

Impacto del cribado de cáncer de mama

Nieves Ascunce





100% de cobertura
 Más de 5.000.000 mujeres

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Cancer screening in Spain

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Table 2. Characteristics of Spanish breast cancer screening programmes

| Autonomous region | Year programme started | Year 100% coverage | Age group | Women invited 2007 (n) |
|----------------------------|------------------------|--------------------|-----------|------------------------|
| Andalusia | 1995 | 2005 | 45–69 | 319 721 ^a |
| Aragon | 1997 | 2006 | 50–69 | 52 425 |
| Principality of Asturias | 1991 | 2000 | 50–69 | 54 561 |
| Balearic Isles | 1997 | 2009 | 50–69 | 33 992 |
| Canary Islands | 1999 | 2005 | 50–69 | NA |
| Cantabria | 1997 | 1997 | 50–69 | 32 540 |
| Castile–La Mancha | 1992 | 1997 | 45–69 | 121 036 |
| Castile–León | 1992 | 1996 | 50–69 | NA |
| Catalonia | 1992 | 2004 | 50–69 | 341 045 |
| Valencian region | 1992 | 2001 | 45–69 | 243 546 |
| Extremadura | 1998 | 2005 | 50–69 | 55 900 |
| Galicia | 1992 | 1998 | 50–69 | 136 564 |
| Madrid (region) | 1999 | 2001 | 50–69 | 301 227 |
| Murcia (region) | 1995 | 1999 | 50–69 | 60 798 |
| Navarre | 1990 | 1992 | 45–69 | 44 084 |
| Basque Country | 1995 | 2000 | 50–69 | 116 228 |
| La Rioja | 1993 | 1995 | 45–69 | 16 759 |
| Autonomous City of Ceuta | 2001 | 2006 | 45–69 | 651 |
| Autonomous City of Melilla | 1997 | 1997 | 45–69 | NA |
| Total | | | | |

^aData corresponding to 80% of the autonomous region.

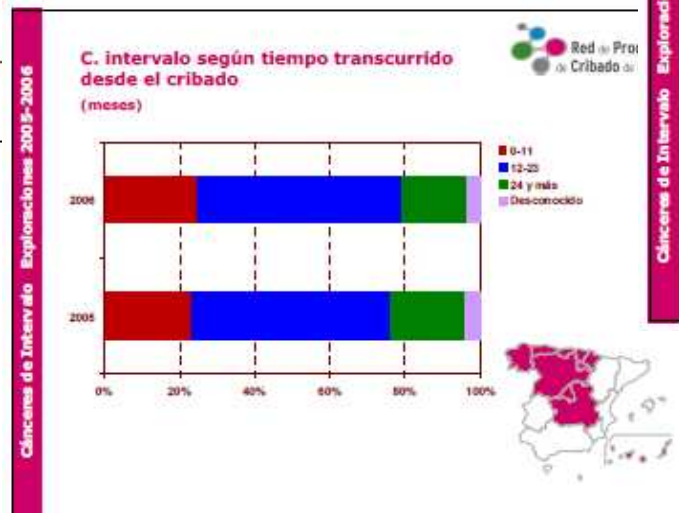
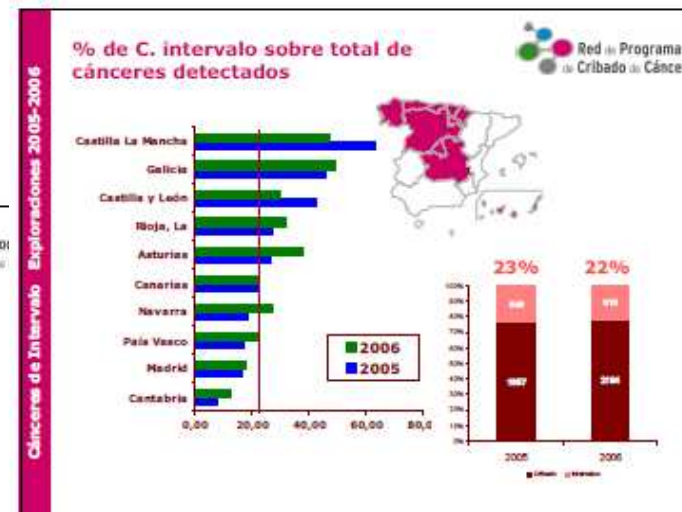
Indicadores predictores

- Participación
- Tasa de detección
- Características de los tumores detectados

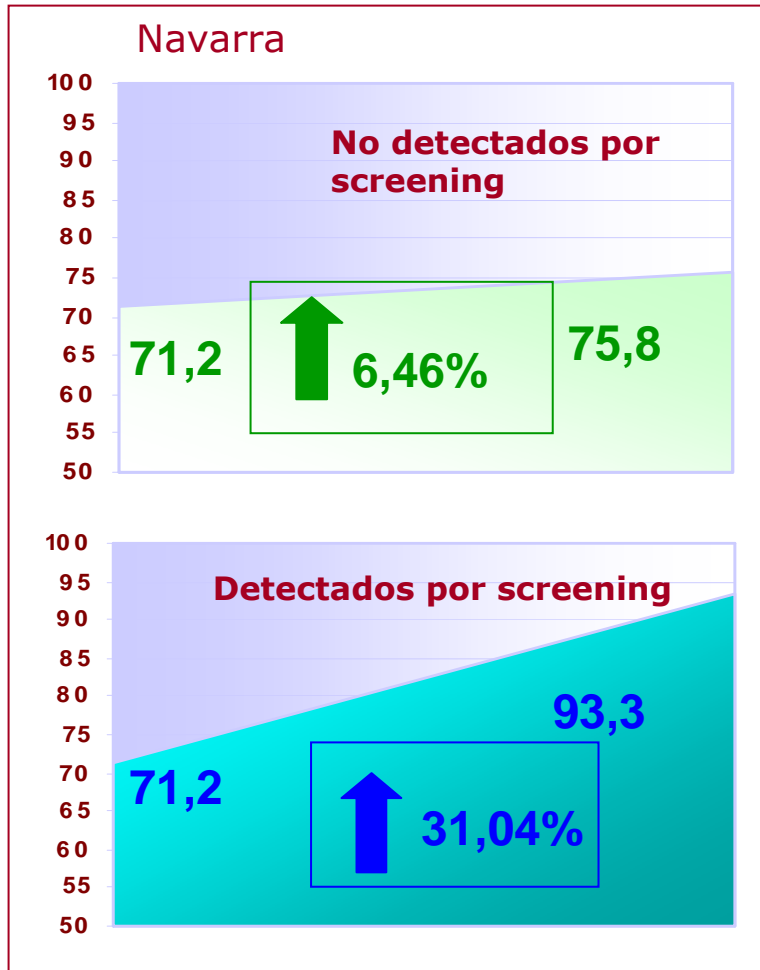


Indicadores predictores

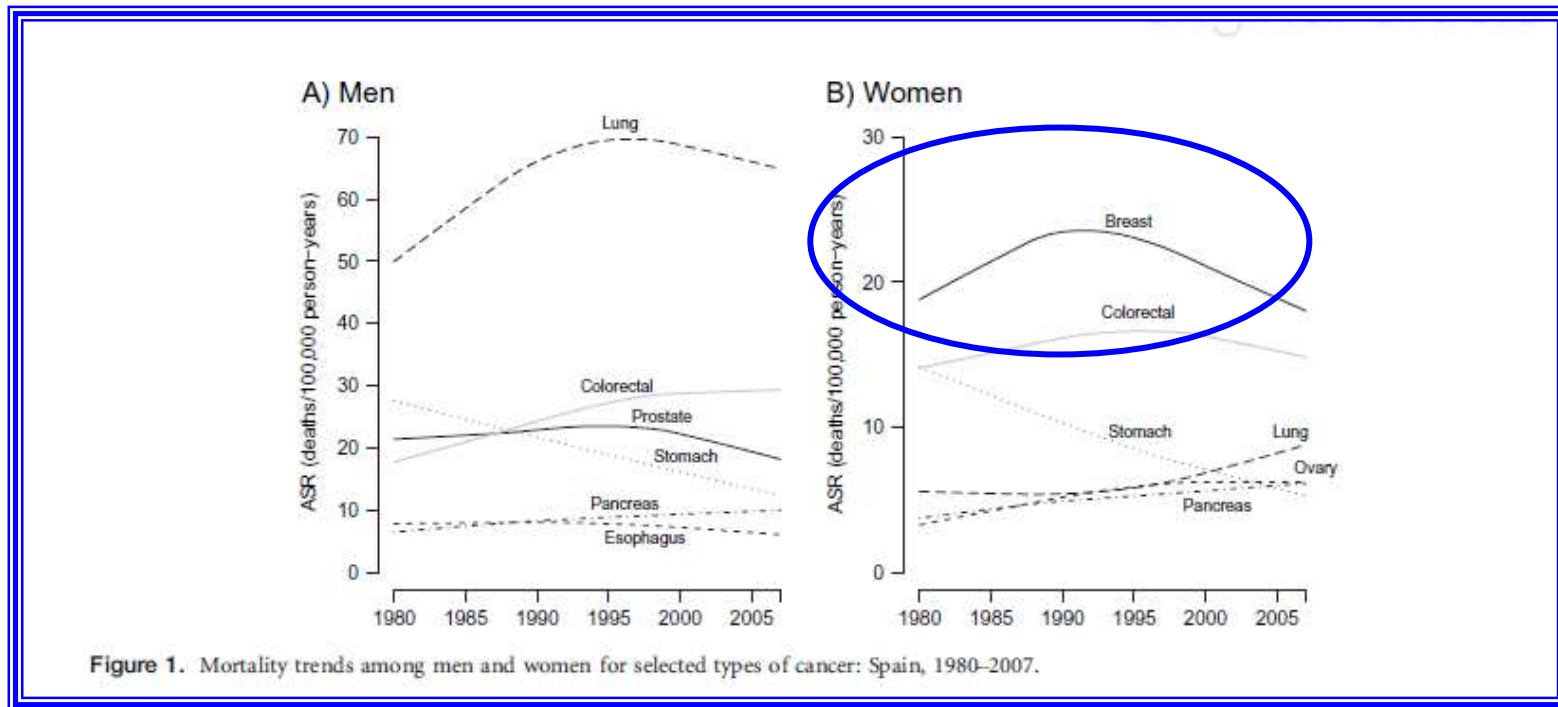
Cánceres de Intervalo



Impacto del cribado de cáncer de mama



¿ Mortalidad ?

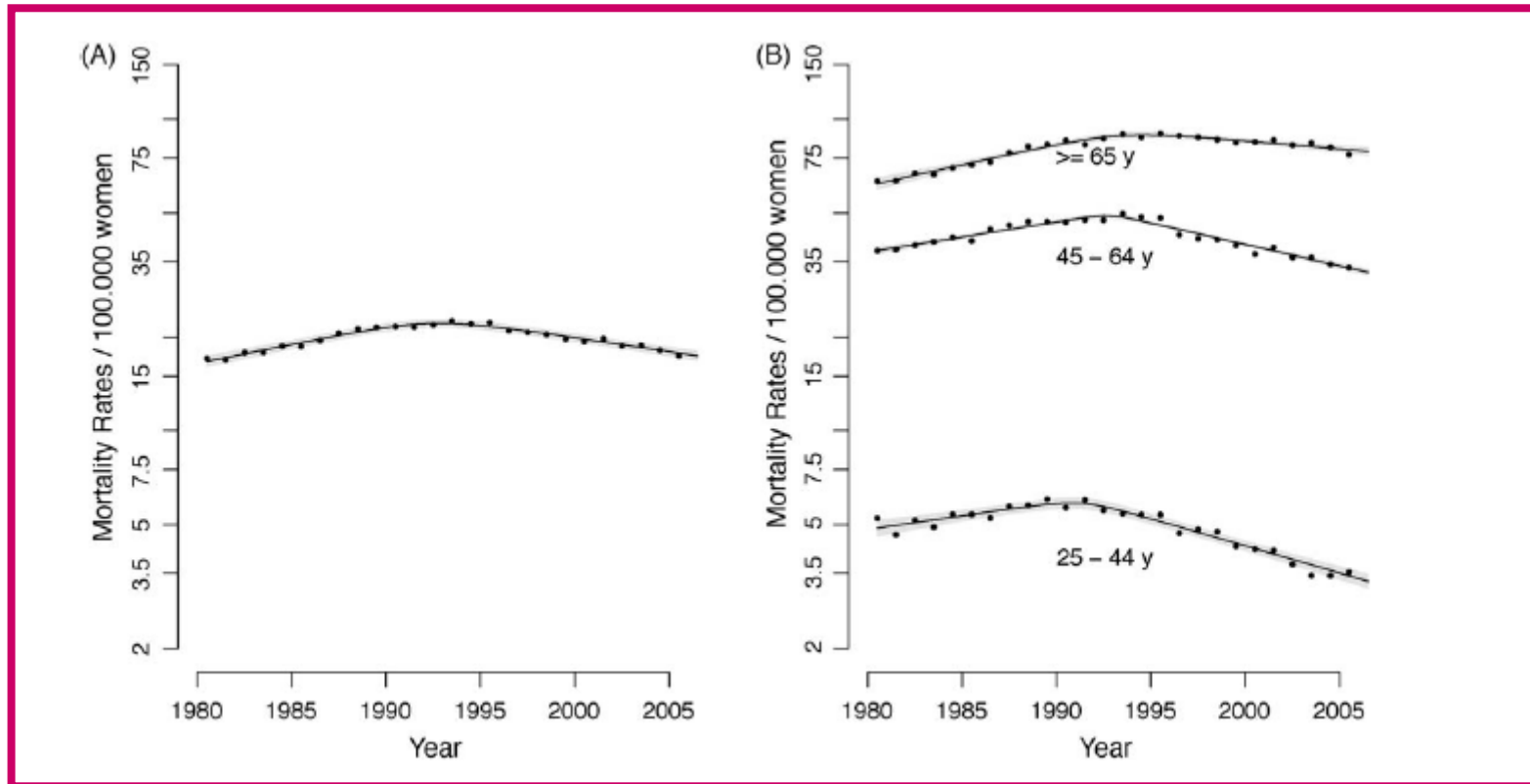


| Punto de cambio | % anual de cambio | |
|-----------------|-------------------|--------------------|
| | Hasta 1992 | Desde 1992 |
| | 2,9 (2,5 ; 3,4) | -2,0 (-2,3 ; -1,8) |

Cancer mortality trends in Spain: 1980-2007

A. Cabanes^{1,2*}, E. Vidal^{1,2}, N. Aragonés^{1,2}, B. Pérez-Gómez^{1,2}, M. Pollán^{1,2}, V. Lope^{1,2} & G. López-Abente^{1,2}

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Age-specific breast, uterine and ovarian cancer mortality trends in Spain:
Changes from 1980 to 2006

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Tabla 4.27. Tendencias de mortalidad por cáncer de mama por comunidad autónoma, 1975-2006.

| CCAA | Nº puntos cambio | Global PCA | Periodo 1 | PCA 1 | Periodo 2 | PCA 2 | Periodo 3 | PCA 3 | Periodo 4 | PCA 4 |
|----------------------|------------------|------------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|
| Andalucía | 1 | 0.60 | 1975-1993 | 2.10 | 1993-2006 | -1.40 | - | - | - | - |
| Aragón | 2 | 0.00 | 1975-1981 | -1.50 | 1981-1987 | 6.90 | 1987-2006 | -1.80 | - | - |
| Asturias | 1 | 0.10 | 1975-1991 | 1.70 | 1991-2006 | -1.50 | - | - | - | - |
| Islas Baleares | 1 | 0.30 | 1975-1993 | 2.60 | 1993-2006 | -4.10 | - | - | - | - |
| Islas Canarias | 1 | -0.50 | 1975-1992 | 2.40 | 1992-2006 | -3.60 | - | - | - | - |
| Cantabria | 1 | 0.00 | 1975-1994 | 1.50 | 1994-2006 | -2.70 | - | - | - | - |
| Castilla La Mancha | 1 | 0.40 | 1975-1994 | 1.70 | 1994-2006 | -1.90 | - | - | - | - |
| Castilla León | 1 | 0.40 | 1975-1992 | 2.90 | 1992-2006 | -2.40 | - | - | - | - |
| Cataluña | 1 | -0.30 | 1975-1992 | 2.00 | 1992-2006 | -3.00 | - | - | - | - |
| Comunidad Valenciana | 1 | 0.10 | 1975-1993 | 1.80 | 1993-2006 | -2.40 | - | - | - | - |
| Extremadura | 1 | 0.40 | 1975-1991 | 2.60 | 1991-2006 | -1.90 | - | - | - | - |
| Galicia | 1 | 0.40 | 1975-1991 | 2.70 | 1991-2006 | -1.90 | - | - | - | - |
| Madrid | 3 | 0.60 | 1975-1984 | 0.40 | 1984-1987 | 11.90 | 1987-1995 | 0.70 | 1995-2006 | -2.90 |
| Murcia | 1 | 0.50 | 1974-1994 | 2.20 | 1994-2006 | -2.20 | - | - | - | - |
| Navarra | 1 | -0.80 | 1975-1994 | 1.10 | 1994-2006 | -4.20 | - | - | - | - |
| País Vasco | 1 | -0.20 | 1975-1991 | 2.50 | 1991-2006 | -2.90 | - | - | - | - |
| La Rioja | 1 | -0.10 | 1975-1993 | 3.30 | 1993-2006 | -5.00 | - | - | - | - |
| España | 3 | 0.20 | 1975-1986 | 2.00 | 1986-1988 | 4.30 | 1988-1993 | 0.80 | 1993-2006 | -2.30 |

A. Cabanes, B. Pérez-Gómez, N. Aragonés, M. Pollán, G. López-Abente. La situación del cáncer en España, 1975-2006. Instituto de Salud Carlos III. Madrid, 2009

Age-Specific Spatio-Temporal Patterns of Female Breast Cancer Mortality in Spain (1975–2005)

MARÍA D. UGARTE, PHD, TOMÁS GOICOA, PHD, JAIONE ETXEBERRIA, MSC,
ANA F. MILITINO, PHD, AND MARINA POLLÁN, MD, PHD

Ann Epidemiol 2010;20:906–916.

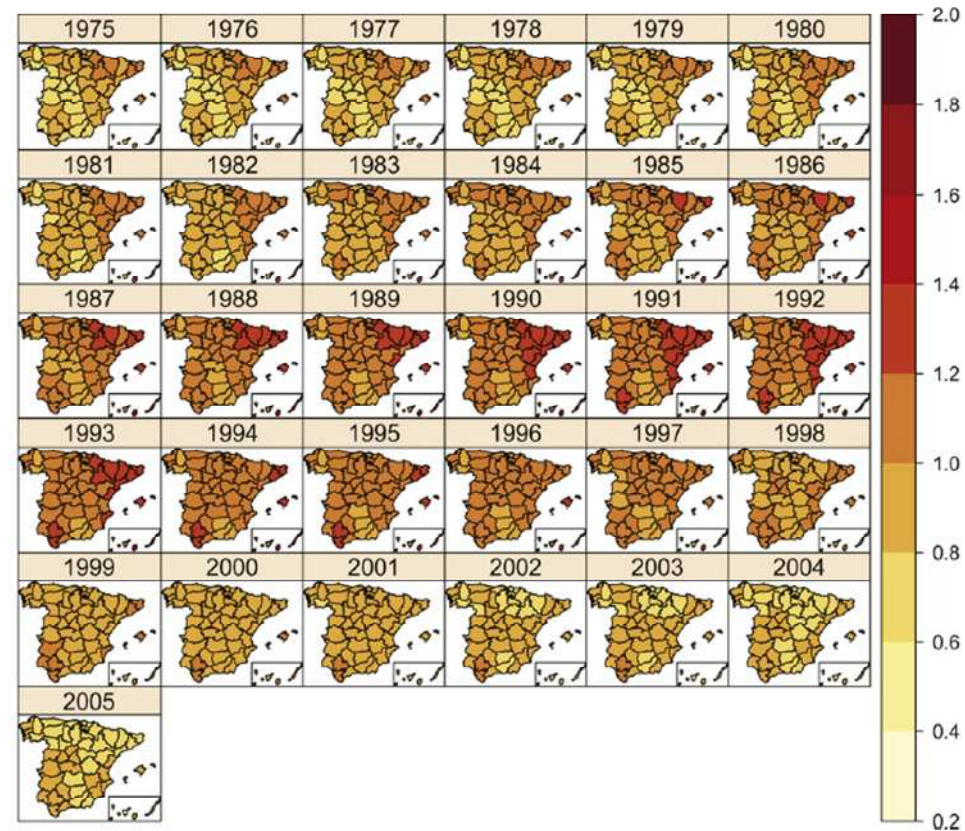


FIGURE 5. Breast cancer mortality risks spatio-temporal distribution between 1975–2005 for women aged between 45–64 years. Note that Canary Island have changed their exact location. They are shown inside the rectangle at the bottom right corner.

CONCLUSIONS: A different behavior for breast cancer mortality risks is observed for different provinces among the age specific groups. The decline of mortality is delayed for the oldest age group. Province differences in the implementation of screening programs could explain some of the observed differences.

The results show that there was a reduction in breast cancer mortality throughout the period studied, and that this reduction was more marked after the breast cancer-screening program was introduced. In the post-intervention period, there is a statistically significant annual decline of 5%, whereas before intervention it was 1%. However, we have not observed a steeper decline in those areas where the Program was implemented earlier, compared to the control area. On the other hand, by the time the Program had been implement in all four-city zones (years 2003–2004), mortality had fallen by 17% with respect to when there was no screening program. Even so, we cannot affirm that this reduction be due to the Program alone.

Breast cancer mortality in Barcelona following implementation of a city breast cancer-screening program

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Cancer Detection and Prevention 32 (2008) 162–167

Table 2

Breast cancer mortality trends before and after introduction of the populational breast cancer screening program. Annual relative risk (RR) with 95% confidence interval (95%CI) for Barcelona as a whole, and for each zone

| | Before introduction | | After introduction | |
|-----------|---------------------|-----------|--------------------|-----------|
| | Annual RR | 95%CI | Annual RR | 95%CI |
| Zone 1 | 1.00 | 0.98–1.03 | 0.95 | 0.91–1.01 |
| Zone 2 | 1.00 | 0.98–1.01 | 1.02 | 0.92–1.12 |
| Zone 3 | 1.00 | 0.99–1.01 | 0.90 | 0.78–1.04 |
| Zone 4 | 0.97* | 0.96–1.98 | 0.91 | 0.51–1.62 |
| Barcelona | 0.99* | 0.98–0.99 | 0.95* | 0.92–1.99 |

Models adjusted for age and ICEF.

* p -value < 0.05

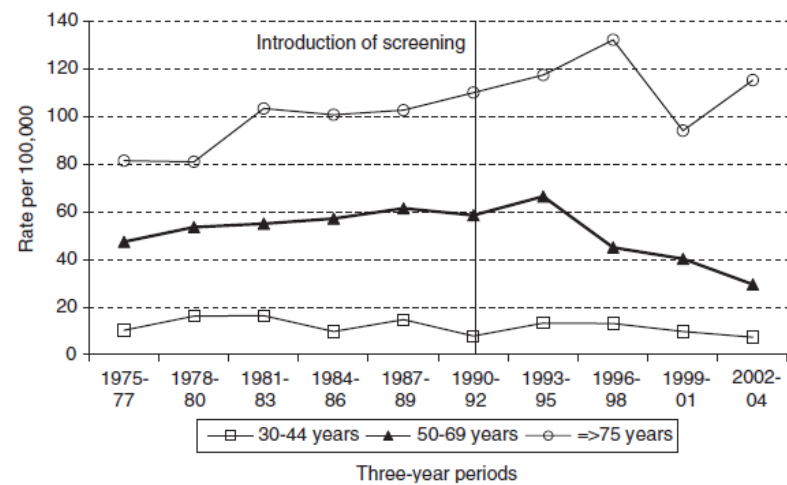


Figure 2 Breast cancer aged-adjusted (European standard) mortality by three-year periods and age groups, 1975-2004

Changes in breast cancer mortality in Navarre (Spain) after introduction of a screening programme

Elizaga N Ascunce, C Moreno-Iribas, A Barcos Uriaga, E Ardanaz, M Ederra Sanz, J Castilla and N Egúés

J Med Screen 2007;14:14-20

Table 4 Estimation of the breast cancer screening programme effect on mortality by age group

| | All ages | 30-44 years | 50-69 years | ≥75 years |
|---|------------------|------------------|------------------|------------------|
| All breast cancer deaths | | | | |
| <i>Pre-screening period (1986-90)</i> | | | | |
| Breast cancer deaths (n) | 374 | 32 | 185 | 94 |
| Mortality rate/100,000 | 25.1 | 12.8 | 64.0 | 100.6 |
| <i>Last screening period (1997-2001)</i> | | | | |
| Breast cancer deaths (n) | 389 | 37 | 123 | 154 |
| Mortality rate/100,000 | 20.1 | 12.4 | 41.5 | 106.6 |
| Relative risk (95% CI) | 0.80 (0.69-0.93) | 0.97 (0.60-1.56) | 0.65 (0.51-0.82) | 1.06 (0.82-1.37) |
| Breast cancer deaths excluding prevalent cases | | | | |
| <i>Pre-screening period (1986-90)</i> | | | | |
| Breast cancer deaths (n) | 308 | 29 | 150 | 77 |
| Mortality rate/100,000 | 20.8 | 11.5 | 51.9 | 81.8 |
| <i>Last screening period (1997-2001)</i> | | | | |
| Breast cancer deaths (n) | 301 | 37 | 88 | 121 |
| Mortality rate/100,000 | 15.6 | 12.4 | 30.0 | 84.3 |
| Relative risk (95% CI) | 0.75 (0.63-0.89) | 1.07 (0.66-1.74) | 0.58 (0.44-0.75) | 1.03 (0.77-1.37) |

Age adjusted to European standard population

Breast cancer incidence and overdiagnosis in Catalonia (Spain)

Montserrat Martinez-Alonso^{1,2*}, Ester Vilaprinyo^{3†}, Rafael Marcos-Graera^{4,5}, Montserrat Rue^{1,2*}

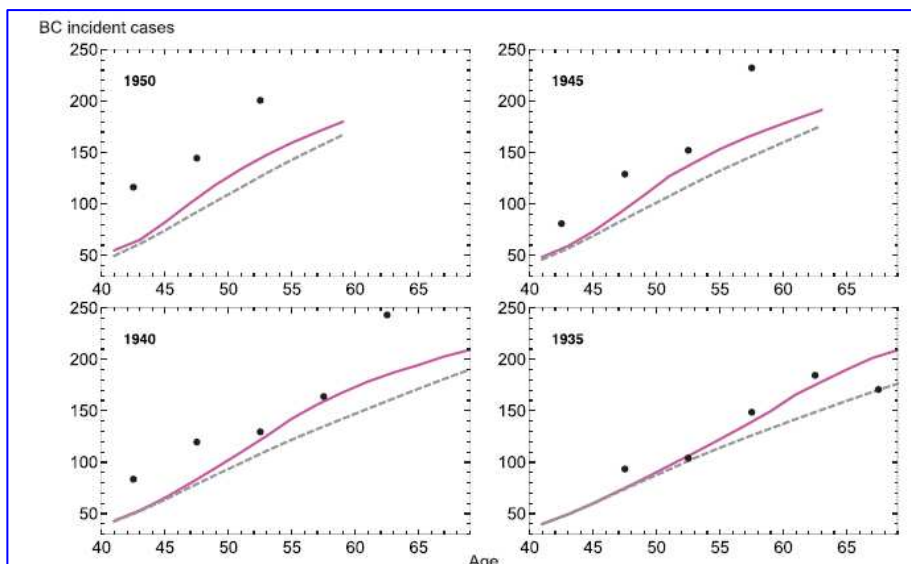


Figure 5 Predicted breast cancer incidence rates per 100,000 women at birth. Each plot shows the results for cohorts born in 1935, 1940, 1945 and 1950: observed (points), background scenario (dashed gray line), and scenario that takes into account the actual dissemination of mammography (purple line).



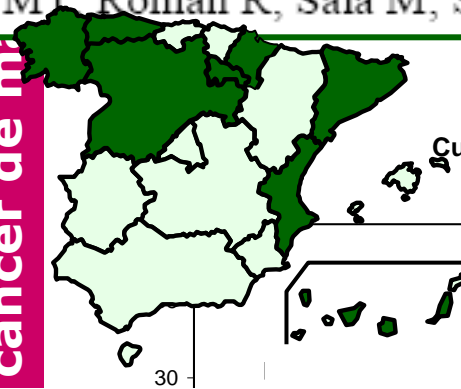
- Background incidence %MX=0
- Expected Incidence %MX
- Observed Incidence

Table 2 Overdiagnosis estimation by year of birth in Catalonia

| Cohort | Overdiagnosis (%) | [95% conf. interval] | |
|--------|-------------------|----------------------|------|
| 1935 | 0.4 | -8.8 | 12.2 |
| 1940 | 23.3 | 9.1 | 43.4 |
| 1945 | 30.6 | 12.7 | 57.6 |
| 1950 | 46.6 | 22.7 | 85.2 |

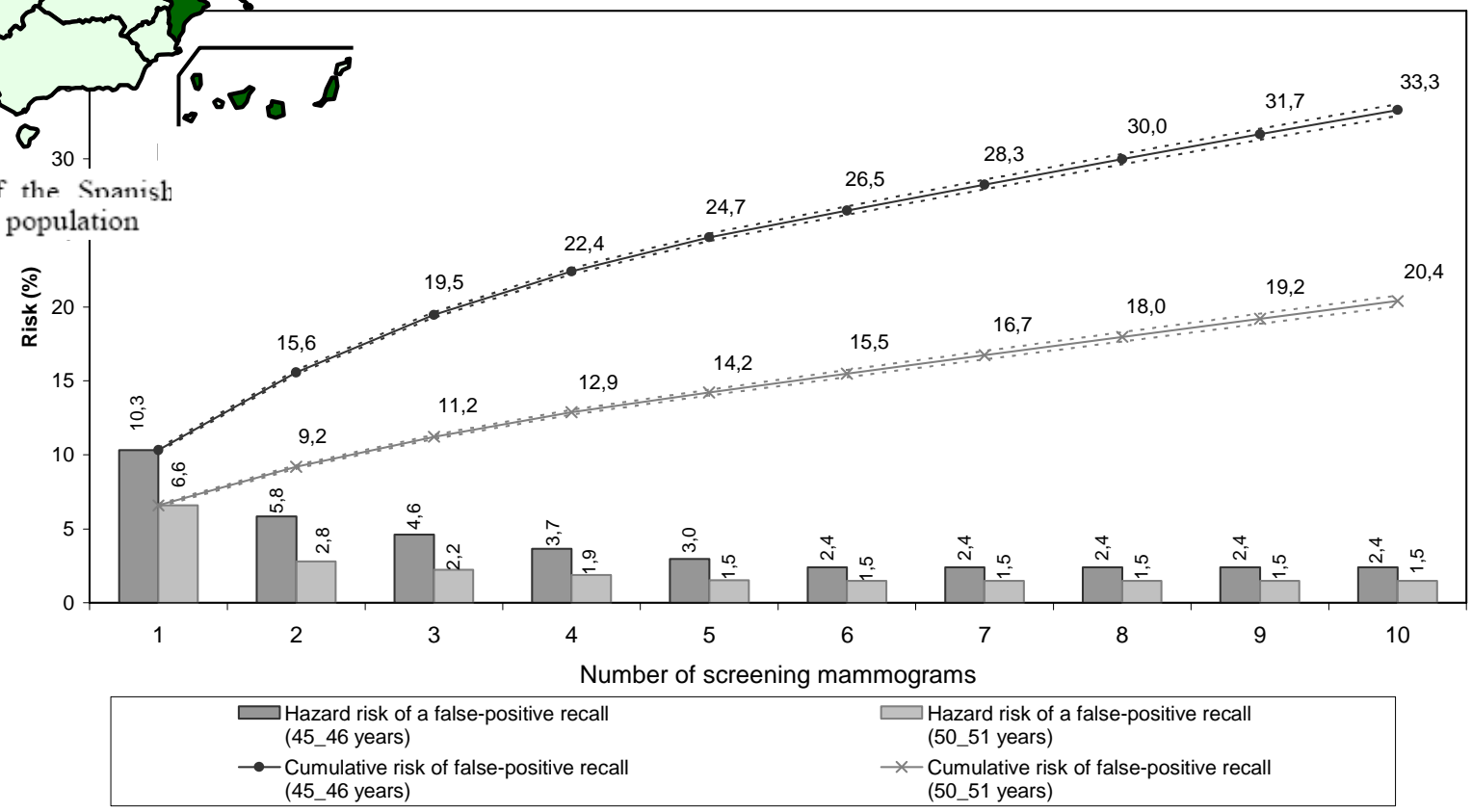
Cumulative False Positive Risk Research Group (alphabetical order): Almazán R; Ascunce N; Baré M; Baroja A; Belvis F; Castells X; Cuevas D; De la Vega M; Delfrade J; Díez de la Lastra I; Ederra M; Fernández AB; Galceran J; González-Román I; Ibáñez J; Macià F; Natal C; Queiro MT; Román R; Sala M; Salas D; Velarde JM; Vidan J; Zubizarreta R.

Impacto del cribado de cáncer de m



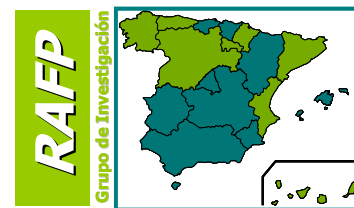
Cumulative Risk and Hazard Risk of a False-Positive for any procedure. Starting Ages (45- 46) Vs. (50- 51)

44% of the Spanish target population



Annals of Oncology Advance Access published March 23, 2011
Effect of protocol-related variables and women's characteristics on the cumulative false-positive risk in breast cancer screening

R. Román^{1,2}, M. Sala^{1,2}, D. Salas³, N. Ascunce^{2,4}, R. Zubizarreta⁵, X. Castells^{1,2,6*} & Cumulative False Positive Risk Group



Riesgo Acumulado de Falso Positivo

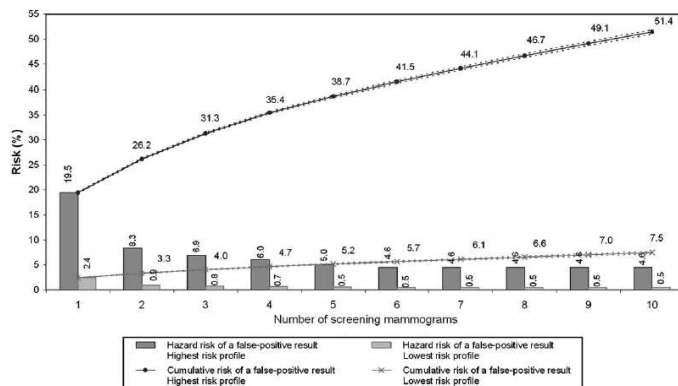


Figure 1. Cumulative risk and hazard risk of a false-positive result for any procedure for women starting screening at age 50-51 years. Highest risk reading, one view, film-screen mammography, premenopausal status, previous invasive procedures, and familial breast cancer) versus lowest risk (opposite categories).

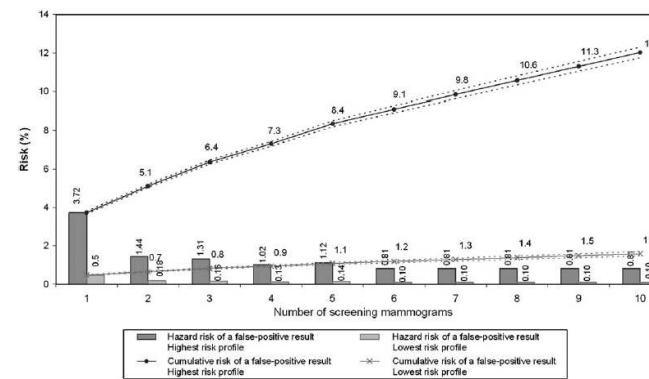


Figure 2. Cumulative risk and hazard risk of a false-positive result for invasive procedures for women starting screening at age 50-51 years. Highest risk (double reading, two views, not using HRT, premenopausal status, previous invasive procedures, and familial breast cancer) versus lowest risk profiles (opposite categories). HRT, hormone replacement therapy.

Eur Radiol (2011) 21:2083-2090
 DOI 10.1007/s00330-011-2160-0

BREAST

Effect of radiologist experience on the risk of false-positive results in breast cancer screening programs

Raquel Zubizarreta Alberdi · Ana B. Fernández Llanes · Raquel Almazán Ortega · Rubén Roman Expósito · Jose M. Velarde Collado · Teresa Queiro Verdes · Carmen Natal Ramos · María Ederra Sanz · Dolores Salas Trejo · Xavier Castells Oliveres · and the CFPR (Cumulative False Positive Risk) group(1)

Preventive Medicine 53 (2011) 79-81

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Effect of start age of breast cancer screening mammography on the risk of false-positive results

Dolores Salas^{a,*}, Josefa Ibáñez^{a,1}, Rubén Román^{b,2}, Dolores Cuevas^{c,3}, Maria Sala^{b,2}, Nieves Ascunce^{d,4}, Raquel Zubizarreta^{e,5}, Xavier Castells^{b,2} and The CFPR (Cumulative False Positive Risk) group⁶

Eur Radiol (2012) 22:331-340
 DOI 10.1007/s00330-011-2263-7

BREAST

Impact of intermediate mammography assessment on the likelihood of false-positive results in breast cancer screening programmes

Nieves Ascunce · María Ederra · Josu Delfrade · Araceli Baroja · Nieves Erdozain · Raquel Zubizarreta · Dolores Salas · Xavier Castells · the Cumulative False Positive Risk (CFPR) Group



La controversia sullo screening mammografico:

Un primo bilancio dei benefici e dei danni dello screening
per il tumore della mammella in Europa.

Aspetti metodologici e risultati

Eugenio Paci
Instituti per lo studio e
la prevenzione oncologica