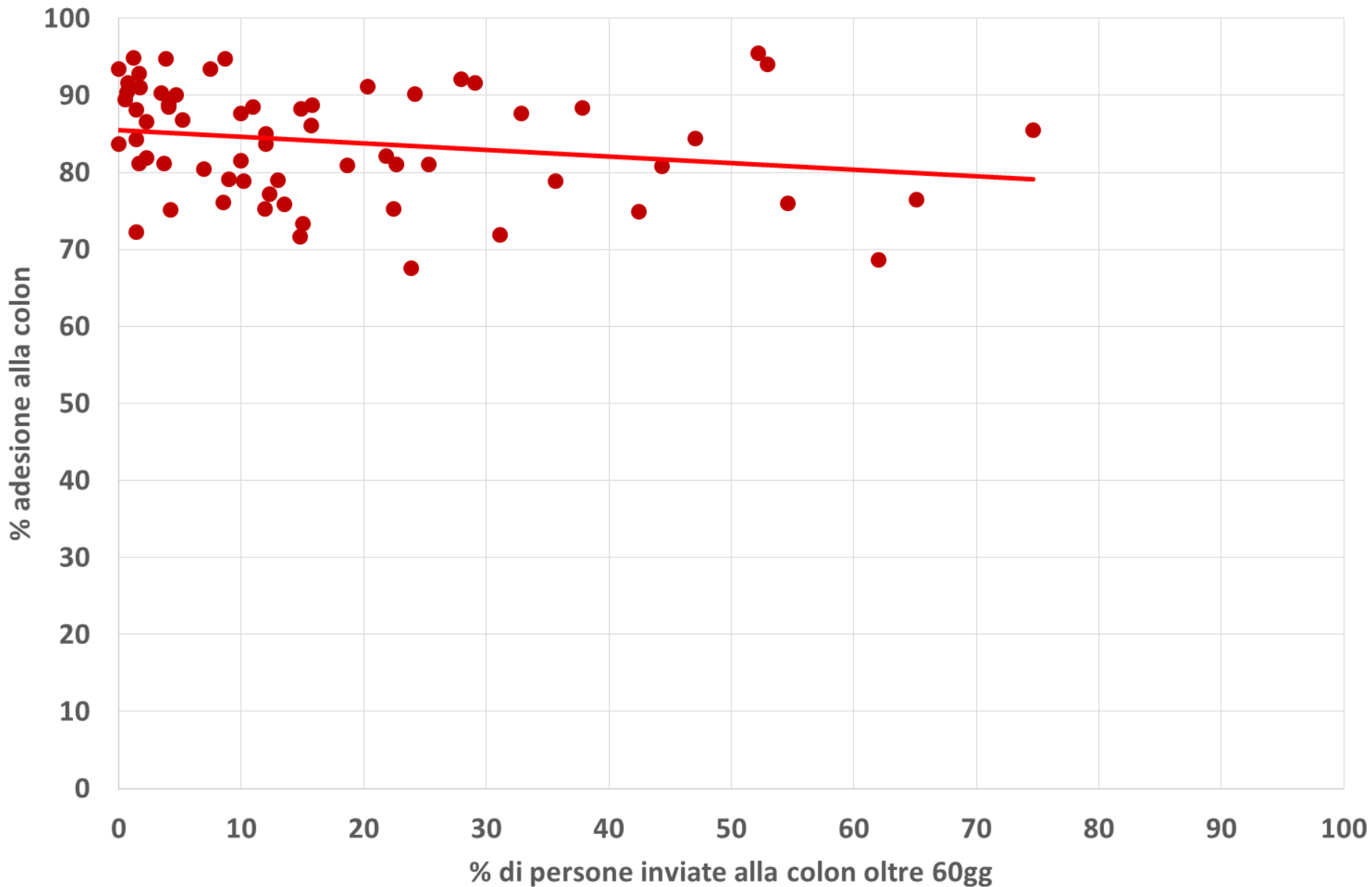
# Correlazione tra tempo di attesa >60gg e adesione alla colonscopia. Programmi con **medi volumi** di attività. Anno 2015



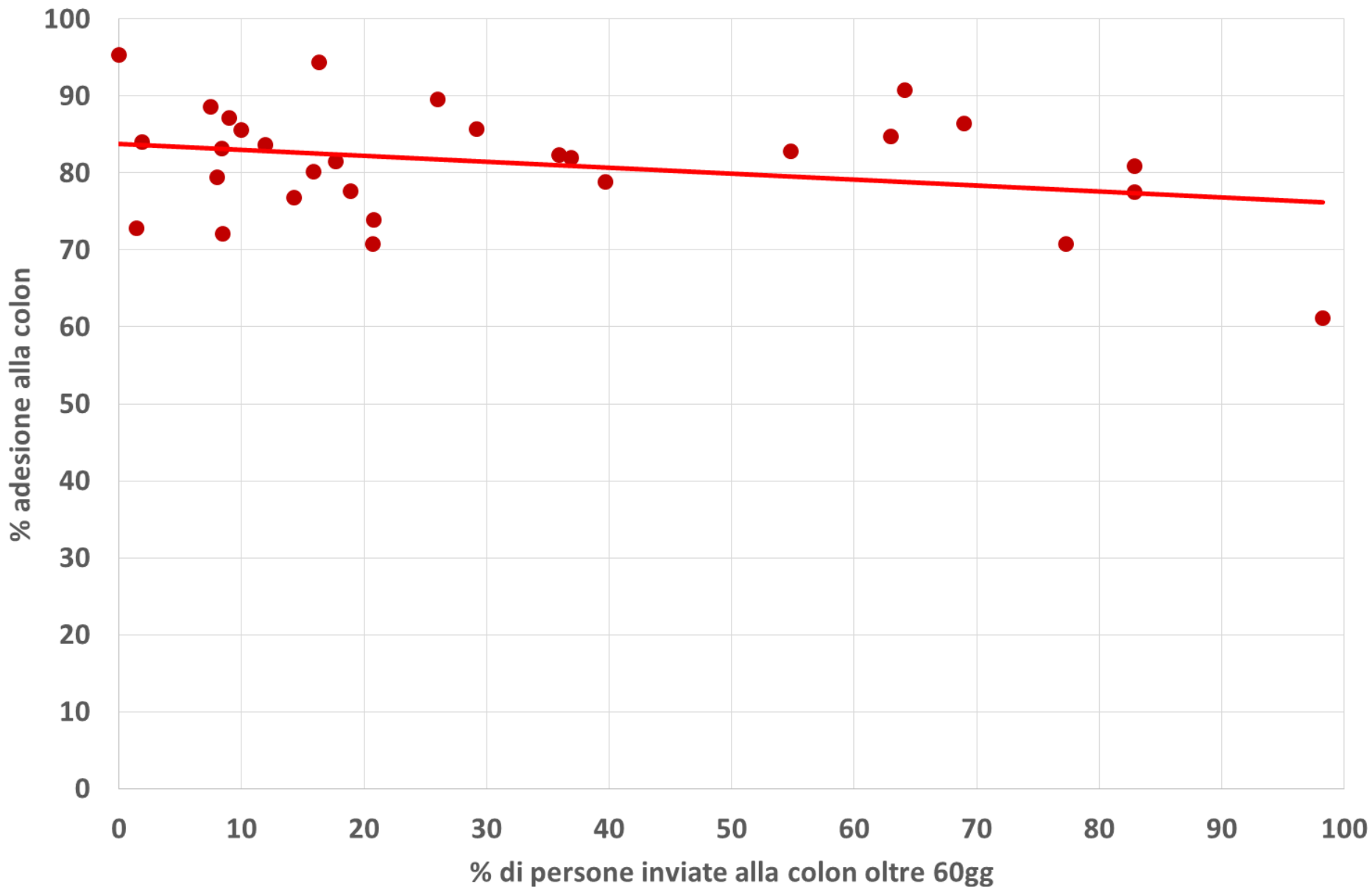
# Correlazione tra tempo di attesa >60gg e adesione alla colonscopia. Programmi con **alti volumi** di attività. Anno 2015



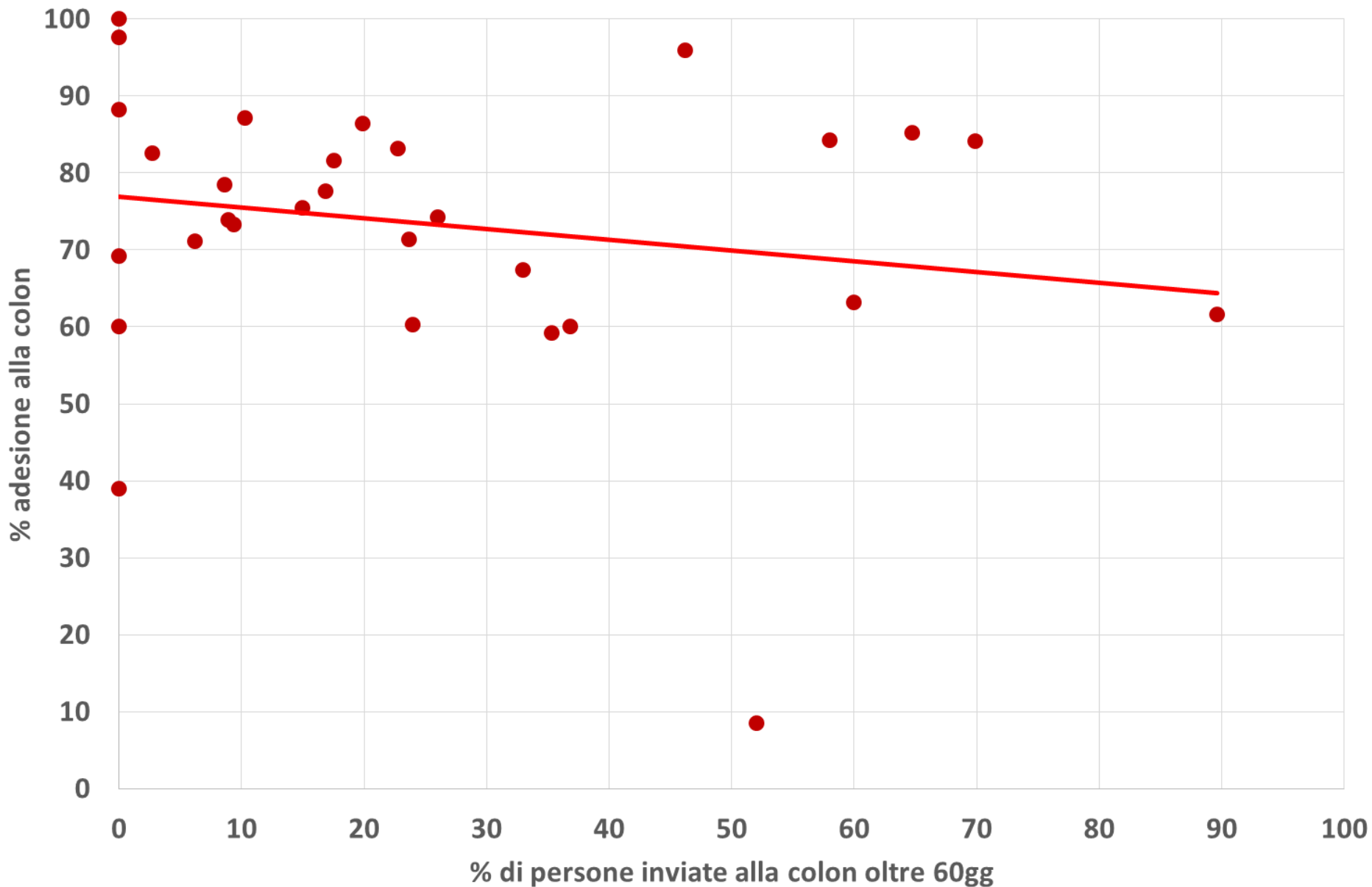
# Correlazione tra tempo di attesa >60gg e adesione alla colonscopia. Programmi del NORD. Anno 2015



# Correlazione tra tempo di attesa >60gg e adesione alla colonscopia. Programmi del **CENTRO**. Anno 2015



# Correlazione tra tempo di attesa >60gg e adesione alla colonscopia. Programmi del SUD. Anno 2015



# **Il secondo spauracchio**

Tempi di attesa troppo lunghi  
aumentano il rischio di tumore?

# Association Between Time to Colonoscopy After a Positive Fecal Test Result and Risk of Colorectal Cancer and Cancer Stage at Diagnosis

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Chyke A. Doubeni, MD, MPH; Ann G. Zauber, PhD; Jeffrey K. Lee, MD, MAS; Joanne E. Schottinger, MD;  
Amy R. Marks, MPH; Wei K. Zhao, MPH; Nirupa R. Ghai, PhD; Alexander T. Lee, MD; Richard Contreras, MS;  
Charles P. Quesenberry, PhD; Bruce H. Fireman, MA; Theodore R. Levin, MD

*JAMA*. 2017;317(16):1631-1641. doi:10.1001/jama.2017.3634



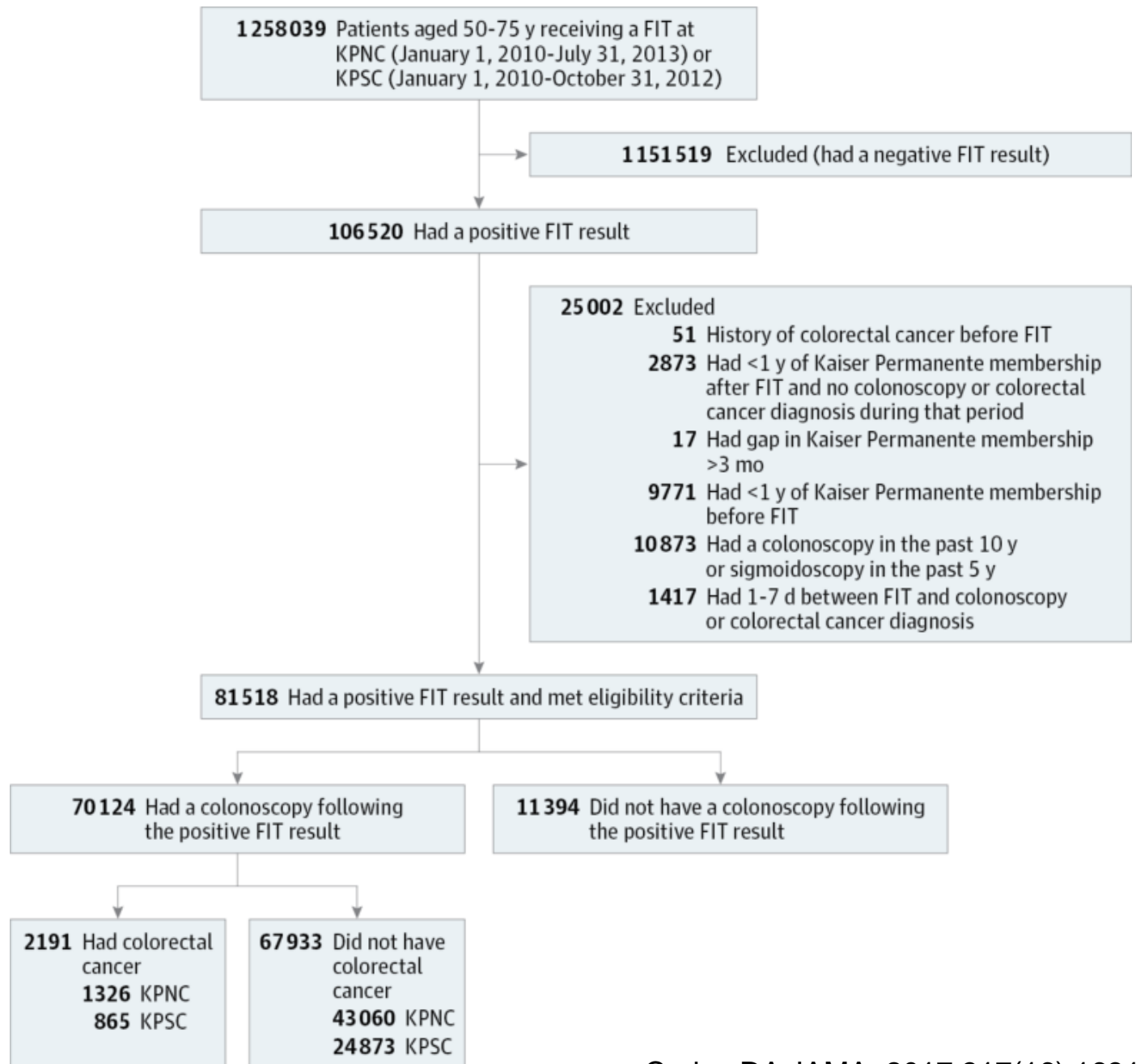


Table 1. Characteristics Among Patients Who Received a Colonoscopy After a Positive FIT Result

Characteristics <sup>a</sup>	Time to Colonoscopy, No. of Patients (%) <sup>b</sup>							Total
	8-30 Days	2 Months	3 Months	4-6 Months	7-9 Months	10-12 Months	>12 Months	
Total patients	27 176	24 644	8666	5251	1335	748	2304	70 124

%	38.8	35.1	12.4	7.5	1.9	1.1	3.3	100
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**Table 2. Colorectal Cancer Outcomes in Patients Who Received a Colonoscopy After a Positive FIT Result**

Characteristics	Time to Colonoscopy, No. of Patients (%) <sup>a</sup>							Total
	8-30 Days	2 Months	3 Months	4-6 Months	7-9 Months	10-12 Months	>12 Months	
Advanced adenoma <sup>b</sup>	2135 (8.1)	2168 (9.0)	779 (9.3)	429 (8.4)	114 (8.9)	75 (10.5)	247 (11.6)	5947 (8.8)
Any colorectal cancer	807 (3.0)	685 (2.8)	265 (3.1)	165 (3.1)	58 (4.3)	37 (4.9)	174 (7.6)	2191 (3.1)
Advanced-stage colorectal cancer <sup>c</sup>								
Present	219 (0.8)	173 (0.7)	60 (0.7)	46 (0.9)	17 (1.3)	14 (1.9)	72 (3.1)	601 (0.9)
Unknown	3 (<1)	2 (<1)	2 (<1)	2 (<1)	0	1 (0.1)	4 (0.2)	14 (<1)
Colorectal cancer stage								
0	129 (0.5)	113 (0.5)	39 (0.5)	32 (0.6)	7 (0.5)	6 (0.8)	17 (0.7)	343 (0.5)
I	314 (1.2)	275 (1.1)	122 (1.4)	48 (0.9)	19 (1.4)	5 (0.7)	40 (1.7)	823 (1.2)
II	142 (0.5)	122 (0.5)	42 (0.5)	37 (0.7)	15 (1.1)	11 (1.5)	41 (1.8)	410 (0.6)
III	169 (0.6)	133 (0.5)	56 (0.6)	32 (0.6)	12 (0.9)	9 (1.2)	49 (2.1)	460 (0.7)
IV	50 (0.2)	40 (0.2)	4 (<1)	14 (0.3)	5 (0.4)	5 (0.7)	23 (1.0)	141 (0.2)
Unknown	3 (<1)	2 (<1)	2 (<1)	2 (<1)	0	1 (0.1)	4 (0.2)	14 (<1)
No colorectal cancer	26 369 (97.0)	23 959 (97.2)	8401 (96.9)	5086 (96.9)	1277 (95.7)	711 (95.1)	2130 (92.4)	67 933 (96.9)

Abbreviation: FIT, fecal immunochemical test.

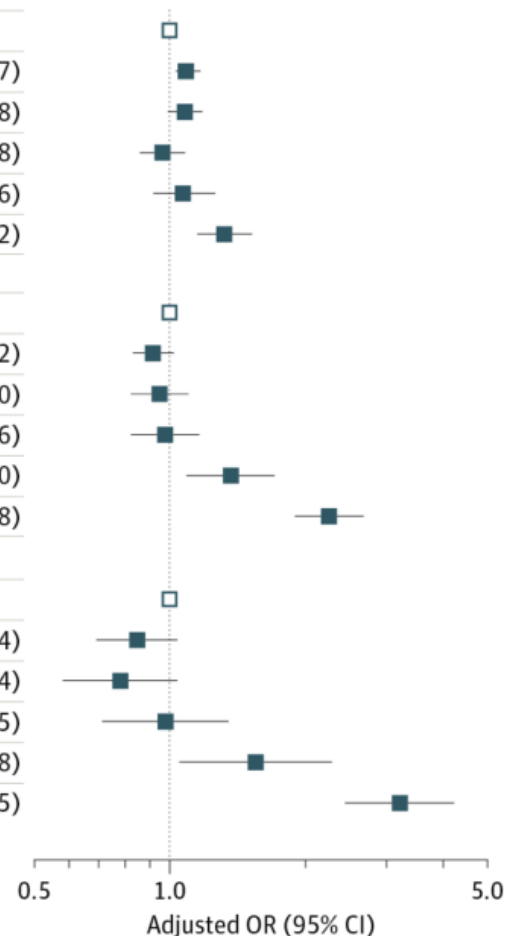
<sup>a</sup>  $P < .001$  for differences in proportions across time intervals for all variables. Time to colonoscopy intervals: 2 months (31-60 days), 3 months (61-90 days), 4 to 6 months (91-180 days), 7 to 9 months (181-272 days), 10 to 12 months (273-365 days), and more than 12 months (366-1571 days).

<sup>b</sup> Advanced adenoma refers to adenomas with advanced histology (ie, tubulovillous and villous adenomas).

<sup>c</sup> Advanced-stage cancers were defined as stage III (regional lymph node involvement) or stage IV (distant metastasis) according to the American Joint Committee on Cancer staging system or, for those without such staging, as code 3 (disease in the regional lymph nodes), code 4 (regional disease with direct extension and spread to the regional lymph nodes), or code 7 (distant metastasis) according to the 2013 Surveillance, Epidemiology, and End Results Program Coding and Staging Manual.

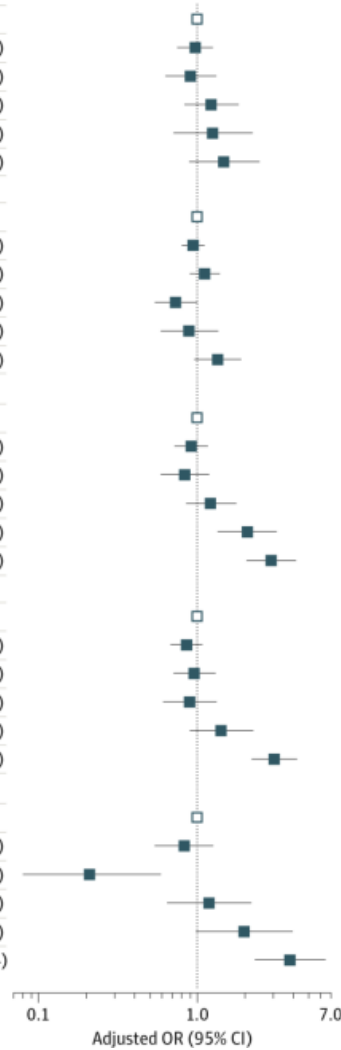
# Time to Colonoscopy After a Positive FIT and Adjusted Risk of Advanced Adenoma, Any Colorectal Cancer, and Advanced-Stage Colorectal Cancer

Time to Colonoscopy After Positive FIT Result	No. of Cases/ Total No. of Patients Receiving Colonoscopy After Positive FIT Result	Rate (95% CI) <sup>b</sup>	Adjusted OR (95% CI)
<b>Advanced adenoma</b>			
8-30 d	2135/26 369	81 (78-84)	1 [Reference]
2 mo	2168/23 959	91 (87-94)	1.09 (1.03-1.17)
3 mo	779/8401	93 (87-99)	1.08 (0.99-1.18)
4-6 mo	429/5086	84 (77-92)	0.97 (0.86-1.08)
7-12 mo	189/1988	95 (82-108)	1.07 (0.92-1.26)
>12 mo	247/2130	116 (102-130)	1.32 (1.15-1.52)
<b>Any colorectal cancer</b>			
8-30 d	807/27 176	30 (28-32)	1 [Reference]
2 mo	685/24 644	28 (26-30)	0.92 (0.83-1.02)
3 mo	265/8666	31 (27-34)	0.95 (0.82-1.10)
4-6 mo	165/5251	31 (27-36)	0.98 (0.82-1.16)
7-12 mo	95/2083	46 (37-55)	1.37 (1.09-1.70)
>12 mo	174/2304	76 (65-86)	2.25 (1.89-2.68)
<b>Advanced-stage colorectal cancer</b>			
8-30 d	219/27 173	8 (7-9)	1 [Reference]
2 mo	173/24 642	7 (6-8)	0.85 (0.69-1.04)
3 mo	60/8664	7 (5-9)	0.78 (0.58-1.04)
4-6 mo	46/5249	9 (6-11)	0.98 (0.71-1.35)
7-12 mo	31/2082	15 (10-20)	1.55 (1.05-2.28)
>12 mo	72/2300	31 (24-38)	3.22 (2.44-4.25)



# Time to Colonoscopy After a Positive FIT and Adjusted Risk of Colorectal Cancer Stages 0-IV

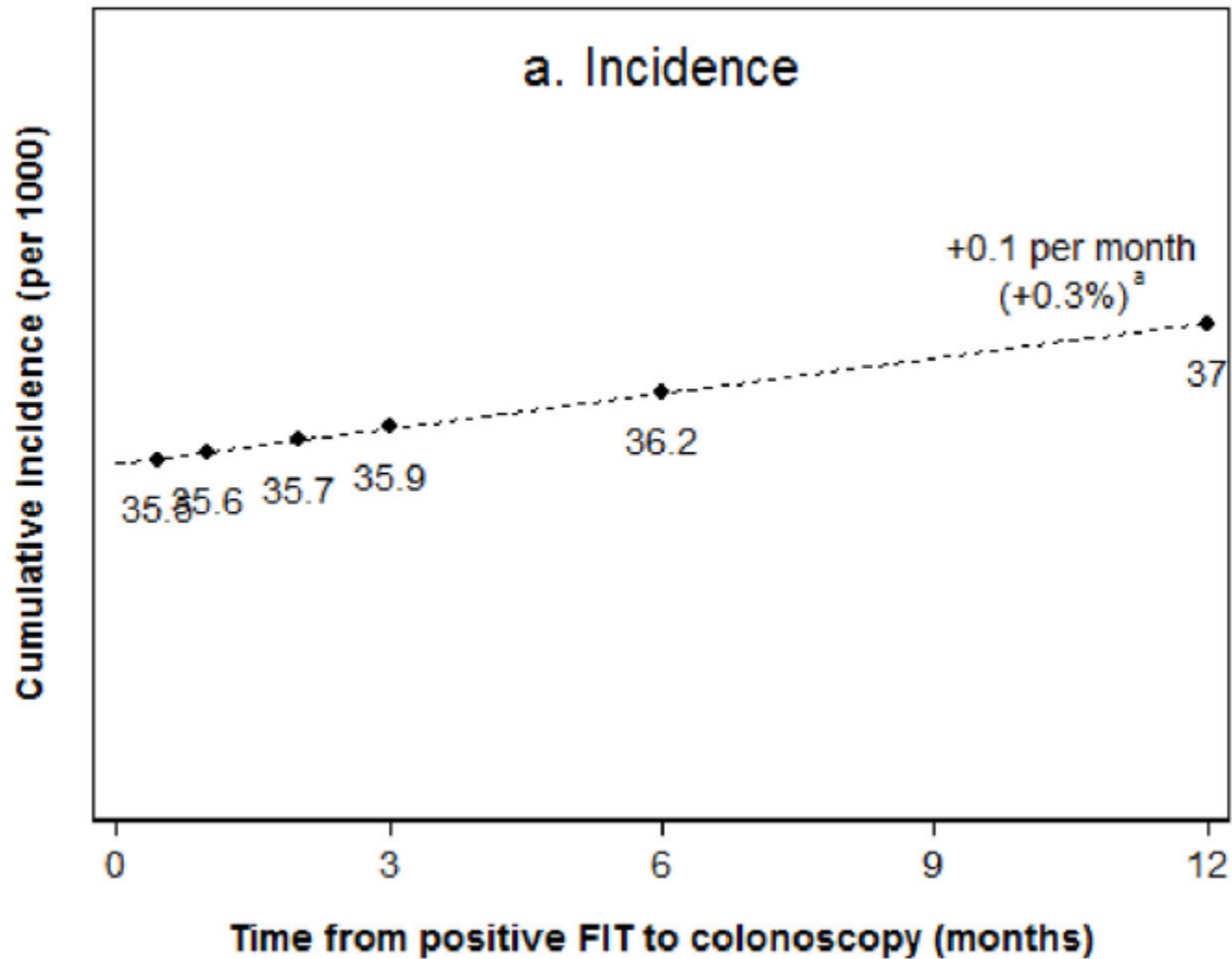
Time to Colonoscopy After Positive FIT Result	No. of Cases/ Total No. of Patients Receiving Colonoscopy After Positive FIT Result	Rate (95% CI) <sup>b</sup>	Adjusted OR (95% CI)
<b>Stage 0 colorectal cancer</b>			
8-30 d	129/26 498	5 (4-6)	1 [Reference]
2 mo	113/24 072	5 (4-6)	0.98 (0.75-1.26)
3 mo	39/8440	5 (3-6)	0.91 (0.63-1.32)
4-6 mo	32/5118	6 (4-8)	1.23 (0.83-1.83)
7-12 mo	13/2001	6 (3-10)	1.26 (0.71-2.24)
>12 mo	17/2147	8 (4-12)	1.48 (0.89-2.47)
<b>Stage I colorectal cancer</b>			
8-30 d	314/26 683	12 (10-13)	1 [Reference]
2 mo	275/24 234	11 (10-13)	0.94 (0.80-1.11)
3 mo	122/8523	14 (12-17)	1.12 (0.90-1.39)
4-6 mo	48/5134	9 (7-12)	0.73 (0.54-1.00)
7-12 mo	24/2012	12 (7-17)	0.89 (0.59-1.36)
>12 mo	40/2170	18 (13-24)	1.35 (0.96-1.89)
<b>Stage II colorectal cancer</b>			
8-30 d	142/26 511	5 (4-6)	1 [Reference]
2 mo	122/24 081	5 (4-6)	0.92 (0.72-1.17)
3 mo	42/8443	5 (3-6)	0.84 (0.59-1.19)
4-6 mo	37/5123	7 (5-10)	1.22 (0.85-1.77)
7-12 mo	26/2014	13 (8-18)	2.07 (1.35-3.17)
>12 mo	41/2171	19 (13-25)	2.94 (2.05-4.20)
<b>Stage III colorectal cancer</b>			
8-30 d	169/26 538	6 (5-7)	1 [Reference]
2 mo	133/24 092	6 (5-6)	0.86 (0.68-1.08)
3 mo	56/8457	7 (5-8)	0.96 (0.71-1.31)
4-6 mo	32/5118	6 (4-8)	0.90 (0.61-1.33)
7-12 mo	21/2009	10 (6-15)	1.42 (0.90-2.26)
>12 mo	49/2179	22 (16-29)	3.07 (2.21-4.27)
<b>Stage IV colorectal cancer</b>			
8-30 d	50/26 419	2 (1-2)	1 [Reference]
2 mo	40/23 999	2 (1-2)	0.83 (0.54-1.26)
3 mo	4/8405	0 (0-1)	0.21 (0.08-0.59)
4-6 mo	14/5100	3 (1-4)	1.19 (0.65-2.18)
7-12 mo	10/1998	5 (2-8)	1.99 (0.99-3.98)
>12 mo	23/2153	11 (6-15)	3.86 (2.32- 6.44)



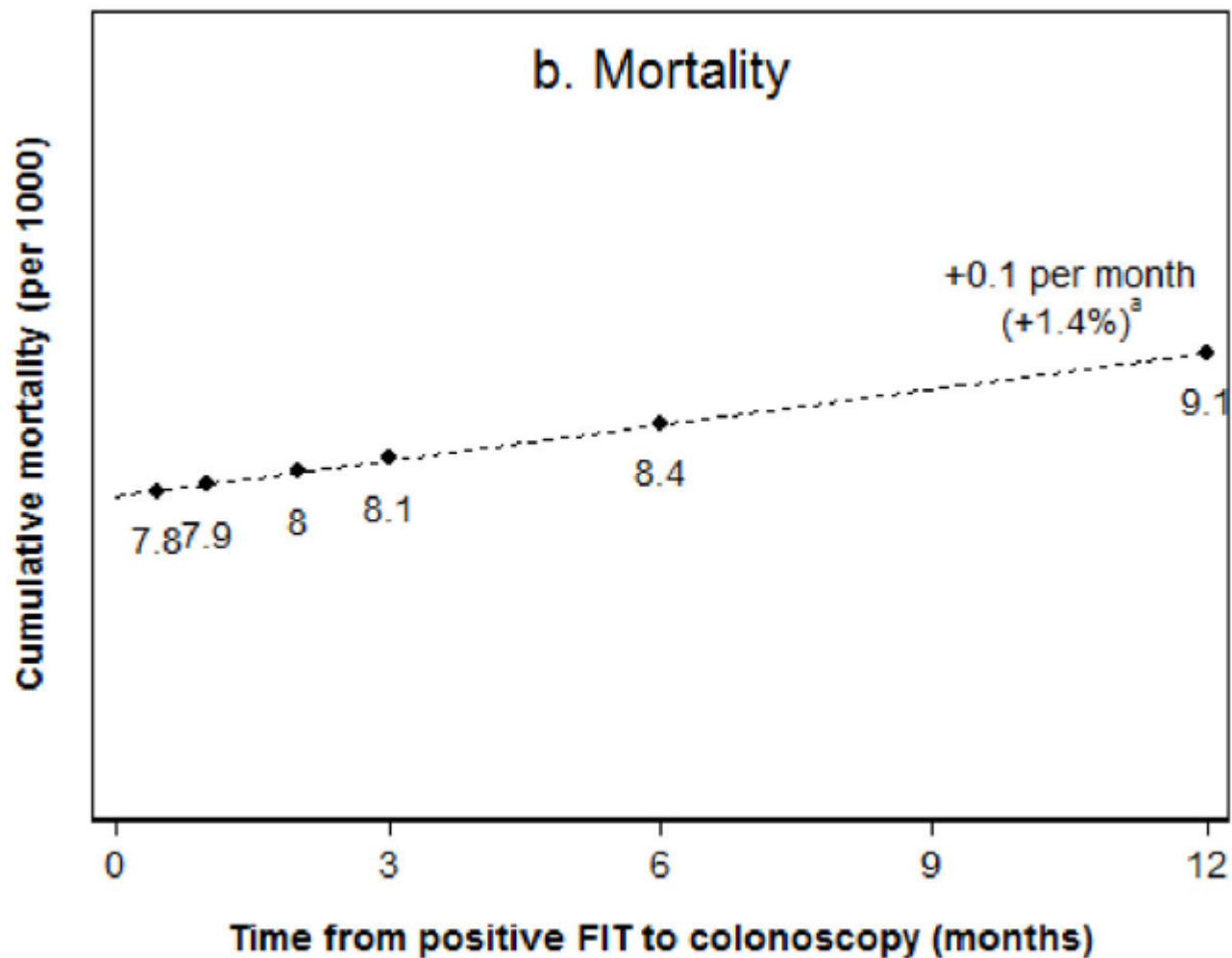
## **Consequences of Increasing Time to Colonoscopy Examination Following Positive Result From Fecal Colorectal Cancer Screening Test**

**Reinier G.S. Meester<sup>1</sup>, Ann G. Zauber<sup>2</sup>, Chyke A. Doubeni<sup>3</sup>, Christopher D. Jensen<sup>4</sup>, Virginia P. Quinn<sup>5</sup>, Mark Helfand<sup>6</sup>, Jason A. Dominitz<sup>7,8</sup>, Theodore R. Levin<sup>4</sup>, Douglas A. Corley<sup>4</sup>, and Iris Lansdorp-Vogelaar<sup>1</sup>**

# Lifetime colorectal cancer incidence in FIT positive patients

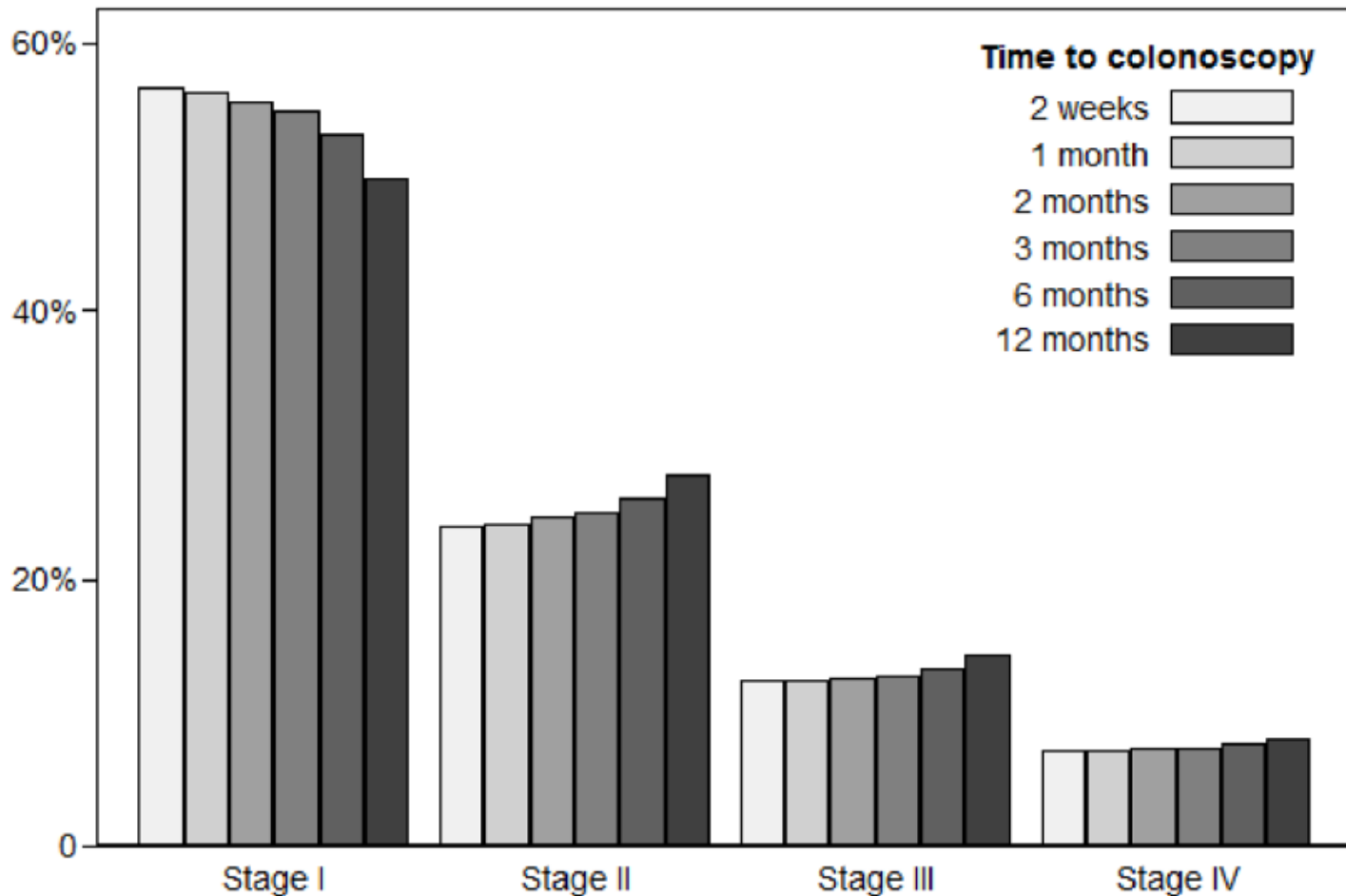


# Lifetime colorectal cancer mortality in FIT positive patients





# Stages of newly diagnosed colorectal cancer cases in FIT positive patients according to time to diagnostic colonoscopy



# Simulated cost-effectiveness of FIT screening for the entire screening cohort

Lifetime outcomes per 1000 patients	Screening						
	None	Average time from positive FIT to colonoscopy (months)					
		0 (2 weeks)	1	2	3	6	12
Colorectal cancer outcomes							
Cancer cases	64.8	35.5	35.6	35.7	35.9	36.2	37.0
Advanced cancer cases <sup>a</sup>	53.4	17.1	17.2	17.5	17.7	18.5	19.9
Cancer deaths	26.8	7.4	7.4	7.5	7.6	7.8	8.3
Years of life lost <sup>b</sup>	133.5	39.9	39.9	39.9	42.0	44.4	48.7
Effectiveness of screening							
Cases prevented		29.2	29.2	29.0	28.9	28.5	27.8
Advanced cases prevented <sup>a</sup>		36.3	36.2	35.9	35.7	34.9	33.5
Deaths prevented		19.4	19.4	19.3	19.2	19.0	18.5
Years of life saved <sup>b</sup>		93.7	93.7	93.7	91.5	89.1	84.8
Healthcare costs, US \$1000 <sup>b</sup>							
Total costs of screening and treatment	5612	5404	5411	5420	5430	5459	5512

# Analisi delle colonscopie di approfondimento dopo SOF+

## Programmi di screening del Veneto 01/01/2004 - 04/10/2017

ATTESA (giorni)	Frequenza	%
0-30	50513	41.0
31-60	48021	39.0
61-90	16896	13.7
91-120	4634	3.8
121-150	1526	1.2
151-180	567	0.5
181+	1008	0.8
<b>Totale</b>	<b>123165</b>	<b>100</b>

> 90 giorni:  
6,3%

# Tempi di attesa per età e sesso

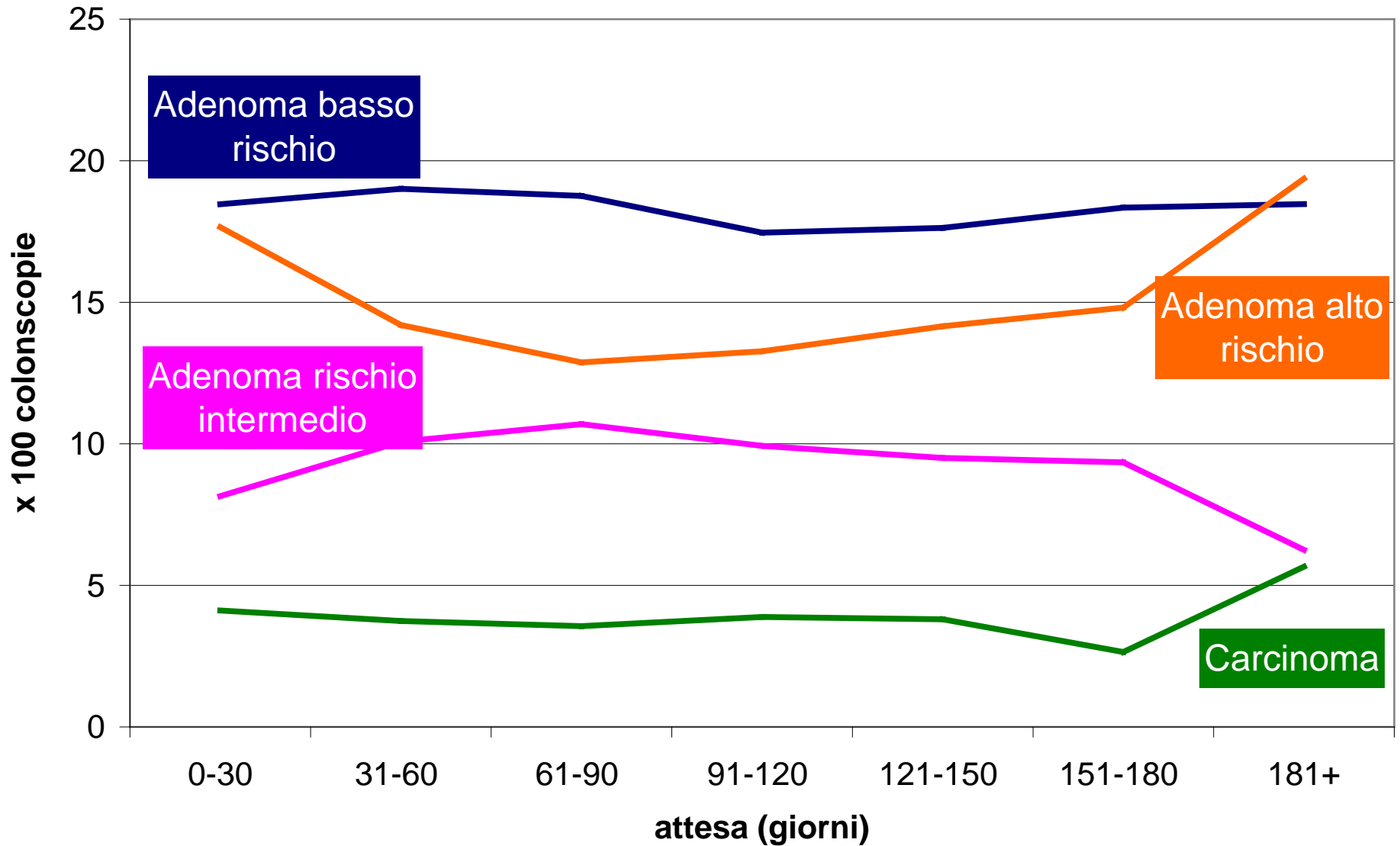
ATTESA (giorni)	Sesso	
	Maschi	Femmine
0-30	41.5	40.6
31-60	38.9	39.0
61-90	13.4	14.0
91-120	3.7	3.8
121-150	1.3	1.2
151-180	0.5	0.5
181+	0.8	0.9

ATTESA (giorni)	Fascia d'età (anni)				
	<50	50-54	55-59	60-64	65+
0-30	43.4	39.0	40.9	41.4	42.1
31-60	38.1	39.9	38.7	39.1	38.5
61-90	12.9	14.6	14.1	13.3	13.2
91-120	3.4	4.0	3.7	3.7	3.7
121-150	1.1	1.2	1.3	1.2	1.2
151-180	0.5	0.5	0.5	0.4	0.4
181+	0.7	0.8	0.7	0.8	0.9

# Lesioni diagnosticate, per tempo di attesa

	Adenoma basso rischio		Adenoma rischio intermedio		Adenoma alto rischio		Carcinoma	
	N	%	N	%	N	%	N	%
ATTESA (giorni)								
0-30	9327	18.5	4117	8.2	8917	17.7	2078	4.1
31-60	9127	19.0	4840	10.1	6818	14.2	1796	3.7
61-90	3169	18.8	1807	10.7	2176	12.9	602	3.6
91-120	809	17.5	460	9.9	615	13.3	180	3.9
121-150	269	17.6	145	9.5	216	14.2	58	3.8
151-180	104	18.3	53	9.3	84	14.8	15	2.6
181+	186	18.5	63	6.3	195	19.4	57	5.7
Totale	22991	18.7	11485	9.3	19021	15.4	4786	3.9

# Lesioni diagnosticate, per tempo di attesa



# Associazione tra lesioni e tempo di attesa

Adenoma basso rischio					Adenoma rischio intermedio				
ATTESA (giorni)	OR	IC 95%		p-value	ATTESA (giorni)	OR	IC 95%		p-value
0-30	-				0-30	-			
31-60	1.04	1.00	1.07	0.06	31-60	1.26	1.21	1.32	<0.001
61-90	1.02	0.98	1.07	0.28	61-90	1.35	1.27	1.43	<0.001
91-120	0.93	0.86	1.01	0.15	91-120	1.24	1.12	1.37	0.05
121-150	0.95	0.83	1.08	0.46	121-150	1.18	0.99	1.41	0.48
151-180	0.99	0.80	1.23	0.97	151-180	1.16	1.87	1.54	0.76
181+	1.00	0.85	1.17	0.88	181+	0.75	0.58	0.97	<0.001
Adenoma alto rischio					Carcinoma				
ATTESA (giorni)	OR	IC 95%		p-value	ATTESA (giorni)	OR	IC 95%		p-value
0-30	-				0-30	-			
31-60	0.77	0.75	0.80	0.01	31-60	0.91	0.85	0.97	0.62
61-90	0.69	0.66	0.73	<0.001	61-90	0.86	0.79	0.95	0.20
91-120	0.71	0.65	0.78	<0.001	91-120	0.94	0.81	1.10	0.87
121-150	0.77	0.67	0.89	0.27	121-150	0.92	0.71	1.20	0.94
151-180	0.81	0.64	1.02	0.85	151-180	0.63	0.38	1.06	0.09
181+	1.12	0.96	1.31	<0.001	181+	1.40	1.07	1.83	0.001

# Conclusioni

- Poche Regioni / programmi in linea con gli standard di riferimento
- Situazioni in peggioramento
- Tempi di attesa lunghi sono associati a minore adesione
- Aumento del rischio di lesioni clinicamente rilevanti solo se tempo di attesa superiore a 6 mesi



**Grazie per l'attenzione**

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