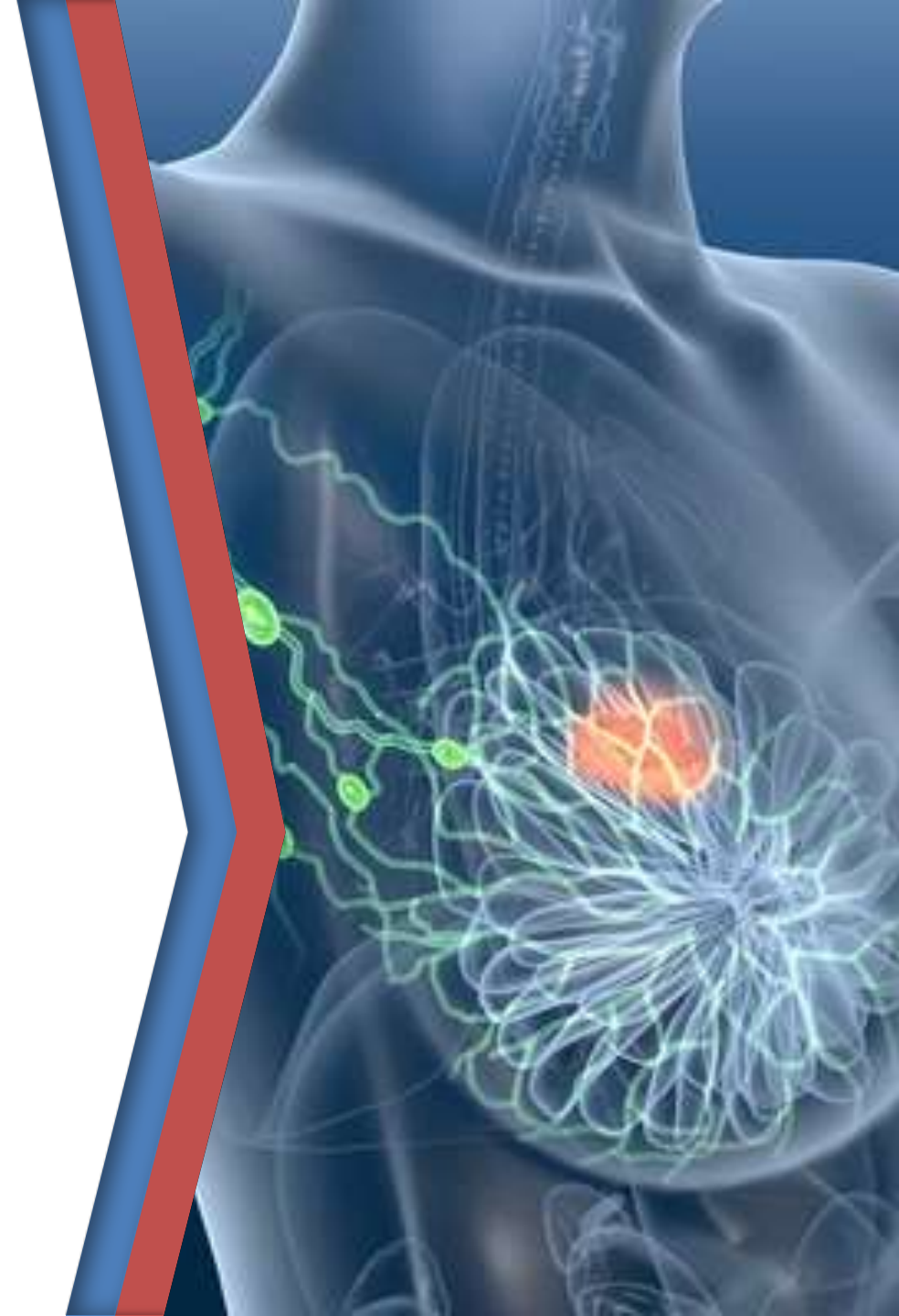


Tumore della mammella: epidemiologia

Livia Giordano - CPO Piemonte



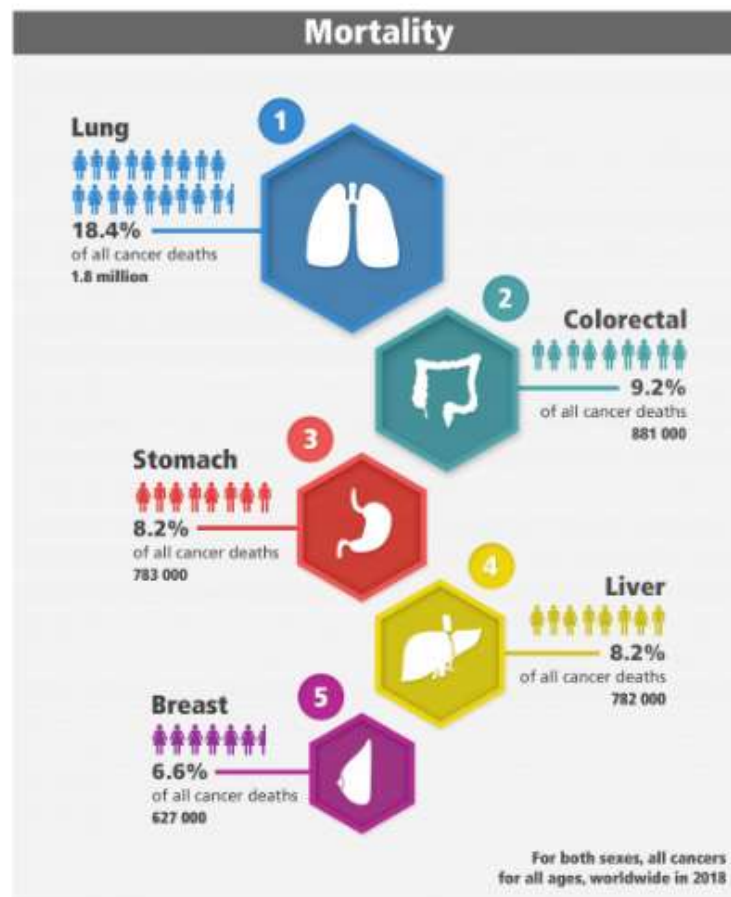
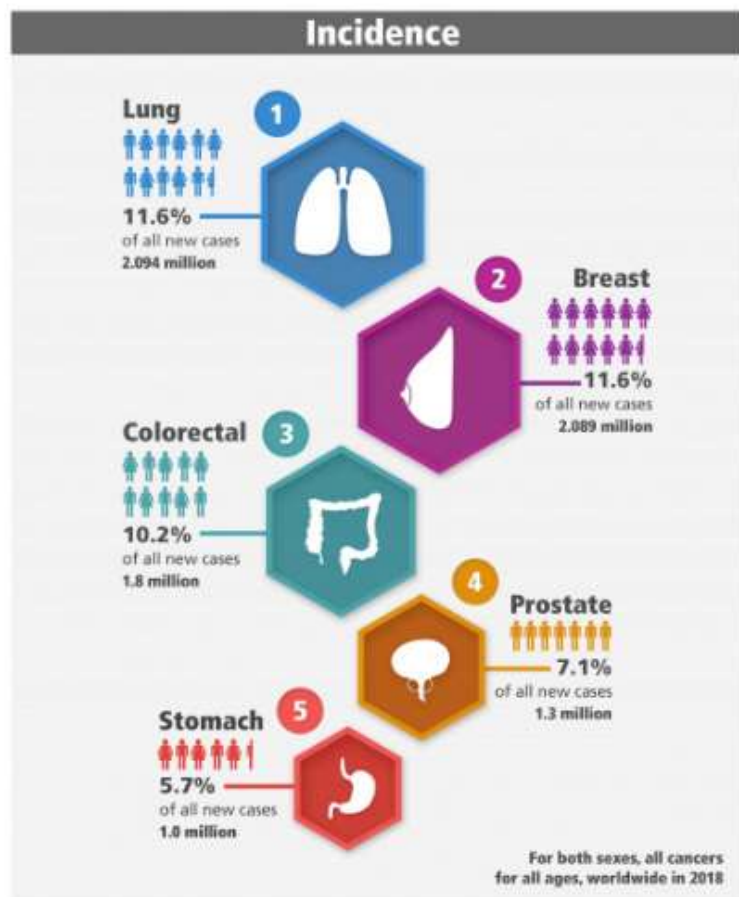
- **Incidenza e mortalità**



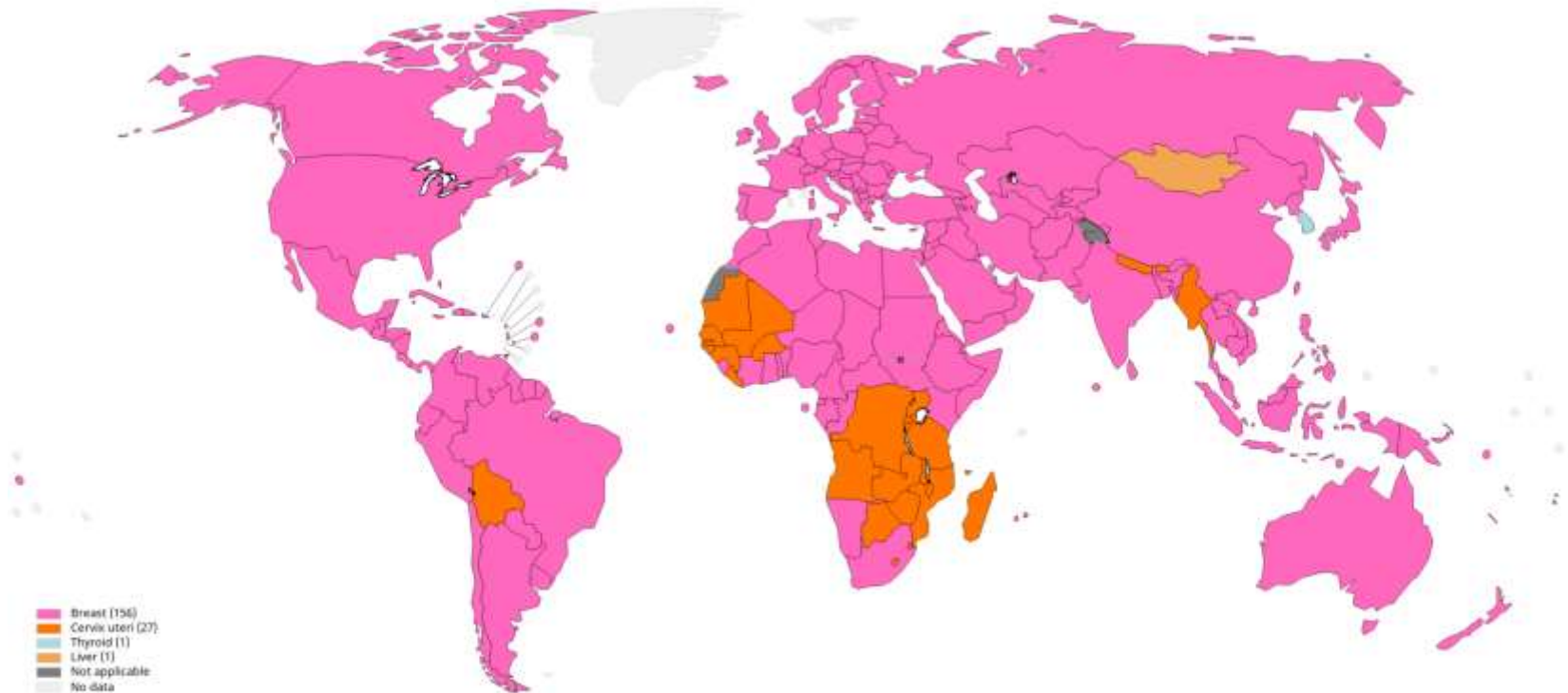
CANCER TODAY

The five most commonly diagnosed cancer types

Percentages of new cancer cases and cancer deaths worldwide in 2018



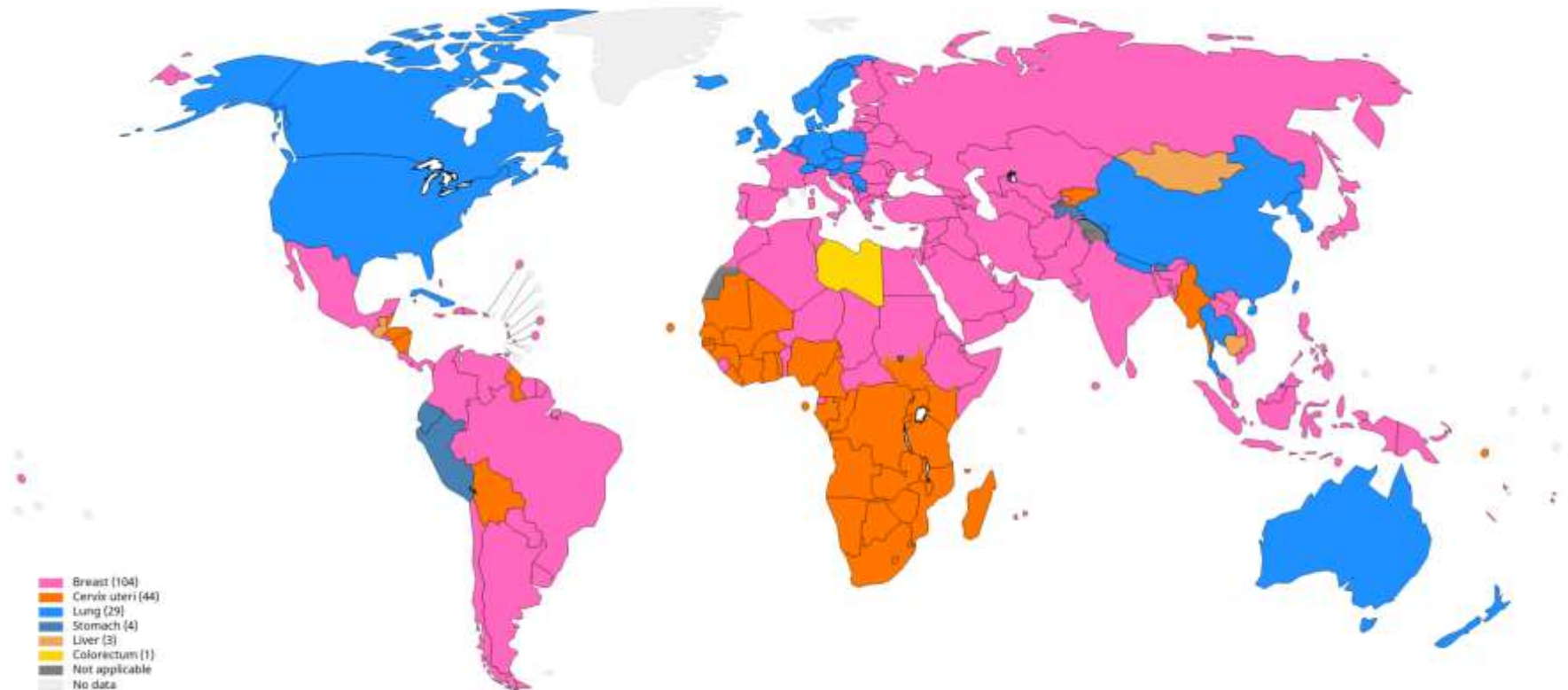
Top cancer per country, estimated age-standardized incidence rates (World) in 2018, females, all ages



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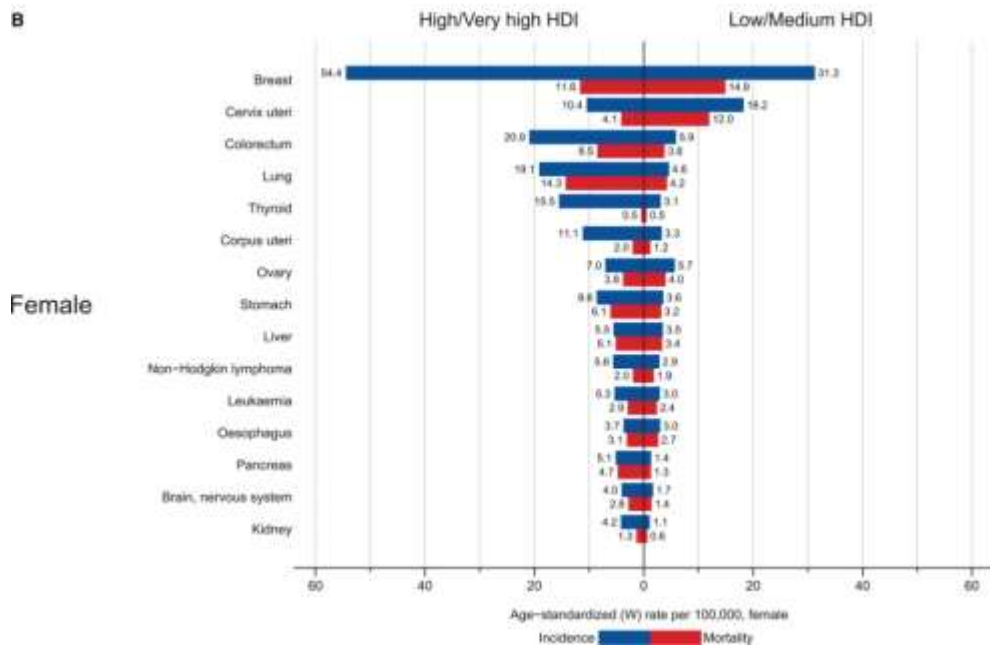
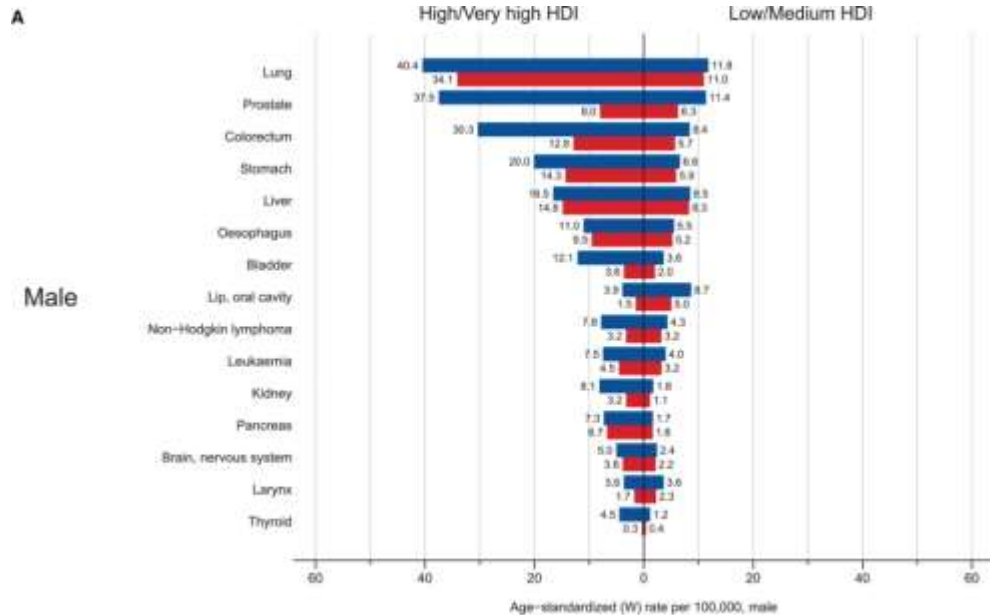
Data source: GLOBOCAN 2018
Graph production: IARC
(<http://gco.iarc.fr/today>)
World Health Organization

Top cancer per country, estimated age-standardized mortality rates (World) in 2018, females, all ages

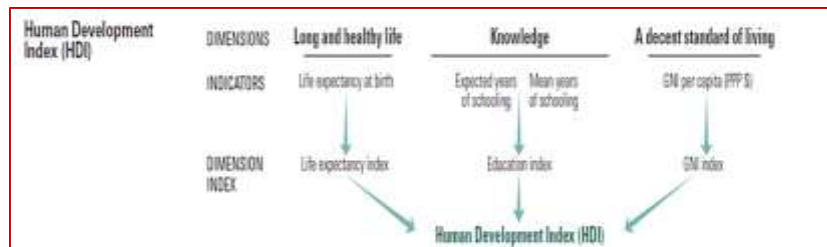


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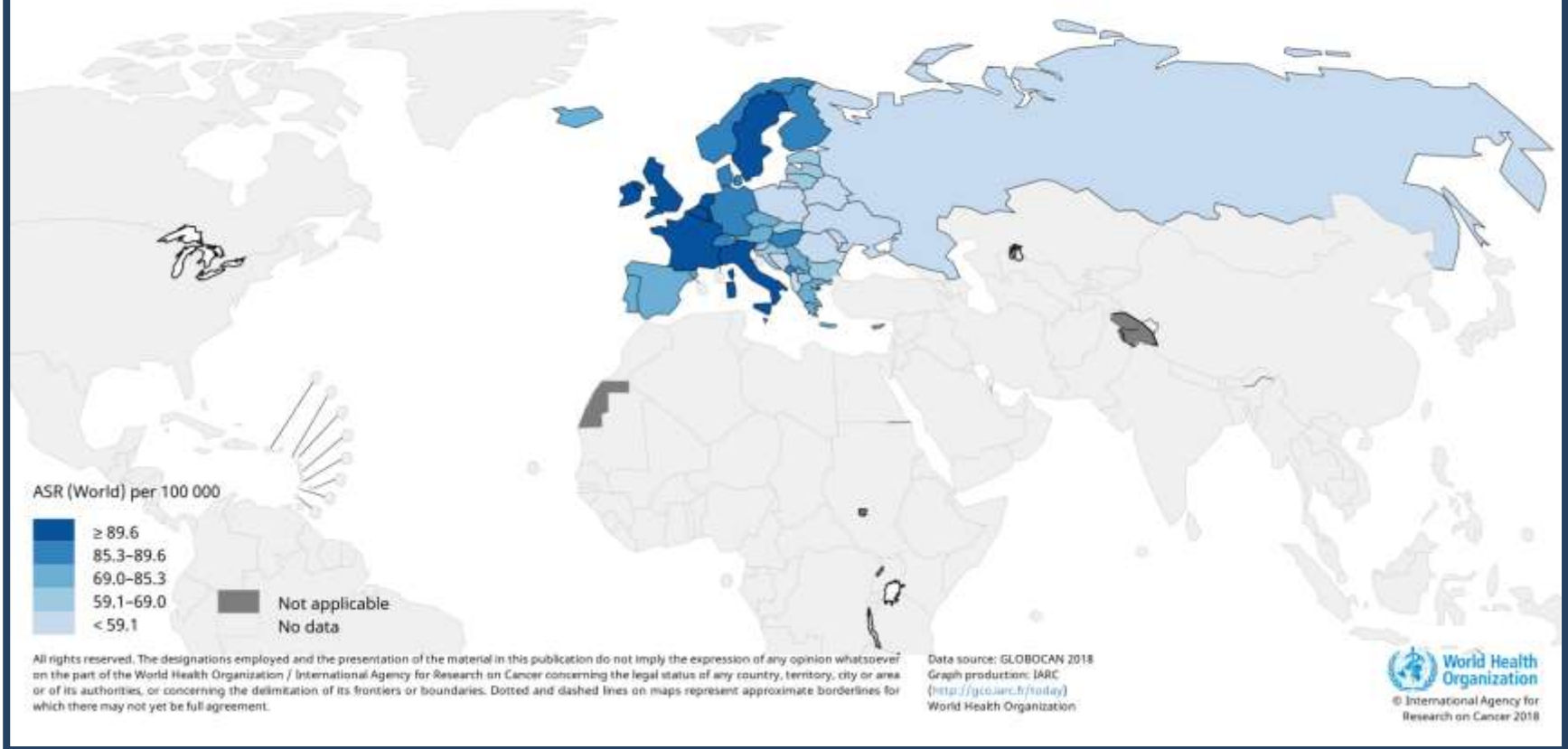
Data source: GLOBOCAN 2018
Graph production: IARC
(<http://gco.iarc.fr/today>)
World Health Organization



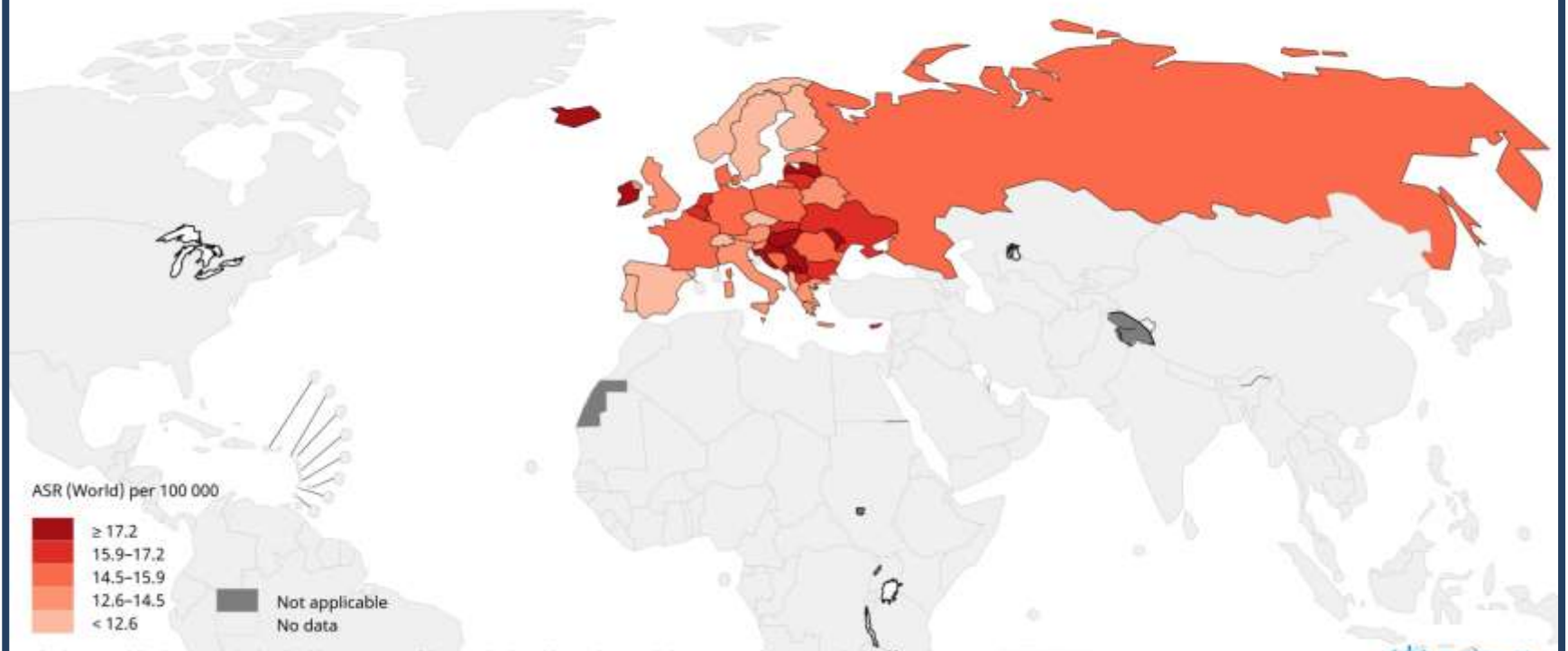
Bar Charts of Incidence and Mortality Age-Standardized Rates in High/Very-High Human Development Index (HDI) Regions Versus Low/Medium HDI Regions Among (A) Men and (B) Women in 2018. The 15 most common cancers world (W) in 2018 are shown in descending order of the overall age-standardized rate for both sexes combined. Source: GLOBOCAN 2018.



Estimated age-standardized incidence rates (World) in 2018, breast, all ages



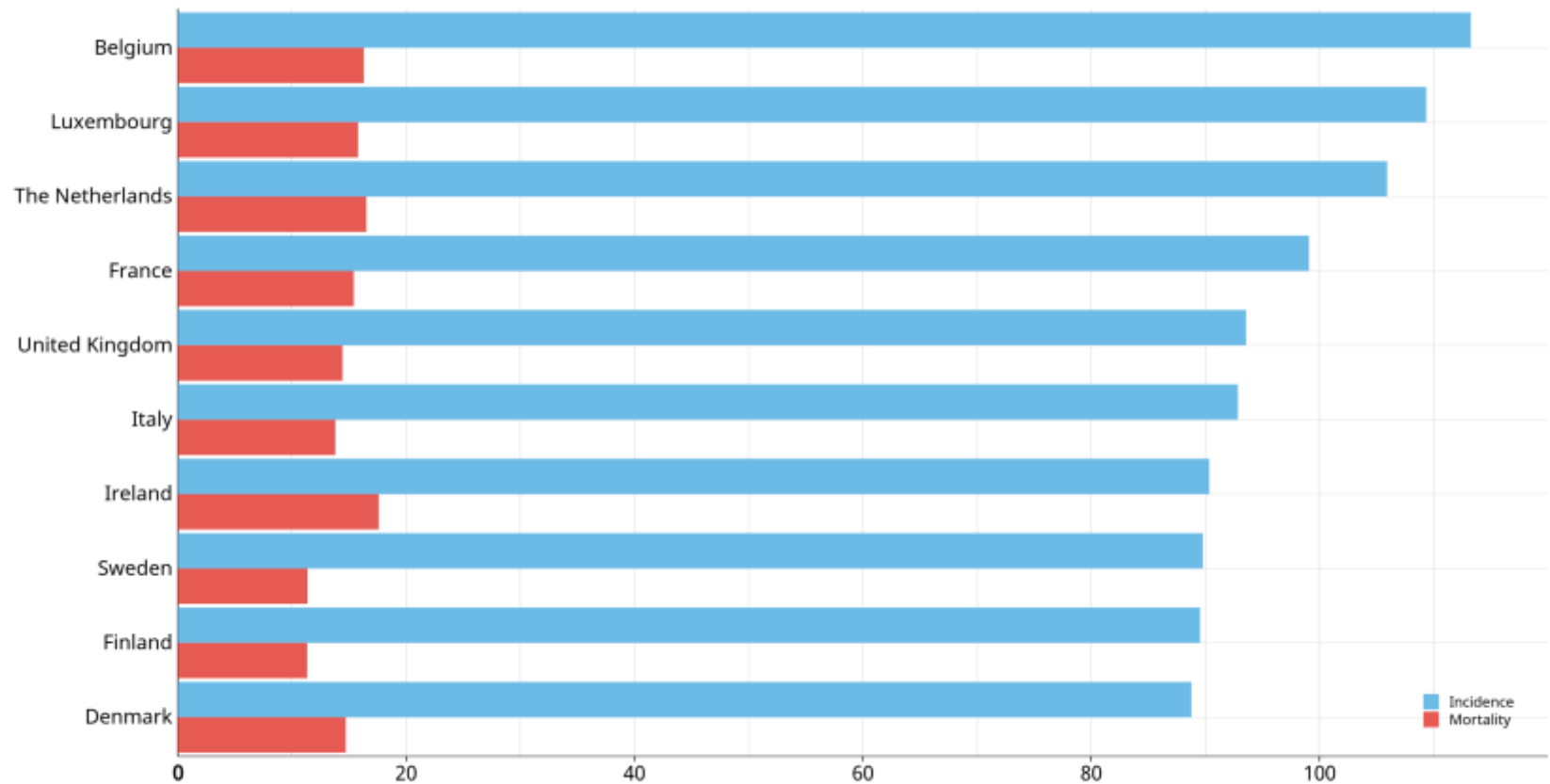
Estimated age-standardized mortality rates (World) in 2018, breast, all ages



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Data source: GLOBOCAN 2018
Graph production: IARC
(<http://gco.iarc.fr/today>)
World Health Organization

Estimated age-standardized incidence and mortality rates (World) in 2018, breast, all ages

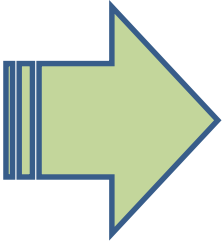


■ Incidence
■ Mortality

I NUMERI DEL CANCRO IN ITALIA 2018

I DATI REGIONALI



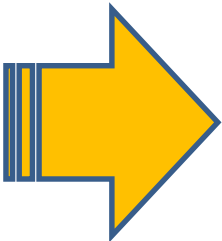


Rango	Maschi	Femmine	Tutta la popolazione
1°	Prostata (18%)	Mammella (29%)	Mammella (14%)
2°	Colon-retto (15%)	Colon-retto (13%)	Colon-retto (14%)
3°	Polmone (14%)	Polmone (8%)	Polmone (11%)
4°	Vescica* (11%)	Tiroide (6%)	Prostata (9%)
5°	Fegato (5%)	Utero corpo (5%)	Vescica* (7%)

TABELLA 6. Primi cinque tumori più frequentemente diagnosticati e proporzione sul totale dei tumori (esclusi i carcinomi della cute) per sesso. Stime per l'Italia 2018

* Comprende sia tumori infiltranti sia non infiltranti.

** Comprende rene, pelvi e uretere.



Rango	Maschi			Femmine		
	Età			Età		
	0-49	50-69	70+	0-49	50-69	70+
1°	Testicolo (12%)	Prostata (22%)	Prostata (19%)	Mammella (41%)	Mammella (35%)	Mammella (22%)
2°	Cute (melanomi) (9%)	Polmone (14%)	Polmone (17%)	Tiroide (15%)	Colon-retto (11%)	Colon-retto (16%)
3°	Tiroide (8%)	Colon-retto (12%)	Colon-retto (14%)	Cute (melanomi) (7%)	Polmone (7%)	Polmone (8%)
4°	LNH (7%)	Vescica* (11%)	Vescica* (12%)	Colon-retto (4%)	Utero corpo (7%)	Pancreas (6%)
5°	Colon-retto (7%)	Vie aerodigestive superiori** (5%)	Stomaco (5%)	Utero cervice (4%)	Tiroide (5%)	Stomaco (5%)

TABELLA 7. Primi cinque tumori in termini di frequenza e proporzione sul totale dei tumori incidenti (esclusi i carcinomi della cute) per sesso e fascia di età. Pool AIRTUM 2010-2014

* Comprende sia tumori infiltranti sia non infiltranti.

** Comprende lingua, bocca, orofaringe, rinofaringe, ipofaringe, faringe NAS, laringe.

INCIDENZA	Nord	MORTALITA'					INCIDENZA	M/I	Femmine				
									Centro	Sud e isole			
Vie aerodigestive superiori*	27.7	NORD					35,9	162,9	0,22	2.3	2.3		
Esofago	6.9	CENTRO					30,9	141,5	0,21	0.9	0.8		
Stomaco	33.9									13.5	10.1		
Colon-retto	90.4	SUD					33,5	127,1	0,26	23.3	23.7		
Colon	64.0									18.1	19.4		
Retto	26.3	5.1	4.3										
Fegato	31.4	6	11.8										
Colecisti e vie biliari	7.7	7.1	8.3	6.4	6.6	8.0	Colecisti e vie biliari	5.8	6	5.9	5.2	5.8	5.8
Pancreas	24.6	18.9	17.5	18.3	15.7	13.6	Pancreas	22.5	17.1	16.5	16.8	14.8	12.2
Polmone	108.9	99.8	104.2	36.2	31.1	22.0	Polmone	96.5	88.2	86.7	27.6	23.5	16.4
Osso	1.6	1.4	1.4	1.1	1.1	1.0	Osso	0.9	0.9	1.5	0.6	0.5	0.8
Cute (melanomi)	22.4	24.0	12.4	18.2	18.2	10.5	Cute (melanomi)	4.3	4.5	3.2	2.3	2.2	2.1
Mesotelioma	5.2	3.5	3.5	1.7	0.5	0.8	Mesotelioma						
S. di Kaposi	1.9	1.0	2.6	0.5	0.2	0.9	S. di Kaposi						
Tessuti molli	4.5	4.0	3.6	2.8	2.3	2.1	Tessuti molli	1.8	1.3	1.3	1.2	0.7	0.7
Mammella	1.9	1.5	1.7	162.9	141.5	127.1	Mammella	0.6	0.4	0.7	35.9	30.9	33.5
Utero cervice				8.1	7.8	6.9	Utero totale	0	0	0	7.7	8.6	9
Utero corpo				24.3	24.9	22.5	Ovaio	0	0	0.1	10.7	8.8	8.6
Ovaio				15.7	15.9	13.8	Prostata	29	30.4	35.7	0	0	0
Prostata	144.4	140.0	109.0				Testicolo	0.3	0.5	0.4	0.0	0.0	0.0
Testicolo	7.6	7.1	6.4				Rene, vie urinarie	12.2	10.8	8.1	4.4	3.8	3.1
Rene, vie urinarie**	32.5	30.6	19.3	13.3	12.5	8.3	Vescica	16.9	19.7	23.7	3.5	3.5	3.6
Parenchima	27.5	26.4	15.4	11.5	11.0	7.1	Sistema nervoso centrale	8.5	9.8	8.3	5.7	6.8	6
Pelvi e vie urinarie	4.9	4.1	3.9	1.7	1.4	1.2	Tiroide	0.8	0.8	0.8	0.9	0.7	1
Vescica***	75.9	77.4	85.0	14.9	14.8	13.5	Linfoma di Hodgkin	0.6	1	1.1	0.5	0.5	0.6
Sistema nervoso centrale	11.2	11.4	10.2	8.0	8.4	7.4	Linfoma non-Hodgkin	10.7	8.7	7.9	6.7	5.3	4.9
Tiroide	9.6	11.6	10.2	26.0	28.6	27.6	Mieloma	6.4	7.4	5.7	4.4	4.2	3.9
Linfoma di Hodgkin	4.1	5.0	3.9	3.4	3.4	3.2	Leucemie	12.4	14.3	13.2	6.9	8	7.8
Linfoma non-Hodgkin	25.4	23.9	19.3	17.5	13.8	13.8	Tutti i tumori, esclusi carcinomi della cute	376.0	345.7	357.8	211.9	190.9	188.2
Mieloma	11.5	11.4	10.8	8.4	7.5	7.3							
Leucemie	17.2	17.7	16.8	10.1	10.3	10.5							
Tutti i tumori, esclusi carcinomi della cute	733.5	704.8	640.1	513.4	482.3	429.3							

TABELLA 15. AIRTUM 2010-2014. Tassi di incidenza standardizzati sulla popolazione nuova europea per area geografica e sesso (x 100.000). Nota: è stata utilizzata la nuova popolazione standard europea (Eurostat 2013).

* Comprende lingua, bocca, orofaringe, rinofaringe, ipofaringe, laringe NAS, laringe.

** Comprende rene, pelvi e uretere.

*** Comprende sia tumori infiltranti sia non infiltranti.

TABELLA 17. AIRTUM 2010-2014. Tassi di mortalità standardizzati sulla nuova popolazione europea (Eurostat 2013) per area geografica e sesso (x 100.000)

Nota: è stata utilizzata la nuova popolazione standard europea (Eurostat 2013).

* Comprende lingua, bocca, orofaringe, rinofaringe, ipofaringe, faringe NAS, laringe.

trend temporali - Italia



Tumore della mammella

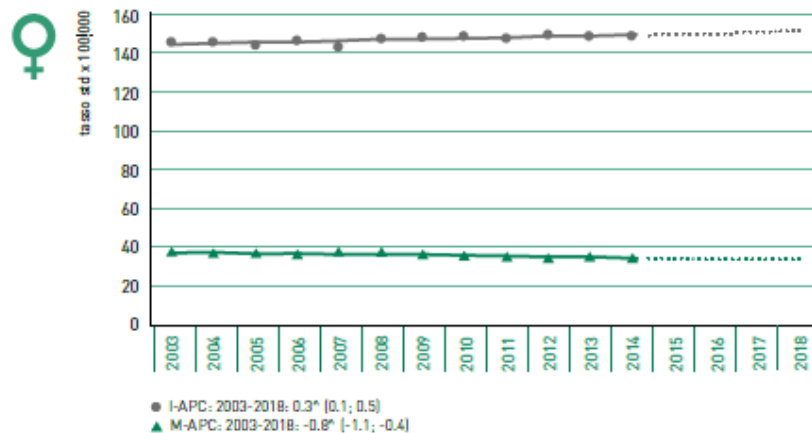


FIGURA 24A. Tumore della mammella femminile. AIRTUM: stima dei trend tumorali di incidenza e mortalità 2003-2018. Tassi standardizzati nuova popolazione europea 2013

APC = Annual Percent Change [variazione percentuale media annual], I = incidenza, M = mortalità.

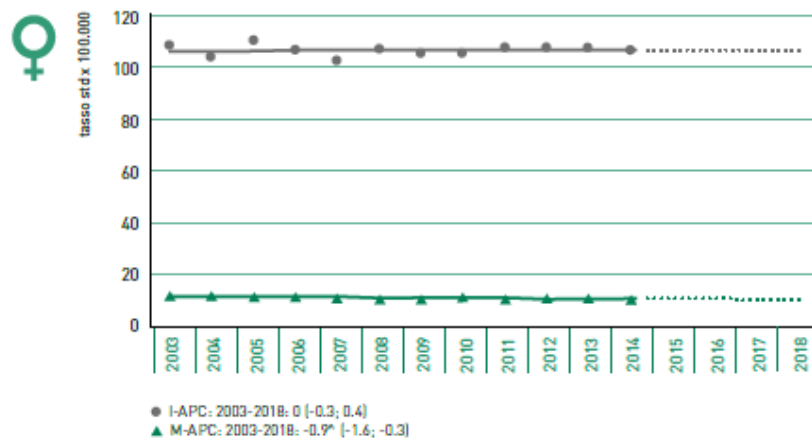


FIGURA 24B. Tumore della mammella femminile. Età 35-44 anni AIRTUM: stima dei trend tumorali di incidenza e mortalità 2003-2018. Tassi standardizzati nuova popolazione europea 2013

APC = Annual Percent Change [variazione percentuale media annual], I = incidenza, M = mortalità.

Tumore della mammella

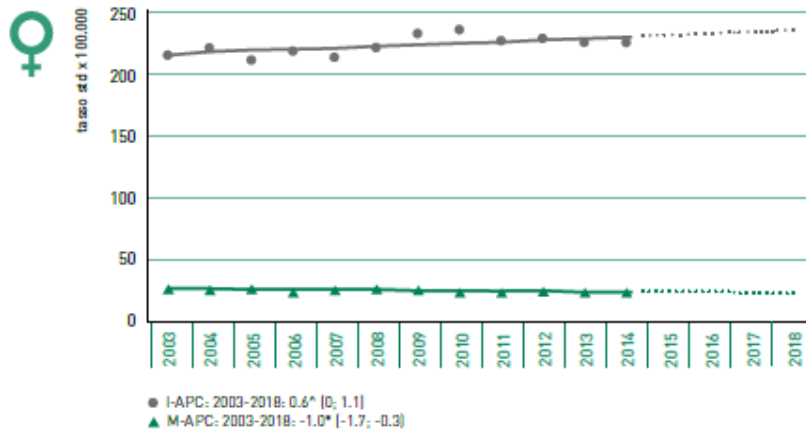


FIGURA 24C. Tumore della mammella femminile. Età 45-49 anni
AIRTUM: stima dei trend tumorali di incidenza e mortalità 2003-2018. Tassi standardizzati nuova popolazione europea 2013

APC = Annual Percent Change (variazione percentuale media annua), I = incidenza, M = mortalità.

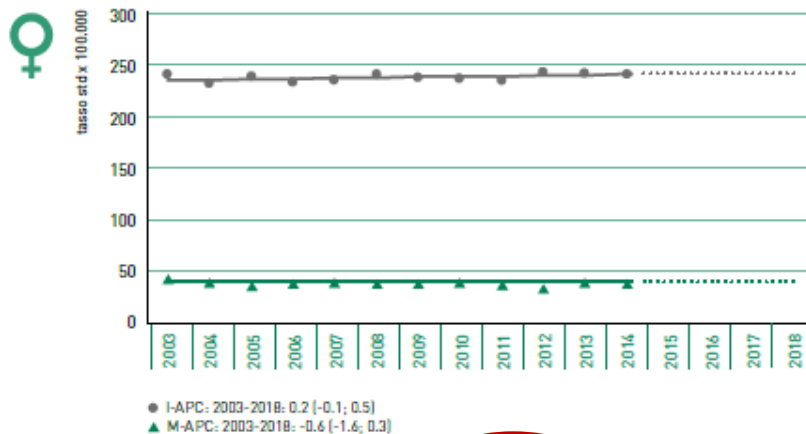


FIGURA 24D. Tumore della mammella femminile. Età 50-54 anni
AIRTUM: stima dei trend tumorali di incidenza e mortalità 2003-2018. Tassi standardizzati nuova popolazione europea 2013

APC = Annual Percent Change (variazione percentuale media annua), I = incidenza, M = mortalità.

Tumore della mammella

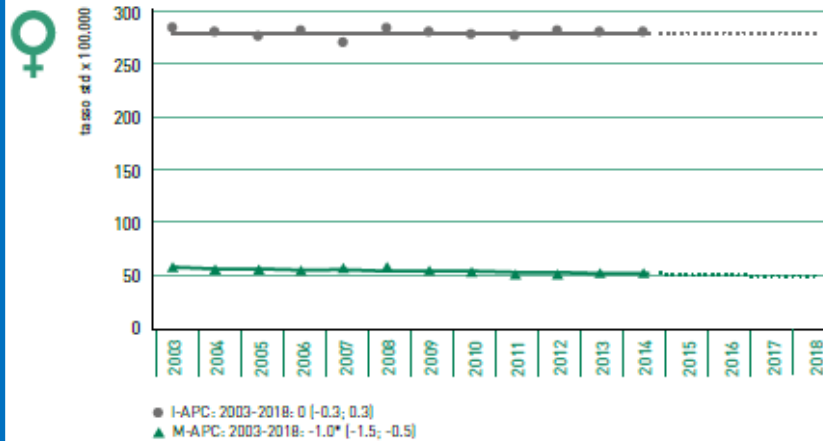


FIGURA 24E. Tumore della mammella femminile. Età 50-69 anni
AIRTUM: stima dei trend tumorali di incidenza e mortalità 2003-2018. Tassi standardizzati
nuova popolazione europea 2013

APC = Annual Percent Change [variazione percentuale media annua], I = incidenza, M = mortalità.

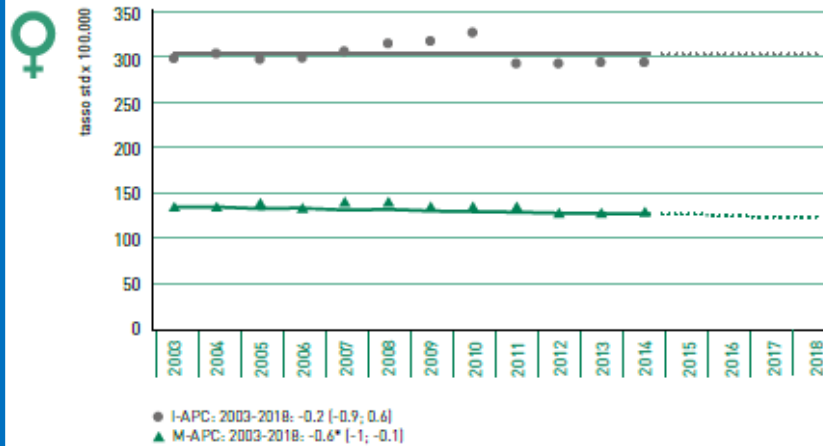


FIGURA 24F. Tumore della mammella femminile. Età 70+ anni
AIRTUM: stima dei trend tumorali di incidenza e mortalità 2003-2018. Tassi standardizzati
nuova popolazione europea 2013

APC = Annual Percent Change [variazione percentuale media annua], I = incidenza, M = mortalità.

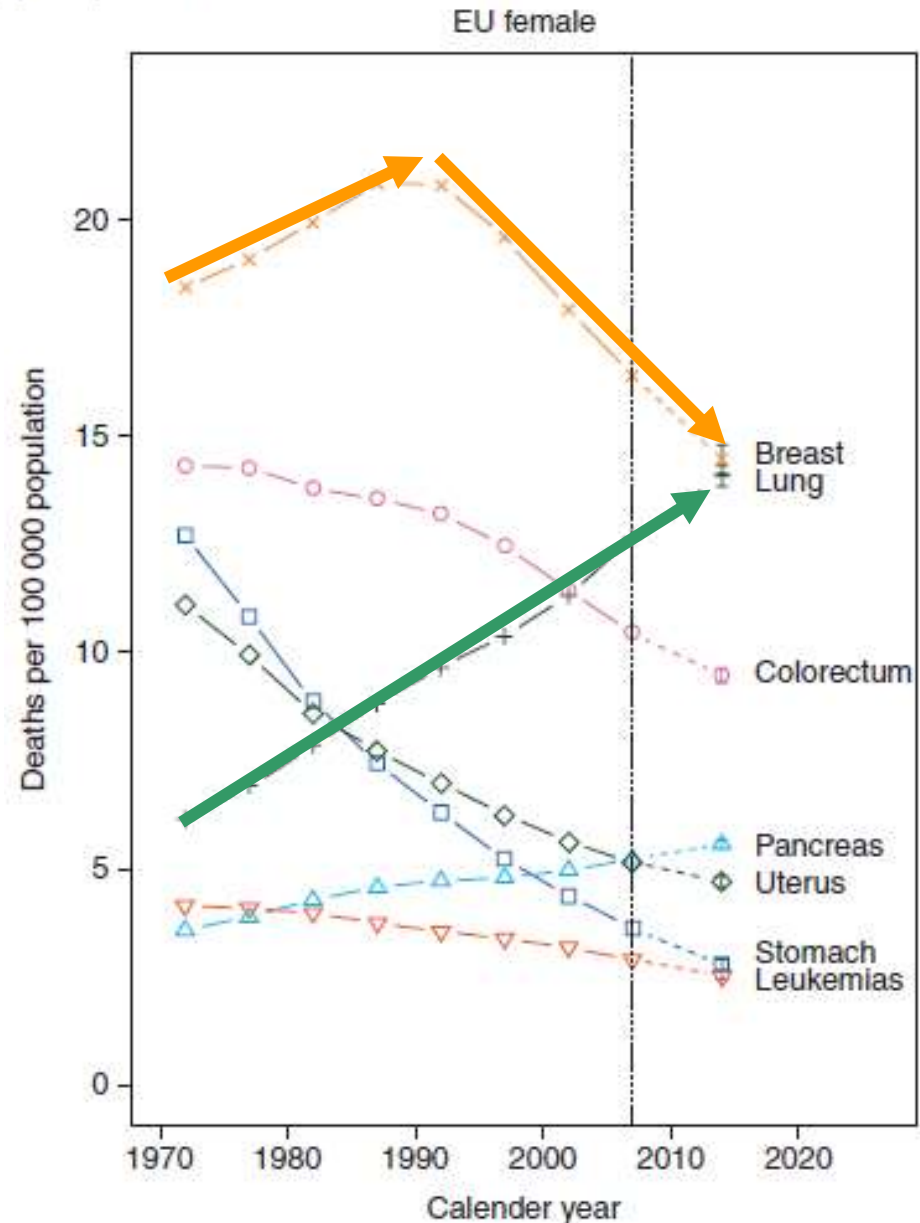
European cancer mortality predictions for the year 2014

M. Malvezzi^{1,2}, P. Bertuccio¹, F. Levi³, C. La Vecchia^{2*} & E. Negri¹

¹Department of Epidemiology, IRCCS-Istituto di Ricerche Farmacologiche 'Mario Negri', Milan; ²Department of Clinical Sciences and Community Health, Università Degli Studi di Milano, Milan, Italy; ³Cancer Epidemiology Unit, Institute of Social and Preventive Medicine (IUMSP), Lausanne University Hospital, Lausanne, Switzerland

La mortalità standardizzata per età per tumore della mammella in Europa diminuisce dal 1990.

- Le ragioni di questo cambiamento sono molteplici, ma soprattutto attribuite a un “effetto periodo”:
 - Diagnosi precoce/screening
 - Nuovi Trattamenti
 - Migliore assistenza e cura



Effect of Screening and Adjuvant Therapy on Mortality from Breast Cancer

Donald A. Berry, Ph.D., Kathleen A. Cronin, Ph.D., Sylvia K. Plevritis, Ph.D.,
Dennis G. Fryback, Ph.D., Lauren Clarke, M.S., Marvin Zelen, Ph.D.,
Jeanne S. Mandelblatt, Ph.D., Andrei Y. Yakovlev, Ph.D., J. Dik F. Habbema, Ph.D.,
and Eric J. Feuer, Ph.D., for the Cancer Intervention and Surveillance
Modeling Network (CISNET) Collaborators*

The NEW ENGLAND JOURNAL of MEDICINE

2005

Stime molto
contestate,
su dati USA!

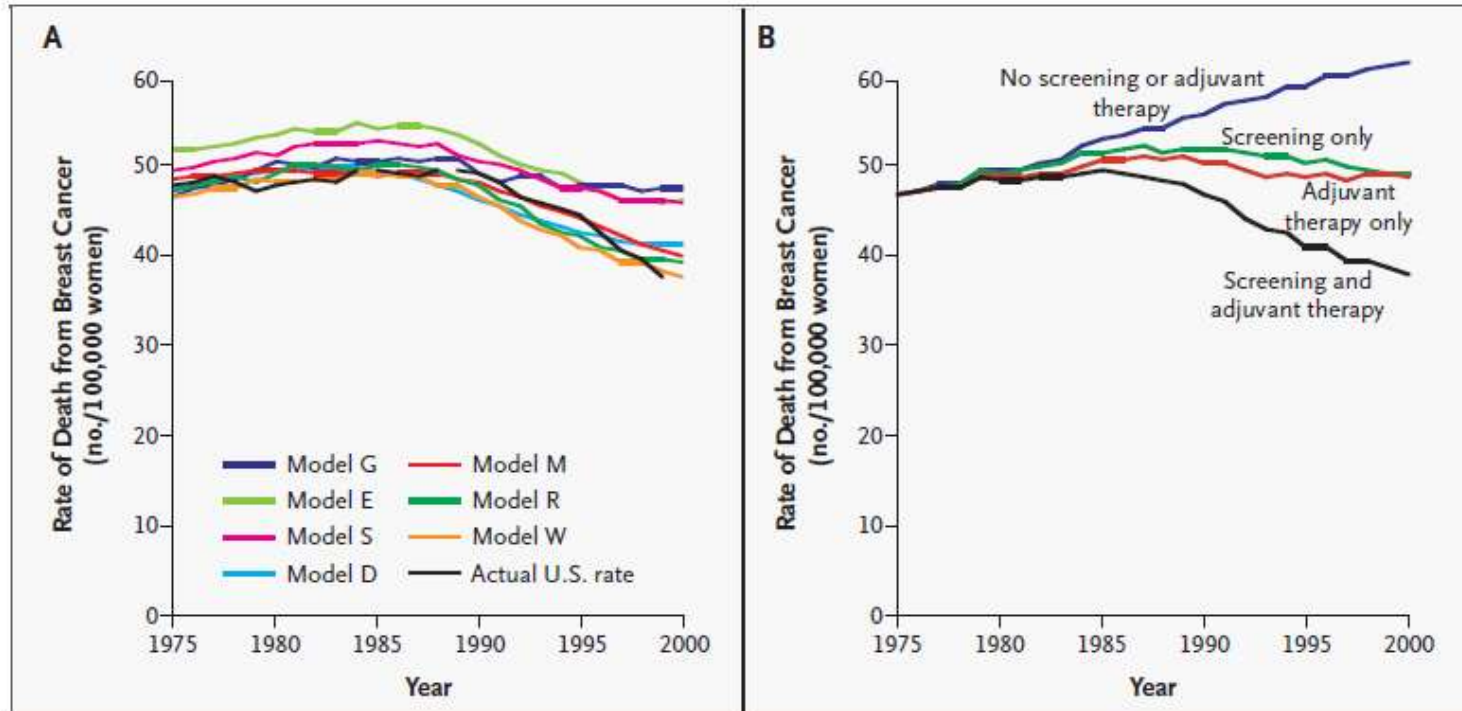


Figure 2. Estimated and Actual Rates of Death from Breast Cancer among Women 30 to 79 Years of Age from 1975 to 2000 (Panel A) and under Hypothetical Assumptions about the Use of Screening Mammography and Adjuvant Treatment (Panel B).

Panel A, which compares the model-based results with the actual rates in the United States from 1975 to 2000, shows the variability across the model estimates. Some of the models were calibrated according to the observed rate of death from breast cancer in the United States, and some were not. Panel B shows the results from model W (the University of Wisconsin–Madison) of estimated mortality trends for the four scenarios considered: no screening and no adjuvant treatment; base-case screening, but no adjuvant treatment; no screening, but base-case adjuvant treatment; base-case screening and adjuvant treatment. Rates in both panels are age-adjusted to the 2000 U.S. standard.

Table 3. Estimated Reductions in the Rate of Death from Breast Cancer in 2000 Attributed to Adjuvant Treatments and Screening.*

Model	Tamoxifen	Chemotherapy	Both Therapies	Screening	Overall
	<i>percent (percent of reduction)</i>				
D (Dana–Farber Cancer Institute)	6.1	6.1	12.0 (35)	22.7 (65)	32.9
E (Erasmus University Medical Center)	12.0	9.6	20.9 (58)	15.3 (42)	30.9
G (Georgetown University)	7.7	7.0	14.6 (54)	12.4 (46)	24.9
M (M.D. Anderson Cancer Center)	10.7	9.5	19.5 (65)	10.6 (35)	27.5
R (University of Rochester)	NA	NA	19.0 (72)	7.5 (28)	25.6
S (Stanford University)	8.9	6.9	14.9 (47)	16.9 (53)	29.9
W (University of Wisconsin–Madison)	12.5	8.9	20.8 (51)	20.3 (49)	38.3

* Values are point estimates from each model; percentages in parentheses are the percentages of the overall reduction that are attributable to treatment or screening. NA denotes not applicable.

La variabilità delle conclusioni quantitative tra i modelli dimostra l'interazione tra lo screening e il trattamento.

La screening non avrebbe avuto alcun beneficio se non fosse stato seguito dal trattamento (compreso l'intervento chirurgico) e il trattamento è probabilmente più efficace se il tumore viene identificato precocemente tramite lo screening.

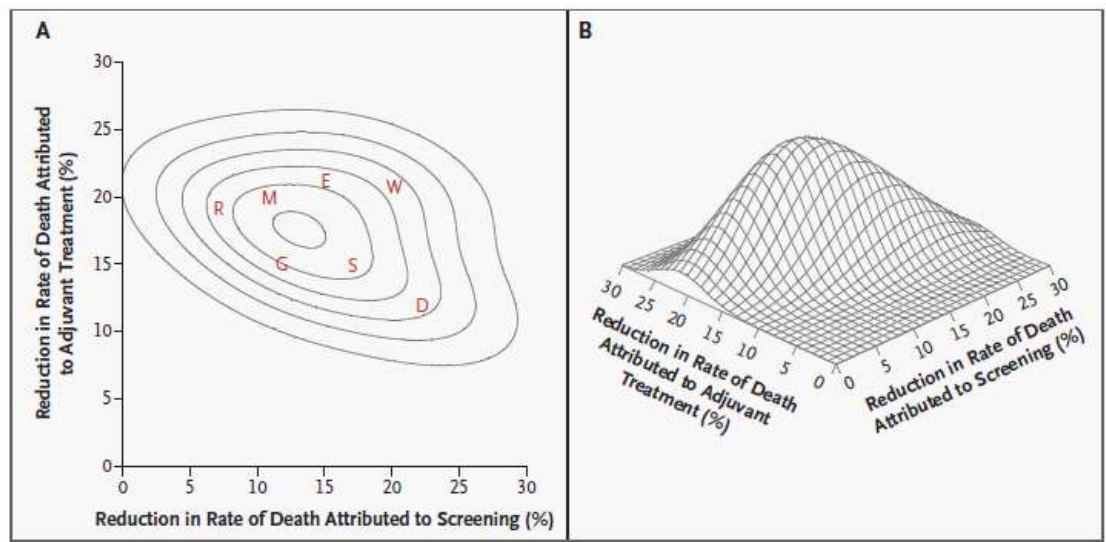
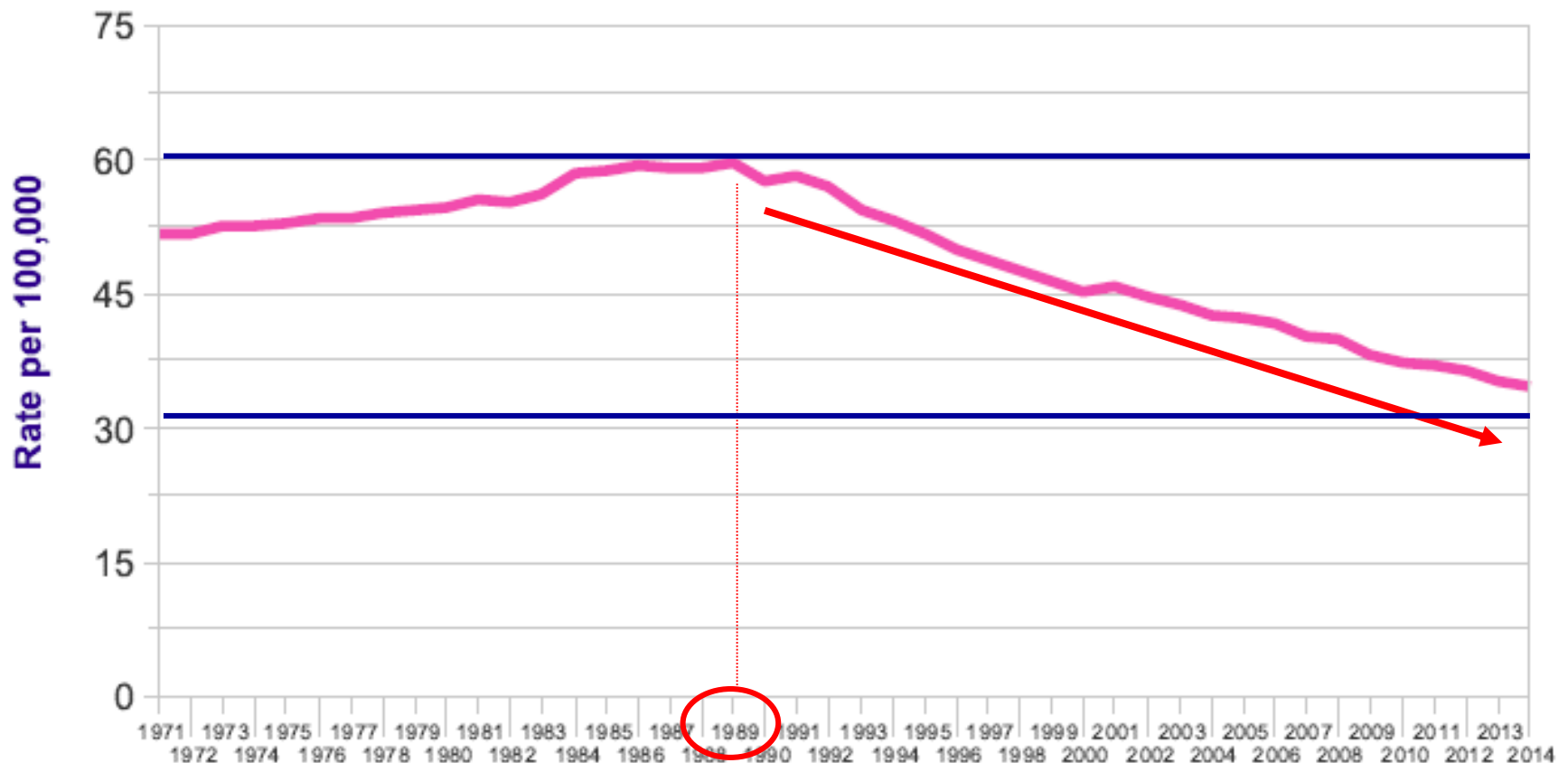


Figure 3. Estimated Joint Distribution of the Reduction in the Rate of Death from Breast Cancer among U.S. Women 30 to 79 Years of Age Attributed to Adjuvant Treatment and to Screening Mammography. Values are compared with the rate of death in 2000 in the absence of both screening and treatment. Panel A shows the point estimates from the individual models (designated by their letters) provided in Table 3. The distribution contours for the combined model results are derived by kernel-density estimation; each contour shows the locus of points having a constant density. Each model's point estimate is assumed to be at the mean of its own bivariate normal density whose covariance structure was estimated from that of the seven model estimates. These seven densities were then averaged with equal weights to obtain an estimated posterior joint distribution. The "hill" in Panel B is a three-dimensional rendering of the contour plot. The height of the hill shows the likelihood of the corresponding reductions due to screening and treatment. For example, a point near the top of the hill (from 10 to 15 percent for screening and from 15 to 20 percent for treatment) is about twice as likely to be the actual state than is a point on the third largest contour in Panel A.

Breast Cancer (C50): 1971-2014

European Age-Standardised Mortality Rates per 100,000 Population, Females, UK

Female



1989

Inizio del programma di screening

Year of Death



OSSERVATORIO
NAZIONALE
SCREENING



Come cambia l'epidemiologia del tumore della mammella in Italia

I risultati del progetto IMPATTO
dei programmi di screening mammografico

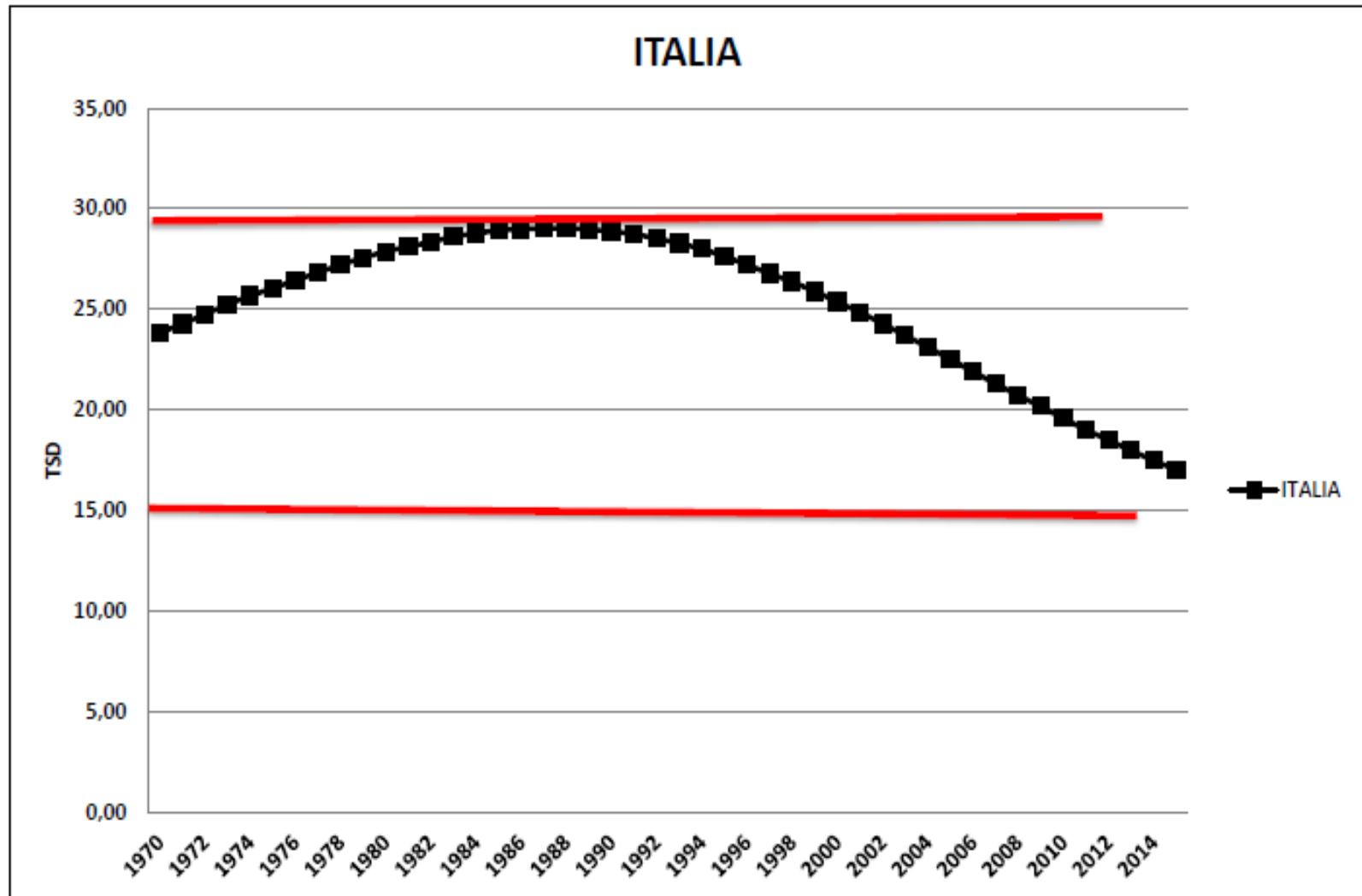
IMPACT Working Group

*Editors
Eugenio Paci, Donella Puliti*

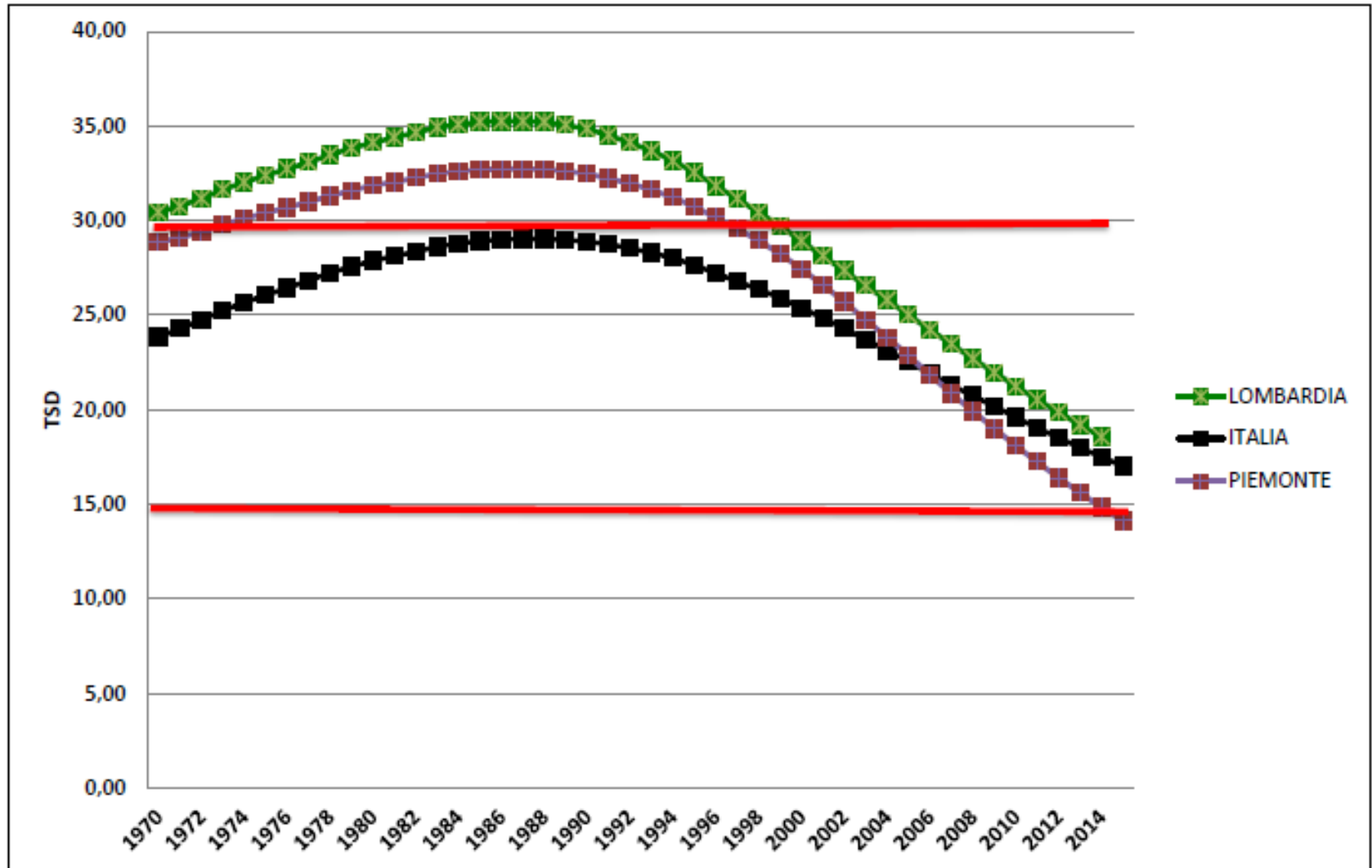
Lo studio IMPATTO

Complessivamente il dataset IMPATTO comprende una casistica di 81.275 casi di k mammario, fino al 2005. Collaborazione Registri Tumori e Servizi di Screening

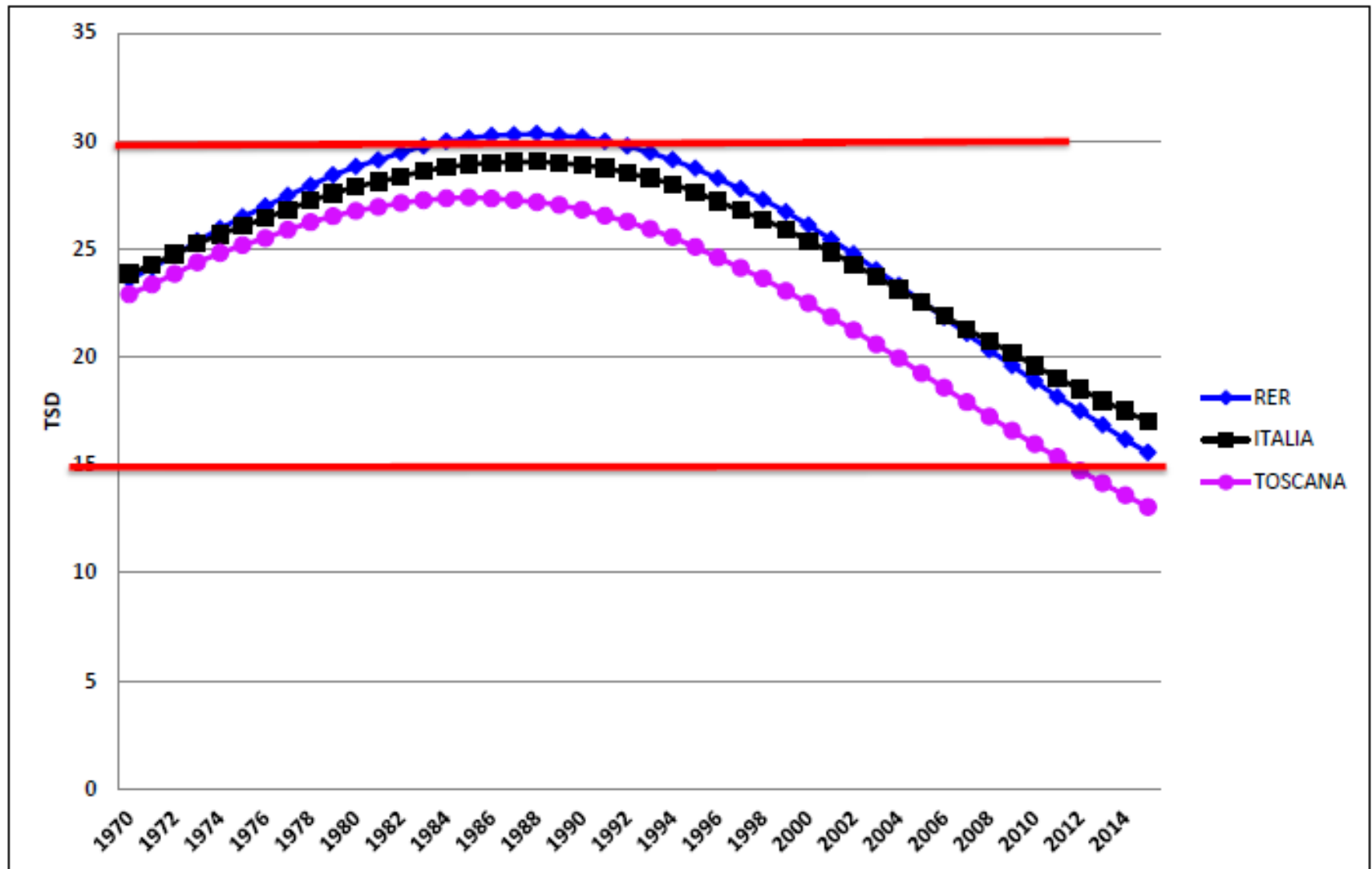
Mortalità per Tumore della mammella (C50) Età 0-99, Standardizzazione Pop. Europea, x 100.000



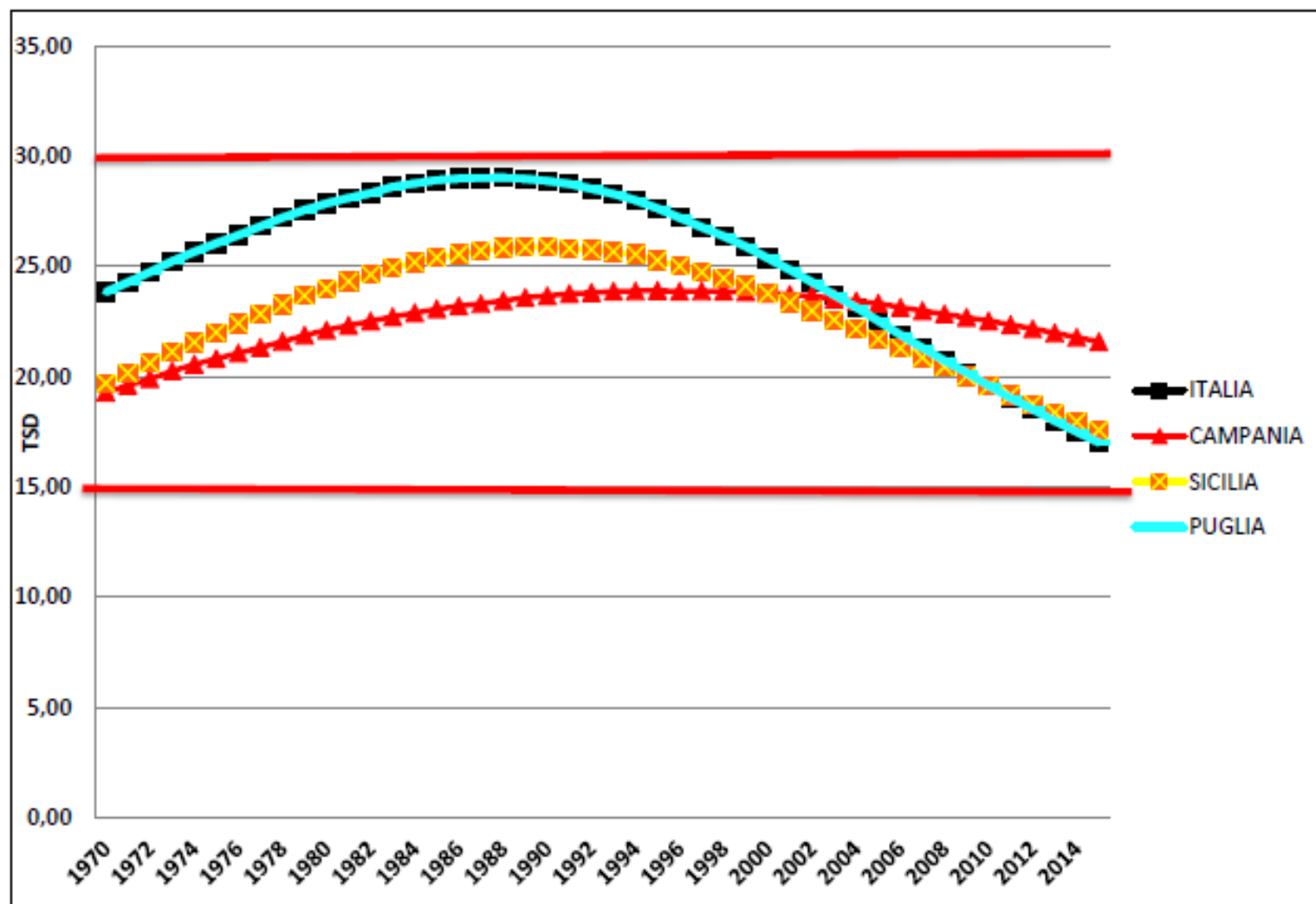
Mortalità per Tumore della mammella (C50) Età 0-99, Standardizzazione Pop. Europea, x 100.000



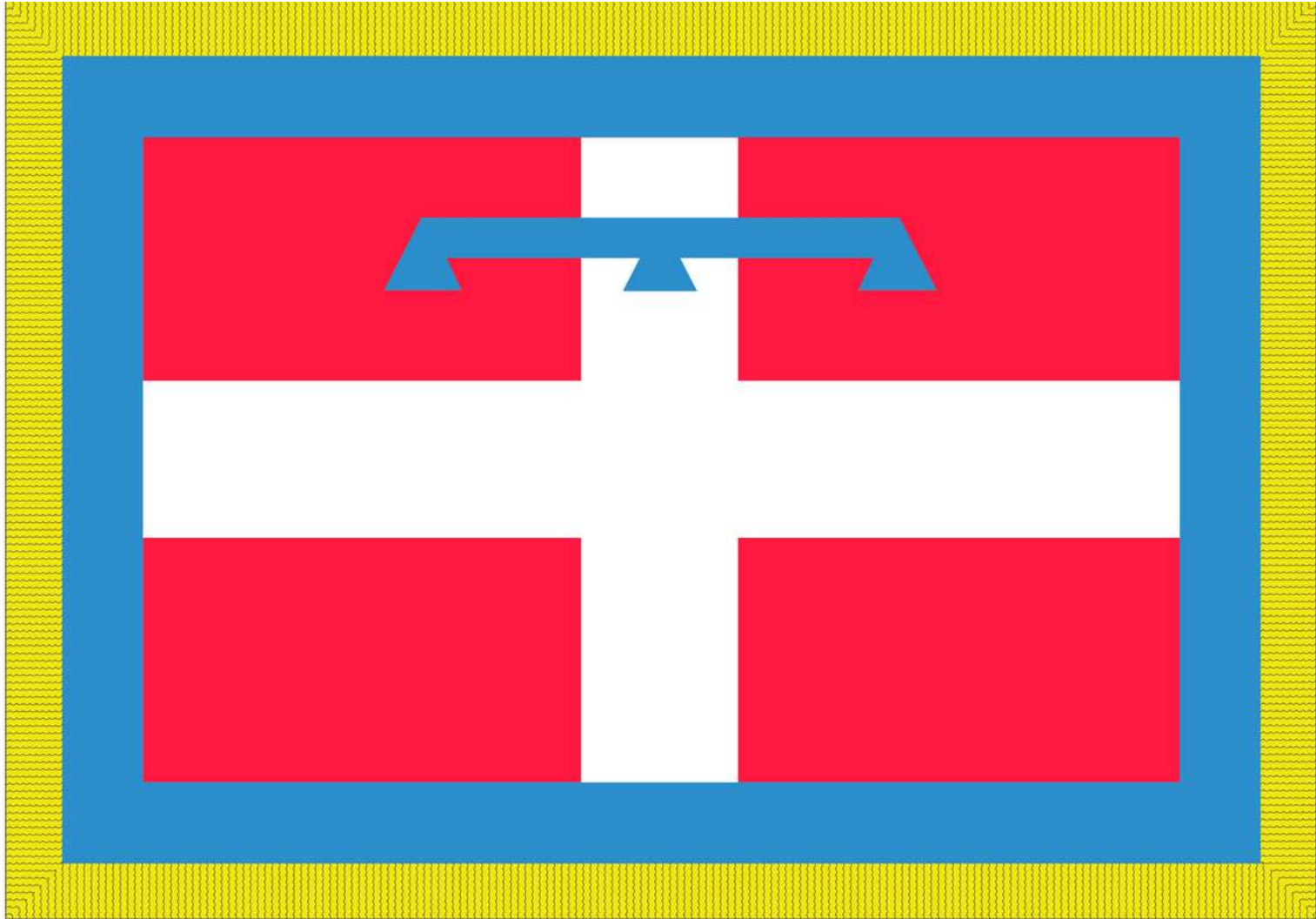
Mortalità per Tumore della mammella (C50) Età 0-99, Standardizzazione Pop. Europea, x 100.000



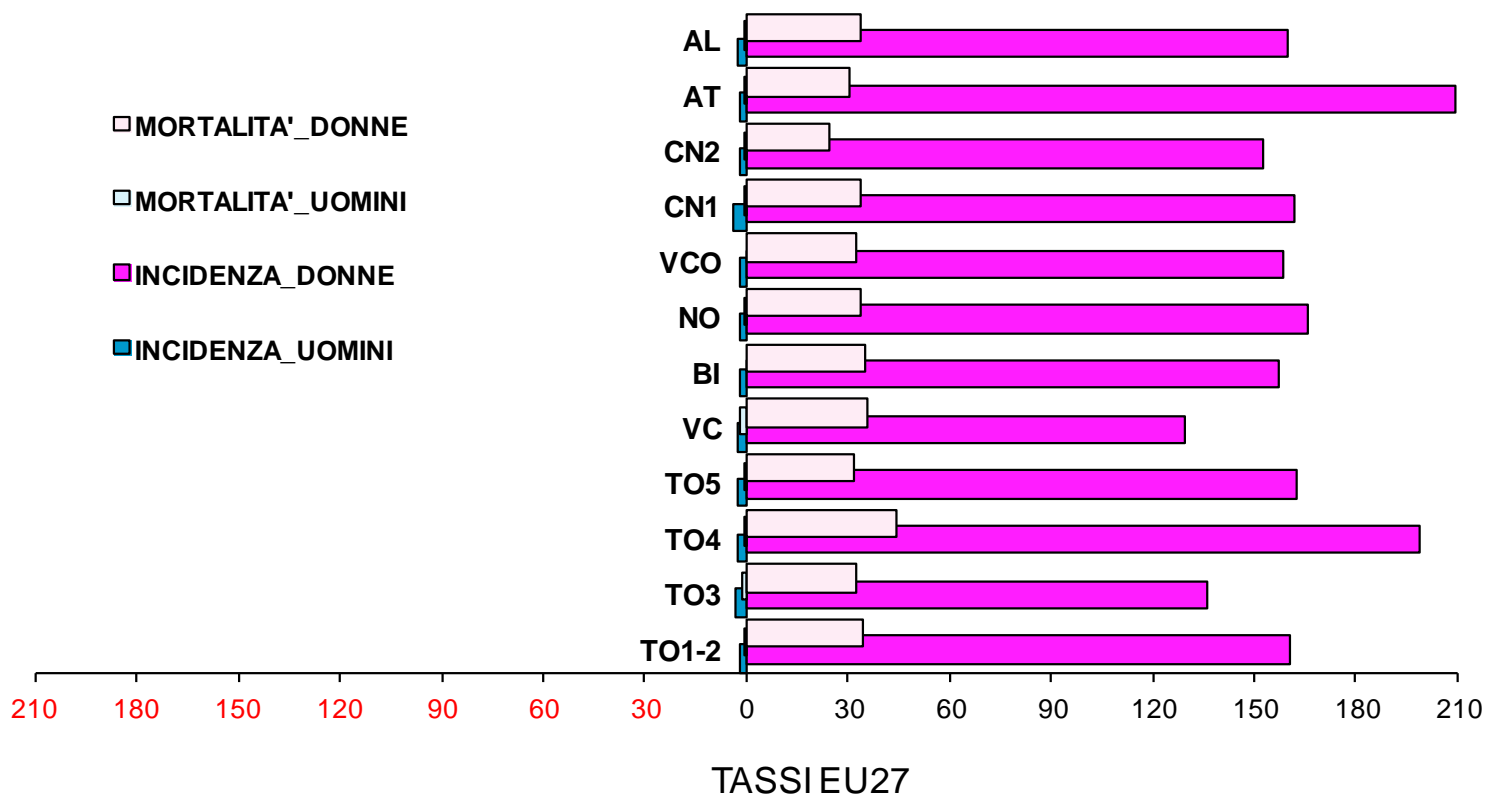
Mortalità per Tumore della mammella (C50) Età 0-99, Standardizzazione Pop. Europea, x 100.000



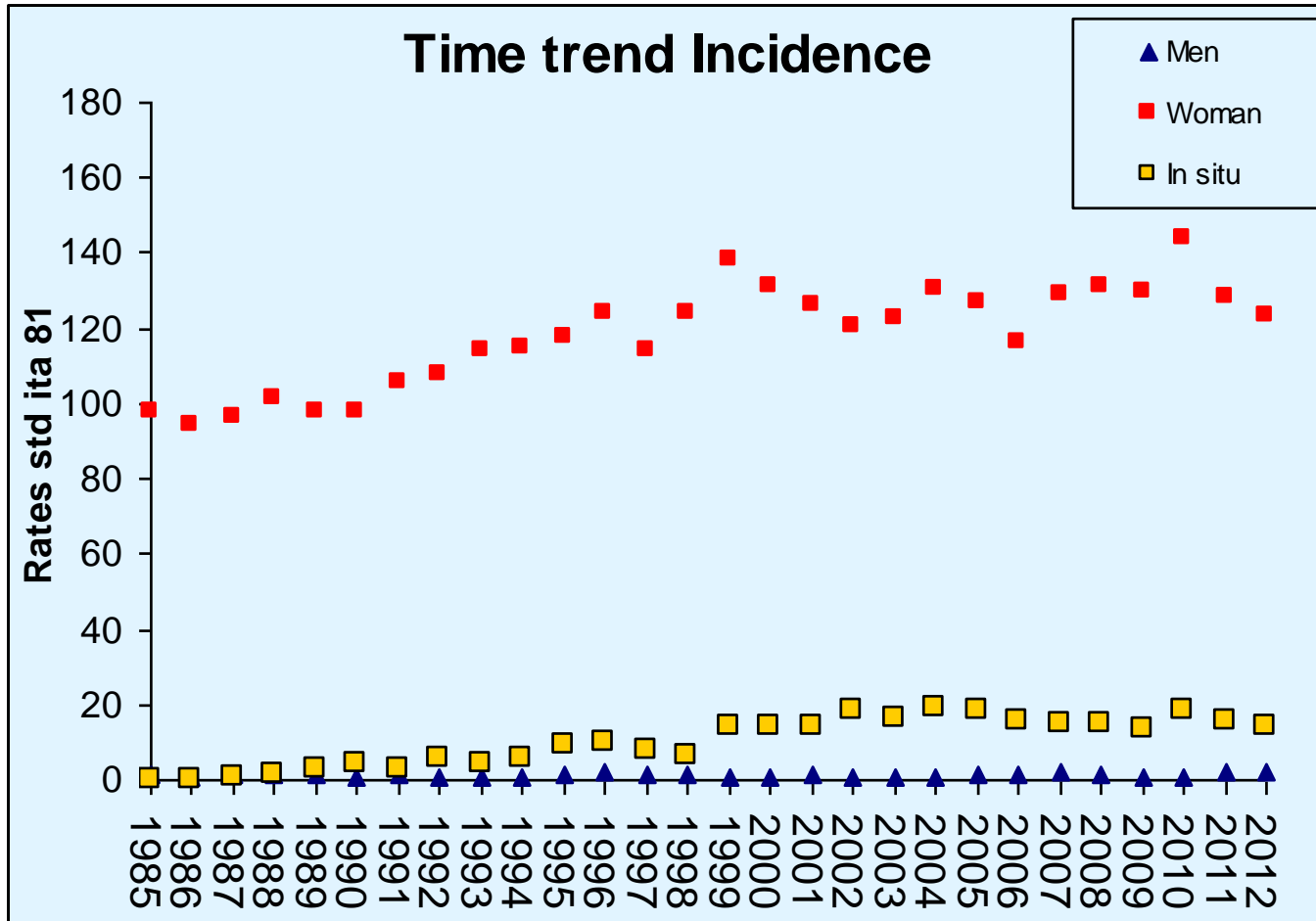
Piemonte



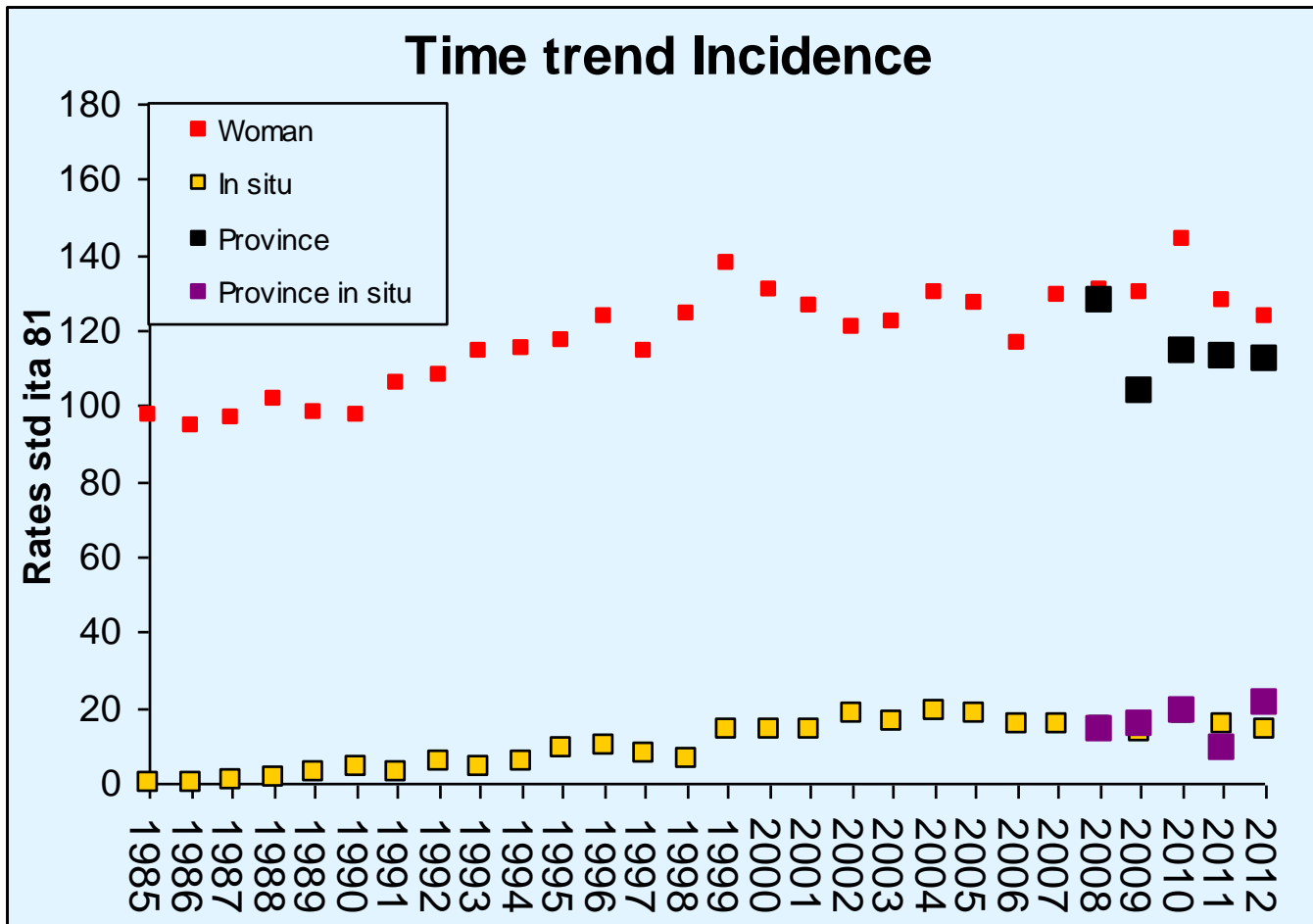
INCIDENZA E MORTALITA' PER ASL 2013 - 2014



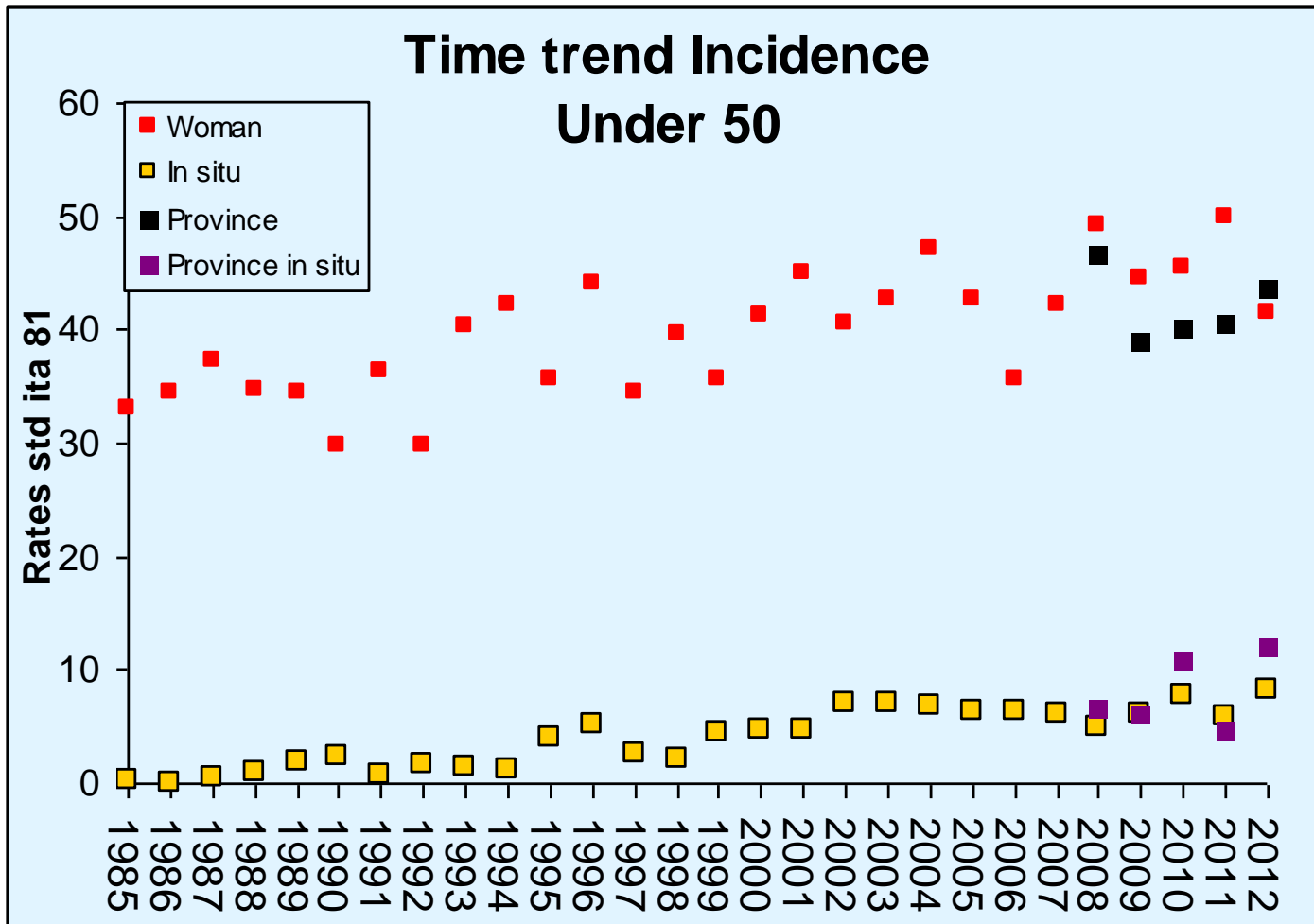
Torino



Torino e provincia

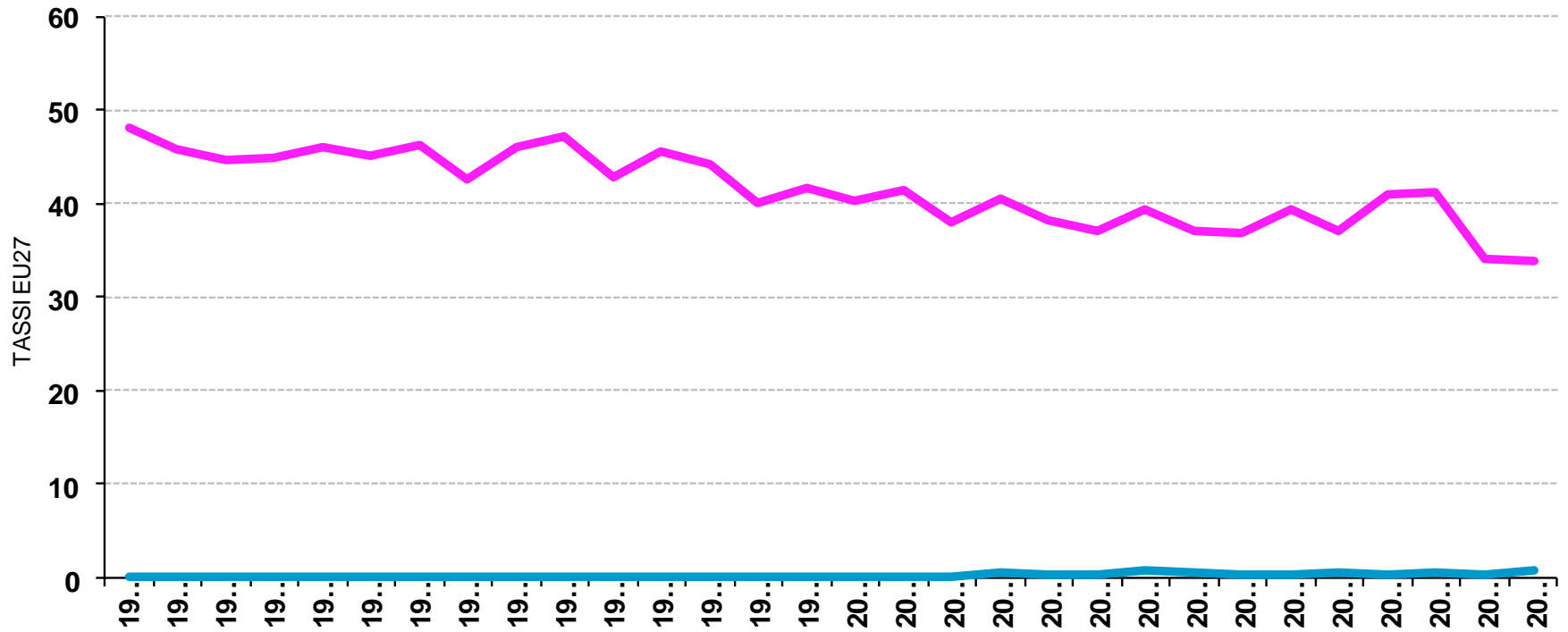


Torino e provincia

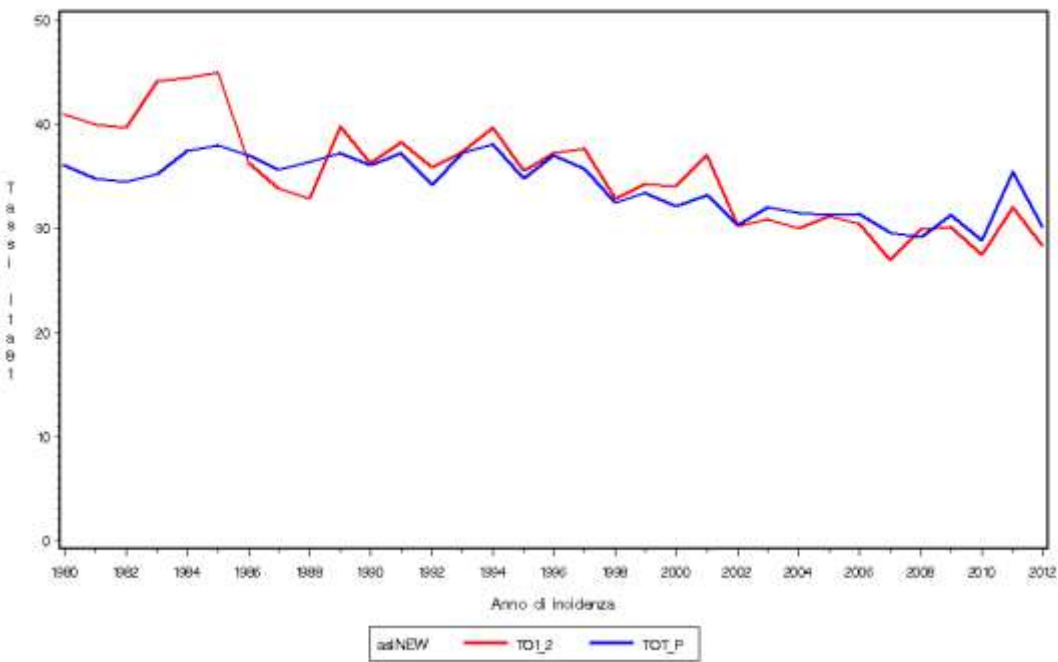


MORTALITA' MAMMELLA 1985 - 2014

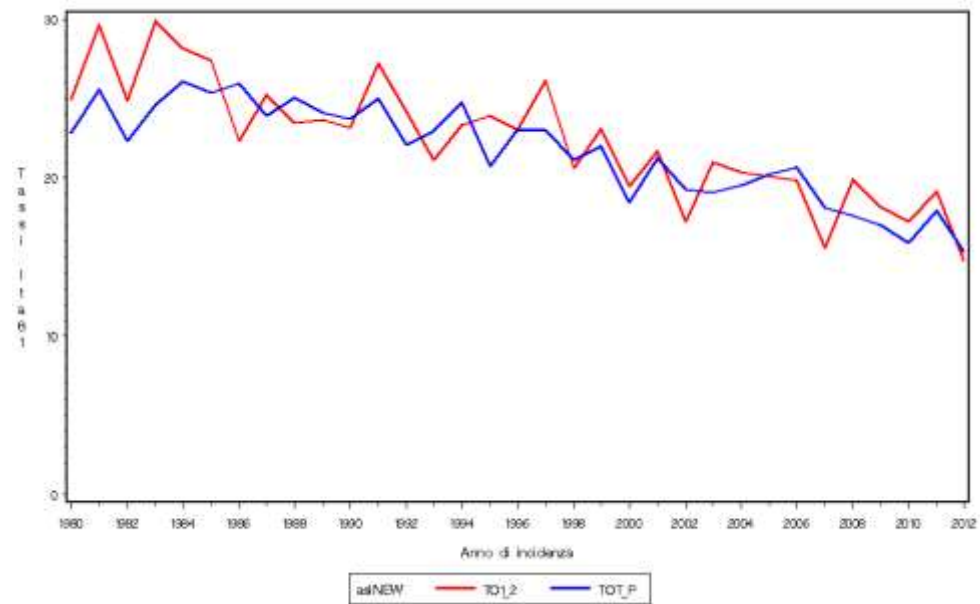
MORTALITA'
DONNE
MORTALITA'
UOMINI



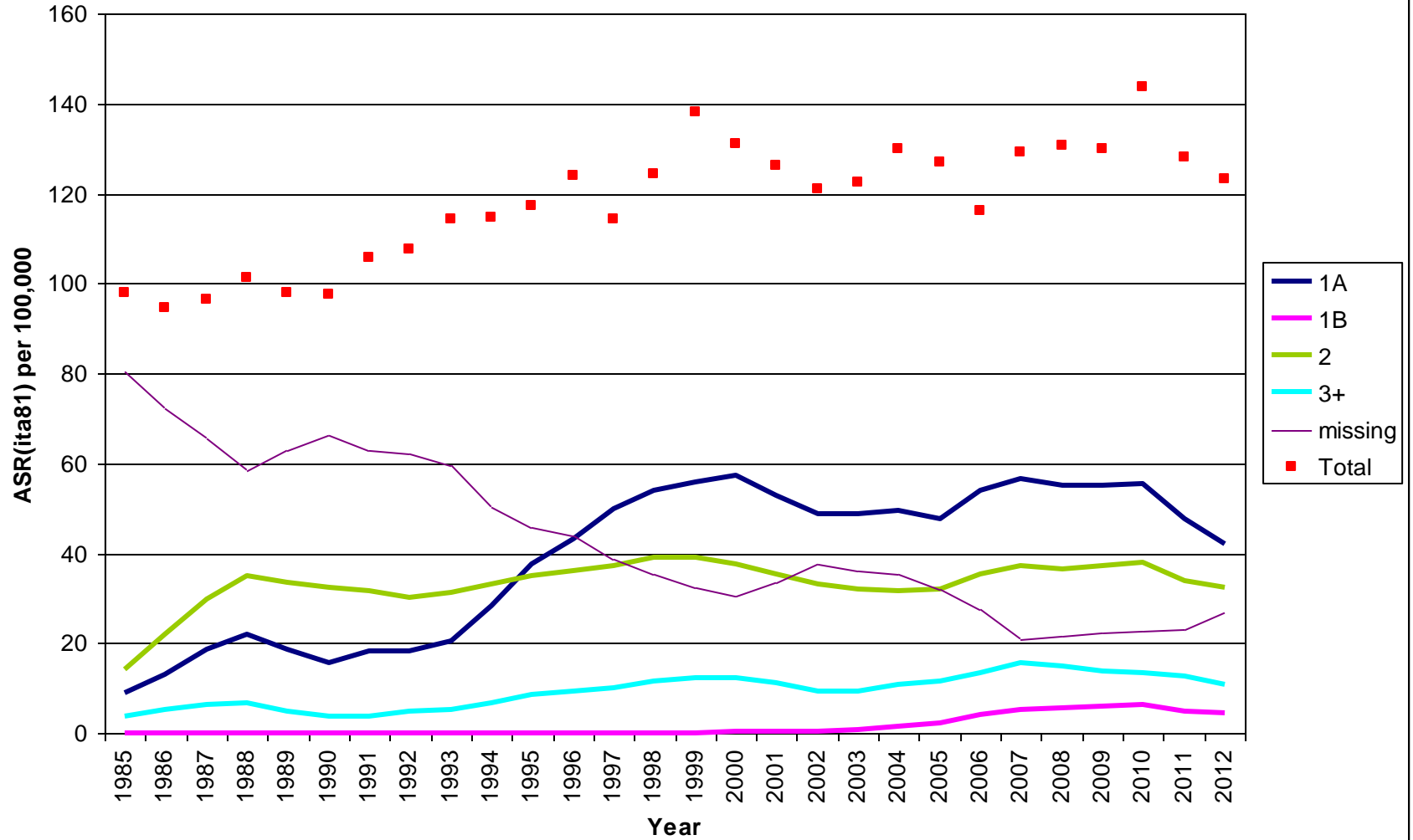
Mortalità



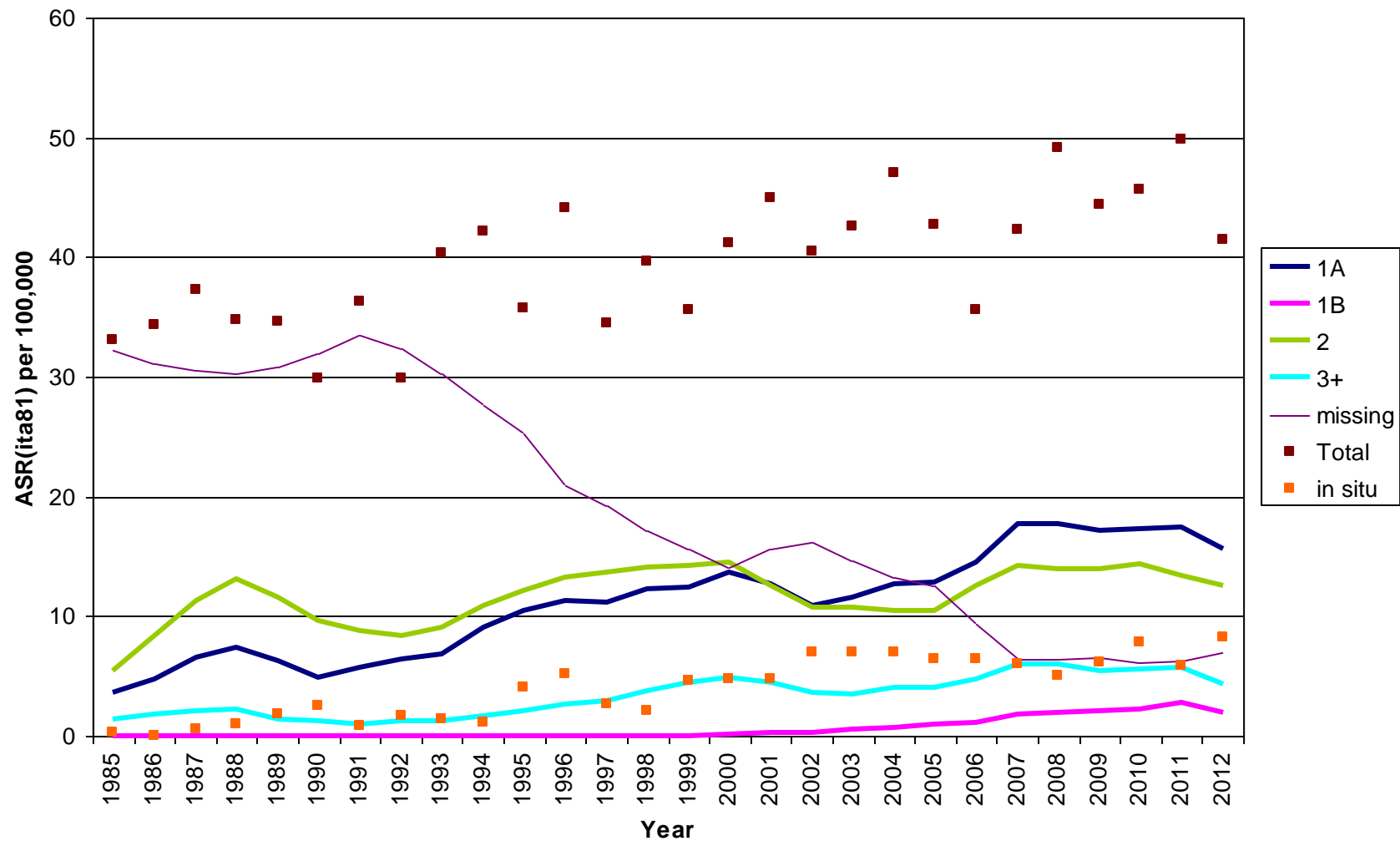
Mortalità <50 anni



Breast cancer staging-Turin



Breast cancer staging - -Turin - age <50



- **La sopravvivenza**



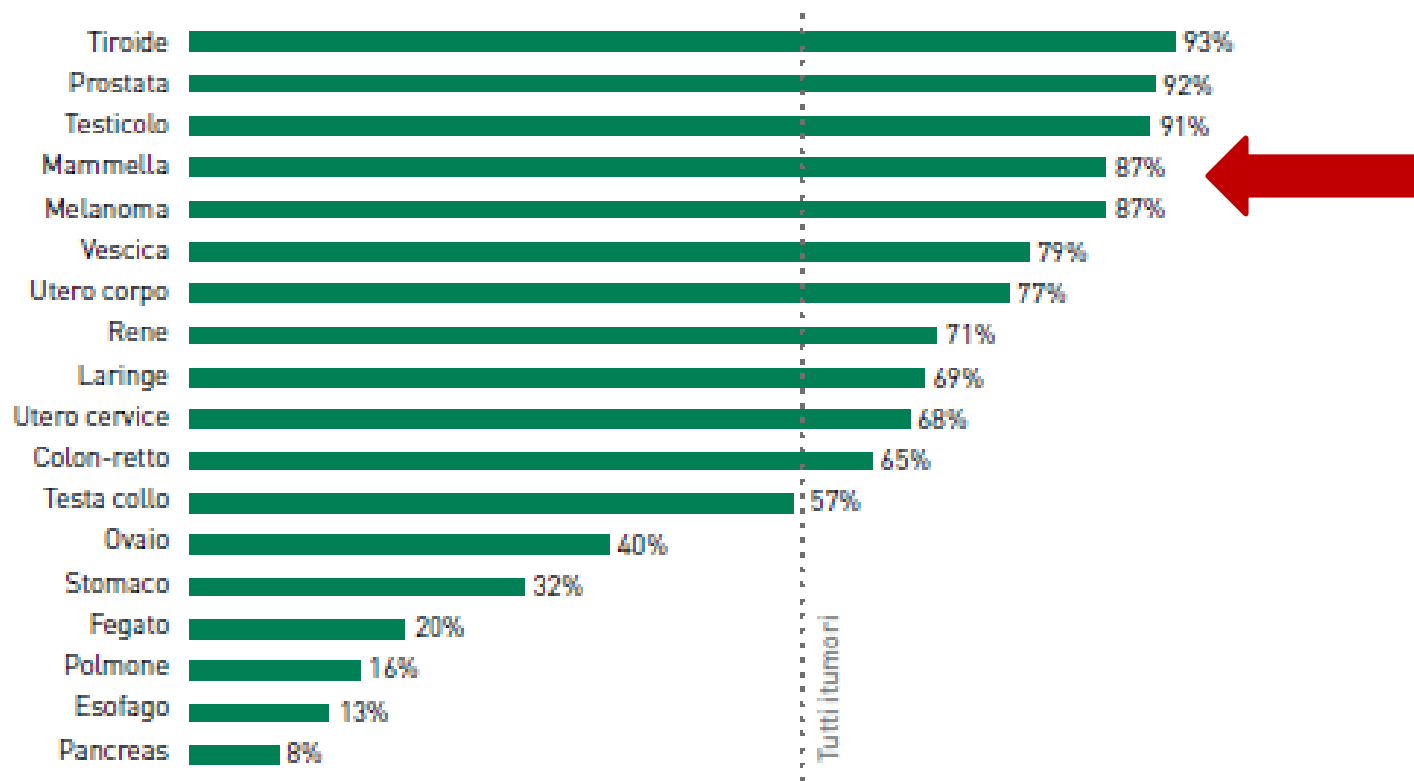


FIGURA 6. Sopravvivenza netta a 5 anni dalla diagnosi (standardizzata per età) per il periodo di incidenza 2005-2009 (pool AIRTUM), uomini e donne

numero **2**

EPIDEMIOLOGIA & PREVENZIONE

Rivista della Associazione italiana di epidemiologia

e&p

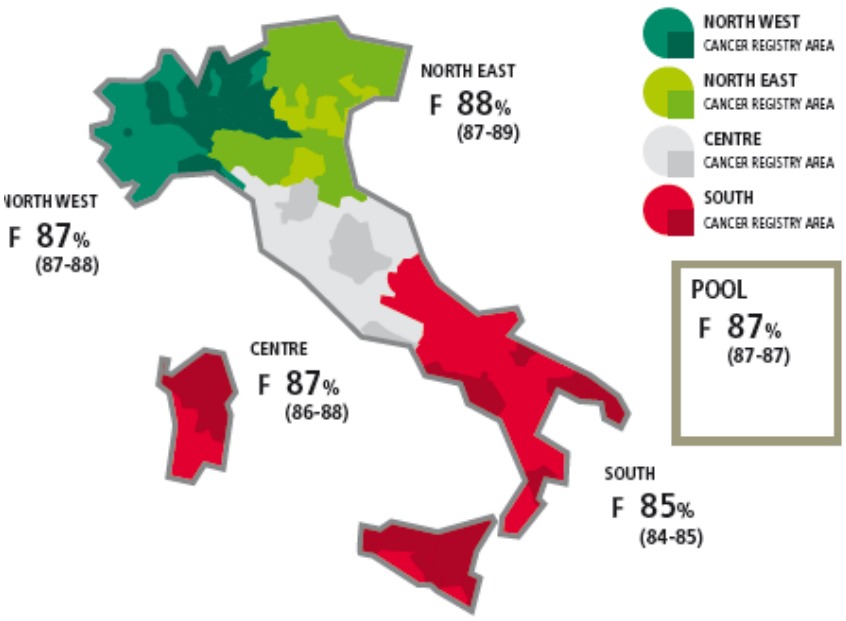


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Sopravvivenza dal tumore alla mammella

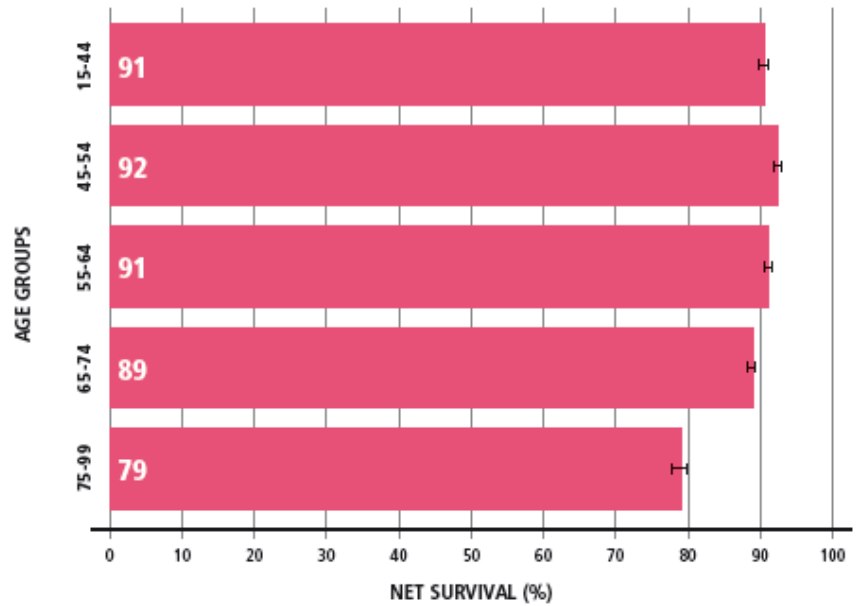
A 5-YEAR AGE-STANDARDIZED NET SURVIVAL (%) BY GEOGRAPHICAL AREA, 2005-2009

POOL OF 42 CANCER REGISTRIES (114451 OBSERVED CASES)



B 5-YEAR NET SURVIVAL (%) BY AGE, 2005-2009

POOL OF 42 CANCER REGISTRIES (114451 OBSERVED CASES)



Sopravvivenza e aspettativa di vita per il tumore alla mammella

SUMMARY

NET SURVIVAL

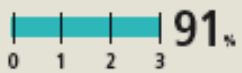
1 YEAR AFTER DIAGNOSIS

97%



3 YEARS AFTER DIAGNOSIS

91%



5 YEARS AFTER DIAGNOSIS

87%



8 percent points higher in 15 years

MALES & FEMALES, PERIOD OF DIAGNOSIS: 2005-2009

CONDITIONAL 5-YEAR NET SURVIVAL

5 YEARS AFTER DIAGNOSIS

87%



CONDITIONED ON HAVING SURVIVED 1 YEAR AFTER DIAGNOSIS

89%



CONDITIONED ON HAVING SURVIVED 5 YEAR AFTER DIAGNOSIS

90%



5-YEAR NET SURVIVAL - GEOGRAPHICAL COMPARISONS

Source: graph A

NORTH WEST

F **87%**

NORTH EAST

F **88%**

CENTRE

F **87%**

SOUTH

F **85%**

In the **NORTH** and **CENTRE** of Italy cancer survival is higher than in **SOUTH**

5-YEAR NET SURVIVAL - BY REGION

Source: graph E

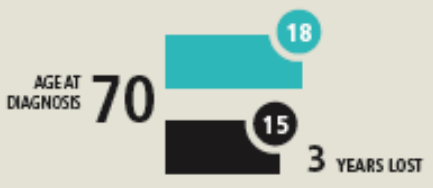


REGIONS

- ABOVE THE NATIONAL MEAN
- AROUND THE NATIONAL MEAN
- BELOW THE NATIONAL MEAN
- WITHOUT DATA

LIFE EXPECTANCY AT A GIVEN AGE OF DIAGNOSIS

- GENERAL POPULATION
- CANCER



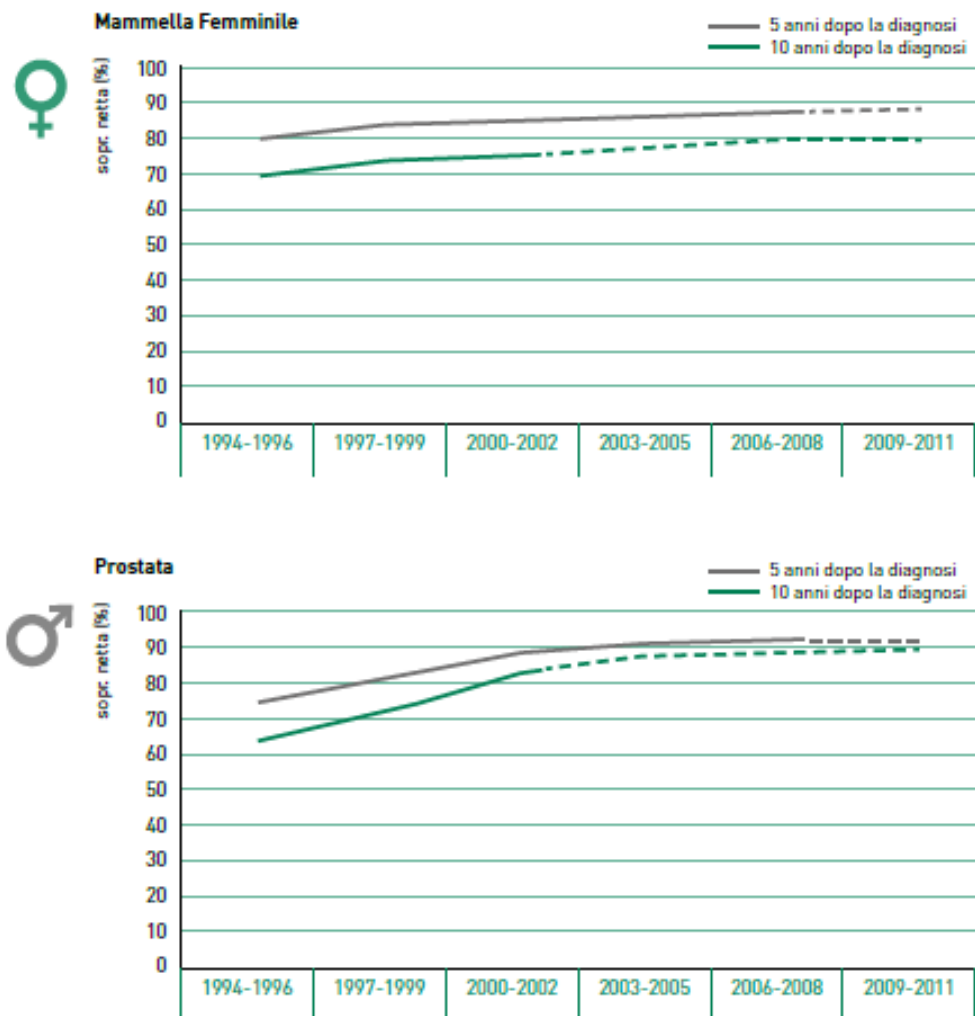
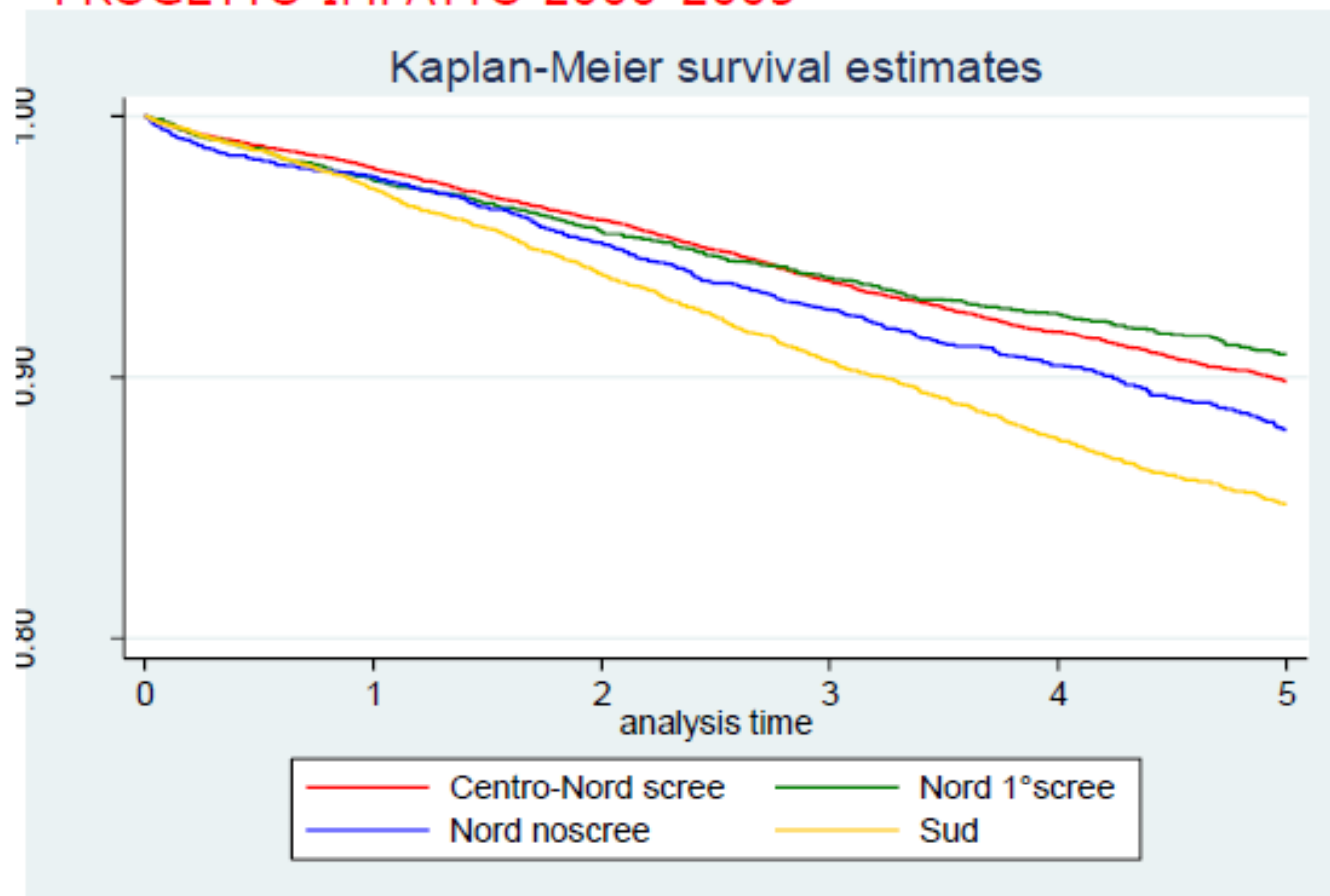


FIGURA 7. Tumore della mammella femminile, tumore della prostata, tumore del colon-retto (uomini e donne), tumore del polmone (uomini e donne). Trend temporale della sopravvivenza netta a 5 e 10 anni dalla diagnosi (standardizzata per età) per periodo di incidenza (pool AIRTUM). Modificato da: AIRTUM Working Group. I tumori in Italia - Rapporto 2016. Sopravvivenza. Epidemiol Prev 2018; 41(2):Suppl. 1

Sopravvivenza causa-specifica a 5 anni per area geografica-
Registri Tumori di popolazione - Età 50-69 anni.
PROGETTO IMPATTO 2000-2005



--- 91% (n=4.645)
--- 90% (n=18.056)
--- 88% (n=4.566)
--- 85% (n=6.438)

$p < 0.0001$

Nord e Centro Italia: 90%

vs

$p < 0.0001$

Sud Italia: 85%

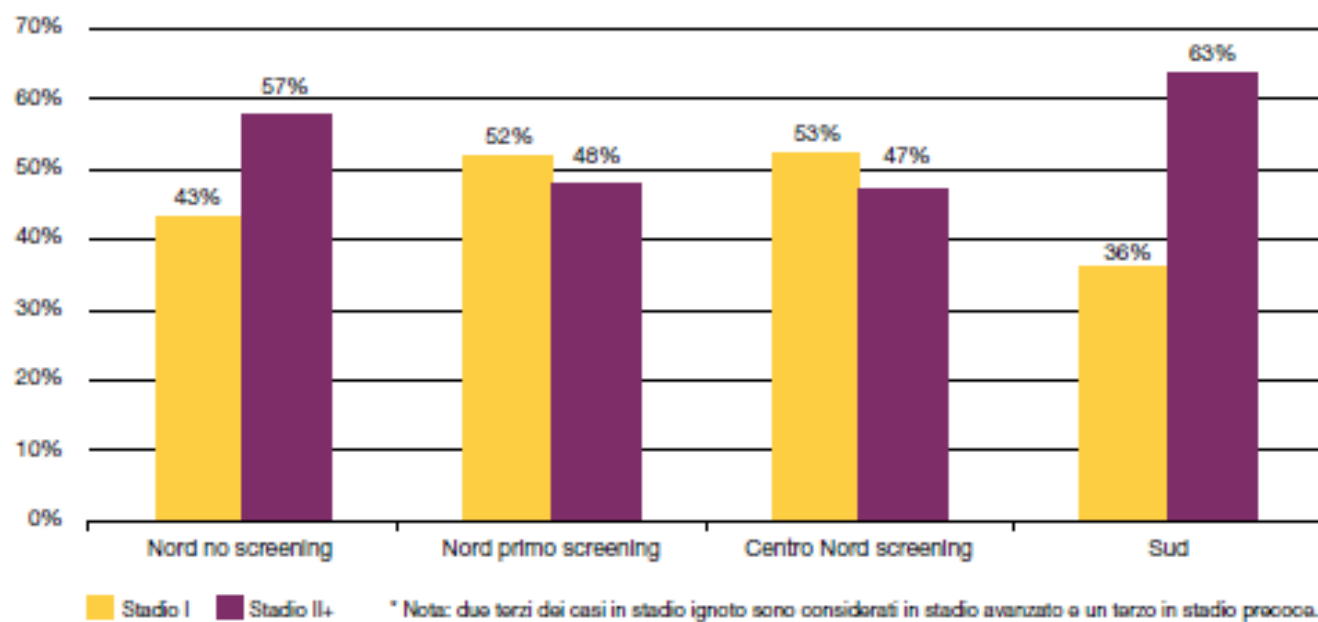
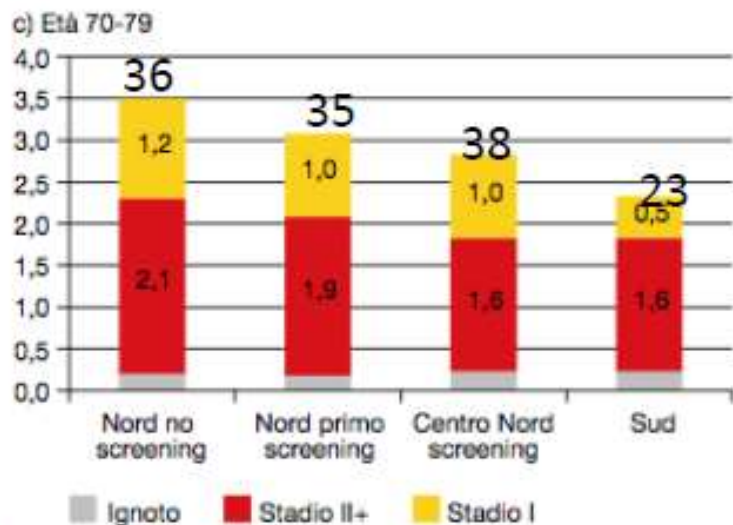
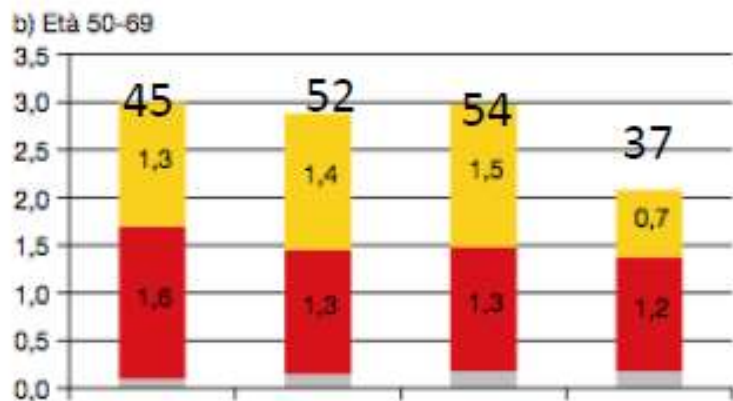
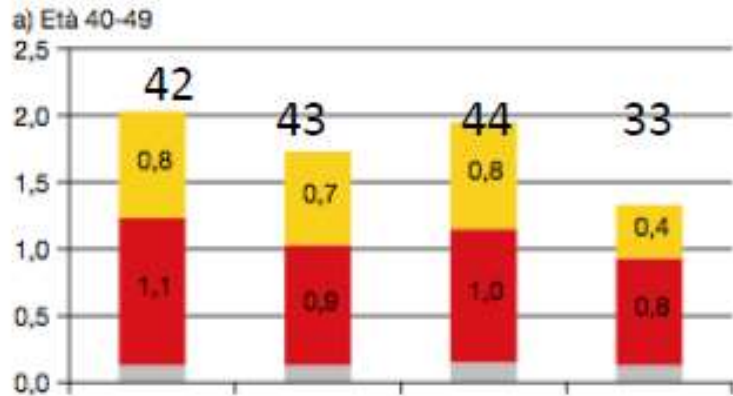


Figura 4. Proportione di cancro in stadio precoce e avanzato per ripartizione; età 50-69 anni; periodo 2000-2006.



Stadio del Tumore alla mammella alla Diagnosi (Registri Tumori di popolazione, AIRTUM) per area geografica e classi di età.

. Anni 2000-2005

Proporzione di Stadi precoci (Stadio I)

Non include i TiS che sono più frequenti nelle zone coperte da programmi di screening

Figura 5. Tassi di incidenza per stadio del tumore e per ripartizione; periodo 2000-2006.

Influence of tumour stage at breast cancer detection on survival in modern times: population based study in 173 797 patients

Sepideh Saadatmand,¹ Reini Bretveld,² Sabine Siesling,^{2,3} Madeleine M A Tilanus-Linthorst¹

WHAT IS ALREADY KNOWN ON THIS TOPIC

Survival decreases with increasing tumour size and number of positive lymph nodes at detection of breast cancer, but data on these prognostic factors in patient cohorts after 2004 are scarce

(Neo-)adjuvant systemic therapies have improved significantly since 2004, and breast cancer survival rates have increased

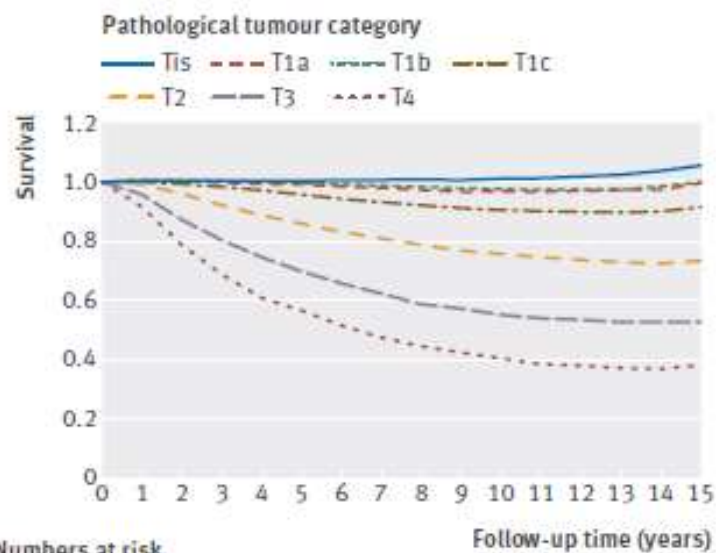
To what extent stage at breast cancer detection, in terms of tumour size and number of positive lymph nodes, still determines survival in contemporary times is unknown

WHAT THIS STUDY ADDS

Relative survival of female breast cancer patients in a Dutch nationwide population based study of two time cohorts (1999-2005 and 2006-12) improved from 91% to 96% at five years' follow up

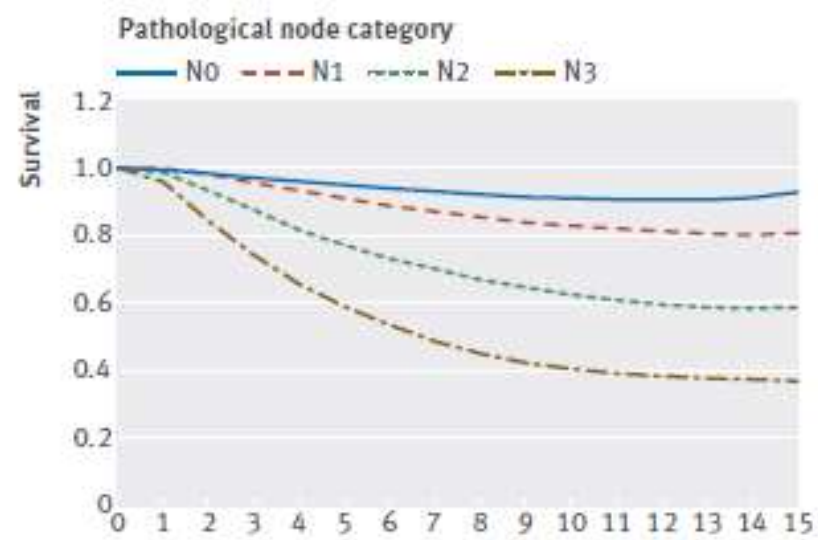
Tumour size and nodal status still have a significant and major influence on overall mortality independent of age and tumour biology in the current era of more conservative surgery and newer systemic (neo-)adjuvant therapies

Early stage at detection is vital; surgery is crucial, and more conservative surgery is more favourable



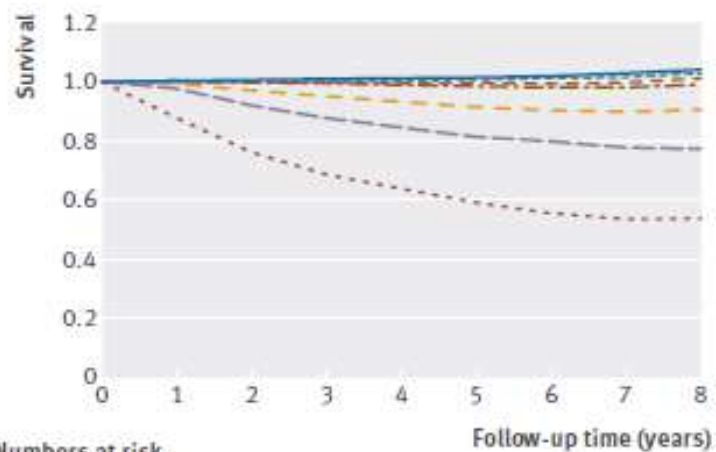
Numbers at risk

	0	5	10
DCIS	6920	6456	3998
T1a	2398	2222	1399
T1b	9599	8874	5422
T1c	29114	25471	15065
T2	26624	20040	10724
T3	2711	1688	801
T4	2862	1254	585



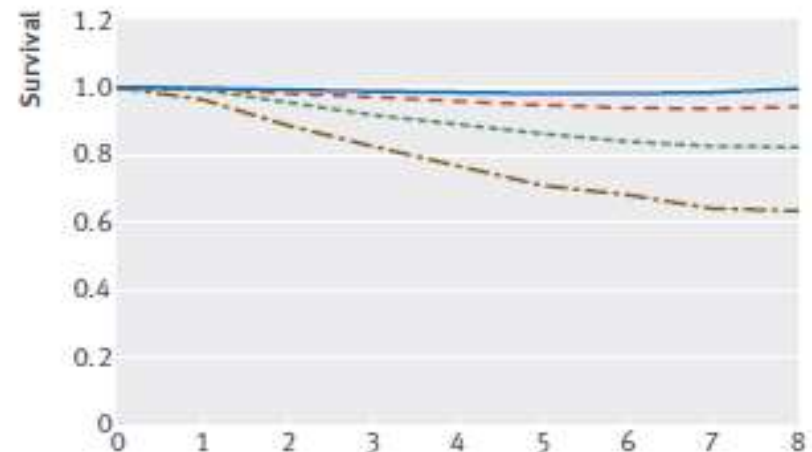
Numbers at risk

	0	5	10
N0	52238	44309	26030
N1	19012	15855	9016
N2	5985	4221	2188
N3	2993	1620	700



Numbers at risk

	0	3	6	8
DCIS	10348	8386	4939	2278
T1a	3846	3093	1755	778
T1b	12213	9977	6217	2906
T1c	34163	28044	17399	8101
T2	27946	21948	13130	5861
T3	3213	2355	1269	535
T4	1840	1061	516	184



Numbers at risk

	0	3	6	8
N0	63544	50782	30687	14027
N1	21901	17630	10716	4916
N2	5400	4391	2705	1230
N3	2724	2061	1117	470

CONCLUSIONS

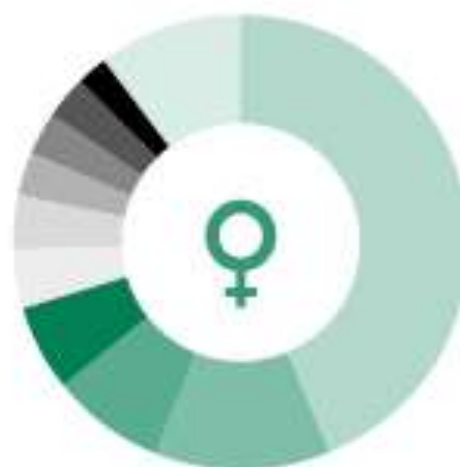
Tumour stage at diagnosis of breast cancer still influences overall survival significantly in the current era of effective systemic therapy. Diagnosis of breast cancer at an early tumour stage remains vital.

- **La prevalenza**





Tumore	N.	%
Prostata	457902	30
Colon-retto-ano	244046	16
Vescica	212326	14
Rene, vie urinarie	81603	5
Linfoma n. H.	73570	5
Cute (melanomi)	73076	5
Polmone	67405	4
Testicolo	51062	3
Leucemie	45198	3
Tiroide	44582	3
Altri	180388	12



Tumore	N.	%
Mammella	799196	43
Colon-retto-ano	226652	12
Tiroide	155995	6
Utero corpo	114485	5
Cute (melanomi)	82066	4
Linfoma n. H.	67681	4
Vescica	57196	3
Utero cervice	56063	3
Ovaio	50032	3
Rene, vie urinarie	43858	2
Altri	184185	10

FIGURA 10. Distribuzione dei tipi di tumore più frequenti nei casi prevalenti in Italia nel 2018 per sesso

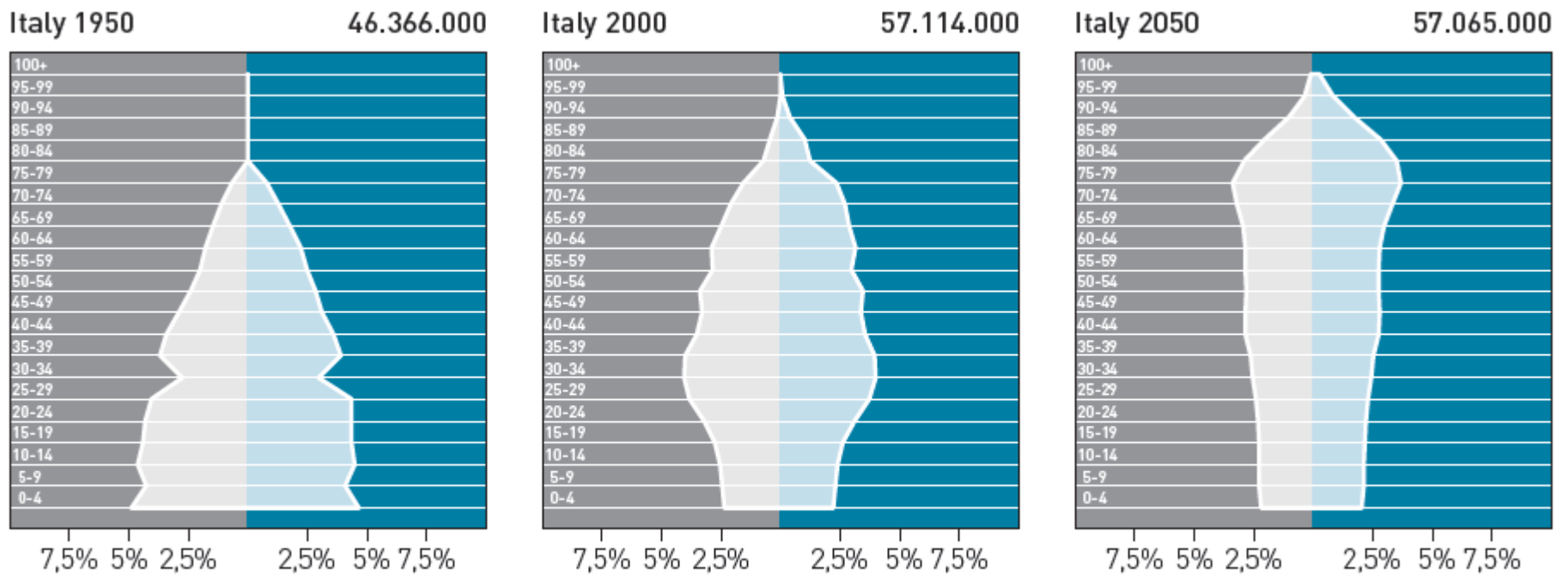


FIGURA 4. Struttura per età della popolazione italiana (<http://populationpyramid.net/it>).

L'invecchiamento della popolazione italiana porta con sé un aumento dell'incidenza in numeri assoluti che, a sua volta, induce un aumento della prevalenza dei tumori. Inoltre, il numero di persone viventi dopo una diagnosi tumorale aumenta quanto più alta è stata la sopravvivenza.

Con l'aumentare dell'aspettativa di vita e dell'allungamento della vita media con incidenza costante, il numero complessivo delle nuove diagnosi tumorali tenderà ad aumentare nel tempo.

L'invecchiamento della popolazione fa sentire i suoi effetti anche sugli andamenti nel tempo delle neoplasie.

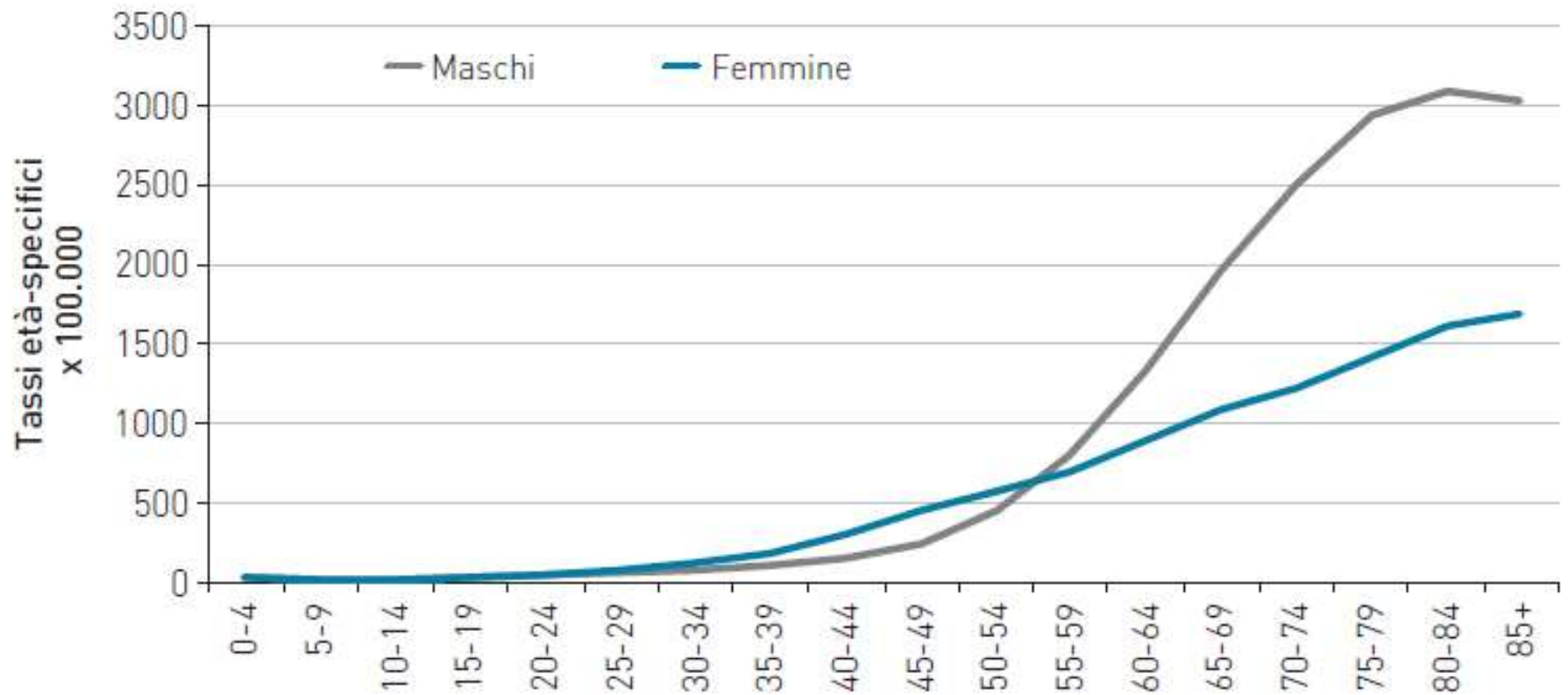


FIGURA 2. AIRTUM 2008-2013. Tassi età-specifici (x 100.000) per sesso. Tutti i tumori esclusi carcinomi della cute.

Breast Cancer Prevention!

STAHLER.
© THE ENGLISHMAN (1987) 1999



Is breast cancer preventable?

- 5-fold variation in rates around the world (West >> Asia)
- Migrants assume rate of new country in 1 or 2 generations

Factors Considered in The Gail Risk Model

- Current age
- Race / Ethnicity
- Age at menarche
- Age at first live birth
- Number of 1° relatives with BC
- Number of breast biopsies
- Presence of ADH

Based on Caucasian women undergoing regular screening
(BCDDP)

Risk factors not included in Gail model

- Age of diagnosis for family members
- 2nd degree relatives
- Alcohol intake
- Diabetes
- Physical activity
- Use of HRT
- Lactation history
- Height
- Weight
- IGF-1, IGF-BP3
- Hormone level (E2, T, SHBG)
- Bone mineral density
- Mammographic density
- NAF/Lavage
- SNPs

2017	DIET, NUTRITION, PHYSICAL ACTIVITY AND PREMENOPAUSAL BREAST CANCER		
		DECREASES RISK	INCREASES RISK
STRONG EVIDENCE	Convincing		Adult attained height ¹
	Probable	Vigorous physical activity Body fatness ² Lactation ³	Alcoholic drinks ⁴ Greater birthweight ⁵
LIMITED EVIDENCE	Limited – suggestive	Non-starchy vegetables (ER- breast cancers only) ⁶ Dairy products Foods containing carotenoids ⁷ Diets high in calcium Physical activity ⁸	
	Limited – no conclusion	Cereals (grains) and their products; dietary fibre; potatoes; non-starchy vegetables (ER+ breast cancers); fruits; pulses (legumes); soya and soya products; red and processed meat; poultry; fish; eggs; fats and oils; total fat; vegetable fat; fatty acid composition; saturated fatty acids; mono-unsaturated fatty acids; polyunsaturated fatty acids; trans-fatty acids; cholesterol; sugar (sucrose); other sugars; sugary foods and drinks; coffee; tea; carbohydrate; starch; glycaemic index; glycaemic load; protein; vitamin A; riboflavin; vitamin B6; folate; vitamin B12; vitamin C; vitamin D; vitamin E; calcium supplements; iron; selenium; phytoestrogens; isoflavones; dichlorodiphenyldichloroethylene; dichlorodiphenyltrichloroethane; dieldrin; hexachlorobenzene; hexachlorocyclohexane; trans-nonachlor; polychlorinated biphenyls; acrylamide; dietary patterns; culturally defined diets; sedentary behaviour; adult weight gain; energy intake	
STRONG EVIDENCE	Substantial effect on risk unlikely		

- 1 Adult attained height is unlikely to directly influence the risk of cancer. It is a marker for genetic, environmental, hormonal and also nutritional factors affecting growth during the period from preconception to completion of linear growth.
- 2 Body fatness marked by body mass index (BMI), waist circumference and waist-hip ratio. Also includes evidence on young women aged about 18 to 30 years. Body fatness in young adulthood is marked by BMI.
- 3 The Panel's conclusion relates to the evidence for overall breast cancer (unspecified). The evidence for premenopausal and postmenopausal breast cancers separately was less conclusive, but consistent with the overall finding.
- 4 No threshold was identified.
- 5 Birthweight is a marker both for prenatal growth, reflecting fetal nutrition, and is a predictor of later growth and maturation – e.g., age at menarche – which are also determinants of breast cancer risk.
- 6 The Panel's conclusion relates to the evidence for overall breast cancer (unspecified). The observed association was in oestrogen-receptor-negative (ER-) breast cancer only.
- 7 The Panel's conclusion relates to the evidence for overall breast cancer (unspecified). The observed association was stronger for oestrogen-receptor-negative (ER-) breast cancer. Includes both foods that naturally contain carotenoids and foods that have carotenoids added.
- 8 Physical activity, including occupational, recreational, walking and household activity. There was sufficient evidence for the Panel to make a separate judgement for vigorous physical activity.

2017	DIET, NUTRITION, PHYSICAL ACTIVITY AND POSTMENOPAUSAL BREAST CANCER		
		DECREASES RISK	INCREASES RISK
STRONG EVIDENCE	Convincing		Alcoholic drinks ¹ Body fatness ² Adult weight gain Adult attained height ³
	Probable	Physical activity ⁴ Body fatness in young adulthood ⁵ Lactation ⁶	
LIMITED EVIDENCE	Limited – suggestive	Non-starchy vegetables (ER– breast cancers only) ⁷ Foods containing carotenoids ⁸ Diets high in calcium	
	Limited – no conclusion	Cereals (grains) and their products; dietary fibre; potatoes; non-starchy vegetables (ER+ breast cancers); fruits; pulses (legumes); soya and soya products; red and processed meat; poultry; fish; eggs; dairy products; fats and oils; total fat; vegetable fat; fatty acid composition; saturated fatty acids; mono-unsaturated fatty acids; polyunsaturated fatty acids; trans-fatty acids; cholesterol; sugar (sucrose); other sugars; sugary foods and drinks; coffee; tea; carbohydrate; starch; glycaemic index; glycaemic load; protein; vitamin A; riboflavin; vitamin B6; folate; vitamin B12; vitamin C; vitamin D; vitamin E; calcium supplements; iron; selenium; phytoestrogens; isoflavones; dichlorodiphenyldichloroethylene; dichlorodiphenyltrichloroethane; dieldrin; hexachlorobenzene; hexachlorocyclohexane; trans-nonachlor; polychlorinated biphenyls; acrylamide; dietary patterns; culturally defined diets; sedentary behaviour; energy intake	
STRONG EVIDENCE	Substantial effect on risk unlikely		

1 No threshold was identified.

2 Body fatness, throughout adulthood, marked by body mass index (BMI), waist circumference and waist-hip ratio.

3 Adult attained height is unlikely to directly influence the risk of cancer. It is a marker for genetic, environmental, hormonal and also nutritional factors affecting growth during the period from preconception to completion of linear growth.

4 Physical activity including vigorous, occupational, recreational, walking and household activity.

5 Young women aged about 18 to 30 years. Body fatness in young adulthood is marked by BMI.

6 The Panel's conclusion relates to the evidence for overall breast cancer (unspecified). The evidence for premenopausal and postmenopausal breast cancers separately was less conclusive, but consistent with the overall finding.

7 The Panel's conclusion relates to the evidence for overall breast cancer (unspecified). The observed association was in oestrogen-receptor-negative (ER–) breast cancer only.

8 The Panel's conclusion relates to the evidence for overall breast cancer (unspecified). The observed association was stronger for oestrogen-receptor-negative (ER–) breast cancer. Includes both foods that naturally contain carotenoids and foods that have carotenoids added.

Cancer Prevention Recommendations

"Our Cancer Prevention Recommendations come from our latest Expert Report and from the conclusions of an independent panel of experts - they represent a package of healthy lifestyle choices which, together, can make an enormous impact on people's likelihood of developing cancer and other non-communicable diseases over their lifetimes."

Professor Martin Whelan, Medical and Scientific Advisor

[Read more](#)



Be a healthy weight

Keep your weight within the healthy range and avoid weight gain in adult life

[Read more](#)



Be physically active

We recommend being physically active as part of everyday life - walk more and sit less

[Read more](#)



Eat wholegrains, veg, fruit & beans

Make wholegrains, veg, fruit and beans a major part of your usual diet

[Read more](#)



Limit 'fatty foods'

Limit consumption of 'fatty foods' and other processed foods high in fat, starches or sugars

[Read more](#)



Limit red and processed meat

Eat no more than moderate amounts of red meat, such as beef, pork and lamb. Eat little, if any, processed meat

[Read more](#)



Limit sugar sweetened drinks

Limit sugar sweetened drinks, drink mostly water and unsweetened drinks

[Read more](#)



Limit alcohol consumption

For cancer prevention, it's best not to drink alcohol

[Read more](#)



Don't rely on supplements

Aim to meet nutritional needs through diet alone

[Read more](#)



Breastfeed your baby, if you can

Breastfeeding is good for both mother and baby

[Read more](#)



After a cancer diagnosis

After a cancer diagnosis, follow our Recommendations, if you can:

[Read more](#)

Codice Europeo Contro Il Cancro

12 MODI PER RIDURRE IL TUO RISCHIO DI CANCRO

Vi trovate qui: Home

Stampare il codice

1. Non fumare. Non consumare nessuna forma di tabacco.
2. Rendi la tua casa libera dal fumo. Sostieni le politiche che promuovono un ambiente libero dal fumo sul tuo posto di lavoro.
3. Attivati per mantenere un peso sano.
4. Svolgi attività fisica ogni giorno. Limita il tempo che trascorri seduto.
5. Segui una dieta sana:
 - Consuma molti e vari cereali integrali, legumi, frutta e verdura.
 - Limita i cibi ad elevato contenuto calorico (alimenti ricchi di zuccheri o grassi) ed evita le bevande zuccherate.
 - Evita le carni conservate; limita il consumo di carni rosse e di alimenti ad elevato contenuto di sale.
6. Se bevi alcolici di qualsiasi tipo, limitane il consumo. Per prevenire il cancro è meglio evitare di bere alcolici.
7. Evita un'eccessiva esposizione al sole, soprattutto per i bambini. Usa protezioni solari. Non usare lettini abbronzanti.
8. Osserva scrupolosamente le istruzioni in materia di salute e sicurezza sul posto di lavoro per proteggerti dall'esposizione ad agenti cancerogeni noti.
9. Accerta di non essere esposto a concentrazioni naturalmente elevate di radon presenti in casa. Fai in modo di ridurre i livelli elevati di radon.
10. Per le donne:
 - L'allattamento al seno riduce il rischio di cancro per la madre. Se puoi, allatta il tuo bambino.
 - La terapia ormonale sostitutiva (TOS) aumenta il rischio di alcuni tipi di cancro. Limita l'uso della TOS.
11. Assicurati che i tuoi figli partecipino ai programmi di vaccinazione contro:
 - l'epatite B (per i neonati)
 - il papillomavirus umano (HPV) (per le ragazze).
12. Partecipa a programmi organizzati di screening per il cancro:
 - dell'intestino (uomini e donne)
 - del seno (donne)
 - del collo dell'utero (donne).

Il Codice Europeo contro il cancro interessa le azioni che i singoli cittadini possono adottare per contribuire alla prevenzione del cancro che per essere efficace richiede che queste azioni individuali siano sostenute dalle politiche e dagli interventi dei governi.

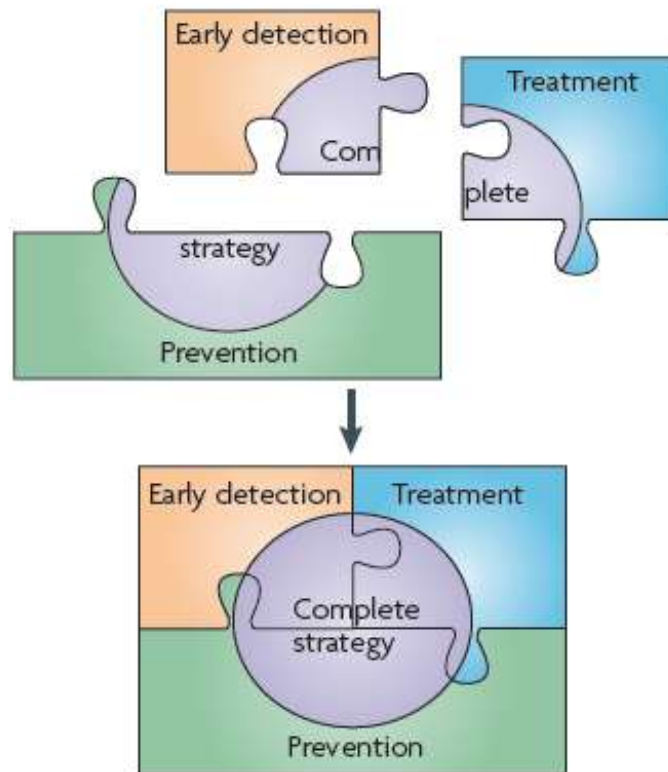


Figure 3 | **Complete strategy for eliminating cancer.** The complete strategy for the elimination of cancer requires early detection, treatment and prevention.



way
woman's
health

segui il percorso
migliora il tuo stile di vita

progetto smart



ANDROMEDA TRIAL



Studio pilota di valutazione di interventi di prevenzione primaria nella popolazione invitata nei programmi di screening mammografico e colorettales

Grazie ...

