

Studio epidemiologico di valutazione dello screening cervicale in Emilia-Romagna

Lauro Bucchi, Fabio Falcini, Alessandra Ravaioli

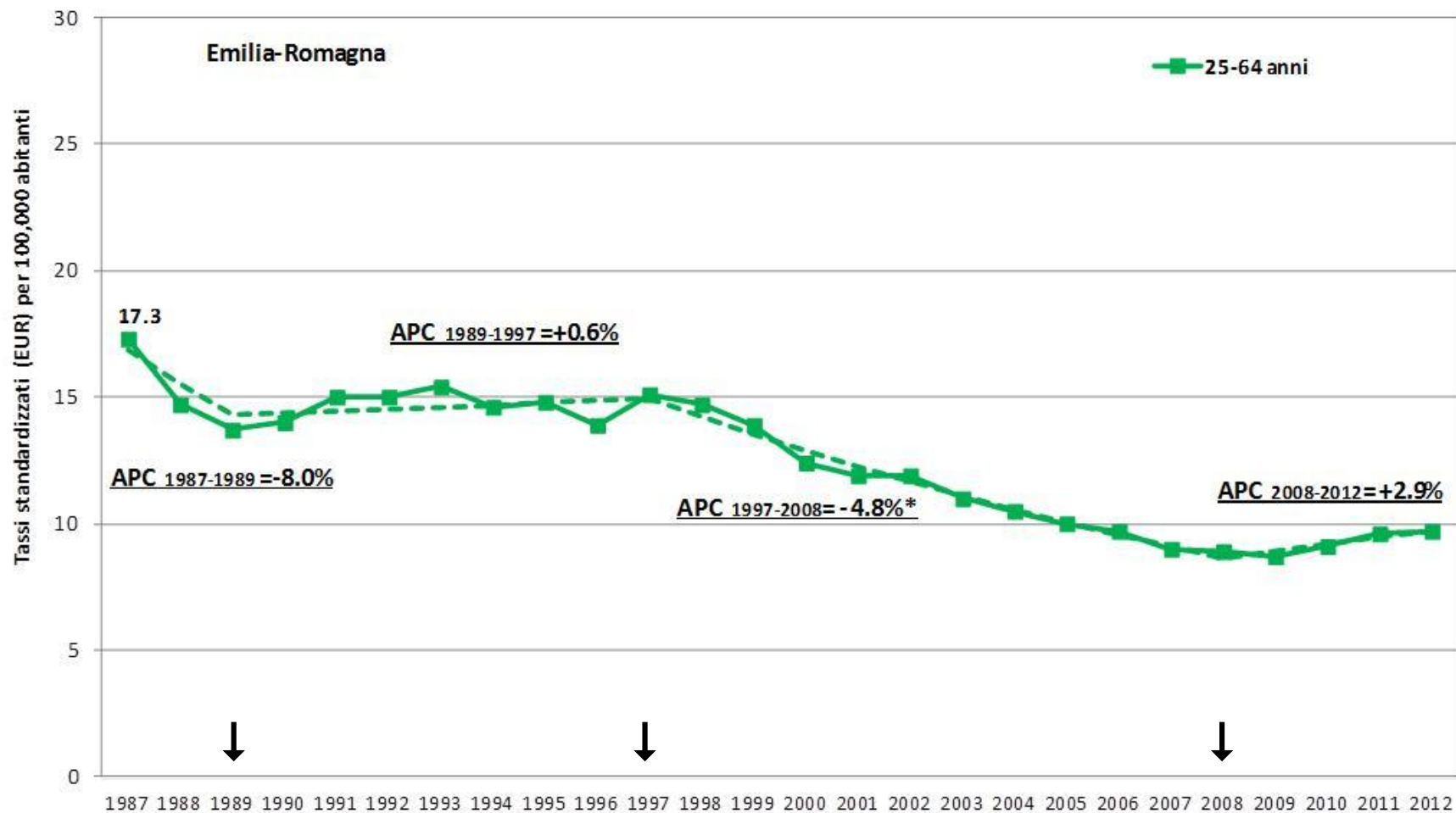
Registro Tumori della Romagna, IRST

Meldola

Menu

**Effetti del programma di screening
sull'incidenza del cancro cervicale invasivo
in Emilia-Romagna
(1986-2013)**

Incidenza totale (1986-2013)



Incidenza totale: pre-screening

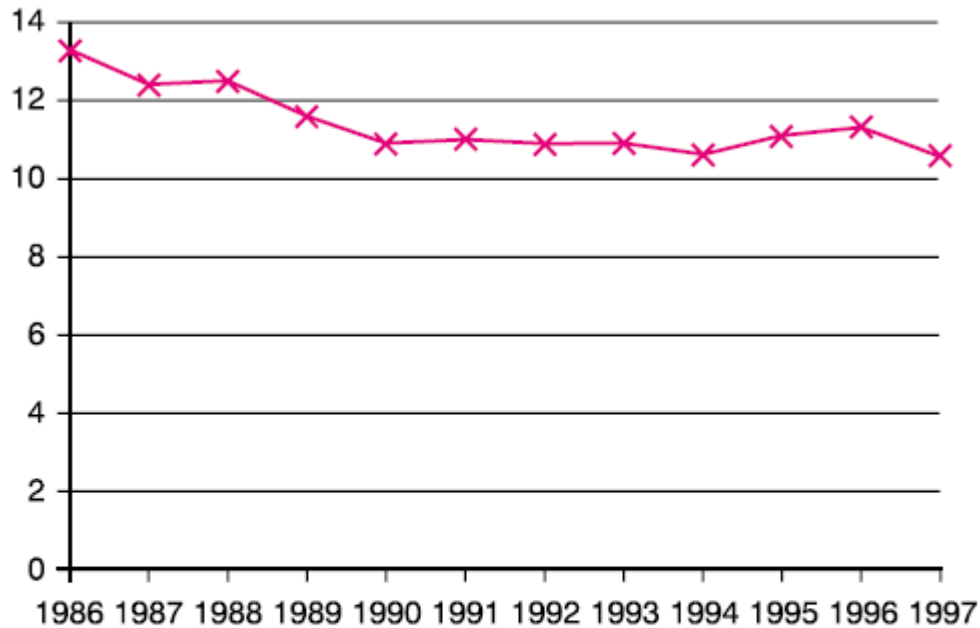


Figura 1. Tumore della cervice uterina. Tassi standardizzati (pop. europea) di incidenza per anno x 100.000.

Figure 1. Cervix uteri cancer. Standardised (European population) incidence rates, by year x 100,000.

1986-1990

-4.7

-7.3;-2.0

1990-1997

-0.2

-1.3;+1.0

Incidenza totale: pre-screening

Registry	Males	Females	Total
Torino*	438,897	475,921	914,818
Biella	90,623	99,308	189,931
Genova*	435,231	485,318	920,549
Varese*	392,700	419,080	811,780
Trieste***	121,575	140,251	261,826
Nord-Est	1,013,362	1,082,921	2,096,283
Veneto*	918,811	980,739	1,899,550
Parma*	190,292	203,671	393,963
Modena*	300,505	316,080	616,585
Ferrara	168,083	183,804	351,887
Romagna*	470,418	499,057	969,475
Macerata	145,825	154,219	300,044
Firenze*	554,931	600,772	1,155,703
Umbria	403,180	428,534	831,714
Latina**	234,454	240,753	475,207
Napoli	262,049	272,358	534,407
Sassari	232,199	238,460	470,659
Ragusa*	147,755	153,899	301,654
Total	6,520,890	6,975,145	13,496,035
Italy	27,950,592	29,612,762	57,563,354

Tabella 1. Popolazione osservata dai 18 Registri Tumori al 31 dicembre 1997.

Table 1. Observed population by the 18 Cancer Registries on 31st December 1997.

**Emilia-Romagna:
1.203.000 donne
(17% della
popolazione
femminile
AIRTUM)**

* pool AIRT ** at 1991 census *** on 31.12.1992

Incidenza per età: pre-screening

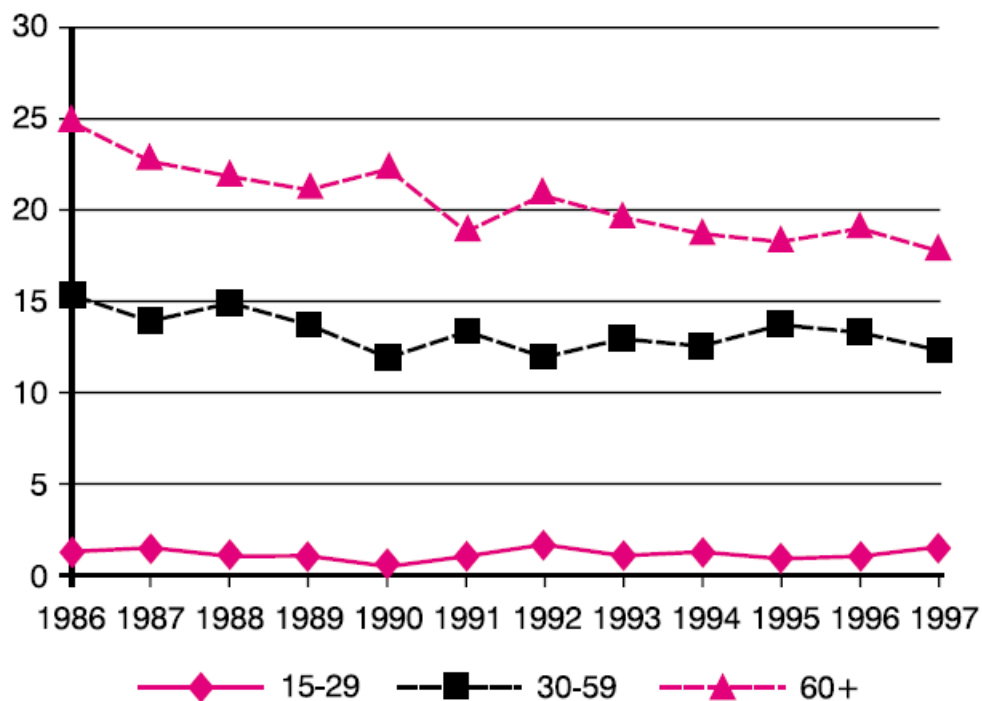


Figura 2. Tumore della cervice uterina. Tassi di incidenza per classi d'età per anno x 100.000.

Figure 2. Cervix uteri cancer. Incidence rates by age-classes and year x 100,000.

Incidenza per età: pre-screening

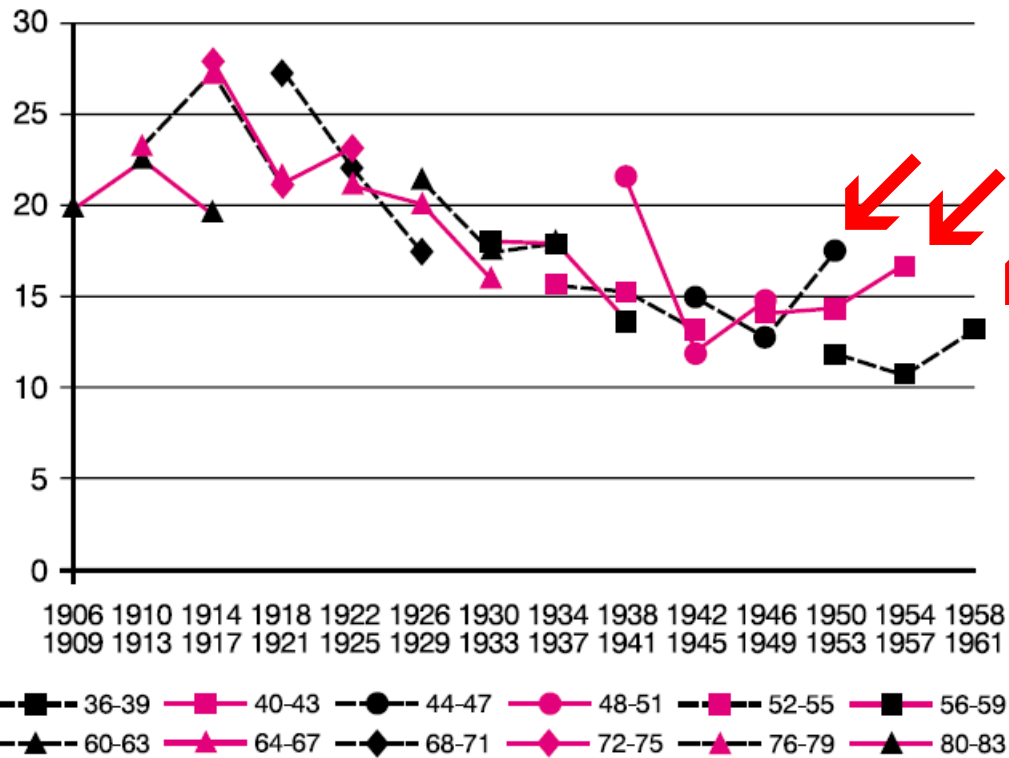


Figura 3. Tumore della cervice uterina. Tassi di incidenza per classi d'età e coorte di nascita x 100.000.

Figure 3. Cervix uteri cancer. Incidence rates by age-classes and birth cohorts x 100,000.

Sopravvivenza per età: pre-screening

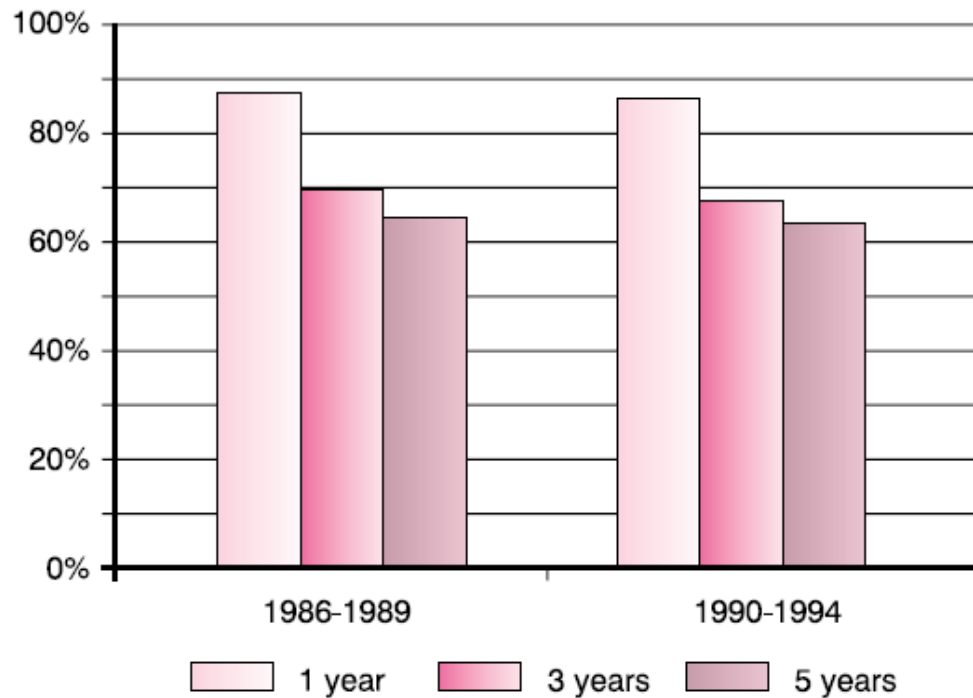
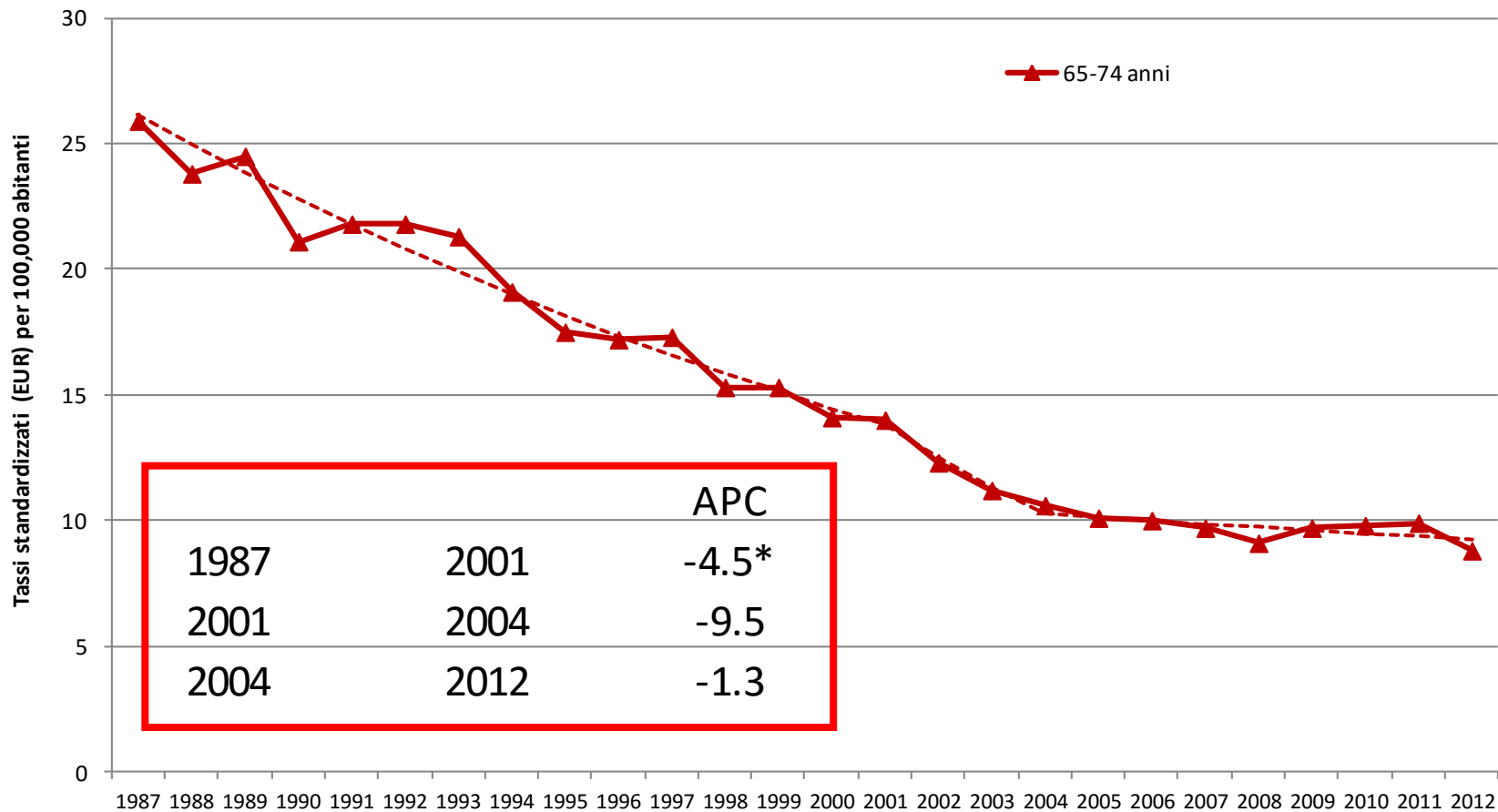


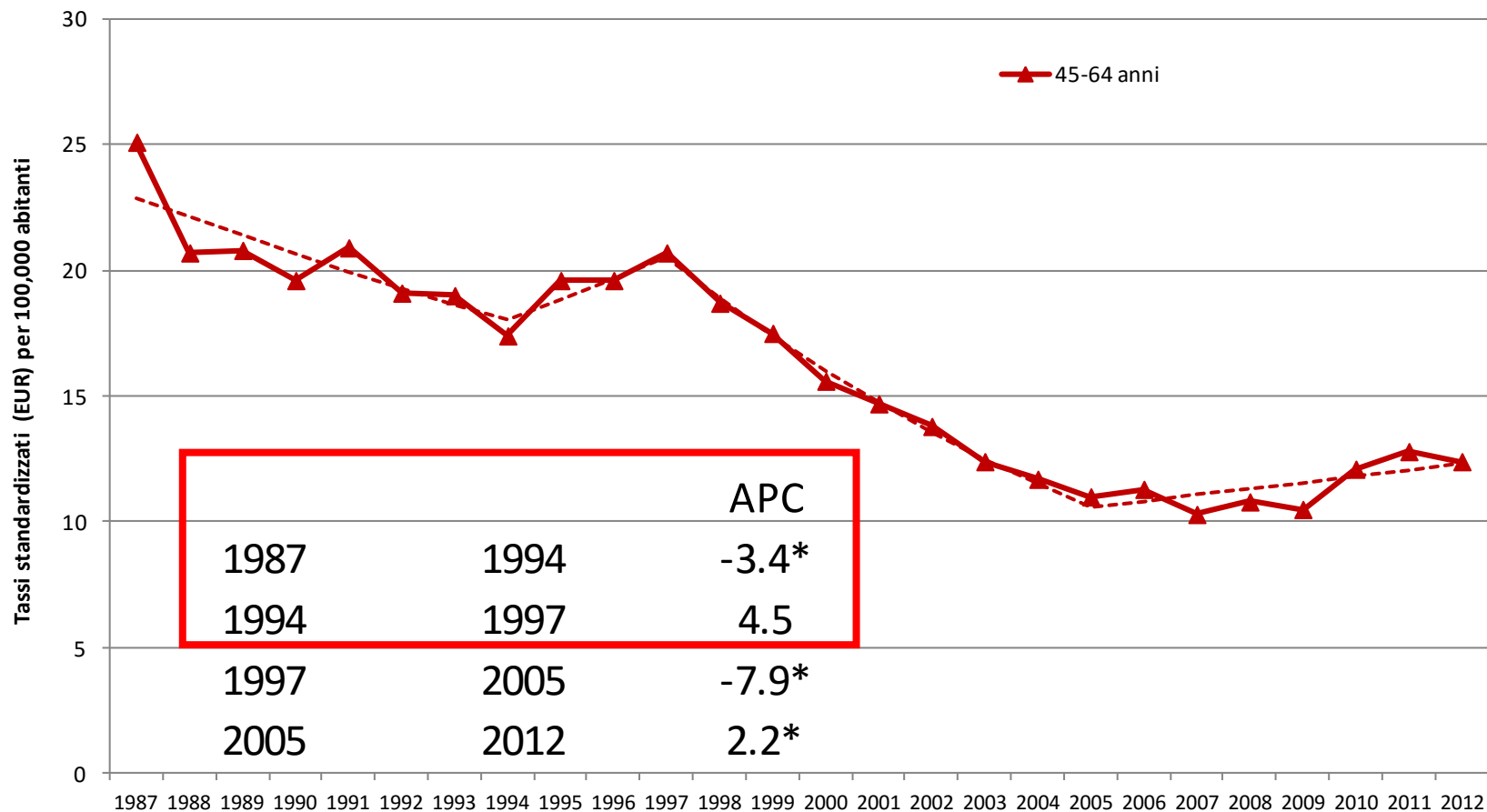
Figura 4. Tumore della cervice uterina. Sopravvivenza relativa a 1, 3 e 5 anni dalla diagnosi per periodo d'insorgenza.

Figure 4. Cervix uteri cancer. Relative survival at 1, 3 and 5-years after diagnosis by period of incidence.

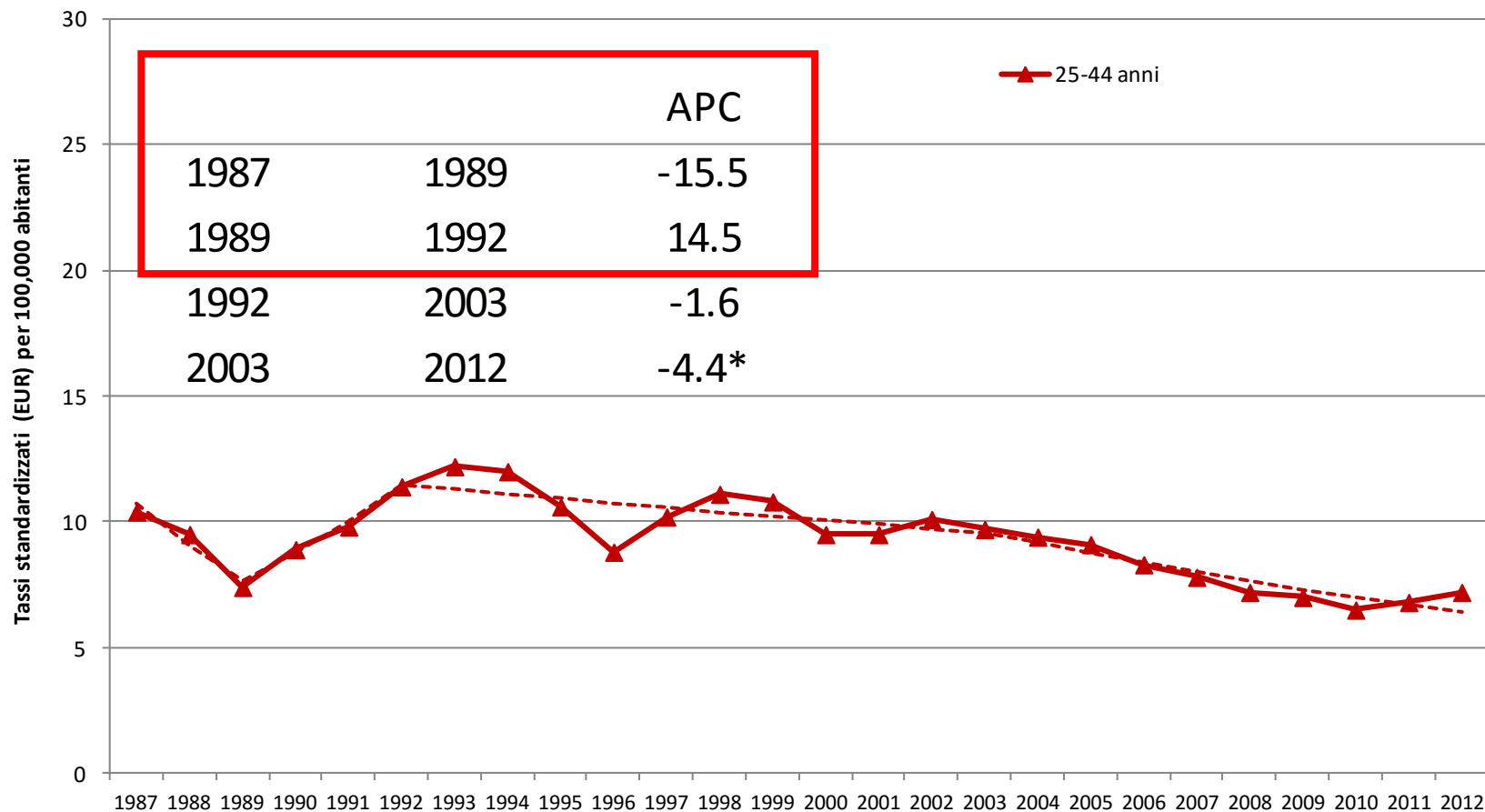
Incidenza per età: pre-screening



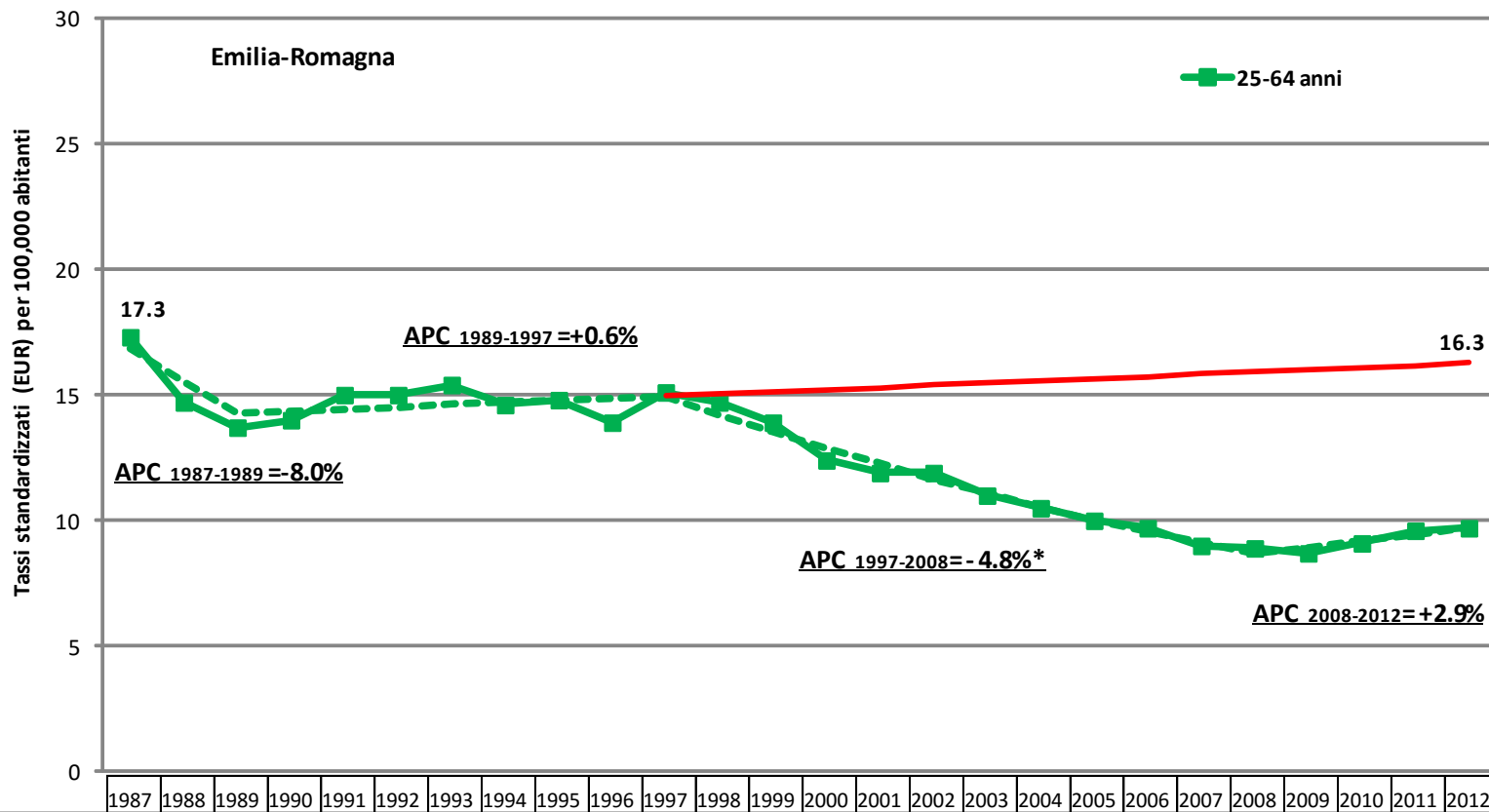
Incidenza per età: pre-screening



Incidenza per età: pre-screening



Incidenza totale: post-screening



Ai tassi è stato applicato uno smoothing a 3 anni
 * statisticamente significativo

1

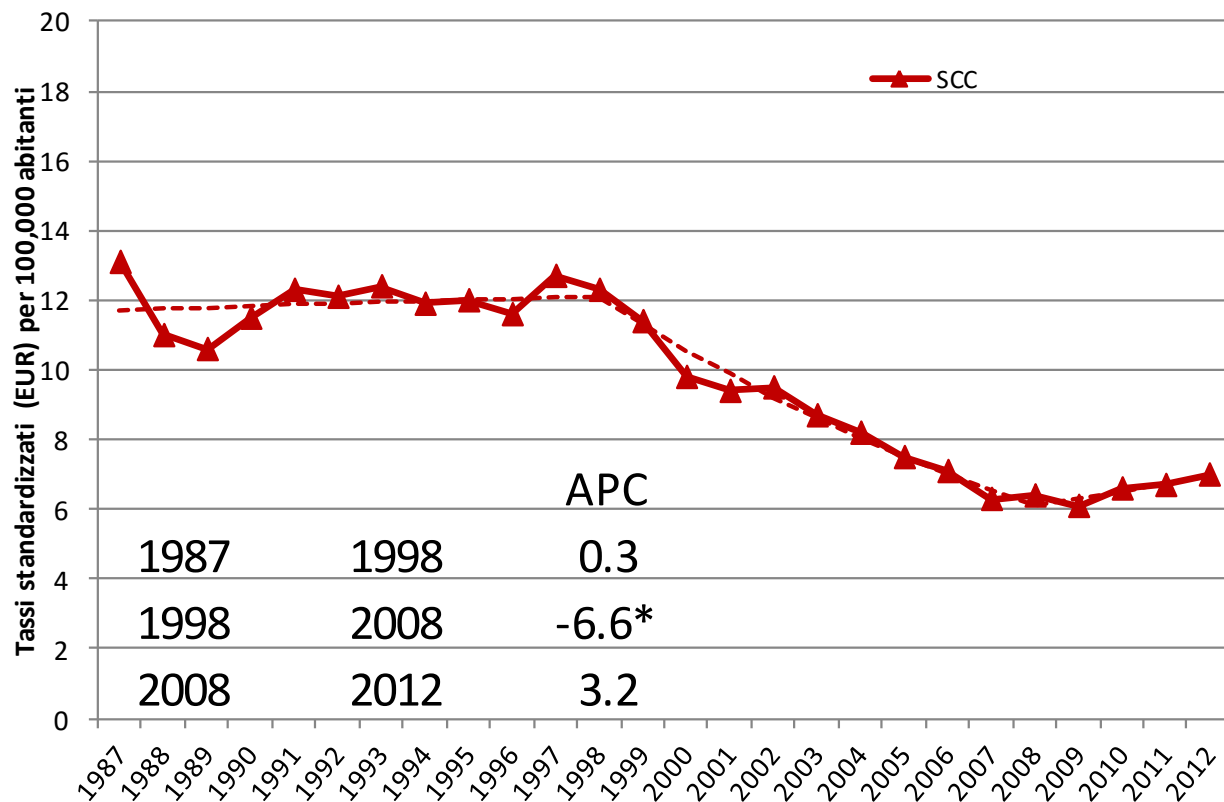
5

10

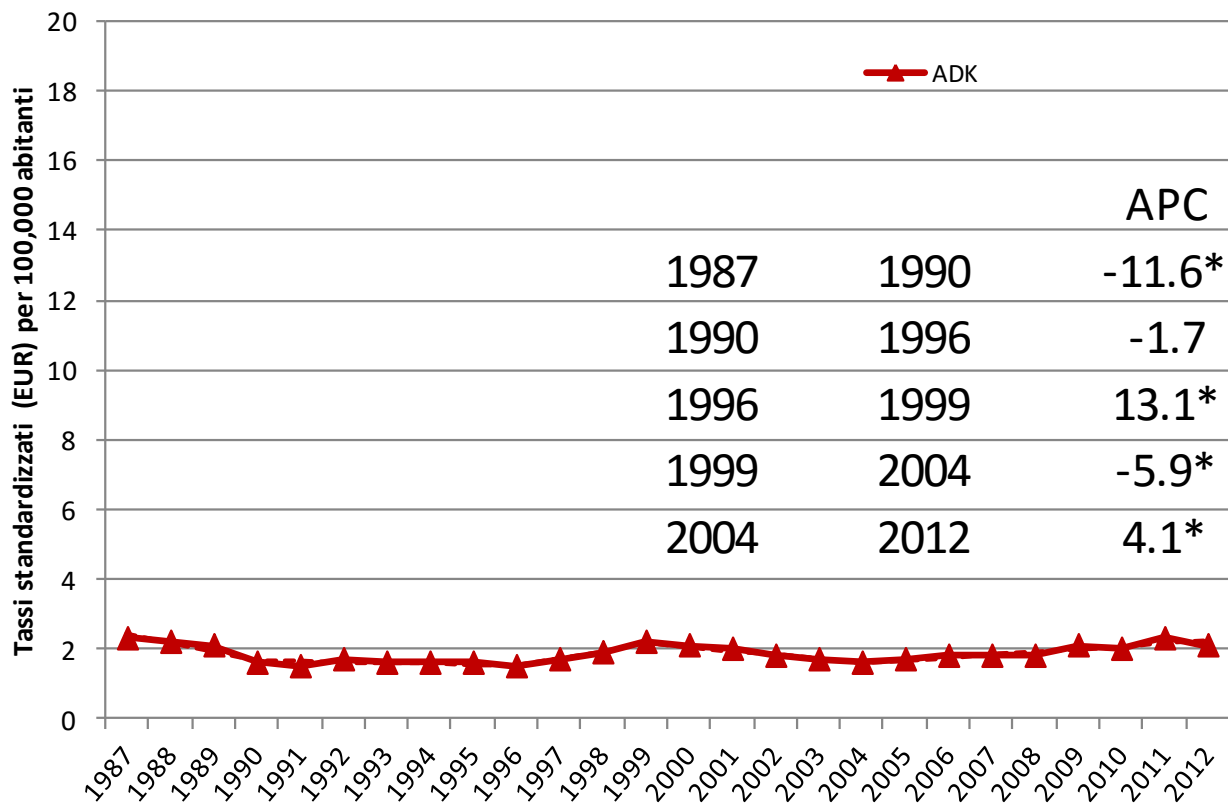
15

anni compiuti di screening

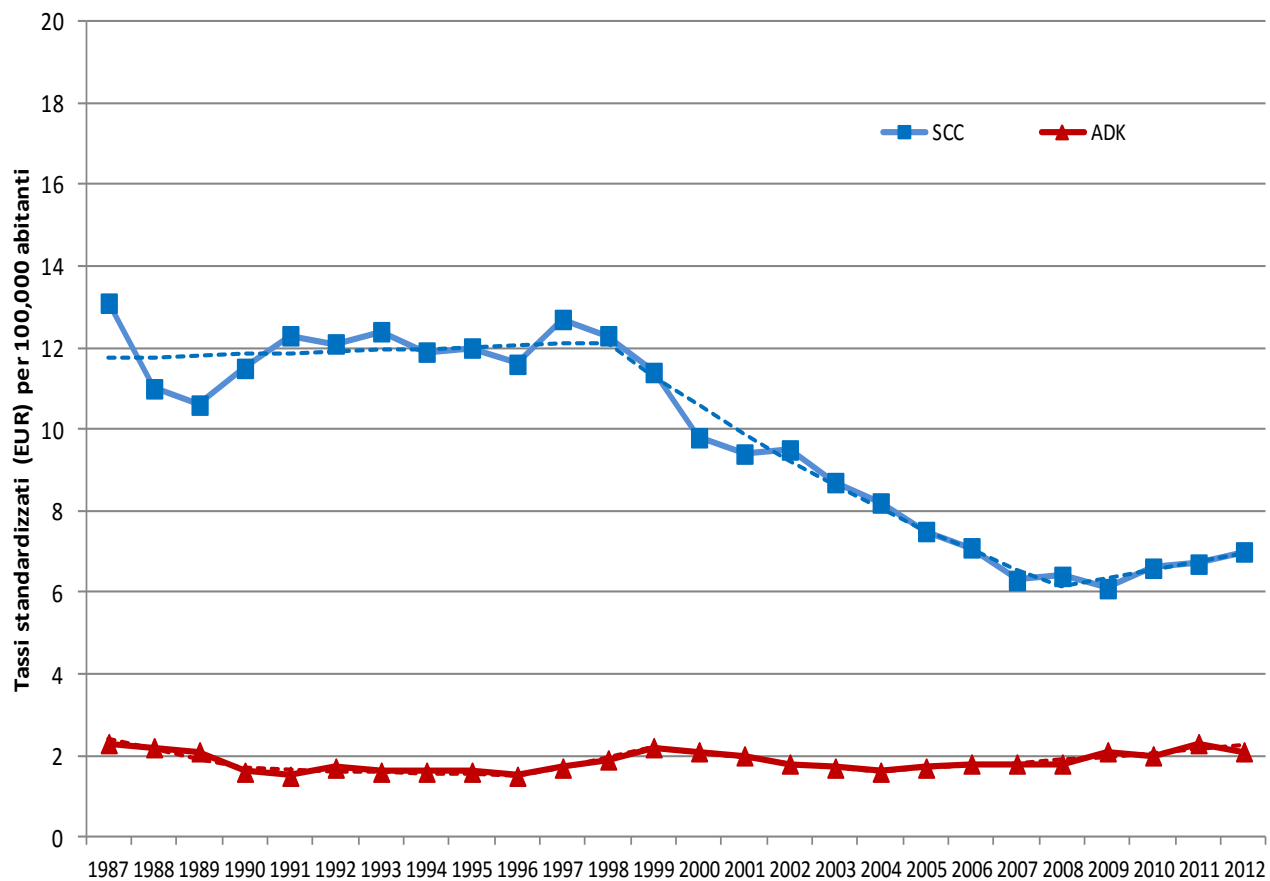
Incidenza per tipo: post-screening



Incidenza per tipo: post-screening



Incidenza per tipo: post-screening



Incidenza per tipo: post-screening

Incidence and survival trends of cervical adenocarcinoma in Italy: Cytology screening has become more effective in downstaging the disease but not in detecting its precursors

Silvia Mancini¹, Alessandra Ravaoli¹, Orietta Giuliani¹, Rosa Vattiato¹, Fabio Falcini¹, Stefano Ferretti², Silvano Costa³ and Lauro Bucchi¹

¹Romagna Cancer Registry, Romagna Cancer Institute (IRST) IRCCS, Meldola, Forlì, Italy

²Department of Health, Emilia-Romagna Region, Bologna, Italy

³Department of Gynaecology, Madre Fortunata Toniolo Hospital, Bologna, Italy

Int. J. Cancer: **140**, 247–248 (2017)

Table 1. Patients' characteristics, tumour stage distribution, and incidence and survival trends of cervical squamous cell carcinoma and adenocarcinoma in the female population aged 25–64 years of the Emilia-Romagna Region (northern Italy), 1997 to 2012

	Cervical SCC	Cervical AC
Number	1461	333
Median patient age, years	47	45 ⁴
Proportion screen-detected, %	43.0	41.6 ⁵
Proportion Stage I, %	81.6	82.9 ³
Proportion Stage IA, %	46.5	30.3 ⁶
Average annual percent incidence change (95% CI) ¹	−4.9 (−6.5 to −3.3)	+1.1 (−1.3 to +3.6)
Adjusted hazard ratio by time period (95% CI) ^{2,3}		
1997–2000	1.00 (referent)	1.00 (referent)
2001–2006	0.92 (0.72–1.19)	0.62 (0.33–1.18)
2007–2012	0.50 (0.35–0.71)	0.51 (0.26–0.99)
Five-year relative survival, %	81.5 (79.2–83.5)	82.5 (77.4–86.6)
Crude hazard ratio (95% CI) ²	1.00 (referent)	0.95 (0.73–1.23)
Adjusted hazard ratio (95% CI) ^{2,3}	1.00 (referent)	1.17 (0.90–1.53)

Incidenza per tipo: post-screening

Is cervical screening preventing adenocarcinoma and adenosquamous carcinoma of the cervix?

Alejandra Castanon, Rebecca Landy and Peter D. Sasieni

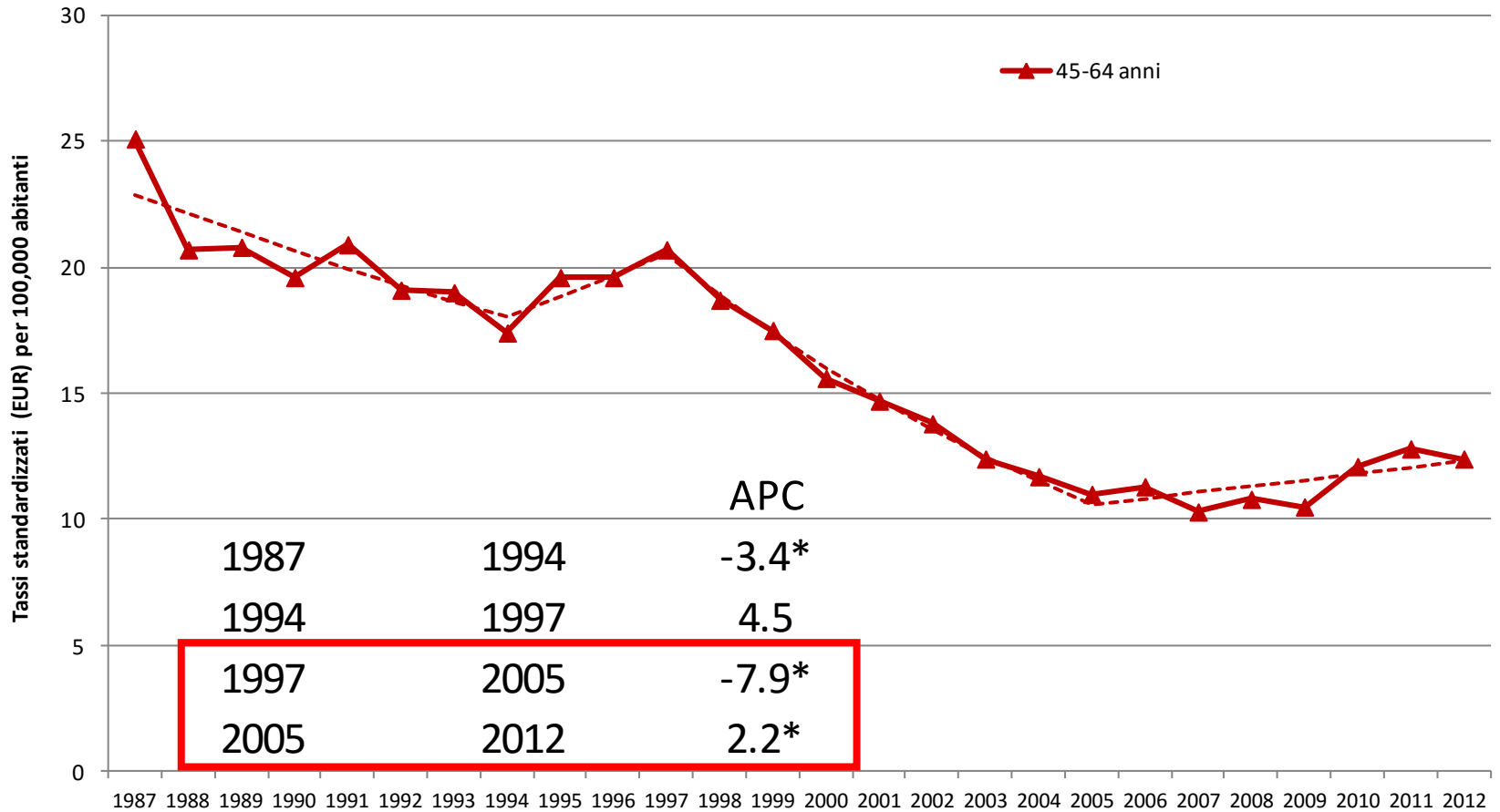
Centre for Cancer Prevention, Wolfson Institute of Preventive Medicine, Bart's and the London School of Medicine, Queen Mary University of London, Charterhouse Square, London, United Kingdom

Int. J. Cancer: **139**, 1040–1045 (2016)

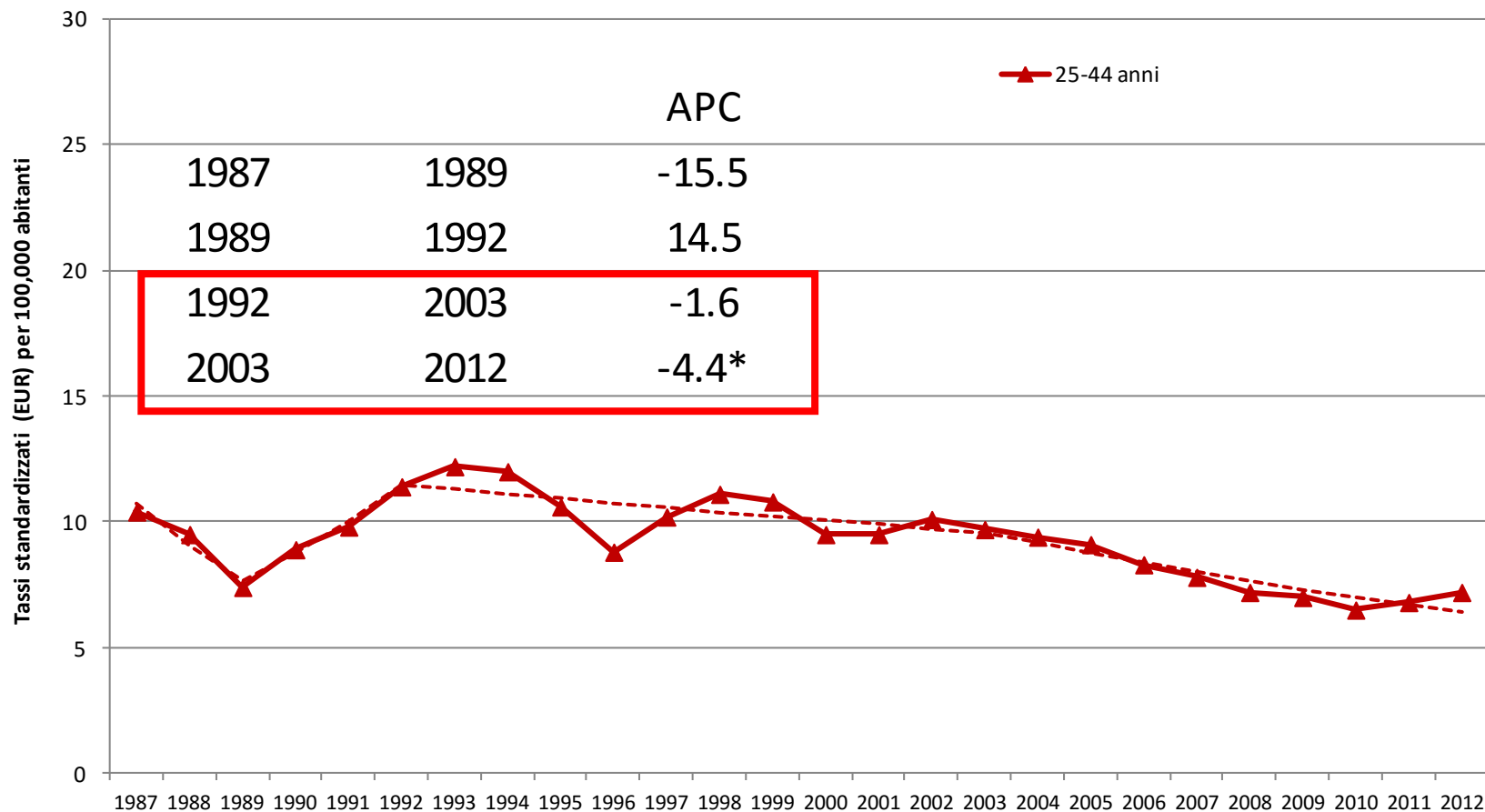
Conclusions

Cytology based screening has been less effective in preventing adenocarcinoma of the cervix than in preventing squamous carcinoma. However, screening detects adenocarcinoma earlier than diagnosis in the absence of screening, leading to a down-staging of disease.

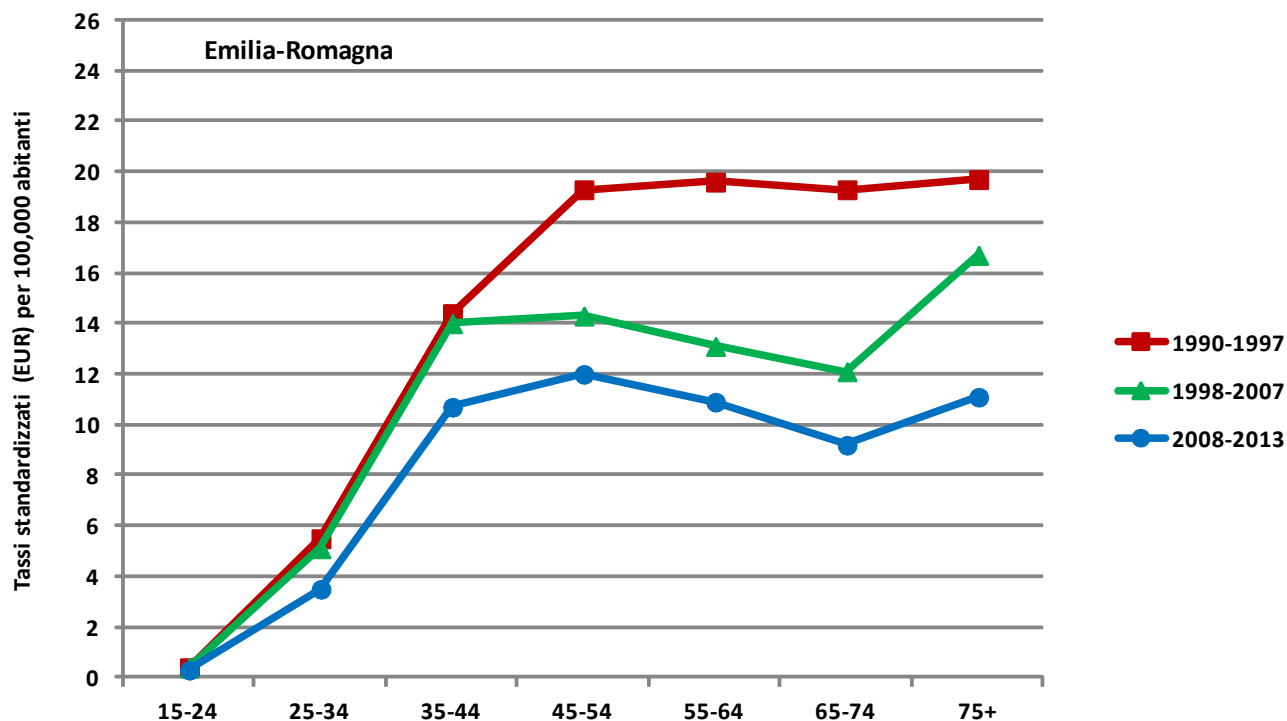
Incidenza per età: post-screening



Incidenza per età: post-screening



Incidenza per età: post-screening



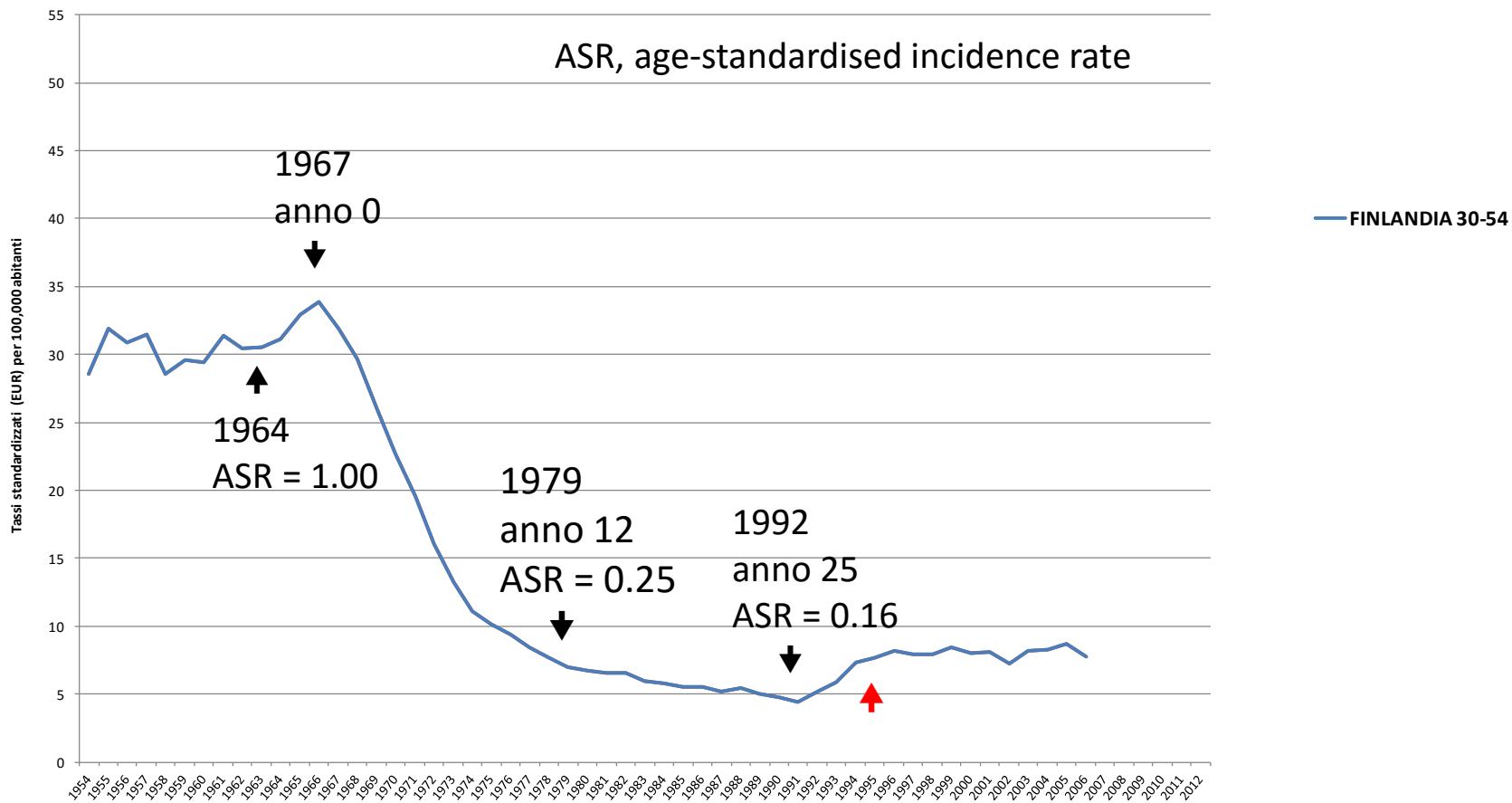
Standardized rate ratio

1998-2007 vs 1990-1997	1.00	0.93	0.97	0.74	0.67	0.63	0.85
2008-2013 vs 1990-1997	0.75	0.64	0.74	0.62	0.56	0.48	0.56

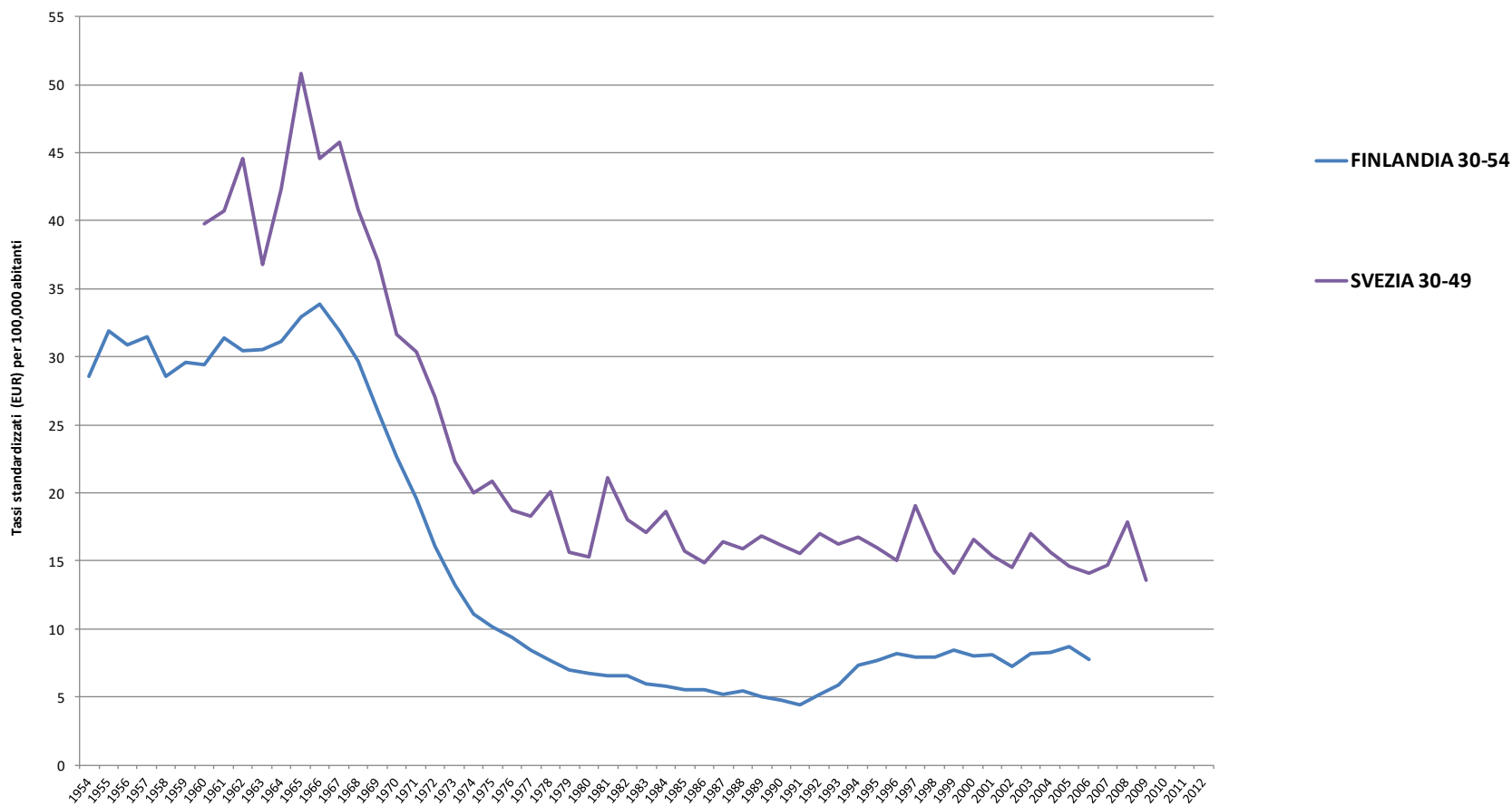
IC 95%

1998-2007 vs 1990-1997	-	0.71-1.21	0.82-1.15	0.63-0.87	0.56-0.79	0.52-0.76	0.71-1.01
2008-2013 vs 1990-1997	0.15-3.70	0.45-0.90	0.61-0.91	0.51-0.75	0.46-0.68	0.38-0.60	0.45-0.70

Confronti storico-geografici

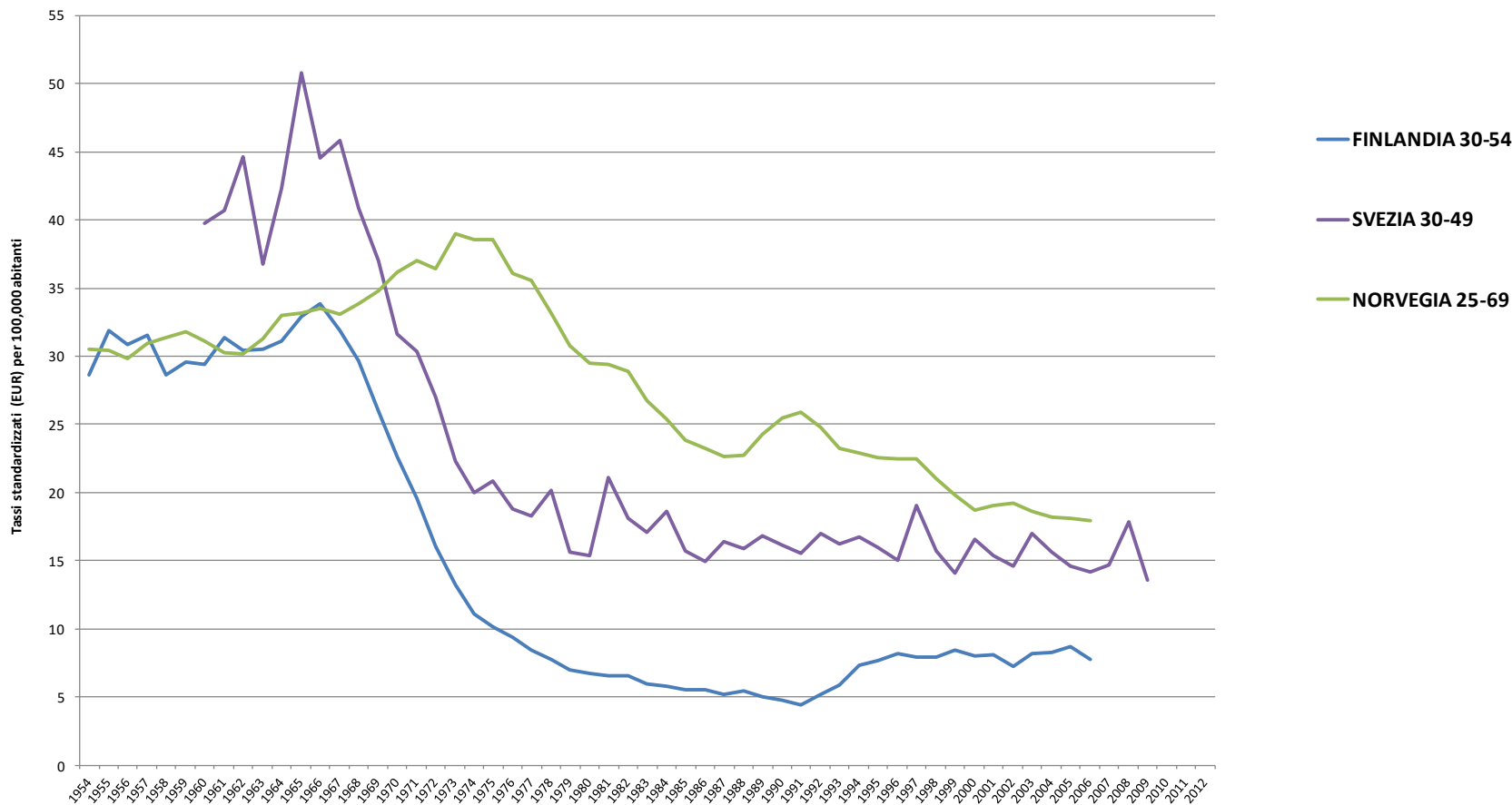


Confronti storico-geografici

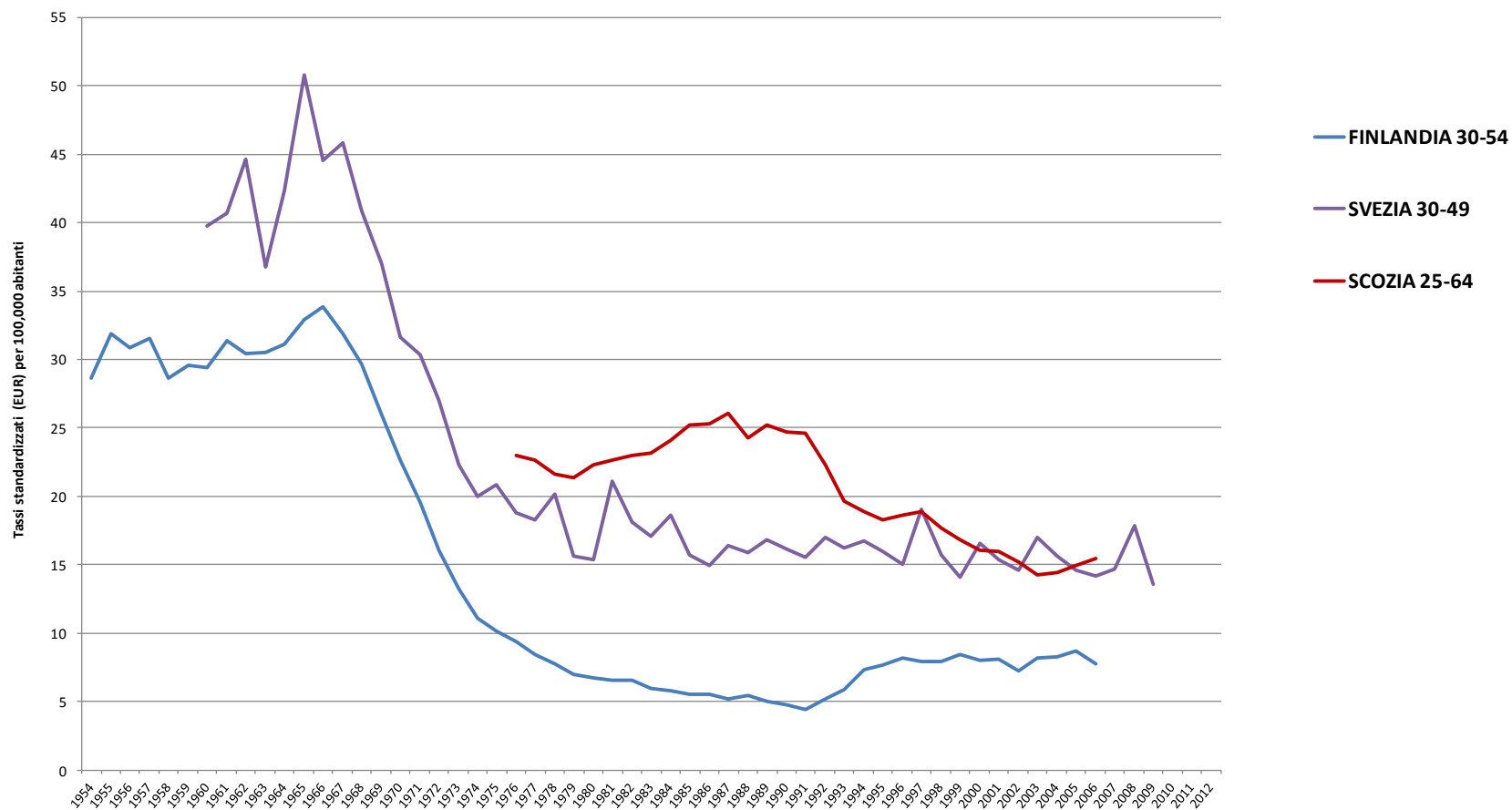


Confronti storico-geografici

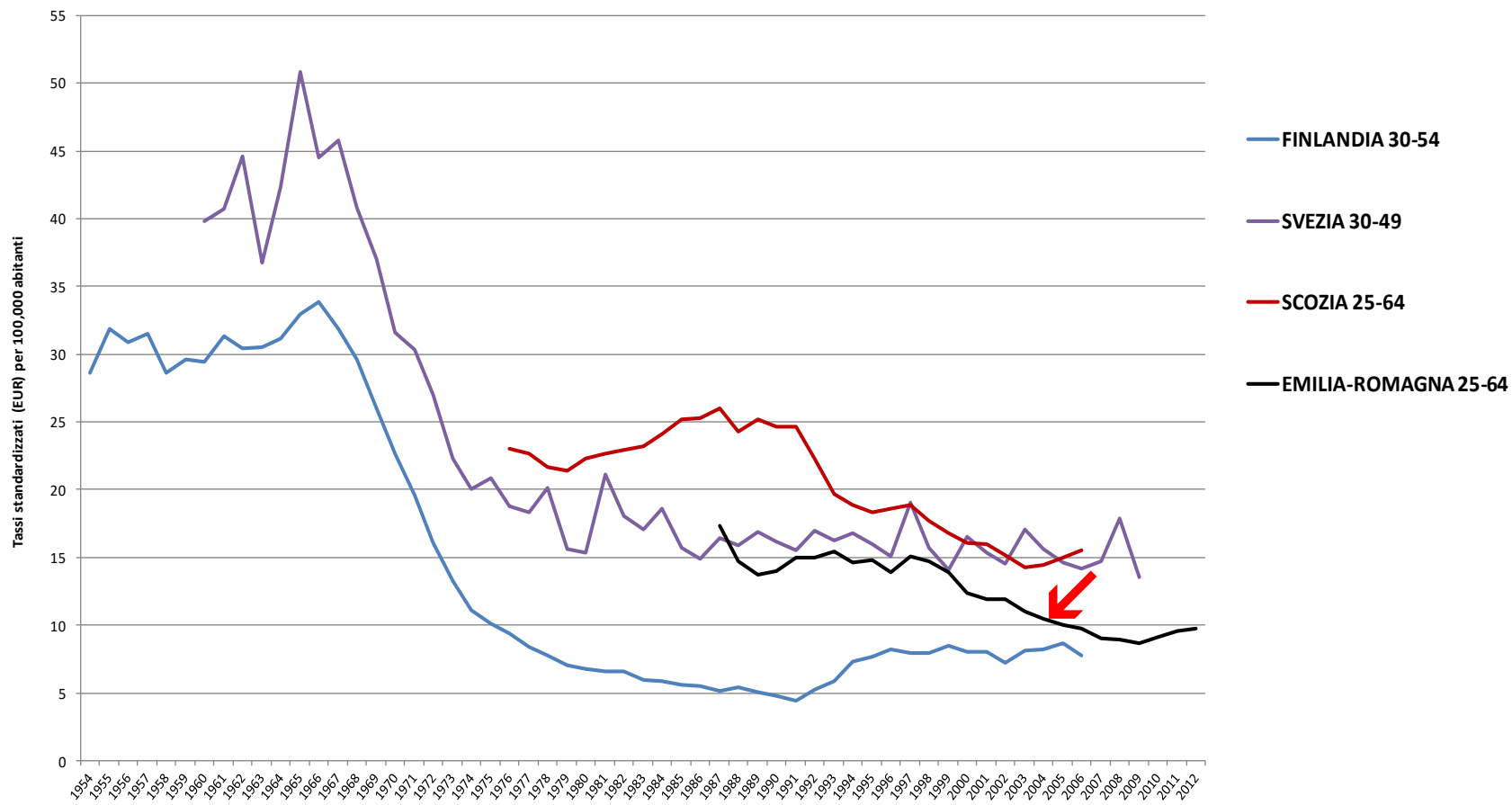
Ai tassi è stato applicato lo smoothing a tre anni



Confronti storico-geografici



Confronti storico-geografici



Conclusioni

- ✓ Il programma di screening ha ridotto l'incidenza del cancro cervicale invasivo del **40-45% a 10-12 anni** dall'inizio, cioè nella seconda metà degli anni 2000 vs. la prima metà degli anni '90
- ✓ Contemporaneamente, il programma di screening ha abbassato lo stadio dei cancri invasivi incidenti, riducendone la mortalità di **circa il 50%**

Conclusioni

- ✓ Dopo circa 10-12 anni dall'inizio del programma, l'incidenza ha ricominciato ad aumentare lentamente e non-significativamente, riflettendo probabilmente il sottostante **trend naturale**
- ✓ Ulteriori effetti sull'incidenza saranno possibili solo aumentando la **partecipazione della popolazione** e/o la **sensibilità del test**

Conclusioni

- ✓ Il programma di screening ha avuto una **qualità tecnica adeguata** (provata anche da altri dati: colposcopia, trattamenti) e **un impatto commisurato alla partecipazione** delle donne
- ✓ Valutati in una prospettiva storico-geografica, i decenni che l'hanno preceduto – ad alta incidenza – si possono definire decenni di **opportunità preventive sprecate**