CANCER IN THE BASQUE COUNTRY

Incidence, mortality, survival and their trends

EUSKO JAURLARITZA GOBIERNO VASCO

OSASUN ETA KONTSUMO SAILA

DEPARTAMENTO DE SANIDAD Y CONSUMO

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«Moreover, we acknowledge all public and private hospitals, clinics and laboratories, and their staff, especially those from the Clinical Documentation Services, as their contribution has helped us to ensure that the Registry's coverage, and therefore its quality, is as high as possible»

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Firstly, we would like to thank all patients who have allowed their data to be used so that we can gain a better and more detailed understanding of a disease as important as cancer.

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Moreover, we acknowledge all public and private hospitals, clinics and laboratories, and their staff, especially those from the Clinical Documentation Services, as their contribution has helped us to ensure that the Registry's coverage, and therefore its quality, is as high as possible.

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Last but not least, we are particularly grateful to all those people whose dedication and support over this period have allowed the Basque Country Cancer Registry to celebrate its 25th anniversary.

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PRESENTACIÓN
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The creation of the Basque Country Cancer Registry 25 years ago was undoubtedly a landmark decision as the indicators provided by this Registry have enabled decision-making as regards the breast and colorectal cancer screening programmes that have been launched over the past years and the establishment of targets for the successive health plans.

In 2006, 11,149 new cases of cancer were diagnosed for the first time, and 5,410 people died as a result of this disease. This incidence of cancer in the Basque Country makes it one of the region's main health problems and therefore one which requires a significant effort for its control.

The original decision to establish the Registry was significant as, although some population-based cancer registries already existed in Spain, they tended to be based on a single province, with fewer than a million inhabitants, and this project was intended to have a much wider coverage, namely the whole autonomous Community, with all the complexity that entails. Indeed, the Basque Country Cancer Registry remains the most extensive of its kind in Spain.

During this period we have also seen that the problem represented by cancer at that time has increased significantly. It is well known that age is an important risk factor, and the Basque population has aged to such an extent over this period that people over 65 now account for 18.6% of the population, compared to only 10.4% in 1986.

La creación del Registro de Cáncer de Euskadi, hace ahora 25 años, fue un acierto sin ninguna duda. Los indicadores que se obtienen del Registro de Cáncer de Euskadi han facilitado la toma de decisiones sobre los programas de diagnóstico precoz de cáncer de mama y de colon-recto que se han iniciado en los últimos años así como el poder establecer objetivos en los sucesivos planes de salud.

En el año 2006 se diagnosticaron por primera vez 11.149 nuevos casos de cáncer y el número de personas fallecidas en ese mismo año por estas enfermedades fueron 5.410. Esta magnitud del cáncer en el País Vasco supone uno de los principales problemas de salud y se requiere un esfuerzo amplio para su control.

La apuesta por el Registro de Cáncer de Euskadi fue significativa. Aunque en España ya existían algunos otros registros de cáncer de base poblacional, uniprovinciales, y con menos de un millón de habitantes, el que se iniciaba era el que iba a tener una cobertura poblacional mayor —de toda la Comunidad Autónoma— y esto implicaba una complejidad más grande. En este momento, el Registro de Cáncer de Euskadi continúa siendo el de mayor peso poblacional.

También hemos comprobado durante este tiempo, que el problema que representaba el cáncer en aquel momento, ha alcanzado unas cotas mucho más altas. Es sabido que la edad es un factor de riesgo importante y la población vasca ha envejecido, de modo que si los mayores de 65 años representaban en 1986 el 10,4% de la ciudadanía, en el último censo han pasado a ser el 18,6%.

Duela 25 urte sortu zen Minbiziaren Erregistroa eta, zalantzarik gabe, ideia bikaina izan zen. Minbiziaren Euskal Erregistroan lortzen diren adierazleak lagungarriak izan dira bularreko minbiziaren eta kolon-ondesteko minbiziaren diagnostiko goiztiarreko programei buruz erabakiak hartzeko garaian, baita osasun-planetako helburuak ezartzeko ere.

2006. urtean 11.149 minbizi-kasu berri diagnostikatu ziren eta urte horretan minbiziaren ondorioz hildakoen kopurua 5.410 izan zen. Datu horiek ikusita, Euskal Autonomia Erkidegoan minbizia osasun-arazo nagusietako bat dela esan dezakegu, eta gaixotasun hori kontrolatzeko esfortzu handia egin behar da, beraz.

Minbiziaren Euskal Erregistroa sortzeko erronka esanguratsua izan zen; izan ere, Espainian baziren biztanlerian oinarritutako beste minbizi-erregistro batzuk baina probintzia bakarrekoak eta milioi bat biztanle baino gutxiagokoak ziren, eta Euskadin sortu nahi zen Erregistroak biztanleria gehiago hartu behar zuen eraginpean —Autonomia Erkidego osoa—. Beraz, askoz ere konplexuagoa izango zen. Une honetan, Minbiziaren Euskal Erregistroan biztanle gehien duen erregistroa da oraindik ere.

Hasiera hartan minbiziak zekarren arazoa areagotu egin dela egiaztatu dugu urte hauetan guztietan. Jakin badakigu adina arrisku-faktore garrantzitsua dela, eta EAEko biztanleria zahartu egin da; hori horrela izanik, 65 urtetik gorakoak herritarren % 10,4 ziren 1986. urtean eta azkeneko erroldan % 18,6 izatera iritsi dira.

In this monograph we present the latest findings as regards cancer incidence (2002-2006) and mortality (2004-2008). Furthermore, and for the first time, the overall survival in the Basque population (for the period 2000-2004), with a follow-up period of five years, is presented, along with the specific values for selected types of cancer. This project is completed with a study of the trends in cancer mortality, incidence and survival in the Basque Country since 1986, together with a similar study for specific malignant tumours.

From the results obtained, we should perhaps highlight the decreased overall mortality rates for both men and women. Furthermore, as regards specific malignant tumours for which mortality decreases, the inflexion in the previous increasing rate of lung cancer in men should be noted. However, the increasing incidence of lung cancer in women, and melanoma in both men and women, suggests that measures to promote a healthy lifestyle should be reinforced, whilst at the same time confirming the importance of the anti-smoking policies introduced and strengthened during this Government's term of office.

In conclusion, whilst congratulating the professionals of the Basque Country Cancer Registry for these 25 years of continual and productive dedication, I would nevertheless like to highlight the importance of the information obtained. This information is vital to improve our understanding of cancer in the Basque population and to be able to draw comparisons with registries from other Spanish and international regions. Furthermore, it allows us to continue to promote those actions and health policies required to reduce the risk and improve the efficacy of both the diagnosis and treatment of this disease.

En esta monografía queremos presentar los últimos resultados de la incidencia (2002-2006) y de la mortalidad (2004-2008). Además, y por primera vez, se presenta la supervivencia del cáncer en general en nuestra población para el periodo 2000-2004, con un seguimiento de cinco años, y también la de algunos tipos de cáncer elegidos. Todo ello se completa con un estudio de la evolución temporal de la mortalidad, de la incidencia y de la supervivencia del cáncer en el País Vasco desde 1986, y la de algunos tumores malignos específicos.

Entre los resultados obtenidos es importante mencionar la disminución de las tasas de mortalidad por cáncer en general, tanto en los hombres como en las mujeres. Además de los tumores malignos específicos en los que disminuye la mortalidad, es de reseñar la discontinuidad en la tendencia de aumento del cáncer de pulmón en los hombres. Sin embargo, el aumento de la incidencia del cáncer de pulmón entre las mujeres y del melanoma —tanto en las mujeres como en los hombres—, sugiere que se deben mejorar las medidas que favorezcan una vida saludable, a la vez que confirman la relevancia de las políticas anti-tabaco activadas y reforzadas en esta legislatura.

En conclusión, a la vez que felicito a los profesionales del Registro de Cáncer de Euskadi por estos 25 años de trabajo continuado y productivo, me gustaría resaltar la importancia de la información obtenida. Esta es esencial para mejorar el conocimiento del cáncer en nuestra población y establecer la comparación con registros de otras áreas españolas e internacionales, así como para seguir señalando las acciones y políticas sanitarias necesarias para disminuir el riesgo y mejorar la efectividad del diagnóstico y tratamiento.

Monografia honetan intzidentziari (2002-2006) eta hilkortasunari (2004-2008) buruzko azken emaitzak aurkeztu nahi ditugu. Horretaz gain, eta lehen aldiz, oro har, minbiziaren biziraupena aurkeztuko dugu gure herritarren artean 2000-2004 aldian, bost urteko jarraipena egin ostean, eta hautatutako minbizi mota jakin batzuena ere bai. Hori guztia osatzeko, tumore gaizto espezifiko jakin batzuen eta minbiziaren hilkortasunak, intzidentziak eta biziraupenak Euskal Autonomia Erkidegoan izan duten bilakaera aztertuko dugu, 1986. urteaz geroztik.

Lortutako emaitzen artean, ezin dugu aipatu gabe utzi, oro har, minbiziaren ondoriozko heriotza-tasak murriztu egin direla, bai gizonengan, bai emakumeengan. Gainera, hilkortasuna gutxitu duten tumore gaizto espezifikoei dagokienez zera aipatu behar dugu: gizonen artean biriketako minbiziaren goranzko joera eten egin dela. Alabaina, biriketako minbiziak emakumeengan duen intzidentzia eta melanomaren intzidentzia —gizon nahiz emakumeengan— handitu egin da; horrek esan nahi du bizimodu osasungarriaren aldeko neurriak hobetu egin behar direla. Bestalde, legealdi honetan aktibatu eta indartu diren tabakoaren aurkako politiken garrantzia berretsita geratu dela ere esan dezakegu.

Ondorio gisa, lortutako informazioa oso garrantzitsua dela nabarmendu nahiko nuke eta bide batez, Minbiziaren Euskal Erregistroko profesionalak zoriondu nahi ditut, 25 urte hauetan egindako etengabeko lan emankorrarengatik. Lortutako informazio hori funtsezkoa da gure herritarrek minbiziari buruzko informazio zabala izan dezaten eta Espainiako nahiz nazioarteko beste eremu batzuetako erregistroekin konparazioak egiteko, baita diagnostikoaren eta tratamenduaren eraginkortasuna hobetu eta arriskuak murrizteko ezinbestekoak diren ekintza eta politika sanitarioak zehazten jarraitzeko ere.

ABSTRACT
RESU MEN
LABUR PENA

The Basque Country Cancer Registry was created in 1986, and during these past 25 years it has fulfilled one of its initial goals, namely to regularly publish cancer incidence figures for the Autonomous Community of the Basque Country (ACBC). Since its creation it has participated in numerous activities with national and international registries. The present monograph concerning cancer in the Basque Country presents the most recent incidence (2002–2006) and mortality figures (2004–2008). Furthermore, the survival after five years of follow-up (2000–2004) and evolution over the whole period studied are presented for the first time.

The crude incidence and mortality rates are also calculated, as are the European and world age-standardised rates, by sex, age group, location and province, using the direct method. The Kaplan-Meier method has been used to estimate the observed survival (OS) for adults aged 14 years or older, and the Estève method to calculate relative survival (RS). The loglinear regression model is used to assess the change in these rates with time, thus allowing the annual percentage change and any inflexion points to be determined.

The mean number of new cases diagnosed in the ACBC over the period studied was 11,229, with a European age-standardised incidence rate of 524.8/100,000 for men and 279.7/100,000 for women (a male to female ratio of 1.7). The most common tumour sites were the prostate (21.3%) and lung (14.7%) in men and the breast (27.2%) and colon (9.4%) in women.

El Registro de Cáncer de Euskadi fue creado en 1986. Durante estos 25 años ha publicado, periódicamente, la incidencia del cáncer en la Comunidad Autónoma del País Vasco (CAPV), ya que este era uno de sus primeros objetivos. Desde entonces ha participado en numerosas actividades con otros registros españoles y de otros países. Con esta monografía sobre el cáncer en el País Vasco se presenta la última información sobre la incidencia (2002-2006) y la mortalidad (2004-2008). Además, y por primera vez, se ha calculado la supervivencia (2000-2004) con un seguimiento de 5 años, así como la evolución temporal en todo el período.

Se han calculado las tasas brutas de incidencia y mortalidad y las ajustadas a la población europea y mundial con el método directo, por sexo, grupos de edad, localizaciones y Territorio Histórico. Para estimar la supervivencia observada (SO) de los adultos mayores de 14 años en la CAPV se ha utilizado el método de Kaplan-Meier y para la supervivencia relativa (SR) el método de Estève. La evolución temporal de las tasas se ha calculado utilizando el modelo de regresión loglineal que permite estimar el porcentaje anual de cambio y los puntos de inflexión, si los hubiere.

La media anual de casos nuevos diagnosticados en el periodo en la CAPV fue de 11.229. La tasa de incidencia ajustada a la población europea (TAE) fue de 524,8/100.000 en los hombres y de 279,7/100.000 en las mujeres, siendo la razón hombre/mujer de 1,7. Las localizaciones mas frecuentes en los hombres fueron la próstata (21,3%) y el pulmón (14,7%) y en las mujeres la mama (27,2%) y el colon (9,4%).

Euskadiko Minbiziaren Erregistroa 1986an sortu zen. Sortu zenez geroztik igaro diren 25 urteetan, Erregistroak aldian-aldian argitaratu du minbiziak Euskal Autonomia Erkidegoan duen intzidentzia-tasa, bere helburu nagusietako batekin bat etorriz. Orduz geroztik hainbat jardueratan parte hartu du, Espainiako eta beste hainbat herrialdetako beste hainbat erregistrorekin elkarlanean. Euskadiko minbiziari buruzko monografia honek intzidentzia-tasari (2002-2006) eta hilkortasun-tasari (2004-2008) buruzko azken informazioa aurkezten du. Gainera, eta lehen aldiz, biziraupen-tasa kalkulatu da (2000-2004) 5 urteko jarraipena eginez, baita aldi osoko denbora-bilakaera ere.

Intzidentzia- eta hilkortasun-tasa gordinak eta Europako eta munduko biztanleriei doitutakoak kalkulatu dira metodo zuzena erabiliz, sexuen, adin-taldeen, kokapenen eta lurralde historikoen arabera. EAEko 14 urtez gorako helduen biziraupen-tasa hautemana kalkulatzeko, Kaplan-Meier-en metodoa erabili da; biziraupen-tasa erlatiboa kalkulatzeko, berriz, Estèveren metodoa hartu da aintzat. Tasen denbora-bilakaera balioesteko, erregresio loglinealaren eredua erabiltzen da, urteko aldaketa-ehunekoa eta inflexio-puntuak, halakorik badago, kalkulatzea ahalbidetzen duena.

Urtean, batez beste, 11.229 kasu berri diagnostikatu dira aldi horretan EAEn. Europako biztanleriari doitutako intzidentzia-tasa 524,8/100.000 izan da gizonen artean eta 279,7/100.000 emakumeen artean, hurrenez hurren, eta gizona/emakumea arrazoia 1,7 izan da. Gizonen artean prostatan (% 21,3) eta birikan (% 14,7) ageri dira kasu gehien; emakumeen artean, berriz, bularrean (% 27,2) eta kolonean (% 9,4).

The mean annual malignant tumour-related mortality rate was 3490 for men and 1962 for women in the period studied, with a European age-standardised mortality rate of 247.5/100,000 for the former and 102.3/100,000 for the latter. Malignant lung tumours accounted for 25% of the cancer-related mortality in men, followed by colon cancers (9.6%), whereas breast (15%) and colon (10.7%) cancers were responsible for the largest number of deaths amongst women.

The five-year relative survival for all malignant tumours diagnosed in the ACBC was 54.1% (50% for men and 60.1% for women) over the period studied. Survival was highest in 15-44 years age group and for those tumours found to be localised at diagnosis. The RS for testicular, prostate, thyroid and breast cancer, melanoma of the skin and Hodgkin's lymphoma was higher than 80%.

The study of the evolution of the incidence, mortality and survival rates showed that the incidence increased in both men and women and then subsequently stabilised. A decrease in the cancer-related mortality rates was observed for both men and women. The five-year relative survival has increased in both men (by 17 points) and women (12 points) since the creation of the Basque Country Cancer Registry. Thus, it has increased from 32.9% to 50% in the final period studied for men, and from 48.1% to 60% for women.

The most important cancer-related finding is the size of the incidence rate, especially for men, which contrasts with the lower mortality rate. No major interprovincial differences were observed, although the decrease in mortality, and its effect on the survival, should be noted. The survival, which is calculated here for the first time, is of particular interest when studied for specific tumour sites due to the different diseases concerned, each of which has its own etiology, diagnosis, treatment and prevention. The analysis of the change in rates with time highlights those tumours which could pose a public health problem and which, on occasions, may be susceptible to specific interventions.

La media anual de defunciones por tumores malignos entre los hombres fue de 3.490 y de 1.962 entre las mujeres, en el periodo estudiado. La tasa de mortalidad ajustada a la población europea fue de 247,5/100.000 en los hombres y de 102,3/100.000 en las mujeres. Entre los hombres los tumores malignos de pulmón han supuesto el 25% de la mortalidad por cáncer, seguido por los tumores de colon (9,6%). En las mujeres el cáncer de mama (15%) y el de colon (10,7%) son los que han producido un mayor número de defunciones.

La supervivencia relativa a los cinco años del total de los tumores malignos diagnosticados en la CAPV, en el periodo de estudio, fue de 54,1% (50% en los hombres y 60,1% en las mujeres). La supervivencia es mayor en el grupo de 15 a 44 años y en aquellos tumores que presentan al diagnóstico una extensión localizada. La SR es superior al 80% en el cáncer de testículo, próstata, enfermedad de Hodgkin, tiroides, mama y melanoma de piel.

El estudio de la evolución de las tasas de incidencia, mortalidad y supervivencia ha demostrado un aumento de la incidencia tanto en las mujeres como en los hombres, con una estabilización de las tasas posteriormente. En las tasas de mortalidad por cáncer se observa un descenso en los hombres y en las mujeres. La supervivencia relativa a los cinco años ha aumentado desde el principio del Registro de Cáncer de Euskadi tanto en los hombres (17 puntos) como en las mujeres (12 puntos). En los hombres ha pasado de 32,9% a 50% en el último periodo y en las mujeres de 48,1% a 60% en el último.

La información más relevante con respecto al cáncer viene dada por la magnitud de la tasa de incidencia sobre todo en los hombres, en contraste con las cifras menores de mortalidad. No se han apreciado diferencias importantes por Territorio Histórico. Es destacable el descenso de la mortalidad observado y su repercusión en la supervivencia. La supervivencia, analizada por primera vez, tiene un mayor interés cuando se estudia por localizaciones específicas debido a las diferentes enfermedades que representan en su etiología, diagnóstico, tratamiento y prevención. El análisis de la evolución temporal de las tasas señala aquellos tumores que suponen un problema de salud pública y que, en ocasiones, van a ser susceptibles de intervenciones definidas.

Aztertutako aldian, tumore gaiztoek, batez beste, 3.490 heriotza eragin dituzte urtean gizonen artean eta 1.962 heriotza emakumeen artean, hurrenez hurren. Europako biztanleriari doitutako hilkortasun-tasa 247,5/100.000 izan da gizonen artean eta 102,3/100.000 emakumeen artean, hurrenez hurren. Gizonen artean, birika-tumore gaiztoek minbiziarengatiko hilkortasun-tasaren % 25 eragin dute, eta, jarraian, kolon-tumoreak nabarmendu dira (% 9,6). Emakumeen artean, berriz, bularreko minbizia (% 15) eta kolonekoa (% 10,7) izan dira heriotza kopurua handienak eragin dituztenak.

Aztertutako aldian EAEn diagnostikatutako tumore gaizto guztien bost urterako biziraupen-tasa erlatiboa % 54,1 izan da (% 50 gizonen artean eta % 60,1 emakumeen artean, hurrenez hurren). Biziraupen-tasa handiagoa da, batetik, 15-44 urtekoen adin-taldean, eta, bestetik, diagnostikatzean, hedapen lokalizatua ageri duten tumoreen artean. Biziraupen-tasa erlatiboa % 80 baino handiagoa da barrabileko minbizia, prostatako minbizia, Hodgkinen gaixotasuna, tiroideko minbizia, bularreko minbizia eta larruazaleko melanoma dutenen artean.

Intzidentzia-, hilkortasun- eta biziraupen-tasen bilakaerari buruzko azterketak aditzera ematen duenez, intzidentzia-tasak gora egin du emakumeen eta gizonen artean, eta, jarraian, tasek egonkortzera egin dute. Minbiziarengatiko hilkortasun-tasek behera egin dute gizon eta emakumeen artean. Bost urterako biziraupen-tasa erlatiboak gora egin du Euskadiko Minbiziaren Erregistroa sortu zenez geroztik, nola gizonen (17 puntu) hala emakumeen (12 puntu) artean. Azken aldian, gizonen artean % 32,9tik % 50era hazi da, eta emakumeen artean % 48,1etik % 60ra, hurrenez hurren.

Minbiziari dagokionez aipatzekoa da intzidentzia-tasaren neurria bereziki gizonen artean nabarmentzen dela; hilkortasun-tasa, aldiz, txikiagoa da. Lurralde historikoen arabera ez da nabarmentzeko moduko alderik hauteman. Nabarmentzekoa da hilkortasun-tasak behera egin duela nabarmen, eta gainera horrek biziraupen-tasan eragin duela. Biziraupen-tasa lehen aldiz aztertu da, eta interesgarriagoa da kokapen espezifikoen arabera aztertzen denean, gaixotasun desberdinak nabarmentzen direlako etiologiari, diagnostikoari, tratamenduari eta prebentzioari dagokienez. Tasen denbora-bilakaerari buruzko azterketak, osasun publikoaren arazoa dakarten tumoreak zein diren ematen digu aditzera, zenbaitetan esku-hartze zehatzen jomugan egongo direnak.

INTRODUCTION

INTRODUCTION

Population-based cancer registries are considered to be the best means of determining the effect of this group of diseases, which constitute a major health problem, in a specific population[1]. Indeed, the World Health Organization has stated that cancer registries form a key part of any cancer control strategy[2]. These information systems are used to provide the epidemiological indicators that are vital for assessing the efficacy of cancer-control activities and programmes, namely the incidence, mortality, prevalence and survival.

Information concerning the 187,972 patients in the Basque Country diagnosed with a malignant tumour for the first time has been collected since 1986, when the Basque Country Cancer Registry was created[3], up until 2006. The procedure established has systematically followed international guidelines and has used tumour classifications that allow the results to be compared.

Furthermore, hospital-based cancer registries, which have since become important sources of information for the population-based cancer registry, were created in 1995 at various public hospitals. During this period, the coding for the variables collected has been changed to reflect the different international classifications which have appeared in the meantime[4]. The data-quality indicators adopted by the Basque Country Cancer Registry (BCCR) have steadily been improved by the incorporation of rigorous data-control measures. Furthermore, better safety measures have been adopted to ensure the absolute confidentiality of the information collected, and its protection, in accordance with new legislation[5,6].

As can be seen from Fig. 1, the population of the Autonomous Community of the Basque Country (ACBC) has undergone major changes since the BCCR was established, with the percentage of young people steadily decreasing as the number of people above the age of 65, especially women, has increased[7].

Knowledge of the exact date of death of a person diagnosed with a malignant tumour is vital to be able to determine that person's survival. Fortunately, the creation of the National Deaths Index[8] has meant that such cases can be monitored closely, thus allowing the survival indicator, and in the near future the prevalence, to be estimated.

Both annual reports[9] and a monograph covering the first few years of the cancer registry[10] have been produced since publication of the first results from the BCCR. Furthermore, data have been sent on a regular basis to the reference publication for all the world's cancer registries, namely the *Cancer Incidence in Five Continents*[11], which allows comparisons to be drawn between different geographical regions.

The indicators obtained from the BCCR have enabled decision-making as regards the breast and colorectal cancer screening programmes that have been launched over the past years, which cover the whole Basque population, as well as the establishment of targets for the successive health plans and the collaboration for better planning of oncological resources.

Furthermore, the BCCR has participated in the various editions of the European survival study EUROCARE[12] and in the ACCIS (Automated Childhood Cancer Information System) childhood cancer project[13]. Since its creation, the BCCR has also provided data for several national and international studies and has participated in numerous conference presentations, scientific meetings and publications. A good example of this is the article published recently in collaboration with other Spanish registries[14].

This monograph is divided into different sections. The first section concerns the data information sources, the definitions used in this monograph and the methods used to describe the incidence, mortality, survival and evolution of the rates over time. This is followed by the section discussing the results for the indicators studied, differentiating between those for the incidence of cancer in the period 2002-2006 and cancer-related mortality in the period 2004-2008 in the ACBC. The tables for these two indicators contain information concerning all sites in both men and women and include a breakdown by province. Another indicator studied, namely survival in the ACBC, covers the period 2000-2004, with five years of active follow-up, and is also broken down by sex and province. Finally, the evolution of these three indicators since 1986 for all sites, and in a more detailed and graphical manner for certain selected sites, is presented.

This monograph has been translated into Basque and English, and both these versions are included on the CD which can be found inside the front cover. This CD also includes an Excel file which shows the detailed annual incidence and mortality rates used to calculate their trends.

FIGURE 1. **EVOLUTION OF THE POPULATION BY AGE GROUP. 1986-2006. ACBC**

Source: EUSTAT/Basque Institute of Statistics.

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INFORMATION

SOURCES, DEFINITIONS AND METHODS

INFORMATION SOURCES, DEFINITIONS AND METHODS

INFORMATION SOURCES

The Basque Country Cancer Registry (BCCR)'s information sources are varied, but include all public hospitals, the Gipuzkoa Oncological Institute's cancer registry and the majority of private clinics and laboratories concerned with the diagnosis and treatment of cancer in the ACBC.

A hospital-based cancer registry was created at the Txagorritxu, Santiago, Cruces, Basurto, Galdakao and Donostia hospitals in 1995. Since that date, these hospital registries have been the primary information source for the population-based registry.

Important information is also provided by the mortality registry. Data for those people who die as a result of cancer are provided by the Death Statistics for the ACBC, which are calculated by the Basque Institute for Statistics[1] in collaboration with the National Statistics Institute and the Department for Health and Consumer Affairs.

Other cancer registries from which data are collated include those from the Navarra, La Rioja and the National Registry for Childhood Tumours.

DEFINITIONS

Indicators

The indicators to be discussed herein include the incidence, mortality and survival rates and their trends. The basic quality indicators used by the Basque Country Cancer Registry are also included.

Study periods

The data for the latest available five-year period for each of the indicators studied are combined. Thus, the data corresponding to the period 2002-2006 are considered for the incidence, whereas mortality data cover the period 2004-2008 and survival data the period 2000-2004, with active follow-up until 1 January 2010, in other words five years. Furthermore, the trends of the incidence and mortality rates from 1986 to 2006 and 2008, respectively, and the evolution of the survival for each five-year period up to 2004, are presented.

Population

The populations from the 1986, 1991, 1996, 2001 and 2006 censuses for the ACBC, as provided by Eustat and broken down by age group, sex and province has been used. The population for intervening years was calculated by linear interpolation/ extrapolation using the figures for the two closest censuses[1].

Incident case

The BCCR considers any malignant tumour diagnosed for the first time after 1 January 1986 in a person resident in the ACBC to be an incident case. Basal- and squamous-cell carcinomas of the skin are excluded.

TABLE 1. SPECIFIC SITES

ICD 10	
C00-C14	**HEAD AND NECK**
C00	Lip
C01-02	Tongue
C03-06	Oral cavity, others
C07-08	Salivary glands
C09-14	Pharynx
C15-C26	**DIGESTIVE ORGANS**
C15	Oesophagus
C16	Stomach
C17	Small intestine
C18	Colon
C19-21	Rectosigmoid junction, rectum, anus
C22	Liver
C23-24	Gall bladder and biliary ducts
C25	Pancreas
C30-C34, C37-C38	**RESPIRATORY ORGANS**
C30-31	Nasal cavity and sinuses
C32	Larynx
C33-34	Trachea and lung
C37-38	Mediastinum, pleura (except mesothelioma) and others
C40-41	**BONE**
C43	**MELANOMA OF SKIN**
C45	**MESOTHELIOMA**
C46	**KAPOSI'S SARCOMA**
C47-49	**NERVES AND SOFT TISSUE**
C50	**BREAST**
C53-C58	**FEMALE GENITAL ORGANS**
C53	Cervix uteri
C54	Corpus uteri
C55	Other parts of uterus
C56	Ovary
C57*	Other and unspecified genitals
C58	Placenta
C60-C63	**MALE GENITAL ORGANS**
C61	Prostate
C62	Testicles
C60, C63	Other genitals
C64-C68	**URINARY ORGANS**
C64	Kidney
C65	Renal pelvis
C67	Bladder
C66, C68	Ureter and other urinary
C69	**EYE**
C70-72	**CENTRAL NERVOUS SYSTEM**
C73	**THYROID GLAND**
C74-75	**OTHER ENDOCRINE GLANDS**
C26, C39, C44, C76	**SKIN NON-MELANOMA AND OTHER UNSPECIFIED**
C77-C80, C97*	**POORLY DEFINED SITE, SECONDARY AND MULTIPLE**
C82-C96	**LYMPHOMAS AND HAEMATOPOIETIC TISSUES**
C81	Hodgkin's lymphoma
C82-85, C96	Non-Hodgkin's lymphoma
C88	Malignant immunoproliferative diseases
C90	Multiple myeloma
C91	Lymphatic leukaemia
C92-93	Myeloid and monocytic leukaemias
C94-95	Other leukaemias
C77, C96, D45-47*	Other lymphatic, haematopoietic and unspecified tissues
C00-97	**ALL SITES**

Classifications used

Since its creation, the BCCR has used the different versions of the International Classification of Diseases for Oncology which have been developed to code the site and morphology of malignant tumours. However, for this study, the 10th edition of the International Classification of Diseases[2], which combines site and morphology into a single code, has been used.

The causes of death have been coded using the ninth edition of the International Classification of Diseases (ICD-9) for the period 1986-1998 and the tenth edition (ICD-10) for the period 1999-2008[2].

Sites

The term «site» is used in this study to indicate any anatomical location where a malignant tumour is found. Furthermore, certain specific histological types, such as melanoma, mesothelioma, Kaposi's sarcoma, leukaemias and lymphomas, have been included, irrespective of their anatomical location, due to their interest.

The terms malignant tumour, tumour site and cancer are used indistinctly throughout this monograph. Furthermore, to avoid unnecessary repetition, these terms have, on occasions, been omitted completely and the anatomical site, for example stomach, has been used to refer to stomach cancer.

The term All Sites, which generally appears in the last line of a table, refers to all malignant tumours on the basis of a particular sex, province or other characteristic, not simply to those specific sites which appear in the table.

Table 1 lists the specific sites studied to determine the incidence and mortality of malignant tumours, as well as «All Sites». Due to the different definition of incident case and death for some sites, such as secondary or some haematological tumours, the content of the sites may vary slightly, in which case it is indicated by an asterisk, although in general they are very similar. Thus, in Other Genital and Unspecified (C57), malignant tumours of the vulva and vagina are included in the incidence; in Poorly defined site, secondary and multiple (C77-80, C97), only those concerning the unknown primary site are included in the incidence as secondary and multiple tumours are not included in the definition of incident case. In contrast, Other lymphatic, haematopoietic and unspecified tissues are not included in the mortality.

A reduced number of tumour sites has been used to assess the evolution in the incidence, mortality and survival rates with time (see Table 2).

TABLE 2. SITES TO STUDY THE TRENDS

ICD 9	ICD 10	SITES
140-149	C00-C14	HEAD AND NECK
150	C15	OESOPHAGUS
151	C16	STOMACH
153	C18	COLON
154	C19-21	RECTOSIGMOID JUNCTION, RECTUM, ANUS
155	C22	LIVER
157	C25	PANCREAS
161	C32	LARYNX
162	C33-34	TRACHEA AND LUNG
172	C43	MELANOMA OF SKIN
174-175	C50	BREAST
180	C53	CERVIX UTERI
179, 182	C54-C55	CORPUS UTERI AND OTHER PARTS OF UTERUS
183.0	C56	OVARY
185	C61	PROSTATE
186	C62	TESTICLES
189.0	C64	KIDNEY
188	C67	BLADDER
191-192	C70-72	CENTRAL NERVOUS SYSTEM
193	C73	THYROID GLAND
201	C81	HODGKIN'S LYMPHOMA
200, 202	C82-85, C96	NON-HODGKIN'S LYMPHOMA
203.0.1	C90	MULTIPLE MYELOMA
204-208	C91-C95	LEUKAEMIAS
140-208, 273.3	C00-C97	ALL SITES

METHODS

Incidence and mortality

The incidence and mortality indicators are designed to measure the impact of cancer. Thus, the former refers to the new cases diagnosed and the second to the people who died as a result of cancer in a certain period (2002-2006 and 2004-2008, respectively) within the geographical limits of the ACBC.

The rates are calculated on the basis of the population at risk in a given time period. Various such rates are calculated, including:

— The crude rates, which measure the impact of cancer in the population as a whole. Their utility for drawing comparisons between the risk posed by the cancer is limited, particularly for different age groups or when demographic changes affect both the size and the structure of the population with time. The result is usually expressed as annual rate per 100,000 people at risk.

— For this reason, the specific rates for each age group, generally covering a period of five years (19 such groups in this study), and per 100,000 inhabitants are usually calculated.

— Furthermore, due to the different patterns of cancer in each sex, they are calculated separately for both men and women.

— Although the population and risk of cancer are, *a priori,* reasonably homogeneous, the rates for each province are calculated in order to detect any possible difference.

— The age-adjusted rates, which allow the risk to be compared between different populations, are also calculated. Two standard populations, namely the European and world populations[3], which have different weights in each age group, will be used. The direct method is used.

For the incidence, accuracy quality indicators, such as the confirmation or microscopic verification percentage (%MV), which includes the diagnoses performed by biopsy or cytology, and the percentage of cases detected by death certificate only (%DCO), are also calculated.

Survival

The survival indicator for malignant tumours reflects the proportion of these tumours which survive beyond a certain time period. This indicator has been estimated by performing an active, five-year follow-up of all incident cases in the period 2000-2004, in other words up to 1 January 2010, as well as the standard passive follow-up by date of death. Those cases

diagnosed only on the basis of the death certificate or upon autopsy, and all secondary and successive tumours, have been excluded from the analysis.

The following indicators have been calculated:

— The observed survival (OS), which is the survival irrespective of cause of death. The Kaplan-Meier method, which estimates the cumulative survival probability on the basis of the cases who die and those who were at risk at each moment in time, was used.

— The relative survival (RS), which is determined by correcting the observed survival (OS) with the expected survival (ES) of the general population. The expected survival is obtained from the life tables calculated on the basis of the general mortality for the population of the ACBC, as provided by the Mortality Registry of the ACBC, the censal population provided by Eustat and the intercensal projections. The relative survival is calculated using the method developed by Estève[4] using the strel algorithm and the statistical programme STATA. The relative survival at one year, three years and five years after diagnosis of the malignant tumour is analysed.

Rate trends

The indicator which shows the change in the incidence and mortality rates is designed to indicate the trend of the cancer over time. Changes in the number of incident cancer cases in a population arise due to changes in the size of the population, its structure and exposure to risk factors. Similarly, changes in the diagnostic possibilities, early detection and the quality of the registry can also result in changes or artefacts in the evolution of these rates.

The trend in the incidence and mortality rates for the periods 1986-2006 and 1986-2008, respectively, is represented graphically for all tumours and those at certain sites or types. Time, in years, is plotted on the x-axis and the age-adjusted rates for each sex, in the ACBC as a whole and for each of the provinces is plotted on the y-axis. The same scheme is used to represent the survival, but replacing the rates in the y-axis with the percentage survival.

A log-linear regression model (Joinpoint regression), which allows the annual percentage change (APC) and any inflexion points in the trends to be estimated[5], is used to estimate the change in rates over time.

To calculate the change in survival over time, the data have been grouped into five-year periods (1990-1994, 1995-1999 and 2000-2004), except for the first period in the series (1986-1989), which only contains data for four years. The five-year relative survival for each of these periods is presented. The latter partially coincide with those published by Eurocare-3 and Eurocare-4, thus allowing the survival in the ACBC to be more easily compared with that of other countries which participate in the Eurocare project.

The SAS statistical package, version 9.2[6], the Joinpoint Regression program, version 3.0.[7] and the software K43[8] have been used to perform these analyses.

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RESULTS

INCIDENCE 2002-2006

MORTALITY 2004-2008

SURVIVAL OF ADULT CANCER PATIENTS 2000-2004

TRENDS OF THE INCIDENCE, MORTALITY AND SURVIVAL RATES

INCIDENCE

2002–2006

INCIDENCE 2002-2006

A total of 56,146 malignant tumours, 34,559 in men and 21,587 in women, were diagnosed for the first time in residents of the ACBC in the period 2002-2006, an average of 11,229 cases per year. The majority of these tumours (61.5%) were diagnosed in men, thus reflecting the male/female ratio of 1.67 in the region.

Their distribution at the various sites can be seen in Table 1.1. The most common sites in women and men were the breast (27.2%) and prostate (21.3%), respectively, although sites in the digestive apparatus as a whole accounted for more than a quarter of all tumours in both men (28%) and women (26%). These latter tumours, together with those of the respiratory apparatus in men and those of the genital organs in women, accounted for more than 65% of all malignant tumours.

A tumour is considered to be «rare» when its incidence is less than 6 per 100,000 inhabitants. Of the 48 sites, or groups of sites, presented in Table 1.1, 25 fulfil this criterion in men, and 32 in women, and can therefore be considered to be rare diseases.

The crude rates in the ACBC were 670.3/100,000 for men and 399.9/100,000 for women. Table 1.1 also presents the European- and world-population age-standardised rates in order to be able to draw comparisons. The sites with the highest European population standardised rates are the prostate (108.3), lung (76.6) and colon (46.3) in men and the breast (108.9), followed at some distance by the colon (35.6) and corpus uteri (24.9), in women. The inter-sex rate ratio highlights the difference in incidence between males and females. It can clearly be seen that the incidence in males is almost always higher, and can be up to 15 times higher at sites such as the larynx. However, the incidence at some sites, such as the breast, gall bladder, melanoma of the skin, eye, thyroid gland and the group of non-melanoma and unspecified skin tumours, is higher in females. There was no difference between the sexes for myeloma and other leukaemias over this study period.

Age is a well-known risk factor for cancer, as can be seen in Figure 1.1, which shows the distribution of the specific incidence rate by age group. It can clearly be seen from this Figure that the rate increases with age and that, in general, it is higher in men than in women, except in early life (0-4 years) and between 30 and 49 years of age, when women have somewhat higher rates due, principally, to breast cancer. The rates in men subsequently increase rapidly up to 84 years of age, whereas those for women increase rather more slowly. The specific rates for each age group, at each site and for each sex, are presented in Annexes 1 and 2.

The sites affected by malignant tumours are not the same at each stage of life or for each sex. Figure 1.2 shows the percentages for the 10 most common sites, in order of frequency, for the different age groups and broken down by sex. Childhood tumours (0-14 years) are relatively uncommon and account for a mere 0.4% of all tumours in the ACBC. Nevertheless, lymphatic leukaemia and tumours of the central nervous system are more frequent in children, accounting for almost 40% of all tumours in this age group.

Testicular tumours and Hodgkin's lymphoma are the most common tumours in adolescents and young adults (15-29 years), with melanoma also being relatively common.

Lung cancer is the most common tumour in men aged between 30 and 49 years (14.5%), with breast cancer being the most common in women in the same age group (45%). Tumours in this age group represent 11% of all sites in all age groups. The number of tumours increases notably after 50 years of age, such that 40% of all tumours diagnosed for the first time during the study period were encountered in the age range 50-69 years. Prostate and breast cancer occupy first place in both this and the following age group in men and women, respectively, followed by lung and colon cancer in men and uterine and colon cancer in women.

INCIDENCE RATES BY PROVINCE

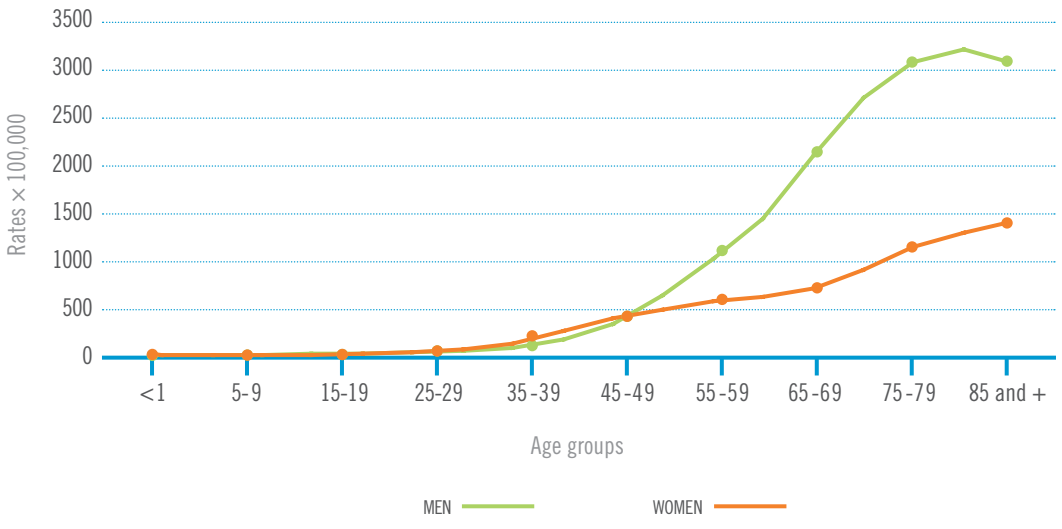
Tables 1.2 and 1.3 show the frequency of malignant tumours and their crude and European and world population adjusted rates in each province and by sex. The average number of malignant tumours diagnosed in Alava, Bizkaia and Gipuzkoa in the period 2002-2006 was 1,525, 6,129 and 3,575 respectively.

The European age-standardised rates in the provinces, for all sites together, were similar for males in Alava and Bizkaia (Alava: 526.8; Bizkaia: 526.7; Gipuzkoa: 523.5). Likewise, the highest rates for women were found in Alava (280.2 per 100,000 inhabitants), followed by Gipuzkoa (278.4) and Bizkaia (277.9).

Some differences were found between the rates for different sites. Thus, the highest rates of stomach (29.8), rectosigmoid junction/rectum/anus (29.1), liver (18.2) and prostate cancer (126.3) were found in men from Alava, whereas tumours of the central nervous system were most common in men from Gipuzkoa (9.7). Although the rate for other leukaemias was the highest in Gipuzkoa, there could be some confusion as regards the coding of other types of leukaemias, which were the lowest.

The highest rate for stomach cancer amongst women was found in Alava (14.5), as was the case for men, whereas the rates of breast (86.8), cervical (6.9) and ovarian cancer (12.2) were highest in Bizkaia. Lung

FIGURE 1.1. **AGE SPECIFIC INCIDENCE RATE OF ALL SITES BY AGE GROUP AND SEX. ACBC, 2002-2006**



cancer was the most common in Gipuzkoa (13.3), although the rate in Bizkaia was only marginally lower. Likewise, melanoma of the skin (12.1) and cancer of the corpus uteri (18.8) and thyroid gland (9.5) were most frequent in Gipuzkoa. The situation as regards leukaemias was similar to that found previously for men. Finally, the lowest rate of tumours with a poorly defined site was observed in Alava (5.4).

QUALITY INDICATORS

The main quality indicators in men and women are presented in Table 1.4 for all sites together and individually. The age was known in all cases.

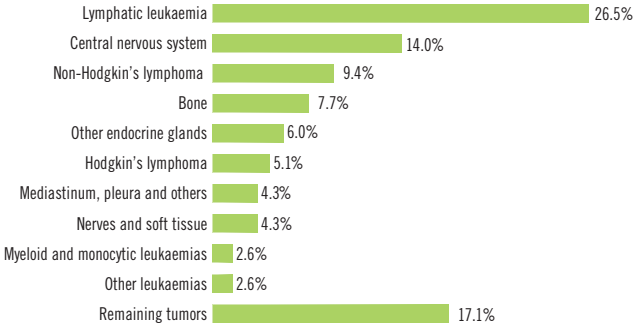
Some 2.7% of cases were detected by death certificate only (DCO), with this indicator being somewhat higher for women (3.2%) than for men (2.2%). Generally speaking, the most common sites had a low %DCO. In contrast, the sites for which the %DCO was highest (more than 5%) in both men and women were other leukaemias, non-melanoma and other unspecified skin cancers, poorly defined site and pancreatic cancer. Furthermore, sites such as the oesophagus, liver, mediastinum, other parts of the uterus and other female genitals, the renal pelvis and immunoproliferative diseases showed a high %DCO in women.

A high percentage (close to 90%) of microscopic (histological and cytological) verification was observed when considering all sites together (89% in men and 88% in women). The sites which did not even reach a value of 60% for this indicator were the liver and other leukaemias in men and the liver, gall bladder and pancreas, placenta, poorly defined site and other leukaemias in women.

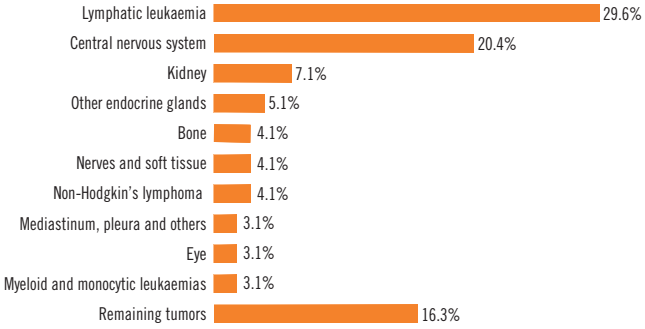
Poorly defined site can also be considered to be a quality indicator. In this case, these tumours represented 2.9% of total incidence in men and 3.1% in women in the ACBC for the period 2002-2006.

FIGURE 1.2. MOST FREQUENT SITES BY AGE GROUP AND SEX. ACBC, 2002-2006

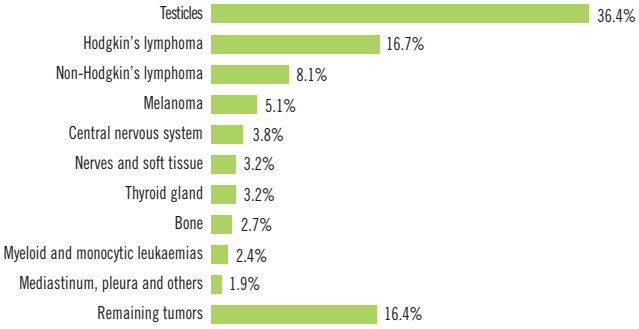
MEN (0-14 YEARS)



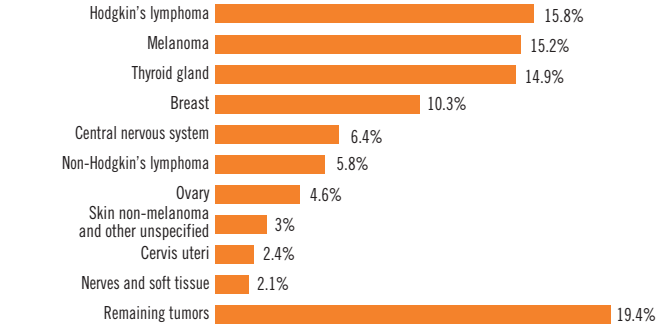
WOMEN (0-14 YEARS)



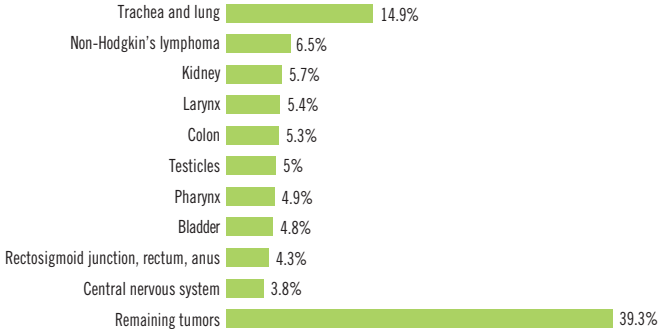
MEN (15-29 YEARS)



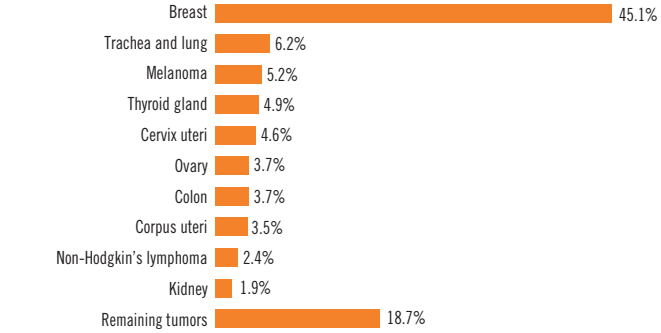
WOMEN (15-29 YEARS)



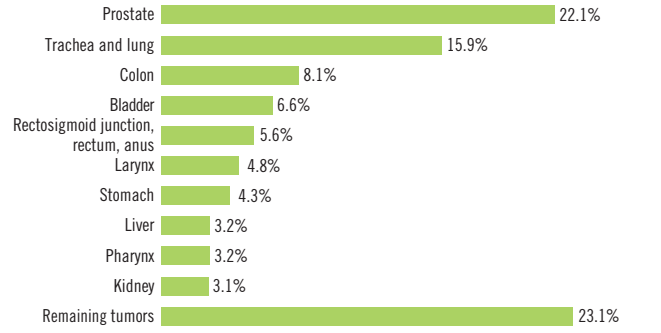
MEN (30-49 YEARS)



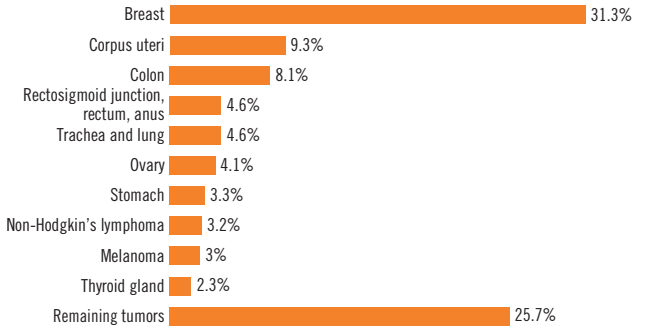
WOMEN (30-49 YEARS)



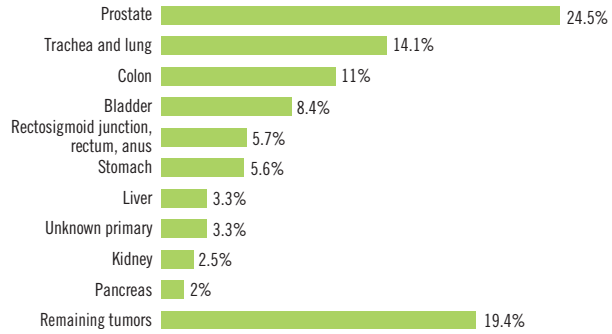
MEN (50-69 YEARS)



WOMEN (50-69 YEARS)



MEN (70 YEARS OR OLDER)



WOMEN (70 YEARS OR OLDER)

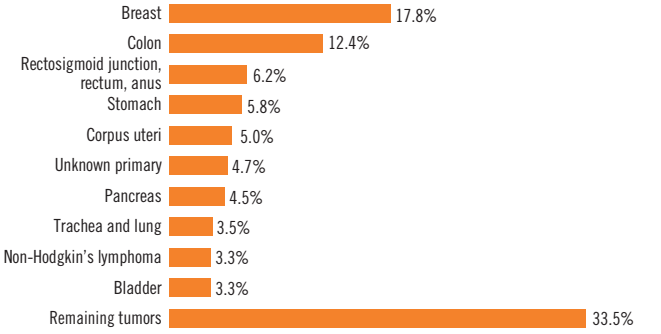


TABLE 1.1. NUMBER OF INCIDENT CASES AND RATES BY SITE AND SEX. ACBC, 2002-2006

MEN					
SITES	No.	CR	EASR	WASR	M/F RATIO
HEAD AND NECK					
Lip	199	3.9	2.9	1.9	4.3
Tongue	305	5.9	5.0	3.6	3.3
Oral cavity, others	387	7.5	6.4	4.6	3.4
Salivary glands	71	1.4	1.1	0.7	1.7
Pharynx	787	15.3	13.2	9.6	6.6
RESPIRATORY ORGANS					
Oesophagus	690	13.4	11.1	7.8	7.0
Stomach	1,669	32.4	24.7	16.4	1.9
Small intestine	88	1.7	1.4	1.0	1.3
Colon	3,168	61.4	46.3	30.5	1.7
Rectosigmoid junction, rectum, anus	1,895	36.8	28.4	18.2	1.9
Liver	1,114	21.6	16.7	0.5	3.0
Gall bladder and biliary ducts	306	5.9	4.3	2.8	0.8
Pancreas	732	14.2	11.2	7.6	1.1
RESPIRATORY APPARATUS					
Nasal cavity and sinuses	68	1.3	1.0	0.8	1.9
Larynx	1,180	22.9	19.2	13.8	16.3
Trachea and lung	5,097	98.9	76.6	53.0	5.7
Mediastinum, pleura (except mesothelioma) and others	70	1.4	1.2	1.1	2.3
BONE	60	1.2	1.1	1.1	1.3
MELANOMA OF SKIN	510	9.9	8.1	6.0	0.8
MESOTHELIOMA	105	2.0	1.6	1.1	2.5
KAPOSI'S SARCOMA	53	1.0	0.8	0.7	2.0
NERVES AND SOFT TISSUE	196	3.8	3.2	2.5	1.1
BREAST	78	1.5	1.2	0.8	0.0
MALE GENITAL ORGANS					
Prostate	7,371	143.0	108.3	72.4	—
Testicles	298	5.8	5.2	5.2	—
Other male genitals	102	2.0	1.5	1.0	—
URINARY ORGANS					
Kidney	1,034	20.1	16.0	11.3	2.3
Renal pelvis	85	1.6	1.3	0.8	2.3
Bladder	2,507	48.6	37.0	24.5	5.5
Ureter and other urinary	86	1.7	1.3	0.8	1.2
EYE	41	0.8	0.7	0.5	0.9
CENTRAL NERVOUS SYSTEM	550	10.7	9.0	7.0	1.2
THYROID GLAND	160	3.1	2.7	2.2	0.3
OTHER ENDOCRINE GLANDS	26	0.5	0.5	0.6	1.2
SKIN NON-MELANOMA AND OTHERS	162	3.1	2.5	1.8	0.9
POORLY DEFINED SITE	995	19.3	14.8	9.8	1.5
LYMPHOMAS AND HAEMATOPOIETIC TISSUES					
Hodgkin's lymphoma	189	3.7	3.4	3.3	1.5
Non-Hodgkin's lymphoma	774	15.0	12.3	9.2	1.2
Malignant immunoproliferative diseases	28	0.5	0.4	0.3	1.7
Multiple myeloma	300	5.8	4.3	2.9	1.0
Lymphatic leukaemia	358	6.9	6.0	4.9	1.6
Myeloid and monocytic leukaemias	281	5.4	4.2	3.0	1.4
Other leukaemias	81	1.6	1.2	0.8	1.0
OTHER LYMPHATIC, HAEMATOPOIETIC UNSPECIFIED	303	5.9	4.3	2.8	1.2
ALL SITES	**34,559**	**670.3**	**524.8**	**363.4**	**1.7**

WOMEN					
SITES	No.	CR	EASR	WASR	M/F RATIO
HEAD AND NECK					
Lip	47	0.9	0.4	0.3	4.3
Tongue	96	1.8	1.3	1.0	3.3
Oral cavity, others	119	2.2	1.4	1.0	3.4
Salivary glands	45	0.8	0.6	0.5	1.7
Pharynx	125	2.3	1.9	1.4	6.6
DIGESTIVE ORGANS					
Oesophagus	104	1.9	1.2	0.9	7.0
Stomach	902	16.7	9.7	6.4	1.9
Small intestine	68	1.3	0.8	0.5	1.3
Colon	2,028	35.6	22.6	15.1	1.7
Rectosigmoid junction, rectum, anus	1,048	19.4	12.0	8.1	1.9
Liver	394	7.3	4.2	2.9	3.0
Gall bladder and biliary ducts	393	7.3	3.8	2.4	0.8
Pancreas	673	12.5	7.1	4.6	1.1
RESPIRATORY ORGANS					
Nasal cavity and sinuses	39	0.7	0.5	0.3	1.9
Larynx	76	1.4	1.1	0.8	16.3
Trachea and lung	931	17.2	12.7	9.3	5.7
Mediastinum, pleura (except mesothelioma) and others	32	0.6	0.5	0.4	2.3
BONE	47	0.9	0.8	0.7	1.3
MELANOMA OF SKIN	656	12.1	9.6	7.6	0.8
MESOTHELIOMA	41	0.8	0.5	0.4	2.5
KAPOSI'S SARCOMA	26	0.5	0.3	0.2	2.0
NERVES AND SOFT TISSUE	180	3.3	2.5	2.1	1.1
BREAST	5,877	108.9	84.8	63.2	0.0
FEMALE GENITAL ORGANS					
Cervix uteri	442	8.2	6.7	5.2	—
Corpus uteri	1,346	24.9	18.6	13.2	—
Other parts of uterus	68	1.3	0.8	0.6	—
Ovary	738	13.7	10.3	7.6	—
Placenta	2	0.0	0.0	0.0	—
Other and unspecified female genitals	249	4.6	2.7	1.9	—
URINARY ORGANS					
Kidney	471	8.7	6.0	4.4	2.3
Renal pelvis	38	0.7	0.4	0.3	2.3
Bladder	475	8.8	4.9	3.2	5.5
Ureter and other urinary	21	0.4	0.2	0.1	1.2
EYE	48	0.9	0.6	0.5	0.9
CENTRAL NERVOUS SYSTEM	470	8.7	6.7	5.4	1.2
THYROID GLAND	480	8.9	7.6	6.3	0.3
OTHER ENDOCRINE GLANDS	23	0.4	0.4	0.4	1.2
SKIN NON-MELANOMA AND OTHERS	192	3.6	2.0	1.5	0.9
POORLY DEFINED SITE	675	12.5	6.7	4.4	1.5
LYMPHOMAS AND HAEMATOPOIETIC TISSUES					
Hodgkin's lymphoma	132	2.4	2.2	2.1	1.5
Non-Hodgkin's lymphoma	670	12.4	8.6	6.4	1.2
Malignant immunoproliferative diseases	16	0.3	0.2	0.1	1.7
Multiple myeloma	299	5.5	3.4	2.3	1.0
Lymphatic leukaemia	237	4.4	3.5	3.3	1.6
Myeloid and monocytic leukaemias	203	3.8	2.6	1.9	1.4
Other leukaemias	86	1.6	0.9	0.6	1.0
OTHER LYMPHATIC, HAEMATOPOIETIC UNSPECIFIED	259	4.8	2.9	2.1	1.2
ALL SITES	**21,587**	**399.9**	**279.7**	**204.0**	**1.7**

TABLE 1.2. NUMBER OF INCIDENT CASES AND RATES BY SITE AND PROVINCE. MEN. ACBC, 2002-2006

SITES	ALAVA			
	No.	CR	EASR	WASR
HEAD AND NECK				
Lip	27	3.6	3.0	2.0
Tongue	28	3.8	3.4	3.4
Oral cavity, others	30	4.0	3.5	2.5
Salivary glands	8	1.1	0.9	0.6
Pharynx	91	12.3	10.8	7.8
DIGESTIVE ORGANS				
Oesophagus	77	10.4	9.2	6.5
Stomach	266	35.9	29.2	19.6
Small intestine	13	1.7	1.5	1.0
Colon	390	52.6	41.9	27.3
Rectosigmoid junction, rectum, anus	259	35.0	28.8	19.8
Liver	168	22.7	18.3	12.6
Gall bladder and biliary ducts	37	5.0	4.0	2.7
Pancreas	95	12.8	10.5	7.0
RESPIRATORY ORGANS				
Nasal cavity and sinuses	7	0.9	0.8	0.6
Larynx	159	21.5	18.5	13.2
Trachea and lung	619	83.5	68.5	46.5
Mediastinum, pleura (except mesothelioma) and others	9	1.2	1.4	1.6
BONE	8	1.1	1.0	1.0
MELANOMA OF SKIN	58	7.8	6.6	4.9
MESOTHELIOMA	8	1.1	0.9	0.6
KAPOSI'S SARCOMA	9	1.2	1.0	0.9
NERVES AND SOFT TISSUE	29	3.9	3.2	2.5
BREAST	11	1.5	1.3	0.9
MALE GENITAL ORGANS				
Prostate	1,201	162.1	130.3	87.7
Testicles	37	5.0	4.3	4.2
Other male genitals	14	1.9	1.6	1.0
URINARY ORGANS				
Kidney	140	18.8	16.1	11.8
Renal pelvis	14	1.9	1.5	1.0
Bladder	342	46.2	37.1	24.6
Ureter and other urinary	15	2.0	1.6	1.1
EYE	7	0.9	0.8	0.6
CENTRAL NERVOUS SYSTEM	66	8.9	7.7	5.8
THYROID GLAND	33	4.4	3.9	3.1
OTHER ENDOCRINE GLANDS	2	0.3	0.4	0.4
SKIN NON-MELANOMA AND OTHERS	34	4.6	3.9	2.9
POORLY DEFINED SITE	111	15.0	11.8	7.8
LYMPHOMAS AND HAEMATOPOIETIC TISSUES				
Hodgkin's lymphoma	20	2.7	2.4	2.3
Non-Hodgkin's lymphoma	122	16.5	14.2	10.8
Malignant immunoproliferative diseases	6	0.8	0.6	0.4
Multiple myeloma	40	5.4	4.3	2.9
Lymphatic leukaemia	52	7.1	6.6	5.7
Myeloid and monocytic leukaemias	47	6.3	5.1	3.7
Other leukaemias	9	1.2	1.0	0.6
OTHER LYMPHATIC, HAEMATOPOIETIC UNSPECIFIED	48	6.5	5.0	3.2
ALL SITES	**4,766**	**643.1**	**528.5**	**366.2**

BIZKAIA				GIPUZKOA			
No.	CR	EASR	WASR	No.	CR	EASR	WASR
127	4.6	3.4	2.2	45	2.7	2.1	1.4
177	6.4	5.5	4.0	100	6.0	5.0	3.6
248	9.0	7.7	5.6	109	6.5	5.5	4.0
37	1.3	1.0	0.7	26	1.6	1.2	0.8
433	15.7	13.6	9.9	263	15.7	13.6	9.9
375	13.7	11.1	7.9	238	14.2	11.8	8.2
895	32.6	24.4	16.2	508	30.4	23.2	15.4
56	2.1	1.6	1.1	19	1.1	0.9	0.6
1,800	65.6	48.1	31.7	978	58.5	44.9	29.8
1,037	37.8	28.6	19.3	599	35.9	27.9	18.9
615	22.4	17.1	11.7	331	19.8	15.4	10.5
193	7.0	5.0	3.2	76	4.5	3.3	2.1
402	14.7	11.3	7.7	235	14.1	11.2	7.8
31	1.1	0.9	0.6	30	1.8	1.4	1.1
682	24.8	20.6	14.7	339	20.3	17.2	12.4
2,933	106.9	82.9	56.5	1,545	92.4	73.1	49.9
46	1.7	1.4	1.1	15	0.9	0.8	0.8
28	1.0	1.0	0.9	24	1.4	1.5	1.4
256	9.3	7.6	5.6	196	11.7	9.6	7.0
74	2.7	2.1	1.4	23	1.4	1.1	0.7
31	1.1	0.9	0.7	13	0.8	0.6	0.5
100	3.6	3.1	2.4	67	4.0	3.3	2.7
45	1.6	1.2	0.8	22	1.3	1.0	0.7
3,623	132.6	98.9	66.6	2,547	152.3	115.0	75.8
172	6.3	5.7	5.6	89	5.3	4.8	4.9
57	2.1	1.5	1.1	31	1.8	1.4	0.9
529	19.3	15.2	10.7	365	21.8	17.3	12.1
44	1.6	1.2	0.8	27	1.6	1.3	0.9
1,424	51.9	38.5	25.3	740	44.2	34.3	23.0
49	1.8	1.4	0.9	22	1.3	1.0	0.6
20	0.7	0.6	0.5	14	0.8	0.7	0.6
293	10.7	9.0	7.2	191	11.4	9.7	7.3
66	2.4	2.1	1.7	61	3.6	3.1	2.5
16	0.6	0.7	0.7	8	0.5	0.4	0.3
77	2.8	2.2	1.6	51	3.1	2.5	1.8
574	20.9	15.8	10.5	310	18.5	14.6	9.7
109	4.0	3.6	3.3	60	3.6	3.7	3.7
368	13.4	10.5	7.7	284	17.0	14.3	11.0
16	0.6	0.4	0.3	6	0.4	0.3	0.2
172	6.3	4.6	3.1	88	5.3	4.0	2.6
213	7.8	6.7	5.5	93	5.6	4.8	4.0
180	6.6	5.0	3.6	54	3.2	2.5	1.8
23	0.8	0.6	0.4	49	2.9	2.3	1.6
177	6.4	4.7	3.1	78	4.7	3.3	2.1
18,823	**686.1**	**528.9**	**366.2**	**10,969**	**656.1**	**517.0**	**357.8**

TABLE 1.3. NUMBER OF INCIDENT CASES AND RATES BY SITE AND PROVINCE. WOMEN. ACBC, 2002-2006

SITES	ALAVA			
	No.	CR	EASR	WASR
HEAD AND NECK				
Lip	7	0.9	0.5	0.3
Tongue	18	2.4	2.0	1.5
Oral cavity, others	15	2.0	1.5	1.0
Salivary glands	6	0.8	0.6	0.5
Pharynx	14	1.9	1.5	1.1
DIGESTIVE ORGANS				
Oesophagus	12	1.6	0.9	0.6
Stomach	171	22.8	14.5	9.5
Small intestine	15	2.0	1.3	0.9
Colon	249	33.2	22.7	15.3
Rectosigmoid junction, rectum, anus	136	18.1	12.5	8.6
Liver	51	6.8	5.2	3.4
Gall bladder and biliary ducts	55	7.3	4.4	2.8
Pancreas	87	11.6	7.6	5.1
RESPIRATORY ORGANS				
Nasal cavity and sinuses	4	0.5	0.4	0.3
Larynx	10	1.3	0.8	0.6
Trachea and lung	108	14.4	10.4	7.4
Mediastinum, pleura (except mesothelioma) and others	5	0.7	0.8	0.7
BONE	7	0.9	1.1	1.1
MELANOMA OF SKIN	83	11.1	8.5	6.4
MESOTHELIOMA	0	0.0	0.1	0.1
KAPOSI'S SARCOMA	5	0.7	0.4	0.2
NERVES AND SOFT TISSUE	20	2.7	2.1	1.6
BREAST	771	102.9	82.4	61.6
FEMALE GENITAL ORGANS				
Cervix uteri	57	7.6	5.7	4.3
Corpus uteri	184	24.6	18.1	12.8
Other parts of uterus	6	0.8	0.5	0.3
Ovary	81	10.8	9.4	7.1
Placenta	1	0.1	0.1	0.2
Other genitals	33	4.4	3.1	2.1
URINARY ORGANS				
Kidney	62	8.3	6.7	4.9
Renal pelvis	6	0.8	0.5	0.3
Bladder	76	10.1	5.8	3.8
Ureter and other urinary	2	0.3	0.1	0.1
EYE	3	0.4	0.4	0.3
CENTRAL NERVOUS SYSTEM	90	8.7	7.0	5.7
THYROID GLAND	70	9.3	7.4	6.2
OTHER ENDOCRINE GLANDS	1	0.1	0.0	0.0
SKIN NON-MELANOMA AND OTHERS	27	3.6	2.2	1.7
POORLY DEFINED SITE	71	9.5	5.4	3.5
LYMPHOMAS AND HAEMATOPOIETIC TISSUES				
Hodgkin's lymphoma	16	2.1	1.4	1.3
Non-Hodgkin's lymphoma	91	12.1	9.5	7.1
Malignant immunoproliferative diseases	3	0.4	0.3	0.2
Multiple myeloma	32	4.3	2.7	1.8
Lymphatic leukaemia	45	6.0	4.4	3.8
Myeloid and monocytic leukaemias	33	4.4	2.8	1.9
Other leukaemias	8	1.1	0.6	0.4
OTHER LYMPHATIC, HAEMATOPOIETIC UNSPECIFIED	43	5.7	4.1	3.1
ALL SITES	**2,859**	**381.6**	**280.2**	**203.1**

BIZKAIA				GIPUZKOA			
No.	CR	EASR	WASR	No.	CR	EASR	WASR
28	1.0	0.4	0.3	12	0.7	0.4	0.2
52	1.8	1.3	0.9	26	1.5	1.1	0.8
68	2.3	1.5	1.0	36	2.1	1.3	0.9
21	0.7	0.5	0.4	18	1.0	0.9	0.7
67	2.7	1.8	1.4	44	2.5	2.2	1.7
46	1.6	1.0	0.7	46	2.6	1.8	1.2
463	15.9	9.5	6.4	268	15.4	9.0	5.9
39	1.3	0.8	0.5	14	0.8	0.4	0.3
1,124	38.6	22.2	14.8	655	37.7	22.7	15.2
608	20.9	12.5	8.4	304	17.5	10.4	7.3
225	7.7	4.5	3.0	118	6.8	4.0	2.7
222	7.6	4.0	2.5	116	6.7	3.3	2.1
365	12.5	7.3	4.8	221	12.7	7.7	5.1
16	0.5	0.3	0.2	19	1.1	0.8	0.6
41	1.4	1.2	0.9	25	1.4	1.2	0.9
514	17.6	13.0	9.5	309	17.8	13.3	9.7
18	0.6	0.4	0.3	9	0.5	0.4	0.6
21	0.7	0.5	0.5	19	1.1	1.0	1.0
324	11.1	8.4	6.6	249	14.3	12.1	9.6
22	0.8	0.4	0.2	19	1.1	0.7	0.5
18	0.6	0.3	0.2	3	0.2	0.1	0.1
92	3.2	2.4	1.9	68	3.9	3.0	2.5
3,256	111.8	86.8	64.7	1,850	100.6	80.8	59.8
261	9.0	6.9	5.3	124	7.1	5.9	4.5
738	25.3	17.7	12.7	424	24.4	18.8	13.3
43	1.5	1.0	0.8	19	1.1	0.7	0.5
445	15.3	12.2	9.1	212	12.2	10.0	7.4
0	0.0	0.0	0.0	1	0.1	0.0	0.0
131	4.5	2.6	1.8	85	4.9	2.7	1.7
246	8.4	5.8	4.4	163	9.4	6.1	4.5
19	0.6	0.4	0.3	13	0.7	0.3	0.2
252	8.6	4.8	3.1	147	8.5	5.0	3.3
16	0.5	0.3	0.2	3	0.2	0.1	0.1
32	1.1	0.8	0.6	13	0.7	0.5	0.4
348	8.5	6.6	5.5	228	9.4	7.0	5.5
203	7.0	5.4	4.4	207	11.9	9.5	7.8
15	0.5	0.5	0.6	7	0.4	0.4	0.3
110	3.8	2.1	1.6	55	3.2	1.8	1.3
382	13.1	7.1	4.6	222	12.8	7.0	4.5
73	2.5	2.3	2.3	43	2.5	2.4	2.4
357	12.2	8.2	6.1	222	12.8	9.0	6.6
12	0.4	0.2	0.1	1	0.1	0.1	0.0
164	5.6	3.4	2.3	103	5.9	3.5	2.3
122	4.2	3.3	3.0	70	4.0	3.3	3.0
126	4.3	3.0	2.3	44	2.5	1.8	1.3
27	0.9	0.4	0.3	51	2.9	1.7	1.3
150	5.1	3.1	2.3	66	3.8	2.0	1.2
11,823	**405.8**	**277.9**	**202.8**	**6,905**	**397.9**	**278.4**	**202.9**

TABLE 1.4. QUALITY INDICATORS BY SEX. ACBC, 2002-2006

MEN			
SITES	**No.**	**%DCO**	**%MV**
HEAD AND NECK			
Lip	199	0.0	99.5
Tongue	305	1.0	99.4
Oral cavity, others	387	0.3	98.7
Salivary glands	71	0.0	100.0
Pharynx	787	0.8	98.6
DIGESTIVE ORGANS			
Oesophagus	690	1.3	95.2
Stomach	1,669	2.0	95.1
Small intestine	88	0.0	94.3
Colon	3,168	2.1	95.6
Rectosigmoid junction, rectum, anus	1,895	0.6	98.7
Liver	1,114	3.9	41.6
Gall bladder and biliary ducts	306	2.3	69.3
Pancreas	732	5.5	61.5
RESPIRATORY ORGANS			
Nasal cavity and sinuses	68	0.0	99.4
Larynx	1,180	0.8	98.5
Trachea and lung	5,097	2.4	86.3
Mediastinum, pleura (except mesothelioma) and others	70	2.9	77.2
BONE	60	0.0	95.0
MELANOMA OF SKIN	510	0.6	99.4
MESOTHELIOMA	105	0.0	97.6
KAPOSI'S SARCOMA	53	0.0	98.1
NERVES AND SOFT TISSUE	196	3.1	94.4
BREAST	78	1.3	97.4
MALE GENITAL ORGANS			
Prostate	7,371	2.8	90.9
Testicles	298	0.3	99.4
Other male genitals	102	0.0	99.0
URINARY ORGANS			
Kidney	1,034	1.7	82.9
Renal pelvis	85	0.0	89.3
Bladder	2,507	1.8	94.6
Ureter and other urinary	86	1.7	69.2
EYE	41	0.0	82.9
CENTRAL NERVOUS SYSTEM	550	2.5	73.6
THYROID GLAND	160	0.0	99.3
OTHER ENDOCRINE GLANDS	26	4.7	80.8
SKIN NON-MELANOMA AND OTHER UNSPECIFIED	162	8.6	78.4
POORLY DEFINED SITE	995	7.1	64.7
LYMPHOMAS AND HAEMATOPOIETIC TISSUES			
Hodgkin's lymphoma	189	0.0	100.0
Non-Hodgkin's lymphoma	774	0.8	98.2
Malignant immunoproliferative diseases	28	3.6	96.4
Multiple myeloma	300	0.7	87.0
Lymphatic leukaemia	358	0.0	99.1
Myeloid and monocytic leukaemias	281	0.0	99.6
Other leukaemias	81	30.9	48.1
OTHER LYMPHATIC, HAEMATOPOIETIC UNSPECIFIED	303	0.0	99.7
ALL SITES	**34,559**	**2.2**	**89.1**

WOMEN			
SITES	No.	%DCO	%MV
HEAD AND NECK			
Lip	47	0.0	100.0
Tongue	96	2.6	95.8
Oral cavity, others	119	0.8	98.3
Salivary glands	45	2.2	95.6
Pharynx	125	0.0	96.8
DIGESTIVE ORGANS			
Oesophagus	104	6.7	86.5
Stomach	902	5.0	89.4
Small intestine	68	2.9	85.3
Colon	2,028	4.3	93.4
Rectosigmoid junction, rectum, anus	1,048	1.2	93.3
Liver	394	10.7	30.2
Gall bladder and biliary ducts	393	2.3	55.9
Pancreas	673	7.9	52.5
RESPIRATORY ORGANS			
Nasal cavity and sinuses	39	2.6	97.4
Larynx	76	1.3	97.4
Trachea and lung	931	3.8	85.3
Mediastinum, pleura (except mesothelioma) and others	32	6.2	87.5
BONE	47	2.1	93.6
MELANOMA OF SKIN	656	0.5	99.5
MESOTHELIOMA	41	0.0	100.0
KAPOSI'S SARCOMA	26	0.0	99.0
NERVES AND SOFT TISSUE	180	1.1	93.6
BREAST	5,877	1.3	97.5
FEMALE GENITAL ORGANS			
Cervix uteri	442	0.7	98.2
Corpus uteri	1,346	0.6	97.9
Other parts of uterus	68	17.6	69.1
Ovary	738	2.8	89.5
Placenta	2	0.0	50.0
Other female genitals	249	5.6	89.1
URINARY ORGANS			
Kidney	471	3.6	76.4
Renal pelvis	38	5.3	86.8
Bladder	475	3.2	89.0
Ureter and other urinary	21	0.0	71.5
EYE	48	0.0	70.8
CENTRAL NERVOUS SYSTEM	470	0.4	63.2
THYROID GLAND	480	0.2	99.3
OTHER ENDOCRINE GLANDS	23	4.3	69.5
SKIN NON-MELANOMA AND OTHER UNSPECIFIED	192	24.5	57.3
POORLY DEFINED SITE	675	12.1	55.4
LYMPHOMAS AND HAEMATOPOIETIC TISSUES			
Hodgkin's lymphoma	132	0.0	100.0
Non-Hodgkin's lymphoma	670	1.9	97.2
Malignant immunoproliferative diseases	16	12.5	87.5
Multiple myeloma	299	4.3	83.0
Lymphatic leukaemia	237	0.0	99.6
Myeloid and monocytic leukaemias	203	0.0	100.0
Other leukaemias	86	27.9	45.4
OTHER LYMPHATIC, HAEMATOPOIETIC UNSPECIFIED	259	0.8	96.9
ALL SITES	**21,587**	**3.2**	**88.1**

MORTALITY

2004-2008

MORTALITY 2004-2008

A total of 27,263 malignant tumour-related deaths, 17,452 (64%) men and 9811 (36%) women, were recorded in the ACBC during the period 2004-2008, an average of 3490 men and 1962 women per year.

The crude mortality rates in the ACBC over this period were 335.6/100,000 inhabitants/year for men and 180.1/100,000/year for women, whereas the European- and world-population standardised rates were 247.5 and 162.4 per 100,000 inhabitants per year, respectively, for men, and 102.3 and 68.6 per 100,000 inhabitants per year, respectively, for women (Table 2.1).

Malignant lung tumours accounted for 25% of the cancer-related mortality in men, followed by malignant colon and prostate tumours, with these three together representing 43% of male cancer-related deaths. The malignant tumours with the highest mortality in women were breast, colon and lung, which together represented 34% of all cancer-related deaths in women.

Taking both sexes together, almost one in five cancer-related deaths were due to lung cancer, and one in ten to colon cancer.

Most tumours produce higher mortality in men than in women, with the male/female ratio varying according to tumour site. The highest ratio is found for larynx cancer, followed by pharynx, oesophagus and lung. In contrast, only multiple myeloma and breast, thyroid and gall bladder and extrahepatic bile duct cancer are responsible for more deaths in women than in men.

Figure 2.1 shows the specific mortality rates for each five-year age group and site, for both men and women. The specific rates increase with age in both men and women, and after the 35-39 years age group they are higher in men than in women for all subsequent age groups. Furthermore, the difference increases to such an extent that the rate is twice as high in men for the 55-59 years age group and three times as high in the 75-79 years age group.

Thus, the highest mortality rates are found in the 85 years and over age group for all malignant tumours together and for the most common tumours, except for malignant lung and pancreatic tumours, whose mortality peaks in the 80-84 years age group and then decreases.

The specific rates for each age group in the ACBC, at each site, are presented in Annexes 3 and 4.

As can be seen from Table 2.2, the frequency of the number of deaths varies with age. Thus, only 0.4% of cancer-related deaths occur between the ages of 0 and 29 years, with the majority of these deaths occurring as a result of leukaemias and central nervous system and bone tumours.

Lung cancer is the leading cause of cancer-related death in men aged between 30 and 49 years, accounting for almost a third of all deaths in this age group. This is followed by malignant tumours of the stomach, central nervous system and colon, which cause around 10 deaths a year in men in this age group. Breast and lung cancer are the most common

in women aged between 30 and 49 years, accounting for almost half of the cancer-related deaths in this age group.

Lung cancer is again the most common in men aged between 50 and 69 years, accounting for one out of every three cancer-related deaths in this age group, followed by malignant tumours of the colon and stomach. The most common causes of cancer-related death for women in the same age group are breast and lung tumours, although other tumours, especially those of the colon, increase in importance with age to become the third most important.

The majority of cancer-related deaths occur in the 70 years and older age group (59% for men and 65% for women). Lung cancer remains the leading cause of death for men in this age group, with prostate cancer, which is generally not fatal in younger age groups, displacing colon cancer as the second most important. In contrast, colon cancer overtakes breast cancer as the leading cause of death for women in this age group. Poorly defined malignant tumours are the third leading cause of death in this age group.

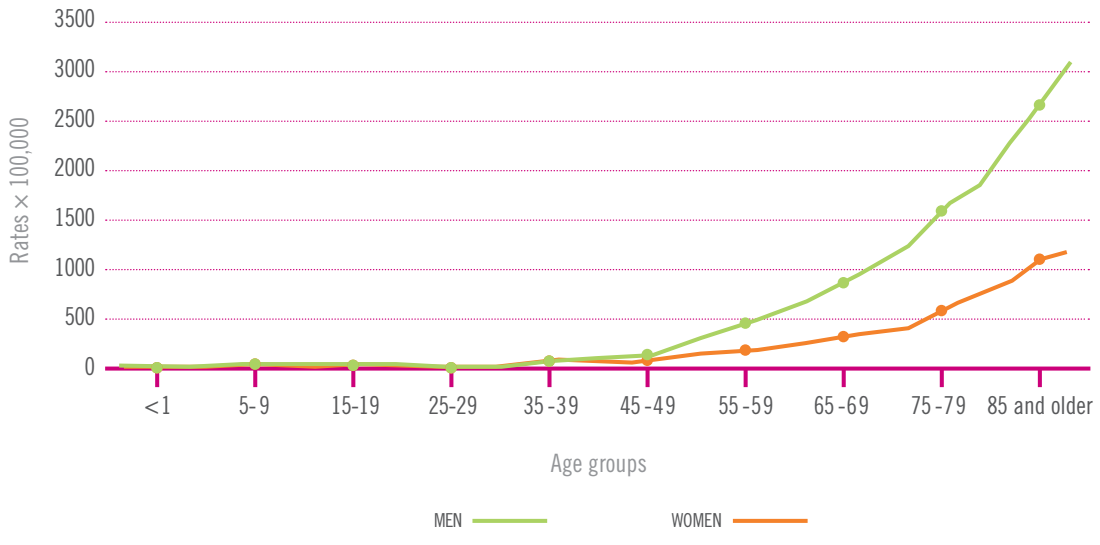
MORTALITY BY PROVINCE

The mortality in each of the provinces is described below (Tables 2.3 and 2.4). There were a total of 15,309 cancer-related deaths in Bizkaia in the period 2004-2008, with a further 8631 in Gipuzkoa and 3323 in Alava; the distribution by sex in these three provinces is the same as that observed in the ACBC as a whole (64% male and 36% women). Furthermore, the malignant tumours responsible for the largest number of deaths were also the same in each of the three provinces.

Bizkaia, with a crude rate of 357.2 deaths per 100,000 in men and 186.8 per 100,000 in women, has the highest rates of cancer-related deaths, and Alava, with values of 279.7 and 155.4 per 100,000 for men and women, respectively, the lowest. The rates for Gipuzkoa are intermediate between these two (325.8/100,000 for men and 179.7/100,000 for women).

The European- and world-population standardised rates differ significantly between the three provinces for men, whereas the difference for women is only

FIGURE 2.1. **MORTALITY RATES BY AGE AND SEX, ALL SITES. ACBC, 2004-2008**



significant when comparing the rates for Bizkaia and Alava.

By site, the majority of the most common malignant tumours present their highest death rates in Bizkaia and their lowest rates in Gipuzkoa, although the differences between the three provinces are not significant except for lung cancer in men, with European-population standardised rates of 68.2/100,000 in Bizkaia, 62.0/100,000 in Gipuzkoa and 53.6/100,000 in Alava.

The tumour responsible for the largest number of deaths in women is breast cancer, which has a European-population standardised rate of 13.8 per 100,000 in Alava. This rate differs significantly from that calculated for Bizkaia, which, at 18.4/100,000, has the highest rate of the three provinces. In contrast, stomach cancer, which is one of the few malignant tumours whose mortality rates are highest in Alava (7.3/100,000), has a significantly higher adjusted rate in this province than in Gipuzkoa (4.5/100,000).

TABLE 2.1. NUMBER OF DEATHS AND RATES BY SITE AND SEX. ACBC, 2004-2008

MEN						
SITES	**No.**	**CR**	**EASR**	**95% CI**	**WASR**	**95% CI**
HEAD AND NECK						
Lip	4	0.1	0.1	(0.0; 0.1)	0.0	(0.0; 0.1)
Tongue	116	2.2	1.8	(1.5; 2.1)	1.3	(1.0; 1.5)
Oral cavity, others	143	2.8	2.3	(0.9; 2.6)	1.6	(1.3; 1.9)
Salivary glands	24	0.5	0.3	(0.2; 0.5)	0.2	(0.1; 0.3)
Pharynx	334	6.4	5.4	(4.8; 6.0)	3.9	(3.4; 4.3)
DIGESTIVE ORGANS						
Oesophagus	592	11.4	9.1	(8.4; 9.9)	6.4	(5.8; 6.9)
Stomach	1,084	20.9	15.1	(14.1; 16.0)	9.8	(9.2; 10.5)
Small intestine	25	0.5	0.3	(0.2; 0.5)	0.2	(0.1; 0.3)
Colon	1,676	32.2	22.7	(21.6; 23.8)	14.2	(13.5; 15.0)
Rectosigmoid junction, rectum, anus	593	11.4	8.3	(7.6; 9)	5.4	(4.9; 5.9)
Liver	798	15.4	11.1	(10.3; 11.9)	7.2	(6.7; 7.8)
Gall bladder and biliary ducts	130	2.5	1.7	(1.4; 2)	1.1	(0.9; 1.3)
Pancreas	728	14.0	10.5	(9.7; 11.3)	7.0	(6.5; 7.6)
RESPIRATORY ORGANS						
Nasal cavity and sinuses	18	0.4	0.3	(0.1; 0.4)	0.2	(0.1; 0.3)
Larynx	440	8.5	6.7	(6.0; 7.3)	4.6	(4.2; 5.1)
Trachea and lung	4,407	84.8	64.1	(62.1; 66.0)	43.3	(41.9; 44.6)
Mediastinum, pleura (except mesothelioma) and others	36	0.7	0.6	(0.4; 0.7)	0.4	(0.3; 0.6)
BONE	33	0.6	0.6	(0.4; 0.8)	0.5	(0.3; 0.8)
MELANOMA OF SKIN	134	2.6	2.0	(1.6; 2.3)	1.4	(1.1; 1.6)
MESOTHELIOMA	115	2.2	1.6	(1.3; 1.9)	1.1	(0.9; 1.3)
KAPOSI'S SARCOMA	5	0.1	0.1	(0.0; 0.2)	0.1	(0.0; 0.1)
NERVES AND SOFT TISSUE	95	1.8	1.4	(1.1; 1.7)	1.0	(0.7; 1.2)
BREAST	14	0.3	0.2	(0.1; 0.3)	0.2	(0.1; 0.2)
MALE GENITAL ORGANS						
Prostate	1,440	27.7	18.8	(17.8; 19.8)	10.7	(10.1; 11.3)
Testicles	11	0.2	0.2	(0.1; 0.4)	0.2	(0.1; 0.3)
Other male genitals	33	0.6	0.5	(0.3; 0.7)	0.3	(0.2; 0.5)
URINARY ORGANS						
Kidney	403	7.8	5.7	(5.1; 6.3)	3.8	(3.4; 4.1)
Renal pelvis	8	0.2	0.1	(0.0; 0.2)	0.1	(0.0; 0.1)
Bladder	986	19.0	13.2	(12.4; 14.1)	8.1	(7.6; 8.7)
Ureter and other urinary	35	0.7	0.5	(0.3; 0.7)	0.3	(0.2; 0.4)
EYE	5	0.1	0.1	(0.0; 0.1)	0.1	(0.0; 0.1)
CENTRAL NERVOUS SYSTEM	424	8.2	6.5	(5.9; 7.2)	4.8	(4.3; 5.3)
THYROID GLAND	26	0.5	0.4	(0.2; 0.5)	0.2	(0.1; 0.4)
OTHER ENDOCRINE GLANDS	27	0.5	0.5	(0.3; 0.7)	0.5	(0.3; 0.7)
SKIN NON-MELANOMA AND OTHERS	337	6.5	4.9	(4.4; 5.5)	3.3	(2.9; 3.6)
POORLY DEFINED SITE, SECONDARY AND MULTIPLE	1,163	22.4	16.1	(15.2; 17.1)	10.2	(9.6; 10.9)
LYMPHOMAS AND HAEMATOPOIETIC TISSUES						
Hodgkin's lymphoma	32	0.6	0.5	(0.3; 0.7)	0.4	(0.2; 0.5)
Non-Hodgkin's lymphoma	368	7.1	5.1	(4.6; 5.7)	3.4	(3.0; 3.8)
Malignant immunoproliferative diseases	7	0.1	0.1	(0.0; 0.2)	0.1	(0.0; 0.1)
Multiple myeloma	184	3.5	2.4	(2.1; 2.8)	1.5	(1.3; 1.7)
Lymphatic leukaemia	137	2.6	2.0	(1.6; 2.4)	1.4	(1.1; 1.7)
Myeloid and monocytic leukaemias	146	2.8	1.9	(1.6; 2.2)	1.2	(1.0; 1.4)
Other leukaemias	136	2.6	1.8	(1.5; 2.2)	1.2	(1.0; 1.4)
ALL SITES	**17,452**	**335.6**	**247.5**	**(243.8; 251.3)**	**162.4**	**(159.8; 165.0)**

WOMEN						
SITES	No.	CR	EASR	95% CI	WASR	95% CI
HEAD AND NECK						
Lip	0	0.0	0.0	(0.0; 0.0)	0.0	(0.0; 0.0)
Tongue	43	0.8	0.4	(0.3; 0.6)	0.3	(0.2; 0.4)
Oral cavity, others	51	0.9	0.5	(0.4; 0.7)	0.3	(0.2; 0.4)
Salivary glands	12	0.2	0.1	(0.1; 0.2)	0.1	(0.0; 0.1)
Pharynx	50	0.9	0.7	(0.5; 0.9)	0.5	(0.3; 0.6)
DIGESTIVE ORGANS						
Oesophagus	91	1.7	1.0	(0.8; 1.2)	0.7	(0.5; 0.8)
Stomach	571	10.5	5.3	(4.9; 5.8)	3.4	(3.1; 3.7)
Small intestine	27	0.5	0.2	(0.1; 0.3)	0.2	(0.1; 0.2)
Colon	1,046	19.2	9.6	(9.0; 10.3)	6.1	(5.7; 6.6)
Rectosigmoid junction, rectum, anus	322	5.9	3.1	(2.8; 3.5)	2.0	(1.8; 2.3)
Liver	362	6.7	3.1	(2.7; 3.4)	1.9	(1.7; 2.1)
Gall bladder and biliary ducts	197	3.6	1.8	(1.5; 2.0)	1.1	(0.9; 1.3)
Pancreas	629	11.6	6.2	(5.7; 6.7)	4.0	(3.7; 4.4)
RESPIRATORY ORGANS						
Nasal cavity and sinuses	15	0.3	0.1	(0.1; 0.2)	0.1	(0.0; 0.1)
Larynx	19	0.4	0.2	(0.1; 0.4)	0.2	(0.1; 0.3)
Trachea and lung	829	15.2	10.8	(10.0; 11.6)	7.8	(7.2; 8.4)
Mediastinum, pleura (except mesothelioma) and others	15	0.3	0.2	(0.1; 0.2)	0.1	(0.0; 0.2)
BONE	20	0.4	0.3	(0.1; 0.4)	0.2	(0.1; 0.4)
MELANOMA OF SKIN	117	2.2	1.4	(1.1; 1.6)	1.0	(0.8; 1.2)
MESOTHELIOMA	45	0.8	0.5	(0.3; 0.7)	0.3	(0.2; 0.5)
KAPOSI'S SARCOMA	1	0.0	0.0	(0.0; 0.0)	0.0	(0.0; 0.0)
NERVES AND SOFT TISSUE	75	1.4	0.9	(0.7; 1.2)	0.7	(0.5; 0.9)
BREAST	1,474	27.1	17.3	(6.3; 18.2)	12.0	(11.3; 12.8)
FEMALE GENITAL ORGANS						
Cervix uteri	138	2.5	1.8	(1.5; 2.1)	1.3	(1.1; 1.6)
Corpus uteri	222	4.1	2.4	(2.0; 2.7)	1.6	(1.3; 1.8)
Other parts of uterus	122	2.2	1.3	(1.1; 1.6)	0.9	(0.7; 1.1)
Ovary	414	7.6	4.9	(4.4; 5.5)	3.4	(3.0; 3.8)
Placenta	0	0.0	0.0	(0.0; 0.0)	0.0	(0.0; 0.0)
Other female genitals	150	2.8	1.4	(1.1; 1.6)	0.9	(0.7; 1.1)
URINARY ORGANS						
Kidney	183	3.4	1.8	(1.5; 2.1)	1.2	(1.0; 1.4)
Renal pelvis	4	0.1	0.1	(0.0; 0.1)	0.0	(0.0; 0.1)
Bladder	239	4.4	2.0	(1.7; 2.3)	1.3	(1.1; 1.4)
Ureter and other urinary	8	0.2	0.1	(0.0; 0.1)	0.1	(0.0; 0.1)
EYE	7	0.1	0.1	(0.0; 0.1)	0.1	(0.0; 0.1)
CENTRAL NERVOUS SYSTEM	345	6.3	4.4	(3.9; 4.9)	3.2	(2.8; 3.6)
THYROID GLAND	58	1.1	0.6	(0.4; 0.7)	0.4	(0.3; 0.5)
OTHER ENDOCRINE GLANDS	14	0.3	0.2	(0.1; 0.3)	0.1	(0.1; 0.2)
SKIN NON-MELANOMA AND OTHERS	240	4.4	1.9	(1.6; 2.2)	1.1	(0.9; 1.3)
POORLY DEFINED SITE, SECONDARY AND MULTIPLE	797	14.6	7.6	(7.0; 8.2)	4.9	(4.5; 5.4)
LYMPHOMAS AND HAEMATOPOIETIC TISSUES						
Hodgkin's lymphoma	20	0.4	0.2	(0.1; 0.3)	0.1	(0.1; 0.2)
Non-Hodgkin's lymphoma	298	5.5	2.7	(2.4; 3.0)	1.7	(1.5; 1.9)
Malignant immunoproliferative diseases	5	0.1	0.0	(0.0; 0.1)	0.0	(0.0; 0.1)
Multiple myeloma	215	4.0	2.0	(1.7; 2.3)	1.3	(1.1; 1.5)
Lymphatic leukaemia	100	1.8	0.9	(0.7; 1.2)	0.7	(0.5; 0.9)
Myeloid and monocytic leukaemias	120	2.2	1.2	(0.9; 1.4)	0.8	(0.6; 0.9)
Other leukaemias	101	1.9	1.1	(0.8; 1.3)	0.7	(0.5; 0.9)
ALL SITES	**9,811**	**180.1**	**102.3**	**(100.1; 104.6)**	**68.6**	**(67.0; 70.3)**

TABLE 2.2. NUMBER OF DEATHS AND RATES BY AGE GROUP, SITE AND SEX. ACBC, 2004-2008

MEN (0-14 YEARS)

SITES	TOTAL No.	%	CR	EASR
CENTRAL NERVOUS SYSTEM	7	28.0	1.0	1.0
LYMPHATIC LEUKAEMIA	5	20.0	0.7	0.8
BONE	3	12.0	0.5	0.5
OTHER ENDOCRINE GLANDS	3	12.0	0.5	0.4
NON-HODGKIN'S LYMPHOMA	2	8.0	0.3	0.3
OTHER LEUKAEMIAS	2	8.0	0.3	0.3
LIVER	1	4.0	0.2	0.1
MEDIASTINUM AND PLEURA	1	4.0	0.2	0.2
OTHER MALIGN. TUM. GEN.	1	4.0	0.2	0.2
ALL SITES	**25**	**100.0**	**3.7**	**3.7**

WOMEN (0-14 YEARS)

SITES	TOTAL No.	%	CR	EASR
LYMPHATIC LEUKAEMIA	3	33.3	0.5	0.5
BONE	2	22.2	0.3	0.3
CENTRAL NERVOUS SYSTEM	2	22.2	0.3	0.3
NERVES AND SOFT TISSUE	1	11.1	0.2	0.2
OTHER LEUKAEMIAS	1	11.1	0.2	0.2
ALL SITES	**9**	**100.0**	**1.4**	**1.4**

MEN (15-29 YEARS)

SITES	TOTAL No.	%	CR	EASR
CENTRAL NERVOUS SYSTEM	9	19.1	1.0	0.9
STOMACH	4	8.5	0.4	0.4
POORLY DEFINED	4	8.5	0.4	0.5
BONE	3	6.4	0.3	0.4
TESTICLES	3	6.4	0.3	0.4
NON-HODGKIN'S LYMPHOMA	3	6.4	0.3	0.3
LIVER	2	4.3	0.2	0.2
PANCREAS	2	4.3	0.2	0.2
LUNG	2	4.3	0.2	0.2
KIDNEY	2	4.3	0.2	0.2
ALL SITES	**47**	**100.0**	**5.0**	**4.9**

WOMEN (15-29 YEARS)

SITES	TOTAL No.	%	CR	EASR
CENTRAL NERVOUS SYSTEM	6	17.1	0.7	0.7
BREAST	5	14.3	0.6	0.5
NERVES AND SOFT TISSUE	4	11.4	0.5	0.5
POORLY DEFINED	3	8.6	0.3	0.3
MELANOMA OF THE SKIN	2	5.7	0.2	0.2
OTHER MALIGN. TUM. GEN.	2	5.7	0.2	0.2
NON-HODGKIN'S LYMPHOMA	2	5.7	0.2	0.2
LYMPHATIC LEUKAEMIA	2	5.7	0.2	0.2
PHARYNX	1	2.9	0.1	0.1
COLON	1	2.9	0.1	0.1
ALL SITES	**35**	**100.0**	**3.9**	**3.8**

MEN (30-49 YEARS)

SITES	TOTAL No.	%	CR	EASR
LUNG	268	30.1	15.2	16.0
STOMACH	53	6.0	3.0	3.1
CENTRAL NERVOUS SYSTEM	52	5.8	3.0	3.0
COLON	49	5.5	2.8	2.9
PHARYNX	43	4.8	2.4	2.6
OESOPHAGUS	41	4.6	2.3	2.5
PANCREAS	40	4.5	2.3	2.4
POORLY DEFINED	40	4.5	2.3	2.3
LIVER	38	4.3	2.2	2.2
LARYNX	31	3.5	1.8	1.9
ALL SITES	**889**	**100.0**	**50.5**	**52.6**

WOMEN (30-49 YEARS)

SITES	TOTAL No.	%	CR	EASR
BREAST	208	28.0	12.1	12.2
LUNG	152	20.5	8.8	9.0
CENTRAL NERVOUS SYSTEM	42	5.7	2.4	2.5
POORLY DEFINED	36	4.9	2.1	2.1
COLON	35	4.7	2.0	2.1
OVARY	34	4.6	2.0	2.0
CERVIX UTERI	30	4.0	1.7	1.8
STOMACH	23	3.1	1.3	1.3
PANCREAS	20	2.7	1.2	1.2
RECTOSIG. JUNCT., RECTUM, ANUS	14	1.9	0.8	0.8
ALL SITES	**742**	**100.0**	**43.6**	**43.6**

MEN (50-69 YEARS)

SITES	TOTAL No.	%	CR	EASR
LUNG	1,939	31.3	157.9	155.8
COLON	457	7.4	37.2	36.6
STOMACH	357	5.8	29.1	28.6
POORLY DEFINED	348	5.6	28.3	27.9
OESOPHAGUS	328	5.3	26.7	26.5
PANCREAS	302	4.9	24.6	24.3
BLADDER	248	4.0	20.2	19.8
LIVER	245	4.0	20.0	19.7
LARYNX	231	3.7	18.8	18.5
RECTOSIG. JUNCT., RECTUM, ANUS	218	3.5	17.8	17.3
ALL SITES	**6,186**	**100.0**	**503.7**	**496.5**

WOMEN (50-69 YEARS)

SITES	TOTAL No.	%	CR	EASR
BREAST	476	18.2	36.9	36.8
LUNG	336	12.8	26.0	26.2
COLON	218	8.3	16.9	16.4
POORLY DEFINED	178	6.8	13.8	13.5
OVARY	167	6.4	12.9	12.8
PANCREAS	157	6.0	12.2	11.7
CENTRAL NERVOUS SYSTEM	139	5.3	10.8	10.5
STOMACH	116	4.4	9.0	8.7
RECTOSIG. JUNCT., RECTUM, ANUS	76	2.9	5.9	5.8
CORPUS UTERI	76	2.9	5.9	5.6
ALL SITES	**2,617**	**100.0**	**202.8**	**199.3**

MEN (70 YEARS OR OLDER)

SITES	TOTAL No.	%	CR	EASR
LUNG	2,198	21.3	367.1	361.1
PROSTATE	1,244	12.1	207.8	219.8
COLON	1,169	11.3	195.2	197.4
POORLY DEFINED	771	7.5	128.8	131.8
BLADDER	720	7.0	120.2	122.6
STOMACH	670	6.5	111.9	117.7
LIVER	512	5.0	85.5	86.2
PANCREAS	384	3.7	64.1	63.4
RECTOSIG. JUNCT., RECTUM, ANUS	358	3.5	59.8	60.5
KIDNEY	243	2.4	40.6	41.2
ALL SITES	**10,305**	**100.0**	**1,721.0**	**1,739.2**

WOMEN (70 YEARS OR OLDER)

SITES	TOTAL No.	%	CR	EASR
COLON	792	12.4	87.5	77.7
BREAST	785	12.3	86.8	80.7
POORLY DEFINED	580	9.1	64.1	57.0
PANCREAS	451	7.0	49.8	46.7
STOMACH	432	6.7	47.7	43.6
LUNG	341	5.3	37.7	36.4
LIVER	301	4.7	33.3	29.5
NON-HODGKIN'S LYMPHOMA	235	3.7	26.0	23.4
RECTOSIG. JUNCT., RECTUM, ANUS	232	3.6	25.6	23.5
OVARY	213	3.3	23.5	22.2
ALL SITES	**6,408**	**100.0**	**708.2**	**645.1**

TABLE 2.3. NUMBER OF DEATHS AND RATES BY SITE AND PROVINCE. MEN. ACBC, 2004-2008

	ALAVA					
SITES	No.	CR	EASR	95% CI	WASR	95% CI
HEAD AND NECK						
Lip	0	0.0	0.0	(0.0; 0.0)	0.0	(0.0; 0.0)
Tongue	13	1.7	1.5	(0.7; 2.3)	1.1	(0.5; 1.6)
Boca	12	1.6	1.2	(0.5; 1.9)	0.9	(0.3; 1.4)
Salivary glands	2	0.3	0.2	(–0.1; 0.5)	0.1	(0.0; 0.2)
Pharynx	46	6.0	5.2	(3.7; 6.7)	3.5	(2.5; 4.6)
DIGESTIVE ORGANS						
Oesophagus	66	8.7	7.4	(5.6; 9.2)	5.1	(3.9; 6.4)
Stomach	141	18.5	14.3	(11.9; 16.7)	9.3	(7.7; 10.9)
Small intestine	4	0.5	0.3	(0.0; 0.7)	0.2	(0.0; 0.4)
Colon	208	27.3	20.2	(17.4; 23.0)	12.6	(10.8; 14.4)
Rectosigmoid junction, rectum, anus	87	11.4	8.8	(6.9; 10.7)	5.7	(4.5; 7.0)
Liver	90	11.8	9.0	(7.1; 10.9)	5.8	(4.5; 7.0)
Gall bladder and biliary ducts	15	2.0	1.5	(0.7; 2.2)	0.9	(0.4; 1.4)
Pancreas	88	11.6	9.3	(7.3; 11.3)	6.2	(4.8; 7.5)
RESPIRATORY ORGANS						
Nasal cavity and sinuses	3	0.4	0.3	(–0.1; 0.7)	0.2	(0.0; 0.5)
Larynx	53	7.0	5.7	(4.1; 7.2)	3.9	(2.8; 5.0)
Trachea and lung	515	67.6	53.6	(48.9; 58.3)	35.9	(32.6; 39.1)
Mediastinum, pleura (except mesothelioma)	7	0.9	0.7	(0.2; 1.3)	0.5	(0.1; 0.9)
BONE	5	0.7	0.6	(0.1; 1.2)	0.6	(0.1; 1.1)
MELANOMA OF SKIN	14	1.8	1.4	(0.7; 2.2)	1.0	(0.5; 1.6)
MESOTHELIOMA	10	1.3	1.0	(0.4; 1.6)	0.6	(0.2; 1.0)
KAPOSI'S SARCOMA	0	0.0	0.0	(0.0; 0.0)	0.0	(0.0; 0.0)
NERVES AND SOFT TISSUE	4	0.5	0.4	(0.0; 0.8)	0.3	(0.0; 0.6)
BREAST	2	0.3	0.2	(–0.1; 0.5)	0.1	(–0.1; 0.3)
MALE GENITAL ORGANS						
Prostate	172	22.6	16.5	(14.0; 19.0)	9.3	(7.8; 10.7)
Testicles	1	0.1	0.1	(–0.1; 0.3)	0.1	(–0.1; 0.2)
Other male genitals	2	0.3	0.2	(–0.1; 0.5)	0.1	(–0.1; 0.3)
URINARY ORGANS						
Kidney	41	5.4	4.2	(2.9; 5.5)	2.9	(1.9; 3.9)
Renal pelvis	2	0.3	0.2	(–0.1; 0.5)	0.1	(–0.1; 0.3)
Bladder	122	16.0	12.4	(10.2; 14.7)	7.9	(6.4; 9.4)
Ureter and other urinary organs	5	0.7	0.5	(0.1; 0.9)	0.3	(0.0; 0.5)
EYE	2	0.3	0.2	(–0.1; 0.4)	0.1	(0.0; 0.3)
CENTRAL NERVOUS SYSTEM	55	7.2	6.0	(4.4; 7.7)	4.4	(3.2; 3.2)
THYROID GLAND	4	0.5	0.4	(0.0; 0.9)	0.3	(0.0; 0.6)
OTHER ENDOCRINE GLANDS	3	0.4	0.3	(–0.1; 0.7)	0.3	(0.0; 0.5)
SKIN NON-MELANOMA AND OTHER UNSPECIFIED	60	7.9	6.4	(4.8; 8.1)	4.4	(3.2; 5.5)
POORLY DEFINED SITE, SECONDARY AND MULTIPLE	149	19.6	14.8	(12.4; 17.3)	9.4	(7.8; 11.1)
LYMPHOMAS AND HAEMATOPOIETIC TISSUES						
Hodgkin's lymphoma	3	0.4	0.3	(–0.1; 0.7)	0.3	(0.0; 0.5)
Non-Hodgkin's lymphoma	57	7.5	6.0	(4.4; 7.6)	4.0	(2.8; 5.3)
Malignant immunoproliferative diseases	1	0.1	0.1	(–0.1; 0.3)	0.1	(–0.1; 0.3)
Multiple myeloma	23	3.0	2.3	(1.4; 3.3)	1.4	(0.8; 2.0)
Lymphatic leukaemia	14	1.8	1.6	(0.7; 2.6)	1.3	(0.4; 2.3)
Myeloid and monocytic leukaemias	21	2.8	2.1	(1.2; 3.0)	1.3	(0.7; 1.9)
Other leukaemias	8	1.1	0.9	(0.2; 1.5)	0.7	(0.0; 1.4)
ALL SITES	**2,130**	**279.7**	**218.4**	**(209.0; 227.8)**	**143.0**	**(136.5; 149.6)**

BIZKAIA						GIPUZKOA					
No.	CR	EASR	95% CI	WASR	95% CI	No.	CR	EASR	95% CI	WASR	95% CI
4	0.2	0.1	(0.0; 0.2)	0.1	(0.0; 0.1)	0	0.0	0.0	(0.0; 0.0)	0.0	(0.0; 0.0)
59	2.1	1.7	(1.2; 2.1)	1.2	(0.9; 1.5)	44	2.6	2.1	(1.5; 2.7)	1.5	(1.0; 1.9)
84	3.1	2.5	(2.0; 3.1)	1.8	(1.4; 2.2)	47	2.8	2.3	(1.6; 2.9)	1.6	(1.1; 2.1)
13	0.5	0.3	(0.1; 0.5)	0.2	(0.1; 0.3)	9	0.5	0.4	(0.1; 0.7)	0.3	(0.1; 0.4)
193	7.0	5.9	(5.1; 6.7)	4.3	(3.6; 4.9)	95	5.6	4.7	(3.7; 5.7)	3.4	(2.7; 4.1)
320	11.6	9.3	(8.2; 10.3)	6.5	(5.8; 7.3)	206	12.2	9.7	(8.3; 11.0)	6.6	(5.7; 7.6)
603	21.9	15.5	(14.2; 16.7)	10.1	(9.2; 11.0)	340	20.2	14.7	(13.1; 16.3)	9.6	(8.5; 10.8)
12	0.4	0.3	(0.1; 0.5)	0.2	(0.1; 0.3)	9	0.5	0.4	(0.1; 0.7)	0.3	(0.1; 0.5)
931	33.8	23.2	(21.6; 24.7)	14.5	(13.5; 15.5)	537	31.9	23.0	(21.0; 25.0)	14.5	(13.2; 15.8)
324	11.8	8.4	(7.4; 9.3)	5.4	(4.8; 6.1)	182	10.8	8.0	(6.8; 9.2)	5.2	(4.4; 6.0)
443	16.1	11.4	(10.3; 12.5)	7.5	(6.7; 8.3)	265	15.7	11.4	(10.0; 12.9)	7.4	(6.5; 8.4)
74	2.7	1.8	(1.4; 2.2)	1.1	(0.8; 1.4)	41	2.4	1.7	(1.2; 2.3)	1.1	(0.7; 1.4)
420	15.3	11.2	(10.1; 12.4)	7.6	(6.8; 8.3)	220	13.1	9.7	(8.4; 11.0)	6.5	(5.6; 7.5)
9	0.3	0.3	(0.1; 0.5)	0.2	(0.1; 0.3)	6	0.4	0.2	(0.0; 0.4)	0.1	(0.0; 0.3)
260	9.4	7.4	(6.4; 8.3)	5.1	(4.4; 5.7)	127	7.5	6.0	(4.9; 7.1)	4.2	(3.4; 4.9)
2,527	91.8	68.2	(65.4; 70.9)	46.1	(44.1; 48.0)	1,365	81.0	62.0	(58.6; 65.3)	41.9	(39.6; 44.3)
19	0.7	0.5	(0.3; 0.8)	0.4	(0.2; 0.6)	10	0.6	0.5	(0.2; 0.9)	0.4	(0.1; 0.7)
16	0.6	0.6	(0.3; 0.8)	0.5	(0.2; 0.7)	12	0.7	0.7	(0.3; 1.1)	0.7	(0.2; 1.1)
62	2.3	1.7	(1.3; 2.2)	1.2	(0.9; 1.5)	58	3.4	2.7	(2.0; 3.4)	1.7	(1.3; 2.2)
74	2.7	2.0	(1.5; 2.4)	1.3	(1.0; 1.7)	31	1.8	1.4	(0.9; 1.9)	0.9	(0.6; 1.3)
5	0.2	0.2	(0.0; 0.3)	0.1	(0.0; 0.2)	0	0.0	0.0	(0.0; 0.0)	0.0	(0.0; 0.0)
62	2.3	1.7	(1.3; 2.2)	1.2	(0.9; 1.5)	29	1.7	1.3	(0.8; 1.7)	0.9	(0.5; 1.2)
5	0.2	0.1	(0.0; 0.3)	0.1	(0.0; 0.2)	7	0.4	0.3	(0.1; 0.6)	0.2	(0.1; 0.4)
811	29.5	19.6	(18.2; 21.0)	11.2	(10.4; 12.0)	457	27.1	18.5	(16.8; 20.3)	10.5	(9.5; 11.5)
9	0.3	0.3	(0.1; 0.5)	0.3	(0.1; 0.5)	1	0.1	0.1	(–0.1; 0.3)	0.1	(–0.1; 0.4)
19	0.7	0.5	(0.3; 0.8)	0.4	(0.2; 0.6)	12	0.7	0.5	(0.2; 0.8)	0.3	(0.1; 0.5)
212	7.7	5.6	(4.8; 6.4)	3.7	(3.1; 4.2)	150	8.9	6.5	(5.5; 7.6)	4.3	(3.6; 5.0)
6	0.2	0.2	(0.0; 0.3)	0.1	(0.0; 0.2)	0	0.0	0.0	(0.0; 0.0)	0.0	(0.0; 0.0)
574	20.9	14.2	(13.0; 15.4)	8.7	(7.9; 9.5)	290	17.2	12.0	(10.5; 13.4)	7.3	(6.4; 8.2)
21	0.8	0.6	(0.3; 0.8)	0.4	(0.2; 0.5)	9	0.5	0.4	(0.1; 0.7)	0.2	(0.1; 0.4)
3	0.1	0.1	(0.0; 0.2)	0.1	(0.0; 0.2)	0	0.0	0.0	(0.0; 0.0)	0.0	(0.0; 0.0)
236	8.6	6.7	(5.8; 7.6)	4.9	(4.2; 5.7)	133	7.9	6.4	(5.3; 7.6)	4.7	(3.8; 5.6)
16	0.6	0.4	(0.2; 0.6)	0.3	(0.1; 0.4)	6	0.4	0.2	(0.0; 0.4)	0.2	(0.0; 0.3)
15	0.5	0.5	(0.2; 0.8)	0.5	(0.2; 0.7)	9	0.5	0.6	(0.2; 0.9)	0.6	(0.1; 1.0)
181	6.6	4.9	(4.2; 5.6)	3.2	(2.7; 3.7)	96	5.7	4.4	(3.5; 5.2)	2.9	(2.3; 3.5)
647	23.5	16.5	(15.2; 17.9)	10.5	(9.7; 11.4)	367	21.8	16.0	(14.3; 17.7)	10.1	(9.0; 11.2)
18	0.7	0.5	(0.3; 0.7)	0.4	(0.2; 0.5)	11	0.7	0.5	(0.2; 0.9)	0.4	(0.2; 0.7)
196	7.1	5.1	(4.4; 5.9)	3.4	(2.9; 4.0)	115	6.8	4.8	(3.9; 5.7)	3.1	(2.5; 3.7)
4	0.2	0.1	(0.0; 0.2)	0.1	(0.0; 0.2)	2	0.1	0.1	(0.0; 0.2)	0.0	(0.0; 0.1)
105	3.8	2.5	(2.0; 3.0)	1.5	(1.2; 1.9)	56	3.3	2.3	(1.7; 2.9)	1.4	(1.0; 1.8)
87	3.2	2.3	(1.8; 2.9)	1.7	(1.2; 2.1)	36	2.1	1.6	(1.1; 2.1)	1.0	(0.7; 1.4)
89	3.2	2.1	(1.7; 2.6)	1.3	(1.0; 1.6)	36	2.1	1.4	(1.0; 1.9)	0.9	(0.6; 1.2)
65	2.4	1.6	(1.2; 1.9)	0.9	(0.7; 1.2)	63	3.7	2.8	(2.1; 3.5)	1.9	(1.3; 2.4)
9,833	**357.2**	**258.5**	**(253.3; 263.8)**	**169.9**	**(166.2; 173.5)**	**5,489**	**325.8**	**242.3**	**(235.8; 248.9)**	**158.8**	**(154.3; 163.3)**

TABLE 2.4. NUMBER OF DEATHS AND RATES BY SITE AND PROVINCE. WOMEN. ACBC, 2004-2008

	ALAVA					
SITES	No.	CR	EASR	95% CI	WASR	95% CI
HEAD AND NECK						
Lip	0	0.0	0.0	(0.0; 0.0)	0.0	(0.0; 0.0)
Tongue	5	0.7	0.4	(0.0; 0.7)	0.3	(0.0; 0.5)
Oral cavity, others	6	0.8	0.5	(0.1; 0.9)	0.3	(0.0; 0.6)
Salivary glands	2	0.3	0.2	(–0.1; 0.4)	0.1	(0.0; 0.2)
Pharynx	7	0.9	0.6	(0.1; 1.2)	0.5	(0.0; 0.9)
DIGESTIVE ORGANS						
Oesophagus	7	0.9	0.6	(0.1; 1.1)	0.4	(0.1; 0.8)
Stomach	95	12.4	7.3	(5.7; 8.9)	4.6	(3.5; 5.7)
Small intestine	8	1.0	0.6	(0.2; 1.1)	0.4	(0.1; 0.8)
Colon	131	17.1	8.9	(7.2; 10.5)	5.4	(4.3; 6.5)
Rectosigmoid junction, rectum, anus	43	5.6	3.6	(2.4; 4.7)	2.4	(1.6; 3.2)
Liver	44	5.7	3.2	(2.2; 4.2)	2.0	(1.3; 2.6)
Gall bladder and biliary ducts	29	3.8	2.0	(1.2; 2.8)	1.2	(0.7; 1.7)
Pancreas	70	9.1	5.8	(4.3; 7.2)	3.9	(2.8; 4.9)
RESPIRATORY ORGANS						
Nasal cavity and sinuses	3	0.4	0.3	(0.0; 0.6)	0.2	(0.0; 0.4)
Larynx	3	0.4	0.3	(–0.1; 0.7)	0.2	(–0.1; 0.5)
Trachea and lung	97	12.6	9.0	(7.1; 10.9)	6.3	(4.9; 7.7)
Mediastinum, pleura (except mesothelioma) and others	1	0.1	0.1	(–0.1; 0.3)	0.1	(–0.1; 0.3)
BONE	4	0.5	0.7	(–0.1; 1.4)	0.8	(–0.2; 1.8)
MELANOMA OF SKIN	14	1.8	1.3	(0.6; 2.0)	0.9	(0.4; 1.4)
MESOTHELIOMA	0	0.0	0.0	(0.0; 0.0)	0.0	(0.0; 0.0)
KAPOSI'S SARCOMA	0	0.0	0.0	(0.0; 0.0)	0.0	(0.0; 0.0)
NERVES AND SOFT TISSUES	9	1.2	1.0	(0.3; 1.6)	0.7	(0.2; 1.2)
BREAST	150	19.5	13.8	(11.4; 16.1)	9.6	(7.9; 11.3)
FEMALE GENITAL ORGANS						
Cervix uteri	20	2.6	2.0	(1.1; 2.8)	1.4	(0.7; 2.1)
Corpus uteri	27	3.5	2.0	(1.2; 2.9)	1.3	(0.7; 1.9)
Other parts of uterus	18	2.3	1.8	(0.9; 2.6)	1.3	(0.7; 2.0)
Ovary	47	6.1	4.5	(3.1; 5.8)	3.2	(2.2; 4.2)
Placenta	0	0.0	0.0	(0.0; 0.0)	0.0	(0.0; 0.0)
Female genital organs	16	2.1	1.0	(0.5; 1.5)	0.6	(0.2; 0.9)
URINARY ORGANS						
Kidney	15	2.0	1.2	(0.5; 1.8)	0.8	(0.3; 1.2)
Renal pelvis	0	0.0	0.0	(0.0; 0.0)	0.0	(0.0; 0.0)
Bladder	35	4.6	2.5	(1.6; 3.4)	1.5	(0.9; 2.2)
Ureter and other urinary	1	0.1	0.1	(0.0; 0.1)	0.0	(0.0; 0.1)
EYE	1	0.1	0.1	(–0.1; 0.3)	0.1	(–0.1; 0.3)
CENTRAL NERVOUS SYSTEM	42	5.5	3.8	(2.6; 5.0)	2.6	(1.7; 3.5)
THYROID GLAND	8	1.0	0.7	(0.2; 1.2)	0.5	(0.1; 0.8)
OTHER ENDOCRINE GLANDS	1	0.1	0.1	(–0.1; 0.4)	0.1	(–0.1; 0.2)
SKIN NON-MELANOMA AND OTHER UNSPECIFIED	33	4.3	2.1	(1.3; 2.8)	1.2	(0.7; 1.7)
POORLY DEFINED SITE, SECONDARY AND MULTIPLE	84	10.9	5.8	(4.5; 7.2)	3.7	(2.7; 4.6)
LYMPHOMAS AND HAEMATOPOIETIC TISSUES						
Hodgkin's lymphoma	6	0.8	0.4	(0.0; 0.7)	0.2	(0.0; 0.4)
Non-Hodgkin's lymphoma	38	5.0	2.9	(1.9; 3.9)	1.9	(1.2; 2.6)
Malignant immunoproliferative diseases	1	0.1	0.0	(0.0; 0.1)	0.0	(0.0; 0.1)
Multiple myeloma	26	3.4	2.1	(1.2; 3.0)	1.4	(0.8; 2.0)
Leukaemia linfática	16	2.1	1.0	(0.4; 1.7)	0.8	(0.1; 1.5)
Myeloid and monocytic leukaemias	25	3.3	1.9	(1.1; 2.7)	1.2	(0.7; 1.8)
Other leukaemias	5	0.7	0.3	(0.0; 0.6)	0.2	(0.0; 0.4)
ALL SITES	**1,193**	**155.4**	**96.0**	**(90.0; 101.9)**	**64.0**	**(59.7; 68.3)**

BIZKAIA						GIPUZKOA					
No.	CR	EASR	95% CI	WASR	95% CI	No.	CR	EASR	95% CI	WASR	95% CI
0	0.0	0.0	(0.0; 0.0)	0.0	(0.0; 0.0)	0	0.0	0.0	(0.0; 0.0)	0.0	(0.0; 0.0)
19	0.7	0.3	(0.2; 0.4)	0.2	(0.1; 0.3)	19	1.1	0.7	(0.4; 1.0)	0.5	(0.2; 0.7)
30	1.0	0.5	(0.3; 0.8)	0.4	(0.2; 0.5)	15	0.9	0.5	(0.2; 0.8)	0.3	(0.1; 0.5)
5	0.2	0.1	(0.0; 0.2)	0.1	(0.0; 0.1)	5	0.3	0.2	(0.0; 0.4)	0.1	(0.0; 0.2)
29	1.0	0.7	(0.4; 1.0)	0.5	(0.3; 0.7)	14	0.8	0.7	(0.3; 1.0)	0.5	(0.2; 0.8)
43	1.5	0.8	(0.5; 1.0)	0.5	(0.3; 0.7)	41	2.4	1.5	(1.0; 2.0)	1.0	(0.6; 1.4)
311	10.6	5.4	(4.7; 6.0)	3.4	(3.0; 3.9)	165	9.4	4.5	(3.8; 5.3)	2.9	(2.3; 3.4)
15	0.5	0.2	(0.1; 0.3)	0.1	(0.1; 0.2)	4	0.2	0.1	(0.0; 0.3)	0.1	(0.0; 0.2)
582	19.9	10.0	(9.1; 10.9)	6.4	(5.8; 7.1)	333	19.1	9.4	(8.2; 10.5)	5.9	(5.1; 6.7)
182	6.2	3.3	(2.8; 3.8)	2.2	(1.8; 2.5)	97	5.6	2.7	(2.1; 3.3)	1.7	(1.3; 2.1)
216	7.4	3.2	(2.7; 3.6)	1.9	(1.6; 2.2)	102	5.8	2.9	(2.3; 3.5)	1.9	(1.4; 2.4)
95	3.2	1.7	(1.3; 2.1)	1.1	(0.8; 1.3)	73	4.2	1.8	(1.3; 2.2)	1.1	(0.8; 1.4)
344	11.7	6.1	(5.4; 6.8)	3.9	(3.4; 4.4)	215	12.3	6.6	(5.6; 7.5)	4.3	(3.6; 5.0)
7	0.2	0.1	(0.0; 0.2)	0.1	(0.0; 0.1)	5	0.3	0.2	(0.0; 0.3)	0.1	(0.0; 0.2)
10	0.3	0.2	(0.1; 0.4)	0.2	(0.1; 0.3)	6	0.3	0.2	(0.0; 0.4)	0.2	(0.0; 0.3)
458	15.6	11.0	(10.0; 12.1)	7.9	(7.1; 8.7)	274	15.7	11.3	(9.8; 12.7)	8.2	(7.1; 9.2)
7	0.2	0.1	(0.0; 0.2)	0.1	(0.0; 0.2)	7	0.4	0.2	(0.0; 0.4)	0.1	(0.0; 0.3)
8	0.3	0.2	(0.1; 0.3)	0.1	(0.0; 0.2)	8	0.5	0.2	(0.1; 0.3)	0.1	(0.0; 0.2)
65	2.2	1.3	(1.0; 1.7)	1.0	(0.7; 1.2)	38	2.2	1.5	(1.0; 2.0)	1.1	(0.7; 1.4)
25	0.9	0.5	(0.3; 0.7)	0.3	(0.2; 0.4)	20	1.1	0.8	(0.4; 1.1)	0.6	(0.3; 0.8)
1	0.0	0.0	(0.0; 0.0)	0.0	(0.0; 0.0)	0	0.0	0.0	(0.0; 0.0)	0.0	(0.0; 0.0)
46	1.6	1.1	(0.7; 1.4)	0.9	(0.5; 1.2)	20	1.1	0.7	(0.4; 1.1)	0.5	(0.2; 0.8)
848	28.9	18.4	(17.0; 19.7)	12.9	(11.9; 13.9)	476	27.2	16.8	(15.2; 18.5)	11.7	(10.5; 12.9)
78	2.7	1.8	(1.4; 2.3)	1.3	(1.0; 1.6)	40	2.3	1.7	(1.1; 2.3)	1.3	(0.8; 1.7)
132	4.5	2.7	(2.2; 3.2)	1.9	(1.5; 2.3)	63	3.6	1.9	(1.4; 2.4)	1.2	(0.8; 1.5)
65	2.2	1.2	(0.9; 1.6)	0.8	(0.6; 1.1)	39	2.2	1.3	(0.8; 1.7)	0.8	(0.5; 1.2)
254	8.7	5.5	(4.8; 6.3)	3.8	(3.3; 4.4)	113	6.5	4.1	(3.3; 5.0)	2.8	(2.2; 3.4)
0	0.0	0.0	(0.0; 0.0)	0.0	(0.0; 0.0)	0	0.0	0.0	(0.0; 0.0)	0.0	(0.0; 0.0)
79	2.7	1.4	(1.1; 1.8)	0.9	(0.7; 1.2)	55	3.2	1.5	(1.1; 2.0)	1.0	(0.6; 1.3)
103	3.5	2.0	(1.6; 2.4)	1.3	(1.0; 1.6)	65	3.7	1.7	(1.3; 2.2)	1.1	(0.8; 1.4)
4	0.1	0.1	(0.0; 0.2)	0.1	(0.0; 0.1)	0	0.0	0.0	(0.0; 0.0)	0.0	(0.0; 0.0)
123	4.2	2.0	(1.6; 2.4)	1.2	(1.0; 1.5)	81	4.6	2.0	(1.5; 2.4)	1.2	(0.9; 1.5)
3	0.1	0.0	(0.0; 0.1)	0.0	(0.0; 0.1)	4	0.2	0.1	(0.0; 0.3)	0.1	(0.0; 0.2)
4	0.1	0.1	(0.0; 0.2)	0.1	(0.0; 0.1)	2	0.1	0.1	(0.0; 0.2)	0.0	(0.0; 0.1)
204	7.0	4.9	(4.1; 5.6)	3.6	(3.0; 4.2)	99	5.7	3.9	(3.1; 4.7)	2.8	(2.2; 3.5)
28	1.0	0.4	(0.3; 0.6)	0.3	(0.1; 0.4)	22	1.3	0.7	(0.4; 1.1)	0.5	(0.3; 0.7)
11	0.4	0.3	(0.1; 0.4)	0.2	(0.1; 0.3)	2	0.1	0.0	(0.0; 0.1)	0.0	(0.0; 0.1)
136	4.6	1.9	(1.5; 2.2)	1.1	(0.9; 1.3)	71	4.1	1.8	(1.4; 2.3)	1.1	(0.8; 1.4)
455	15.5	8.1	(7.3; 9.0)	5.3	(4.7; 5.9)	258	14.8	7.5	(6.5; 8.5)	4.9	(4.1; 5.6)
10	0.3	0.2	(0.1; 0.3)	0.1	(0.0; 0.2)	4	0.2	0.1	(0.0; 0.3)	0.1	(0.0; 0.3)
160	5.5	2.6	(2.1; 3.0)	1.6	(1.3; 1.9)	100	5.7	2.8	(2.2; 3.4)	1.7	(1.3; 2.1)
3	0.1	0.0	(0.0; 0.1)	0.0	(0.0; 0.0)	1	0.1	0.1	(–0.1; 0.2)	0.0	(0.0; 0.1)
116	4.0	1.9	(1.5; 2.3)	1.2	(0.9; 1.4)	73	4.2	2.1	(1.5; 2.6)	1.3	(0.9; 1.6)
43	1.5	0.7	(0.4; 0.9)	0.4	(0.3; 0.6)	41	2.4	1.4	(0.9; 1.9)	1.1	(0.6; 1.6)
64	2.2	1.2	(0.9; 1.6)	0.8	(0.6; 1.1)	31	1.8	0.8	(0.5; 1.1)	0.5	(0.3; 0.7)
55	1.9	1.1	(0.7; 1.4)	0.8	(0.5; 1.1)	41	2.4	1.3	(0.9; 1.8)	0.9	(0.6; 1.3)
5,476	**186.8**	**105.1**	**(102.0; 108.2)**	**70.8**	**(68.5; 73.0)**	**3,142**	**179.7**	**100.2**	**(96.4; 104.1)**	**67.1**	**(64.2; 69.9)**

SURVIVAL OF ADULT CANCER PATIENTS 2000-2004

SURVIVAL OF ADULT CANCER PATIENTS 2000-2004

OVERALL SURVIVAL BY SEX

The one-, two-, three-, four- and five-year observed and relative survival rates, by sex, for adult patients (>15 years) in the ACBC diagnosed with cancer in the period 2000-2004, are listed in Table 3.1 and shown graphically in Figure 3.1.

The five-year relative survival for all tumours in the ACBC, except for non-melanoma skin cancers, is 54.1% (53.6-54.6), with a value of 50% for men and 60.1% for women. Women have a 6.5% higher one-year relative survival than men, and this difference increases with time in the period studied to reach 10% by year 5 post-diagnosis. One of the reasons for this could be the distribution of tumour types in each sex. Lung cancer, for example, which has a very low survival rate, has a much higher incidence in men than in women over the period studied.

OVERALL SURVIVAL BY AGE

It is well known that survival varies with age and usually decreases in older patients. Indeed, the five-year relative survival in men decreases from 65.1% in patients aged 15-44 years to 40.9% in those aged 75 and above. A similar situation is found for women, although the difference is greater in this case, decreasing from 77.8% in the former age group to 37.8% in the latter (see Table 3.2).

SURVIVAL BY EXTENSION AND SEX

The survival rate for a malignant tumour depends, to a large extent, on its extension at diagnosis, with greater extensions generally signifying lower survival. The «unknown extension» group includes malignant tumours whose extension was not known by the cancer registry. The percentage survival for such tumours in the study period considered herein was 12.3% for men and 9.3% for women, thus signifying that they have a higher survival rate than tumours that were regionally extended in men, and disseminated in women, at diagnosis, in the period studied (Table 3.3).

A comparison of both sexes shows that women have a higher survival than men for localised, regional and disseminated tumours. The difference between the sexes is greatest for those tumours with a regional extension at diagnosis, which differ by 25.4 percentage point as regards five-year relative survival (31.4% for men and 56.7% for women). The survival rate for tumours with unknown extension is greatest for men (Figure 3.2).

TABLE 3.1. OBSERVED (%) AND RELATIVE SURVIVAL (%) FOR ADULT PATIENTS DIAGNOSED WITH CANCER BY SEX. ACBC, 2000-2004

YEARS	MEN				WOMEN			
	OS	95% CI	RS	95% CI	OS	95% CI	RS	95% CI
1 year	67.2	(66.6; 67.7)	69.1	(68.5; 69.7)	73.4	(72.7; 74.0)	75.7	(74.7; 76.0)
2 years	56.0	(55.5; 56.6)	59.5	(58.9; 60.1)	65.3	(64.7; 66.0)	68.6	(67.9; 69.3)
3 years	49.9	(49.3; 50.5)	54.8	(54.1; 55.4)	60.4	(59.7; 61.1)	64.7	(63.7; 65.5)
4 years	45.8	(45.2; 46.4)	52.1	(51.5; 52.8)	56.8	(56.0; 57.5)	62.1	(61.4; 62.9)
5 years	42.2	(41.7; 42.8)	50.0	(49.4; 50.7)	53.7	(53.0; 54.4)	60.1	(59.3; 60.9)

FIGURE 3.1. **OBSERVED (%) AND RELATIVE SURVIVAL (%) FOR PATIENTS DIAGNOSED WITH CANCER. ACBC, 2000-2004**

TABLE 3.2. OBSERVED (%) AND RELATIVE SURVIVAL (%) FOR ADULT PATIENTS DIAGNOSED WITH CANCER BY SEX AND AGE GROUP. ACBC, 2000-2004

YEARS	15-44		45-54		55-64		65-74		>74	
	OS	RS	OS	RS	OS	RS	OS	RS	OS	RS
Men										
1 year	80.9	80.9	72.0	72.2	72.0	72.4	69.1	70.5	55.9	59.2
3 years	68.2	68.4	53.8	54.5	54.7	56.2	53.4	57.6	35.9	45.5
5 years	64.6	65.1	47.6	48.8	48.5	51.2	45.5	52.7	26.1	40.9
Women										
1 year	90.7	90.8	89.1	89.2	85.4	85.6	71.7	72.1	52.7	54.4
3 years	82.3	82.5	79.2	79.6	73.5	74.3	58.1	59.8	36.2	42.5
5 years	77.4	77.8	74.1	74.9	68.3	69.6	50.9	53.8	27.5	37.8

SURVIVAL BY TUMOUR TYPE AND SEX

Table 3.4 shows the one-, three- and five-year relative survival for adult patients, for selected sites, by sex. The overall relative survival for all malignant tumours in men decreases from 69.1% in the first year to 50% after five years. Likewise, it decreases from 75.4% in the first year to 60.1% after five years in women.

It can clearly be seen that the greatest decrease in survival between years 1 and 5 occurs for mesotheliomas, multiple myeloma, cancers of the head and neck, oesophagus, rectosigmoid junction/rectum/anus and lung, all of which fall by 25 points over these five years. In women, the tumours which show the greatest decrease in survival are multiple myeloma, mesothelioma and cancers of the lung and ovary.

TABLE 3.3. OBSERVED (%) AND RELATIVE SURVIVAL (%) FOR ADULT PATIENTS DIAGNOSED WITH CANCER BY SEX AND EXTENSION. ACBC, 2000-2004

YEARS	LOCALISED		REGIONAL		DISSEMINATED		UNKNOWN	
	OS	RS	OS	RS	OS	RS	OS	RS
Men								
1 year	85.8	89.0	63.1	64.9	34.7	34.1	73.3	76.9
3 years	72.6	80.7	36.0	38.7	17.3	17.9	58.3	67.5
5 years	64.0	76.6	27.5	31.4	13.0	14.4	48.5	63.1
Women								
1 year	89.2	92.2	78.6	80.7	40.8	39.8	62.8	65.6
3 years	80.9	87.1	60.7	64.4	24.5	24.7	48.8	56.5
5 years	75.1	84.1	51.5	56.7	18.8	19.9	42.4	52.8

FIGURE 3.2. **FIVE-YEAR RELATIVE SURVIVAL (%) FOR ADULT PATIENTS DIAGNOSED WITH CANCER BY EXTENSION AND SEX. ACBC, 2000-2004**

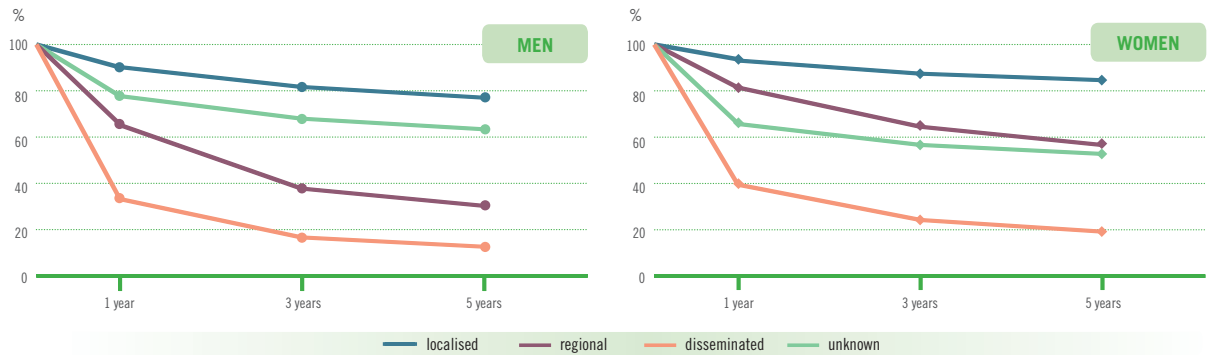
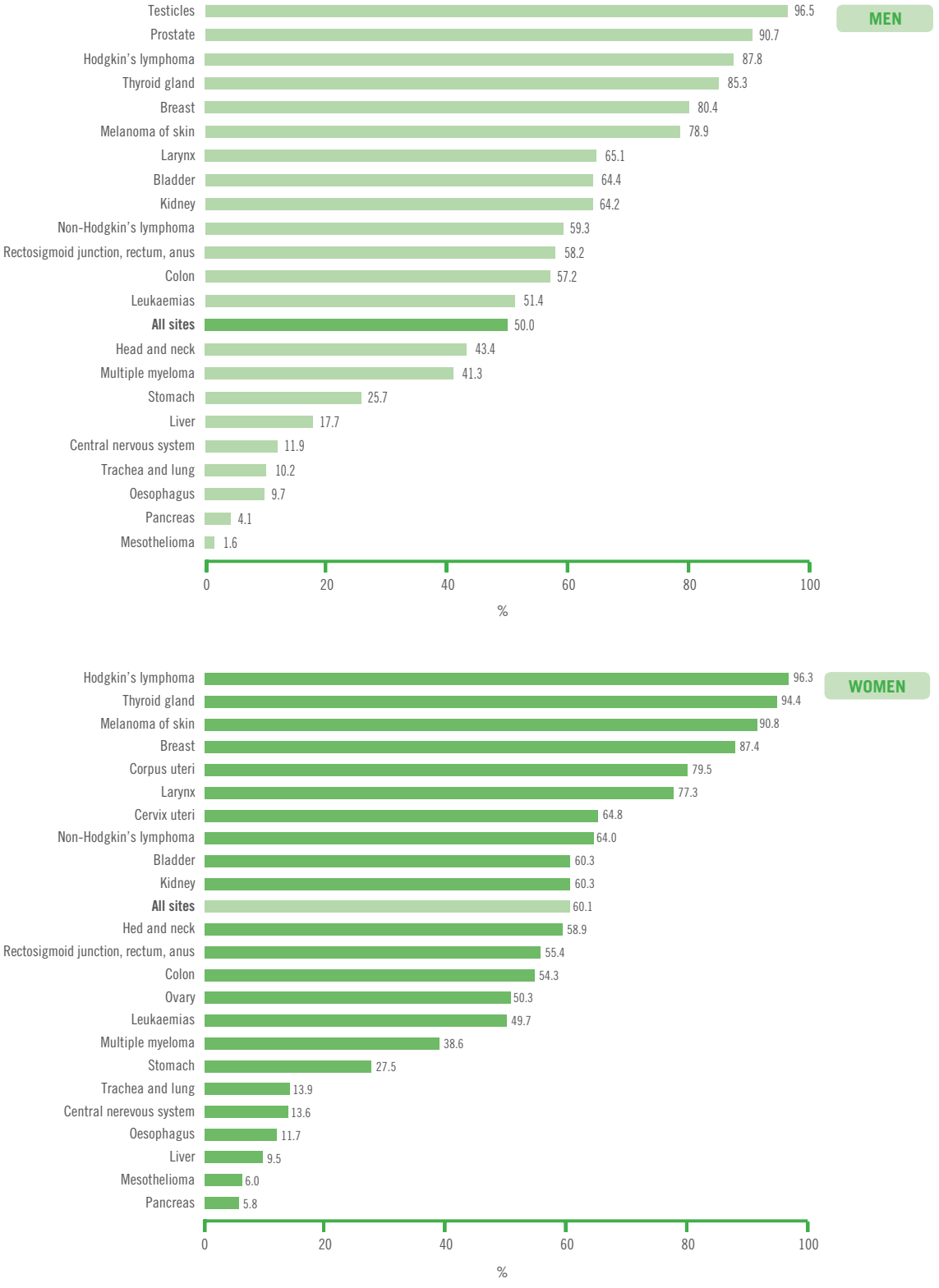


Figure 3.3 shows the five-year relative survival for selected sites. Testicular, prostate, thyroid and breast cancer, Hodgkin's lymphoma and melanoma of the skin all present five-year relative survivals of more than 80%, whereas the five-year relative survival is less than 20% for mesothelioma and cancers of the pancreas, liver, oesophagus, central nervous system and lung.

TABLE 3.4. ONE, THREE AND FIVE-YEAR RELATIVE SURVIVAL (%) FOR ADULT PATIENTS DIAGNOSED WITH CANCER BY SELECTED TUMOUR SITES AND SEX. ACBC, 2000-2004

SITES	MEN			WOMEN		
	1 YEAR	3 YEARS	5 YEARS	1 YEAR	3 YEARS	5 YEARS
Head and neck	76.1	51.5	43.4	82.2	66.4	58.9
Oesophagus	41.7	12.6	9.7	33.3	15.7	11.7
Stomach	47.1	30.3	25.7	47.6	31.7	27.5
Colon	76.6	63.4	57.2	73.1	60.0	54.3
Rectosigmoid junction, rectum, anus	83.3	66.8	58.2	78.2	62.6	55.4
Liver	41.6	29.8	17.7	32.4	15.7	9.5
Pancreas	18.6	5.7	4.1	18.0	7.5	5.8
Larynx	87.2	71.3	65.1	93.2	84.3	77.3
Trachea and lung	35.9	13.7	10.2	42.2	18.5	13.9
Melanoma of skin	94.9	84.6	78.9	98.3	94.0	90.8
Mesothelioma	52.6	10.0	1.6	42.2	17.2	6.0
Breast	96.9	81.8	80.4	97.3	92.0	87.4
Cervix uteri	—	—	—	84.7	70.7	64.8
Corpus uteri	—	—	—	90.6	82.8	79.5
Ovary	—	—	—	78.2	58.1	50.3
Prostate	97.4	93.4	90.7	—	—	—
Testicles	98.3	96.5	96.5	—	—	—
Kidney	76.2	67.7	64.2	72.0	62.7	60.3
Bladder	83.1	69.9	64.4	76.8	63.5	60.3
Central nervous system	32.7	17.1	11.9	29.4	19.3	13.6
Thyroid gland	88.8	86.9	85.3	94.7	94.7	94.4
Hodgkin's lymphoma	94.5	91.4	87.8	99.0	98.1	96.3
Non-Hodgkin's lymphoma	77.6	65.4	59.3	77.3	67.0	64.0
Multiple myeloma	73.6	53.1	41.3	76.3	56.5	38.6
Leukaemia	64.9	53.4	51.4	65.3	54.4	49.7
ALL SITES	69.1	54.8	50.0	75.4	64.7	60.1

FIGURE 3.3. **FIVE-YEAR RELATIVE SURVIVAL (%) FOR ADULT PATIENTS DIAGNOSED WITH CANCER FOR SELECTED SITES AND SEX. ACBC, 2000-2004**



FIVE-YEAR RELATIVE SURVIVAL BY AGE GROUP FOR SELECTED TUMOUR SITES

Table 3.5 shows the five-year relative survival, by age group and sex, for selected tumour sites chosen either due to their high incidence over this period or their high survival rate.

Hodgkin's lymphoma and thyroid cancer have two of the highest survival rates in both sexes, although both decrease notably in the 75 years and older age group. Thus, the survival rate for Hodgkin's lymphoma in men decreases from 61.5% in the 65-74 years age group to 36.8% in the 75 and older age group; a similar decrease is seen for thyroid cancer in both sexes.

Other tumours which show a notable decrease in the five-year survival rate in the older age group include cancers of the ovary and stomach in women.

For men, prostate cancer in the 15-44 years age group has a much lower survival than in the other age groups, although this is likely due to the very small sample size (n=5).

TABLE 3.5. FIVE-YEARS RELATIVE SURVIVAL (%) FOR ADULT PATIENTS DIAGNOSED WITH CANCER FOR SELECTED SITES BY SEX AND AGE GROUP. ACBC, 2000-2004

SITES	MEN									
	15-44		45-54		55-64		65-74		>74	
	RS	95% CI	RS	95% CI	RS	95% CI	RS	95% CI	RS	95% CI
Hodgkin's lymphoma	90.6	(83.6; 94.7)	94.3	(74.3; 98.9)	72.8	(43.4; 88.6)	61.5	(28.6; 82.8)	36.8	(7.9; 67.5)
Thyroid gland	—	—	87.8	(64.6; 96.2)	89.2	(57.9; 97.6)	—	—	30.0	(4.0; 63.7)
Melanoma of skin	87.5	(77.8; 93.1)	82.3	(71.0; 89.5)	70.1	(58.1; 79.3)	77.4	(64.4; 86.2)	63.4	(41.4; 79.0)
Lung	16.2	(11.1; 22.1)	15.2	(12.5; 18.2)	13.0	(11.0; 15.2)	8.3	(6.8; 9.9)	5.3	(3.9; 7.0)
Colon	65.4	(51.9; 75.9)	65.8	(58.9; 71.7)	64.3	(59.4; 68.8)	57.5	(53.7; 61.2)	46.8	(41.9; 51.6)
Rectosigmoid junction, rectum, anus	47.8	(32.4; 61.6)	65.8	(57.5; 72.8)	62.6	(56.8; 67.8)	58.8	(54.0; 63.3)	49.0	(42.1; 55.6)
Stomach	40.4	(26.1; 54.3)	34.9	(27.3; 42.7)	31.3	(25.9; 36.9)	26.0	(22.0; 30.1)	15.8	(11.9; 20.1)
Bladder	87.1	(74.3; 93.8)	78.4	(72.2; 83.5)	68.8	(63.9; 73.2)	62.8	(58.5; 66.8)	49.7	(44.2; 54.9)
Kidney	78.8	(68.9; 85.9)	64.5	(55.7; 71.9)	70.7	(62.9; 77.1)	61.0	(53.2; 68.0)	44.1	(33.6; 54.0)
Prostate	56.7	(56.7; 87.1)	89.2	(83.2; 93.1)	92.3	(89.9; 94.1)	93.3	(91.4; 94.8)	80.8	(77.1; 84.0)
Testicles	97.6	(94.1; 99.0)	87.3	(55.5; 96.9)	78.7	(38.5; 94.6)	38.0	(1.1; 81.2)	22.0	(0.6; 63.8)

SITES	WOMEN									
	15-44		45-54		55-64		65-74		>74	
	RS	95% CI	RS	95% CI	RS	95% CI	RS	95% CI	RS	95% CI
Hodgkin's lymphoma	95.2	(87.2; 98.2)	—	—	—	—	—	—	77.3	(30.0; 94.6)
Thyroid gland	—	—	—	—	95.5	(84.6; 98.8)	68.8	(53.2; 80.1)	40.0	(19.7; 59.5)
Melanoma of skin	93.6	(88.7; 96.4)	92.0	(85.0; 95.9)	91.4	(82.7; 95.8)	87.7	(77.2; 93.5)	69.4	(54.8; 80.1)
Lung	17.6	(10.7; 25.9)	15.3	(10.1; 21.5)	17.2	(10.9; 24.8)	11.5	(6.9; 17.2)	11.1	(6.8; 16.5)
Colon	64.4	(51.9; 74.4)	65.6	(56.8; 73.0)	67.8	(61.5; 73.2)	55.4	(50.6; 60.0)	43.9	(39.4; 48.3)
Rectosigmoid junction, rectum, anus	52.2	(35.7; 66.4)	65.8	(54.5; 74.9)	68.5	(59.9; 75.7)	59.1	(52.6; 65.0)	42.2	(35.8; 48.5)
Stomach	49.2	(31.0; 65.1)	42.4	(30.1; 54.2)	35.6	(26.5; 44.7)	29.8	(23.7; 36.2)	18.3	(14.1; 23.0)
Bladder	80.3	(50.1; 93.3)	83.5	(65.6; 92.6)	64.9	(48.5; 77.2)	55.5	(43.5; 66.0)	55.5	(46.2; 63.8)
Kidney	73.8	(56.6; 85.0)	75.3	(60.7; 85.2)	67.1	(54.2; 77.1)	63.2	(51.8; 72.7)	40.5	(30.2; 50.5)
Breast	87.7	(85.3; 89.7)	90.4	(88.6; 92.0)	90.1	(88.0; 91.9)	82.3	(79.1; 85.0)	76.6	(72.2; 80.5)
Ovary	78.9	(69.7; 85.6)	58.1	(49.4; 65.8)	51.4	(43.0; 59.2)	42.7	(34.0; 51.1)	16.6	(10.0; 24.7)
Corpus uteri	82.8	(69.1; 90.8)	88.8	(82.9; 92.7)	84.2	(79.6; 87.9)	76.2	(70.4; 81.0)	61.7	(53.1; 69.2)

TRENDS OF THE INCIDENCE, MORTALITY AND SURVIVAL RATES

TRENDS OF THE INCIDENCE, MORTALITY AND SURVIVAL RATES

ALL SITES

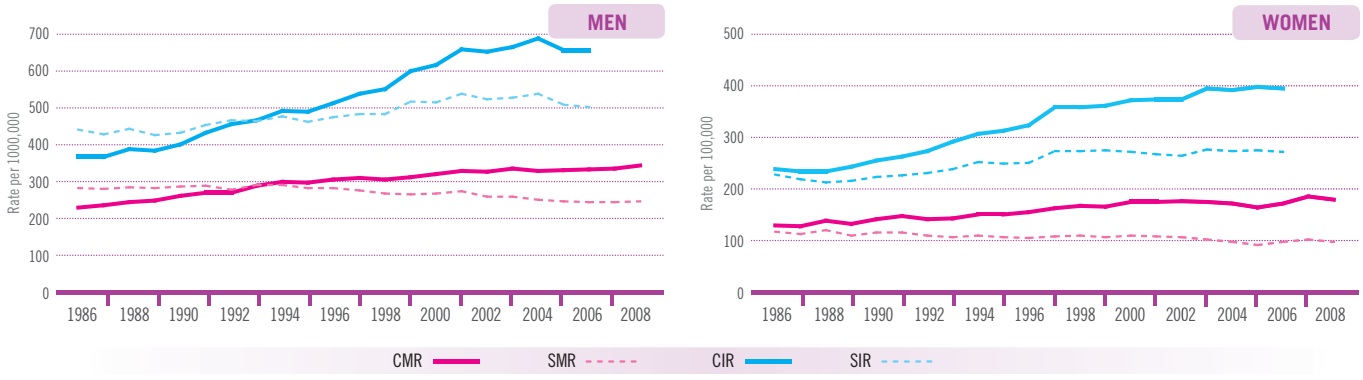
Tables 4.1 and 4.2 show the annual percentage change (APC) in the adjusted incidence and mortality rates for cancer in the ACBC for the periods 1986–2006 and 1986–2008, respectively, by site, for both men and women.

Incidence

In the 21 years between 1986 and 2006, the number of new malignant tumours diagnosed per year increased from 6483 (3865 in men, 2618 in women) to 11,149 (6813 in men, 4336 in women). This increase in the overall incidence could be due to several reasons. Thus, in addition to an increased diagnosis rate and/or exposure to risk factors, both population ageing (the percentage of people aged 65 and above increased from 10.4% of the population to 18.6%) and an actual higher incidence should also be taken into account. These phenomena are reflected in the change in the crude and standardised incidence rates shown in Figure 4.1.

Analysis of these rates shows that the changes which occurred over these two decades vary with sex. Thus, male incidence underwent a 1.4% annual increase between 1986 and 2004 and then subsequently stabilised, with the standardised rates increasing from 440.4 to 501.9/100,000 over the whole period studied. In contrast, the incidence for women only increased significantly (2.5% per year) between 1988 and 1998, with no significant variations either before or after this period.

FIGURE 4.1. **TRENDS OF THE INCIDENCE AND MORTALITY RATES FOR ALL CANCERS BY SEX AND YEAR. ACBC**



The importance of the frequency of certain tumours on the group of tumours as a whole should be highlighted as such tumours have a notable effect on the overall numerical variation. Thus, a large increase in the number of prostate cancer cases in men, which increased by 14.1% per year between 1995 and 2001, and breast cancer cases in women, which increased 4.9% per year between 1989 and 1997, was observed. Tumours at other sites, such as the kidney (APC of 3.0% for men and 2.5% for women) or colon and rectosigmoid junction/rectum/anus (APC of 3.7% for the former and 2.1% for the latter for men and 2.2% for the former and 1.4% for the latter in women), increased in frequency to a lesser extent.

In contrast, decreases in the incidence of head and neck tumours (APC of –2.2% from 1992 onwards) and cancers of the larynx (APC of –5.6% from 2000 onwards) and oesophagus (APC of –1.7%) in men were also observed. The incidence of cervical cancer decreased in women (APC of –1.1%), and that of stomach cancer decreased in both sexes (APC of –2.9% and –3.3% respectively).

Notable increases in less common tumours such as those of the testicles in men (APC of 5%) and the larynx (APC of 6.9%) and lung (APC of 5.5%) in women were also observed. Other sites which experienced important increases in terms of incidence in both men and women include the thyroid (APC of 5.3% and 5.8% respectively), melanoma of the skin (APC of 5.2% and 3.8% respectively) and non-Hodgkin's Lymphoma (APC of 7.1% in men between 1986 and 1993 and 5.8% in women for the whole period studied). However, the relevance of these tumours on all sites is lower.

Mortality

As was the case for the incidence, the number of cancer-related deaths in the 23 years between 1986 and 2008 also increased, from 2411 and 1448 to 3614 and 2018 cases per year for men and women, respectively (see Tables 4.1 and 4.2).

In contrast, the age-standardised rates decreased, although the change for men was not significant until the period 1994–2008, when it decreased by 1.2% per year. The standardised male mortality rates decreased from 282.3/100,000 inhabitants in 1986 to 245.8/100,000 in 2008. The change for women over the same period was a statistically significant 0.8%, with the standardised mortality rates decreasing from 122.4/100,000 inhabitants in 1986 to 101.8/100,000 in 2008 (Fig. 4.1).

Cancer of the stomach (APC –3.3%) and oesophagus (APC –2.0%), along with Hodgkin's lymphoma (APC –3.1%) and leukaemias (APC –1.0%), all decreased in terms of male mortality over the whole period studied. For other sites, a significant decrease was only observed after a certain date, for example 1990 for cancer of the larynx (APC –5.0%), 1994 for head and neck cancer (APC –2.9%) and 2000 for prostate cancer (APC –3.6%).

A significant increase in male mortality was observed for melanoma of the skin (APC 2.8%) and colon cancer (APC 2.0%), whereas the increase for thyroid tumours (APC 1.2%) was not significant.

The male mortality rate for lung cancer varied over the period studied. Thus, it increased significantly (APC 1.5%) up until 1995, then decreased significantly until 2004 (APC –1.6%), to finally increase again, although in a non-significant manner, after that date.

The female mortality rate decreased significantly over the whole period studied for cancer of the stomach (APC –4.2%), the rectosigmoid junction/rectum/anus (APC –1.6%) and the corpus uteri and other parts of the uterus (APC –1.2%), and leukaemias (APC –1.1%). The rate for breast cancer, in contrast, only decreased significantly after 1992 (APC –2.8%).

The female mortality rate for tumours of the lung (APC 5.0%) and central nervous system (APC 1.8%) increased significantly over the period studied. Likewise, the mortality rate for colon cancer increased significantly up until 2000 (APC 1.7%), then began to decrease significantly with an APC of –1.6%.

Survival

Figure 4.2 presents the change in relative and observed five-year survival for adult patients diagnosed with cancer (except skin non-melanoma) in the ACBC from the period 1986–1989 up until 2000-2004.

The RS for all malignant tumours increased for both men (by 17 points) and women (by 12 points), from

32.9% to 50% and 48.1% to 60.1%, respectively, over the whole period studied (Table 4.3).

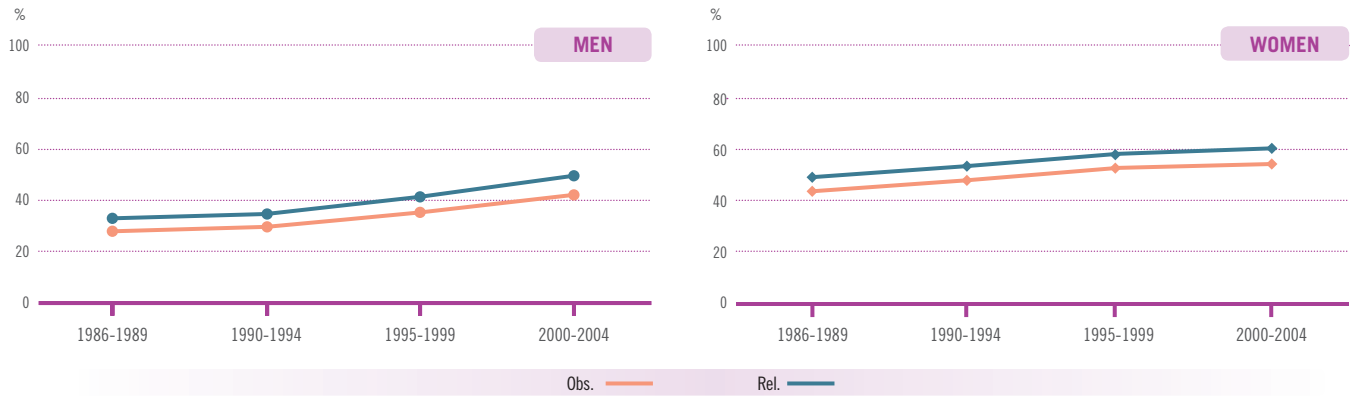
The survival rate for prostate cancer in men increased considerably over the period studied (47 points), as did the rate for tumours of the rectum/anus (23.7 points). The SR for lymphomas increased for both sexes, although to a greater degree for women (26.2 points for Hodgkin's lymphoma and 24.5 for non-Hodgkin's lymphoma) than for men (17 points for Hodgkin's lymphoma and 13.4 for non-Hodgkin's lymphoma). The survival rate for female breast cancer also increased (by 19.5 points).

The five-year relative survival for bladder cancer in men decreased over the period studied (–2.8%), and that for tumours of the central nervous system in women decreased by two points. The variation in RS for kidney cancer differed by sex, with the five-year relative survival for men increasing from 45.8% in the period 1986–1989 to 64.2% in 2000-2004, whereas that for women decreased by half a point.

Tables 4.4 and 4.5 show the annual percentage change (APC) in the standardised incidence and mortality rates by province for all and selected cancers in the ACBC for the periods 1986–2006 and 1986-2008, respectively, for both men and women.

The overall standardised incidence rates for men increased in all three provinces (Fig. 4.3), with APCs of 1% in Bizkaia, 1.4% in Alava and 1.9% in Gipuzkoa up until 2002, whereupon the rates stabilised. This increase reflects the unequal rise in the incidence of prostate cancer, which increased much more rapidly in Alava and Gipuzkoa then slowed down notably in the last period covered by this study. Similar increases of more than 2% per year were also observed for women in all three provinces up until 1997-1998, whereupon they stabilised and mirrored the change in the incidence of breast cancer.

FIGURE 4.2. **FIVE-YEAR OBSERVED (%) AND RELATIVE SURVIVAL (%) TREND FOR ALL SITES BY SEX AND PERIOD. ACBC, 1986-2004**



It can be seen from Fig. 4.4 that the male cancer-related mortality rate decreased significantly, although unequally. Thus, in Gipuzkoa it decreased by 0.7% per year over the whole period studied, where the decrease in Alava only occurred after 1990 (APC –1.6%) and that in Bizkaia after 1995 (APC –1.2%). All three provinces exhibited a significant decrease in female cancer-related mortality over the entire period studied, with this decrease being greatest in Alava (APC –1.1%), followed by Gipuzkoa (APC –1.0%) and Bizkaia (APC –0.6%).

The male mortality rate for head and neck tumours and those of the stomach decreased significantly over the whole period studied in all three provinces, with this decrease being most notable in Bizkaia (APC –1.6% for each site). In contrast, the mortality rate for colon cancer increased, with the greatest rise also being seen in Bizkaia (APC 2.2%).

For women, different sites showed significant variations in mortality rate over the period studied. Thus, the rate for stomach cancer decreased in all three provinces, with this decrease being most notable in Gipuzkoa (APC –4.8%), and the rate for breast cancer also decreased, although only during the period 1992-2005 in Gipuzkoa. The lung cancer-related mortality rate increased significantly in all three territories over the entire period studied.

The five-year relative survival for all tumours increased for both sexes in all three provinces (Fig. 4.5). Tables 4.6 and 4.7 show the change in five-year RS,

FIGURE 4.3. **TREND OF CANCER INCIDENCE RATES BY PROVINCE AND SEX. ACBC, 1986-2006**

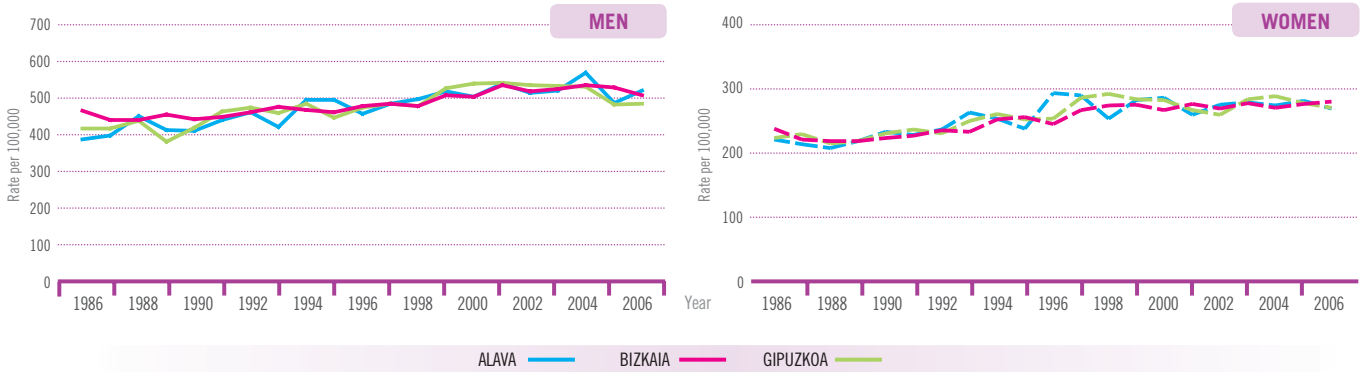
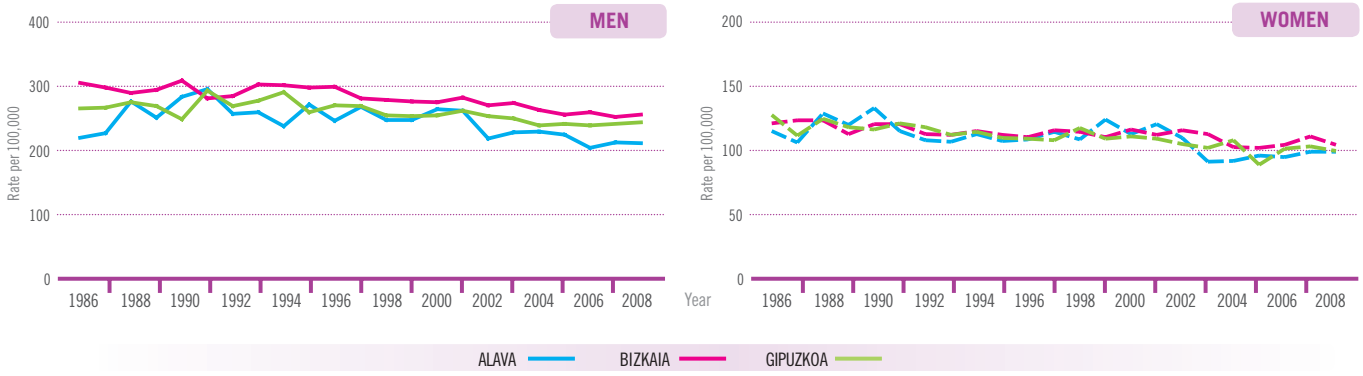


FIGURE 4.4. **TREND OF CANCER MORTALITY RATES BY PROVINCE AND SEX. ACBC, 1986-2008**



by province and sex, from the period 1986-1989 up until 2000-2004, for selected tumour sites.

Thus, the five-year RS for men from Alava and Gipuzkoa increased by 18 points, from 37.4% to 55.6% and 33.6% to 52.2%, respectively, over this period. The survival rate increased to a slightly lesser extent in Bizkaia (15.8 points), increasing from 31.5% to 47.3% over the same period. The five-year RS for women also increased for all tumours in all three provinces over the same period, although to a slightly lesser extent than for men. The smallest increase was seen in Alava (10.7 points), followed by Bizkaia (11.6 points) and Gipuzkoa (12.9 points).

The change in RS by tumour site tended to change to a similar degree in each province and the ACBC as a whole, although with some minor differences. Thus, the five-year RS for both Hodgkin's and non-Hodgkin's lymphoma increased for both sexes in all three territories. The only exception is found for Hodgkin's lymphoma in men from Gipuzkoa, for whom the five-year relative survival decreased from 85.5% in 19986-1989 to 84.3% in 2000-2004, a decrease of 1.2 points. Melanoma is another of the tumours whose five-year relative survival increased for both sexes in both the ACBC as a whole and in each province, except in men from Gipuzkoa, for whom the RS decreased slightly from 73.3% in the period 1986-1989 to 72.8% in 2000-2004.

FIGURE 4.5. **FIVE-YEARS RELATIVE CANCER SURVIVAL (%) TREND BY PROVINCE AND SEX. ACBC, 1986-2004**

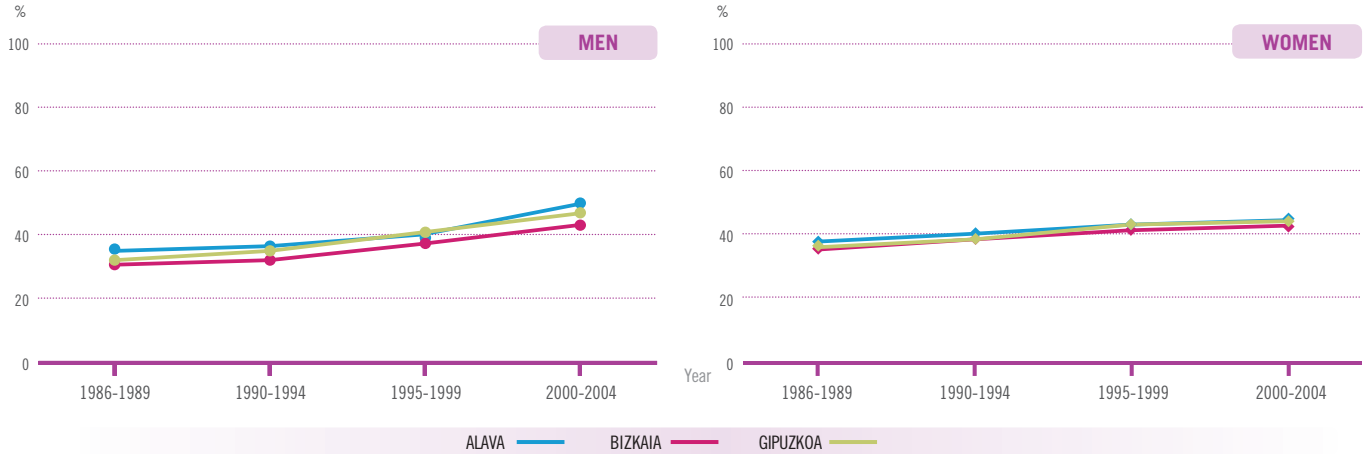


TABLE 4.1. TREND OF CANCER INCIDENCE AND MORTALITY RATES BY SITE. MEN. ACBC

	INCIDENCE 1986-2006									MORTALITY 1986-2008								
	1986			2006						1986			2008					
	No.	CR	SR	N.º	CR	SR	PERIOD	APC	95% CI	No.	CR	SR	N.º	CR	SR	PERIOD	APC	95% CI
Head and neck	314	29.8	33.8	329	31.6	25.9	1986-1992 1992-2006	**1.85** **–2.21***	(–0.66; 4.42) (–2.87; –1.54)	126	12.0	13.6	107	10.2	8.3	1986-1994 1994-2008	**0.37** **–2.89***	(–2.71; 3.54) (–4.22; –1.55)
Oesophagus	134	12.7	14.9	145	13.9	11.2	1986-2006	**–1.67***	(–2.35; –0.99)	127	12.1	14.4	112	10.7	8.4	1986-2008	**–1.97***	(–2.46; –1.47)
Stomach	366	34.7	41.7	317	30.5	22.8	1986-2006	**–2.89***	(–3.28; –2.51)	226	21.4	26.8	213	20.3	14.4	1986-2008	**–3.30***	(–3.83; –2.77)
Colon	210	19.9	24.8	685	65.9	47.9	1986-2006	**3.68***	(3.19; 4.17)	138	13.1	16.9	394	37.6	25.1	1986-2008	**1.96***	(1.36; 2.56)
Rectosigmoid junction, rectum, anus	194	18.4	23.1	362	34.8	26.0	1986-2004 2004-2006	**2.11*** **–6.47**	(1.44; 2.79) (–21.18; 10.98)	61	5.8	7.5	118	11.3	8	1986-2008	**–0.47**	(–1.16; 0.22)
Liver	117	11.1	13.8	215	20.7	15.7	1986-2006	**1.78***	(0.94; 2.62)	116	11.0	13.7	179	17.1	12	1986-2008	**–0.50**	(–1.02; 0.04)
Pancreas	76	7.2	8.6	160	15.4	11.8	1986-2006	**0.80***	(0.14; 1.46)	60	5.7	6.8	142	13.5	9.5	1986-2008	**0.60**	(–0.25; 1.45)
Larynx	267	25.3	28.8	209	20.1	16.2	1986-2000 2000-2006	**–0.90*** **–5.64***	(–1.69; –0.11) (–8.48; –2.71)	111	10.5	12.2	75	7.2	5.3	1986-1990 1990-2008	**4.09** **–4.97***	(–4.91; 13.94) (–5.92; –4.01)
Lung	685	65.0	77.2	1025	98.6	75.8	1986-1994 1994-2006	**1.31*** **–0.66***	(0.31; 2.31) (–1.13; –0.18)	539	51.1	62.0	956	91.2	67.5	1986-1995 1995-2004 2004-2008	**1.48*** **–1.56*** **1.81**	(0.45; 2.51) (–2.62; –0.49) (–1.24; 4.96)
Melanoma of the skin	28	2.7	3.1	118	11.3	8.9	1986-2006	**5.24***	(4.19; 6.29)	7	0.7	0.8	23	2.2	1.5	1986-2008	**2.83***	(0.78; 4.93)
Breast	8	0.8	1.0	17	1.6	1.2	1986-2006	**2.65***	(0.47; 4.88)	2	0.2	0.2	3	0.3	0.2	1986-2008	**6.72**	(–6.59; 21.92)
Prostate	239	22.7	31.2	1414	136.0	102.8	1986-1995 1995-2001 2001-2006	**4.08*** **14.10*** **0.33**	(1.24; 6.99) (9.21; 19.20) (–3.06; 3.84)	181	17.2	24.9	313	29.9	19.3	1986-2000 2000-2008	**0.03** **–3.61***	(–0.82; 0.89) (–5.27; –1.91)
Testicles	18	1.7	1.7	59	5.7	5.2	1986-2006	**5.03***	(3.55; 6.53)	3	0.3	0.3	3	0.3	0.3	1986-2008	**–6.73**	(–17.50; 5.45)
Kidney	81	7.7	9.1	223	21.4	16.8	1986-2006	**3.04***	(2.08; 4.01)	47	4.5	5.7	79	7.5	5.5	1986-2008	**0.21**	(–0.57; 1.00)
Bladder	363	34.4	42.7	482	46.3	34.5	1986-2006	**–0.64**	(–1.28; 0.00)	122	11.6	14.9	198	18.9	12.6	1986-2008	**–0.58**	(–1.17; 0.01)
Central nervous system	77	7.3	8.1	113	10.9	8.8	1986-2006	**0.37**	(–0.63; 1.37)	50	4.7	5.3	84	8.0	6.4	1986-2008	**1.46***	(0.55; 2.38)
Thyroid gland	10	0.9	1.0	33	3.2	2.7	1986-2006	**5.29***	(3.44; 7.17)	4	0.4	0.5	4	0.4	0.3	1986-2008	**1.21**	(–6.47; 9.52)
Hodgkin's lymphoma	35	3.3	3.3	51	4.9	4.6	1986-2006	**1.11**	(–0.42; 2.68)	5	0.5	0.5	10	1.0	0.8	1986-2008	**–3.11***	(–5.47; –0.70)
Non-Hodgkin's lymphoma	84	8.0	9.1	208	20.0	15.8	1986-1993 1993-2006	**7.11*** **0.76**	(3.88; 10.44) (–0.18; 1.70)	40	3.8	4.5	89	8.5	5.6	1986-2008	**0.53**	(–0.54; 1.60)
Multiple myeloma	39	3.7	4.9	49	4.7	3.2	1986-2006	**0.35**	(–1.04; 1.76)	23	2.2	3.0	41	3.9	2.5	1986-2000 2000-2008	**1.39** **4.90***	(–0.40; 3.21) (–8.20; 1.48)
Leukaemias	89	8.4	9.7	134	12.9	10.4	1986-2006	**0.56**	(–0.04; 1.15)	74	7.0	8.3	70	6.7	4.9	1986-2008	**–1.03***	(–1.97; –0.08)
ALL SITES	3,865	366.7	440.4	6,813	655.1	501.9	1986-2004 2004-2006	**1.35*** **–3.82**	(1.11; 1.59) (–9.73; 2.47)	2,411	228.8	282.3	3,614	344.6	245.8	1986-1994 1994-2008	**0.30** **–1.23***	(–0.26; 0.86) (–1.45; –1.02)

TABLE 4.2. TREND OF CANCER INCIDENCE AND MORTALITY RATES FOR CANCER BY SITE. WOMEN. ACBC

	INCIDENCE 1986-2006									MORTALITY 1986-2008								
	1986			2006						1986			2008					
	No.	CR	SR	N.º	CR	SR	PERIOD	APC	95% CI	No.	CR	SR	N.º	CR	SR	PERIOD	APC	95% CI
Head and neck	42	3.9	3.7	96	8.8	6.2	1986-2006	**2.81***	(1.74; 3.90)	18	1.7	1.6	33	3	1.9	1986-2008	**0.31**	(–0.80; 1.44)
Oesophagus	11	1.0	0.9	13	1.2	0.8	1986-2006	**1.47**	(–0.27; 3.25)	10	0.9	0.8	12	1.1	0.7	1986-2008	**–0.39**	(–1.79; 1.02)
Stomach	202	18.7	17.0	162	14.9	8.2	1986-2006	**–3.34***	(–3.79; –2.88)	155	14.3	12.6	105	9.6	4.7	1986-2008	**–4.18***	(–4.79; –3.57)
Colon	174	16.1	14.4	403	37.0	21.9	1986-2006	**2.22***	(1.71; 2.74)	107	9.9	8.7	224	20.4	10.1	1986-2000 2000-2008	**1.65*** **–1.63***	(0.83; 2.48) (–3.21; –0.02)
Rectosigmoid junction, rectum, anus	117	10.8	10.1	216	19.8	12.2	1986-2006	**1.37***	(0.52; 2.23)	48	4.4	4.0	62	5.6	3.0	1986-2008	**–1.55***	(–2.41; –0.68)
Liver	44	4.1	3.6	61	5.6	3.1	1986-2006	**1.36**	(–0.05; 2.79)	58	5.4	4.7	70	6.4	2.8	1986-2008	**–1.57***	(–2.51; –0.62)
Pancreas	63	5.8	5.0	132	12.1	6.7	1986-2006	**1.33***	(0.42; 2.24)	73	6.8	6.0	141	12.8	6.7	1986-2008	**0.76***	(0.06; 1.46)
Larynx	3	0.3	0.2	8	0.7	0.6	1986-2006	**6.92***	(4.01; 9.92)	3	0.3	0.2	4	0.4	0.3	1986-2008	**2.85**	(–5.55; 11.99)
Lung	66	6.1	5.9	211	19.4	15.0	1986-2006	**5.51***	(4.53; 6.50)	59	5.5	5.1	199	18.1	12.8	1986-2008	**4.99***	(4.30; 5.69)
Melanoma of the skin	52	4.8	4.6	146	13.4	10.7	1986-2006	**3.82***	(2.85; 4.80)	7	0.7	0.6	16	1.5	0.9	1986-2008	**1.57**	(–0.03; 3.18)
Breast	687	63.5	65.0	1226	112.5	86.9	1986-1989 1989-1997 1997-2006	**–2.90** **4.88*** **–0.68**	(–11.08; 6.03) (2.71; 7.09) (–1.92; 0.56)	275	25.4	24.8	301	27.4	17.6	1986-1992 1992-2008	**0.36** **–2.77***	(–2.66; 3.48) (–3.46; –2.08)
Cervix uteri	71	6.6	6.8	97	8.9	7.3	1986-2006	**–1.06***	(–2.06; –0.05)	30	2.8	2.7	25	2.3	1.7	1986-2008	**–0.40**	(–1.91; 1.13)
Corpus uteri and other parts	180	16.6	16.6	312	28.6	21.3	1986-2006	**2.00***	(1.44; 2.55)	61	5.6	5.3	64	5.8	3.1	1986-2008	**–1.20***	(–1.94; –0.45)
Ovary	106	9.8	10.0	131	12.0	8.5	1986-2006	**0.19**	(–1.06; 1.45)	46	4.3	4.3	96	8.7	5.4	1986-2008	**0.39**	(–0.69; 1.48)
Kidney	46	4.3	4.2	100	9.2	5.8	1986-2006	**2.45***	(1.58; 3.32)	22	2	1.8	46	4.2	2.3	1986-2008	**–0.18**	(–1.52; 1.17)
Bladder	49	4.5	4.1	100	9.2	5.1	1986-2006	**0.62**	(–0.28; 1.53)	22	2	1.8	53	4.8	2.3	1986-2008	**0.69**	(–0.36; 1.75)
Central nervous system	67	6.2	6.0	93	8.5	6.8	1986-2006	**1.07***	(0.26; 1.88)	35	3.2	3.1	63	5.7	3.4	1986-2008	**1.75***	(0.45; 3.08)
Thyroid gland	25	2.3	2.3	100	9.2	7.3	1986-2006	**5.8***	(4.82; 6.80)	12	1.1	1.1	13	1.2	0.6	1986-1992 1992-2008	**–12.41** **1.26**	(–23.72; 0.58) (–1.90; 4.52)
Hodgkin's lymphoma	26	2.4	2.1	35	3.2	2.7	1986-2006	**1.57**	(–0.38; 3.57)	9	0.8	0.8	4	0.4	0.1	1986-2008	**–7.62**	(–15.55; 0.26)
Non-Hodgkin's lymphoma	68	6.3	5.9	147	13.5	8.8	1986-2006	**3.00***	(2.13; 3.88)	26	2.4	2.2	70	6.4	2.8	1986-2001 2001-2008	**2.41*** **–5.91**	(0.13; 4.74) (–11.60; 0.15)
Multiple myeloma	33	3.0	2.9	57	5.2	3.1	1986-2006	**0.71**	(–0.61; 2.04)	20	1.9	1.7	42	3.8	1.9	1986-2008	**0.18**	(–1.27; 1.66)
Leukaemias	57	5.3	4.9	91	8.4	5.9	1986-2006	**1.06***	(0.09; 2.04)	45	4.2	3.8	79	7.2	3.9	1986-2008	**–1.07***	(–1.98; –0.16)
ALL SITES	2,618	241.9	232.4	4,336	398.0	275.6	1986-1988 1988-1998 1998-2006	**–3.83** **2.53*** **0.00**	(–9.78; 2.52) (1.98; 3.08) (–0.58; 0.58)	1,448	133.8	122.4	2,018	183.6	101.8	1986-2008	**–0.80***	(–1.01; –0.59)

TABLE 4.3. FIVE-YEAR RELATIVE CANCER SURVIVAL (%) BY SITE AND SEX. ACBC, 1986-2004

MEN					
SITES	1986-1989	1990-1994	1995-1999	2000-2004	% CHANGE
Head and neck	39.7	38.6	46.0	43.4	3.7
Oesophagus	4.5	6.9	9.1	9.7	5.2
Stomach	24.3	22.0	24.1	25.7	1.4
Colon	43.3	48.2	50.2	57.2	13.9
Rectosigmoid junction, rectum, anus	34.6	44.2	50.6	58.2	23.7
Liver	2.3	3.7	10.2	17.7	15.4
Pancreas	1.2	2.5	4.7	4.1	2.9
Larynx	58.4	62.3	64.6	65.1	6.6
Lung	8.2	9.0	10.4	10.2	2.0
Melanoma of the skin	61.5	68.8	71.9	78.9	17.4
Breast	81.2	79.7	72.6	80.4	–0.8
Cervix uteri	—	—	—	—	—
Corpus uteri and other parts	—	—	—	—	—
Ovary	—	—	—	—	—
Prostate	43.6	56.7	75.7	90.7	47.1
Testicles	88.2	89.1	93.6	96.5	8.3
Kidney	45.8	49.5	60.5	64.2	18.4
Bladder	67.2	65.3	64.2	64.4	–2.8
Central nervous system	10.4	14.4	17.0	11.9	1.4
Thyroid	74.7	85.8	88.1	85.3	10.6
Hodgkin's lymphoma	70.9	76.6	88.3	87.8	17.0
Non-Hodgkin's lymphoma	45.9	51.5	57.5	59.3	13.4
Multiple myeloma	36.5	24.4	35.4	41.3	4.8
Leukaemias	36.4	36.8	49.9	51.4	15.1
ALL SITES	**32.9**	**35.4**	**42.0**	**50.0**	**17.1**

WOMEN					
SITES	1986-1989	1990-1994	1995-1999	2000-2004	% CHANGE
Head and neck	46.2	54.5	57.1	58.9	12.8
Oesophagus	3.8	9.7	9.2	11.7	7.9
Stomach	21.3	25.1	29.3	27.5	6.2
Colon	44.2	49.0	53.1	54.3	10.1
Rectosigmoid junction, rectum, anus	41.1	42.9	46.0	55.4	14.3
Liver	3.9	1.8	10.5	9.5	5.6
Pancreas	1.4	2.6	1.1	5.8	4.5
Larynx	72.3	87.1	70.9	77.3	5.0
Lung	12.2	11.1	15.6	13.9	1.7
Melanoma of the skin	81.7	88.4	88.5	90.8	9.1
Breast	67.9	75.5	83.0	87.4	19.5
Cervix uteri	60.9	65.7	69.5	64.8	4.0
Corpus uteri and other parts	71.2	74.0	74.2	79.5	8.3
Ovary	49.2	41.1	49.9	50.3	1.2
Prostate	—	—	—	—	—
Testicles	—	—	—	—	—
Kidney	60.8	58.8	57.5	60.3	–0.5
Bladder	60.0	61.4	58.2	60.3	0.3
Central nervous system	15.5	9.7	17.4	13.6	–2.0
Thyroid	79.8	89.1	92.3	94.4	14.6
Hodgkin's lymphoma	70.1	82.6	89.9	96.3	26.2
Non-Hodgkin's lymphoma	39.5	52.4	54.5	64.0	24.5
Multiple myeloma	27.9	29.7	36.4	38.6	10.7
Leukaemias	36.7	52.9	44.4	49.7	13.0
ALL SITES	**48.1**	**52.7**	**57.9**	**60.1**	**12.0**

TABLE 4.4. TREND INCIDENCE AND MORTALITY RATES BY SITE AND PROVINCE. MEN. ACBC

SITES	INCIDENCE								
	ALAVA			BIZKAIA			GIPUZKOA		
	PERIOD	APC	95% CI	PERIOD	APC	95% CI	PERIOD	APC	95% CI
Head and neck	1986-2006	–2.76*	(–4.15; –1.34)	1986-2000 2000-2006	0.27 –4.41*	(–0.42; 0.95) (–6.77; –1.99)	1986-2006	–1.63*	(–2.31; –0.95)
Oesophagus	1986-2006	–1.24	(–2.99; 0.54)	1986-2006	–1.29*	(–2.30; –0.26)	1986-2006	–2.36*	(–3.32; –1.38)
Stomach	1986-2006	–2.42*	(–3.31; –1.53)	1986-2006	–2.89*	(–3.39; –2.38)	1986-2006	–3.16*	(–3.97; –2.34)
Colon	1986-2006	2.97*	(1.47; 4.48)	1986-2006	4.13*	(3.49; 4.77)	1986-2006	3.08*	(2.15; 4.03)
Rectosigmoid junction, rectum, anus	1986-2006	1.12	(–0.28; 2.53)	1986-2006	1.85*	(1.26; 2.44)	1986-2006	1.74*	(0.75; 2.75)
Liver	1986-2006	0.92	(–0.76; 2.62)	1986-2006	2.03*	(1.05; 3.01)	1986-2006	1.70*	(0.33; 3.09)
Pancreas	1986-2006	0.04	(–1.85; 1.97)	1986-2006	1.14*	(0.21; 2.07)	1986-2006	0.47	(–0.59; 1.54)
Larynx	1986-2006	–0.93	(–2.61; 0.78)	1986-2000 2000-2006	–0.87 –6.10*	(–1.85; 0.12) (–9.71; –2.34)	1986-2006	–2.08*	(–3.20; –0.96)
Lung	1986-2006	–0.05	(–0.87; 0.77)	1986-1988 1988-1993 1993-2006	–3.88 2.83 –0.85*	(–18.06; 12.76) (–1.94; 7.84) (–1.57; –0.13)	1986-2006	0.25	(–0.21; 0.71)
Melanoma of the skin	1986-2006	5.69*	(2.70; 8.76)	1986-2006	4.22*	(2.64; 5.84)	1986-2006	6.41*	(4.79; 8.07)
Breast	1986-2006	15.22	(–9.33; 46.42)	1986-1995 1995-2006	261.08* –2.08	(24.40; 948.10) (–55.09; 113.53)	1986-2006	2.28	(–2.08; 6.84)
Prostate	1986-2004 2004-2006	9.85* –14.20	(8.66; 11.05) (–30.23; 5.50)	1986-2006	6.80*	(5.91; 7.70)	1986-1996 1996-2000 2000-2006	4.30* 26.97* –3.78*	(1.20; 7.49) (13.36; 42.22) (–6.80; –0.67)
Testicles	1986-2006	3.63*	(0.64; 6.72)	1986-2006	5.55*	(3.58; 7.56)	1986-2006	4.26*	(2.07; 6.51)
Kidney	1986-2006	4.59*	(2.21; 7.02)	1986-2006	3.18*	(2.18; 4.19)	1986-2006	2.13*	(0.91; 3.37)
Bladder	1986-2006	–0.55	(–1.61; 0.52)	1986-1995 1995-2006	–3.93* 1.59	(–7.02; –0.74) (–0.61; 3.85)	1986-2001 2001-2006	0.82 –6.78*	(–0.51; 2.16) (–12.72; –0.43)
Central nervous system	1986-1999 1999-2002 2002-2006	1.41 –30.09 32.81*	(–2.49; 5.47) (–68.36; 54.50) (6.32; 65.90)	1986-2006	0.49	(–0.58; 1.58)	1986-2006	0.82	(–0.81; 2.48)
Thyroid	1986-1989 1989-2006	21.82 103.93*	(–71.59; 422.29) (84.39; 125.54)	1986-2006	3.36*	(0.21; 6.61)	1986-2006	4.65*	(1.54; 7.85)
Hodgkin's lymphoma	1986-2006	33.99	(–5.98; 90.93)	1986-2006	0.23	(–1.41; 1.90)	1986-2006	1.60	(–1.12; 4.39)
Non-Hodgkin's lymphoma	1986-1991 1991-2006	22.83* 1.01	(1.49; 48.66) (–1.08; 3.14)	1986-1989 1989-2006	16.21 0.75	(–1.94; 37.71) (–0.20; 1.71)	1986-2006	2.67*	(1.52; 3.83)
Multiple myeloma	1986-2006	–1.53	(–3.78; 0.77)	1986-2006	1.11	(–0.47; 2.72)	1986-2006	–0.43	(–2.85; 2.05)
Leukaemias	1986-2006	0.56	(–1.07; 2.21)	1986-2006	1.27*	(0.27; 2.28)	1986-2006	–0.58	(–1.87; 0.72)
ALL SITES	1986-2006	1.44*	(1.01; 1.86)	1986-2006	1.00*	(0.78; 1.21)	1986-2002 2002-2006	1.86* –2.85	(1.34; 2.39) (–6.33; 0.77)

SITES	MORTALITY								
	ALAVA			BIZKAIA			GIPUZKOA		
	PERIOD	APC	95% CI	PERIOD	APC	95% CI	PERIOD	APC	95% CI
Head and neck	1986-2008	–3.06*	(–5.03; –1.05)	1986-2008	–1.57*	(–2.46; –0.68)	1986-2008	–2.05*	(–3.10; –0.98)
Oesophagus	1986-2008	–2.27*	(–3.95; –0.55)	1986-2008	–1.64*	(–2.32; –0.96)	1986-2008	–2.33*	(–3.21; –1.43)
Stomach	1986-2008	–4.27*	(–5.27; –3.25)	1986-2008	–3.00*	(–3.47; –2.52)	1986-2008	–3.41*	(–4.34; –2.46)
Colon	1986-2008	1.57*	(0.55; 2.59)	1986-2008	2.16*	(1.39; 2.93)	1986-2008	1.68*	(0.83; 2.55)
Rectosigmoid junction, rectum, anus	1986-2008	–0.31	(–1.72; 1.11)	1986-2008	–0.25	(–1.40; 0.91)	1986-2008	–1.01	(–2.11; 0.10)
Liver	1986-2008	–1.74*	(–3.45; –0.01)	1986-2008	–0.19	(–0.98; 0.60)	1986-2008	–0.53	(–1.41; 0.35)
Pancreas	1986-2008	0.27	(–1.59; 2.18)	1986-2008	1.25*	(0.22; 2.30)	1986-2008	–0.47	(–1.98; 1.06)
Larynx	1986-2008	–3.27*	(–5.25; –1.25)	1986-1992 1992-2008	0.73 –5.82*	(–4.54; 6.28) (–7.15; –4.46)	1986-2008	–3.21*	(–4.27; –2.14)
Lung	1986-2008	–0.03	(–0.93; 0.88)	1986-1995 1995-1999 1999-2008	2.18* –4.31 0.06	(0.64; 3.74) (–11.32; 3.25) (–1.33; 1.48)	1986-2008	0.31	(–0.08; 0.69)
Melanoma of the skin	1986-2008	8.37	(–17.72; 42.74)	1986-2008	2.49*	(0.01; 5.03)	1986-2008	6.83	(–2.18; 16.65)
Breast	1986-2008	–1.10	(–34.75; 49.89)	1986-2008	23.36	(–12.11; 73.16)	1986-2008	36.33	(–5.02; 95.68)
Prostate	1986-1998 1998-2008	2.87* –4.54*	(0.01; 5.82) (–7.27; –1.73)	1986-2008	–1.49*	(–2.18; –0.80)	1986-2008	–0.89	(–1.78; 0.02)
Testicles	1986-2008	–19.39	(–44.24; 16.53)	1986-2008	–8.66	(–26.34; 13.27)	1986-2008	–36.47*	(–57.03; –6.07)
Kidney	1986-2008	–0.14	(–2.34; 2.12)	1986-2008	0.00	(–1.16; 1.18)	1986-2008	0.47	(–0.92; 1.88)
Bladder	1986-2008	–0.61	(–2.54; 1.35)	1986-2008	–0.35	(–1.03; 0.33)	1986-2008	–0.91	(–2.02; 0.22)
Central nervous system	1986-2008	0.73	(–1.68; 3.20)	1986-2008	2.50*	(1.36; 3.67)	1986-2008	0.22	(–1.46; 1.92)
Thyroid	1986-2008	58.63*	(4.40; 141.03)	1986-2008	9.32	(–14.08; 39.09)	1986-2008	15.81	(–19.83; 67.29)
Hodgkin's lymphoma	1986-2008	–14.15	(–45.99; 36.47)	1986-2008	–6.67	(–14.88; 2.34)	1986-2008	2.93	(–9.27; 16.78)
Non-Hodgkin's lymphoma	1986-2008	1.80	(–6.83; 11.22)	1986-2008	0.45	(–0.78; 1.70)	1986-2008	0.13	(–1.77; 2.07)
Multiple myeloma	1986-2008	–1.49	(–4.11; 1.20)	1986-2008	–0.17	(–1.85; 1.54)	1986-2008	–1.73	(–4.18; 0.79)
Leukaemias	1986-2008	–2.51*	(–4.69; –0.28)	1986-2008	–0.55	(–1.76; 0.69)	1986-2008	–1.43*	(–2.57; –0.28)
ALL SITES	1986-1990 1990-2008	6.18 –1.57*	(–1.07; 13.96) (–2.15; –0.99)	1986-1995 1995-2008	–0.07 –1.21*	(–0.79; 0.65) (–1.59; –0.83)	1986-2008	–0.67*	(–0.94; –0.40)

TABLE 4.5. TREND INCIDENCE AND MORTALITY RATES BY SITE AND PROVINCE. WOMEN. ACBC

SITES	INCIDENCE								
	ALAVA			BIZKAIA			GIPUZKOA		
	PERIOD	APC	95% CI	PERIOD	APC	95% CI	PERIOD	APC	95% CI
Head and neck	1986-2006	3.36	(–0.07; 6.91)	1986-2006	2.30*	(0.72; 3.91)	1986-2006	3.18*	(1.05; 5.36)
Oesophagus	1986-2006	3.68	(–13.06; 23.65)	1986-2006	–0.93	(–3.63; 1.84)	1986-2006	5.02*	(3.16; 6.91)
Stomach	1986-2006	–2.79*	(–4.19; –1.38)	1986-2006	–3.43*	(–4.18; –2.68)	1986-2006	–3.57*	(–4.56; –2.56)
Colon	1986-2006	1.69	(–0.04; 3.46)	1986-2006	2.48*	(1.89; 3.06)	1986-2006	1.95*	(1.18; 2.72)
Rectosigmoid junction, rectum, anus	1986-2006	1.08	(–0.86; 3.06)	1986-2006	1.32*	(0.40; 2.25)	1986-2006	1.41	(–0.07; 2.92)
Liver	1986-2006	0.57	(–3.10; 4.39)	1986-2006	0.53	(–1.07; 2.15)	1986-2006	3.01*	(0.72; 5.35)
Pancreas	1986-2006	1.28	(–1.00; 3.60)	1986-2006	1.27*	(0.16; 2.39)	1986-2006	1.26	(–0.11; 2.64)
Larynx	1986-2006	2.71	(–6.94; 13.36)	1986-2006	5.05*	(1.90; 8.30)	1986-2006	85.80*	(52.90; 125.77)
Lung	1986-2006	4.24*	(2.36; 6.16)	1986-2006	5.37*	(4.07; 6.68)	1986-2006	6.02*	(4.57; 7.49)
Melanoma of the skin	1986-2006	4.93*	(2.58; 7.33)	1986-2006	2.65*	(1.29; 4.04)	1986-2006	5.16*	(3.73; 6.61)
Breast	1986-2006	1.46*	(0.25; 2.70)	1986-1989 1989-1998 1998-2006	–4.42 4.74* –0.55	(–11.90; 3.69) (3.06; 6.44) (–1.95; 0.86)	1986-1998 1998-2006	3.37* –1.67	(1.81; 4.97) (–4.11; 0.83)
Cervix uteri	1986-2006	–0.13	(–2.09; 1.88)	1986-2006	–1.66*	(–2.99; –0.31)	1986-1993 1993-1996 1996-2006	–7.49 15.85 –1.64	(–16.21; 2.15) (–40.87; 126.94) (–6.05; 2.99)
Corpus uteri and other parts	1986-2006	2.47*	(1.03; 3.92)	1986-2006	1.94*	(1.11; 2.77)	1986-2006	1.93*	(1.04; 2.83)
Ovary	1986-2006	–0.31	(–2.26; 1.68)	1986-2006	1.27	(–0.25; 2.81)	1986-2006	–1.51*	(–2.89; –0.11)
Kidney	1986-2006	2.35	(–0.50; 5.28)	1986-2006	2.42*	(1.39; 3.45)	1986-1990 1990-2006	22.29* 0.67	(4.09; 43.66) (–0.76; 2.13)
Bladder	1986-2006	1.63	(–1.70; 5.06)	1986-2006	0.76	(–0.68; 2.22)	1986-1996 1996-1999 1999-2006	–0.7 7.95 –5.19	(–4.48; 3.23) (–30.40; 67.42) (–10.69; 0.65)
Central nervous system	1986-2006	0.60	(–1.80; 3.06)	1986-2006	1.30*	(0.12; 2.50)	1986-2006	0.93	(–0.29; 2.16)
Thyroid	1986-2006	6.03*	(2.26; 9.94)	1986-2006	5.67*	(4.08; 7.29)	1986-2006	5.42*	(3.42; 7.45)
Hodgkin's lymphoma	1986-2006	–47.74*	(–59.34; –32.83)	1986-2006	1.74	(–0.90; 4.44)	1986-2006	2.09	(–0.51; 4.76)
Non-Hodgkin's lymphoma	1986-2006	2.92*	(0.46; 5.44)	1986-2006	2.99*	(2.22; 3.75)	1986-2006	2.98*	(1.36; 4.62)
Multiple myeloma	1986-2006	23.75	(–28.83; 115.16)	1986-2006	0.17	(–1.21; 1.58)	1986-2006	1.76	(–0.70; 4.28)
Leukaemias	1986-2006	2.69*	(0.86; 4.55)	1986-2006	0.62	(–0.42; 1.67)	1986-2006	1.14	(–0.58; 2.90)
ALL SITES	1986-1997 1997-2006	2.66* –0.12	(1.53; 3.80) (–1.38; 1.16)	1986-1988 1988-1998 1998-2006	–4.98 2.38* 0.31	(–11.42; 1.94) (1.77; 3.00) (–0.34; 0.97)	1986-1998 1998-2006	2.30* –0.21	(1.55; 3.06) (–1.41; 1.00)

SITES	MORTALITY								
	ALAVA			BIZKAIA			GIPUZKOA		
	PERIOD	APC	95% CI	PERIOD	APC	95% CI	PERIOD	APC	95% CI
Head and neck	1986-2008	–0.59	(–3.44; 2.35)	1986-2008	0.05	(–1.53; 1.65)	1986-2008	0.30	(–1.87; 2.52)
Oesophagus	1986-2008	4.99	(–21.69; 40.76)	1986-2008	–1.71	(–4.45; 1.10)	1986-2008	2.01	(–0.23; 4.29)
Stomach	1986-2008	–4.60*	(–6.24; –2.94)	1986-2008	–3.73*	(–4.75; –2.70)	1986-2008	–4.83*	(–5.64; –4.02)
Colon	1986-2008	0.34	(–1.18; 1.88)	1986-2008	0.80*	(0.15; 1.45)	1986-2008	0.14	(–0.72; 1.00)
Rectosigmoid junction, rectum, anus	1986-2008	–1.07	(–3.27; 1.19)	1986-2008	–1.72*	(–2.86; –0.56)	1986-2008	–1.86	(–3.95; 0.28)
Liver	1986-2008	–1.61	(–3.77; 0.59)	1986-2008	–1.65*	(–3.07; –0.22)	1986-2008	–1.91*	(–3.49; –0.32)
Pancreas	1986-2008	1.13	(–0.63; 2.93)	1986-2008	0.44	(–0.36; 1.25)	1986-2008	1.03	(–0.17; 2.25)
Larynx	1986-2008	30.99	(–4.37; 79.41)	1986-2008	2.31	(–9.61; 15.81)	1986-2008	39.05	(–4.15; 101.71)
Lung	1986-2008	4.05*	(1.48; 6.69)	1986-2008	4.96*	(4.08; 5.84)	1986-2008	5.25*	(3.91; 6.60)
Melanoma of the skin	1986-2008	14.86	(–11.62; 49.27)	1986-2008	2.10	(–0.11; 4.37)	1986-2008	0.34	(–2.27; 3.02)
Breast	1986-2008	–3.13*	(–4.57; –1.67)	1986-2008	–1.74*	(–2.22; –1.26)	1986-1992 1992-2005 2005-2008	3.36 –4.56* 5.18	(–0.91; 7.81) (–5.96; –3.13) (–8.35; 20.70)
Cervix uteri	1986-2008	7.52	(–9.97; 28.42)	1986-2008	–1.47	(–3.41; 0.50)	1986-2008	0.73	(–2.27; 3.81)
Corpus uteri and other parts	1986-2008	0.99	(–1.53; 3.57)	1986-2008	–1.37*	(–2.57; –0.16)	1986-2008	–1.44*	(–2.69; –0.18)
Ovary	1986-2008	0.85	(–7.48; 9.93)	1986-2008	1.37	(–0.06; 2.81)	1986-2008	–1.49*	(–2.93; –0.03)
Kidney	1986-2008	–2.99	(–6.63; 0.79)	1986-2008	0.69	(–0.92; 2.33)	1986-1992 1992-2008	15.84 –3.20*	(–1.45; 36.16) (–5.87; –0.45)
Bladder	1986-2008	2.49	(–0.98; 6.09)	1986-2008	0.15	(–2.04; 2.38)	1986-2008	0.02	(–2.21; 2.31)
Central nervous system	1986-2008	0.16	(–2.41; 2.79)	1986-2008	2.84*	(1.13; 4.58)	1986-2008	0.82	(–1.14; 2.82)
Thyroid	1986-2008	36.92	(–9.31; 106.72)	1986-2008	–2.06	(–4.84; 0.81)	1986-2008	–2.52	(–11.88; 7.84)
Hodgkin's lymphoma	1986-2008	–3.30	(–37.52; 49.65)	1986-2008	–14.16	(–30.10; 5.41)	1986-2008	–20.22	(–41.80; 9.36)
Non-Hodgkin's lymphoma	1986-2008	–1.19	(–3.40; 1.06)	1986-2008	0.80	(–0.98; 2.60)	1986-2008	–0.40	(–2.31; 1.54)
Multiple myeloma	1986-2008	11.48	(–8.93; 36.46)	1986-2008	–0.25	(–2.14; 1.68)	1986-2008	–0.30	(–2.06; 1.49)
Leukaemias	1986-2008	–0.77	(–3.13; 1.65)	1986-2008	–0.94	(–2.33; 0.47)	1986-2008	–1.56*	(–3.07; –0.02)
ALL SITES	1986-2008	–1.05*	(–1.58; –0.52)	1986-2008	–0.63*	(–0.85; –0.40)	1986-2008	–0.99*	(–1.28; –0.69)

TABLE 4.6. TREND IN FIVE-YEAR RELATIVE SURVIVAL (%) FOR SELECTED SITES BY PROVINCE. MEN, 1986–2004

SITES	ALAVA				
	1986-1989	1990-1994	1995-1999	2000-2004	% CHANGE
Head and neck	47.1	48.1	51.8	41.5	–5.6
Oesophagus	2.5	8.9	0.4	2.6	0.2
Stomach	23.5	21.1	17.5	33.5	10.0
Colon	48.8	58.6	47.9	57.5	8.7
Rectosigmoid junction, rectum, anus	41.2	51.9	55.5	60.5	19.3
Liver	2.3	3.4	14.8	22.1	19.8
Pancreas	0.0	4.8	3.5	2.7	2.6
Larynx	64.3	63.1	64.7	58.2	–6.2
Lung	11.8	9.4	9.6	12.1	0.3
Melanoma of the skin	58.7	46.2	73.9	78.1	19.4
Breast	—	—	60.0	72.2	—
Prostate	64.5	62.7	82.3	96.1	31.5
Testicles	—	84.5	—	—	—
Kidney	38.3	48.9	51.0	77.9	39.6
Bladder	75.9	66.5	62.9	68.8	–7.2
Central nervous system	10.0	25.9	19.4	13.1	3.0
Thyroid	—	74.4	83.5	79.8	—
Hodgkin's lymphoma	71.2	81.7	89.1	83.0	11.8
Non-Hodgkin's lymphoma	40.4	64.2	66.0	60.1	19.7
Multiple myeloma	27.3	30.1	42.6	33.1	5.8
Leukaemias	35.9	36.8	41.8	54.0	18.1
MALIGNANT TUMOURS	**37.4**	**39.2**	**44.0**	**55.6**	**18.2**

BIZKAIA				
1986-1989	1990-1994	1995-1999	2000-2004	% CHANGE
37.3	35.2	43.0	42.0	4.7
4.5	4.4	9.4	8.7	4.1
25.5	20.9	25.9	23.5	–2.0
43.2	47.9	51.4	57.5	14.2
33.3	43.4	48.0	57.6	24.2
1.4	3.4	10.0	16.7	15.3
2.3	1.7	4.7	3.7	1.4
54.6	59.1	62.5	65.9	11.2
6.7	7.1	9.6	9.8	3.1
54.1	73.1	75.0	83.0	28.9
69.9	83.1	65.7	78.0	8.1
36.1	56.9	70.8	88.8	52.7
80.0	88.0	93.0	95.1	15.1
47.7	46.7	61.1	63.7	16.0
67.5	64.4	61.5	62.4	–5.1
10.8	14.0	17.2	11.7	0.8
77.0	88.7	77.5	76.0	–1.1
62.6	74.4	85.5	89.9	27.3
46.0	46.6	54.8	56.0	10.0
43.4	22.7	37.1	39.9	–3.6
41.3	43.5	51.7	52.1	10.8
31.5	**33.3**	**39.7**	**47.3**	**15.8**

GIPUZKOA				
1986-1989	1990-1994	1995-1999	2000-2004	% CHANGE
41.4	41.2	49.5	46.9	5.5
3.4	10.5	10.8	13.9	10.5
22.7	24.0	24.1	25.7	3.0
41.1	45.2	48.7	55.6	14.5
33.5	42.5	53.0	58.6	25.1
3.8	4.4	8.0	17.4	13.6
0.3	3.4	5.4	5.5	5.3
65.1	68.5	69.2	66.4	1.3
9.8	12.8	12.0	10.2	0.5
73.3	67.3	65.7	72.8	–0.4
76.3	67.6	86.5	73.6	–2.8
47.6	53.9	79.1	90.6	43.0
—	93.8	95.9	97.5	—
43.8	53.0	63.1	60.7	16.9
62.7	66.3	68.6	65.9	3.2
10.0	11.2	16.1	11.9	1.9
62.5	76.9	94.5	91.9	29.4
85.5	79.2	94.4	84.3	–1.2
47.8	54.3	57.8	63.8	16.0
26.7	24.2	29.4	47.7	21.0
27.2	46.4	50.5	48.1	20.9
33.6	**37.2**	**44.8**	**52.2**	**18.6**

TABLE 4.7. TREND IN FIVE-YEAR RELATIVE SURVIVAL (%) FOR SELECTED SITES BY PROVINCE. WOMEN, 1986–2004

SITES	ALAVA				
	1986-1989	1990-1994	1995-1999	2000-2004	% CHANGE
Head and neck	43.7	66.3	48.8	45.5	1.9
Oesophagus	—	17.1	13.5	24.2	—
Stomach	23.2	22.5	42.6	24.9	1.7
Colon	44.8	50.2	48.2	55.9	11.1
Rectosigmoid junction, rectum, anus	43.2	42.8	43.0	64.8	21.5
Liver	0.2	4.4	12.5	15.5	15.3
Pancreas	0.6	0.4	0.6	7.4	6.8
Larynx	—	68.5	53.7	74.3	—
Lung	16.8	16.9	8.6	19.7	2.8
Melanoma of the skin	83.1	84.4	89.8	88.8	5.7
Breast	69.4	81.8	87.6	91.2	21.8
Cervix uteri	81.7	67.2	82.3	47.9	–33.8
Corpus uteri and other parts	73.9	77.5	67.8	77.0	3.1
Ovary	58.2	34.9	45.6	46.4	–11.7
Kidney	59.1	68.6	60.2	69.0	9.9
Bladder	76.8	59.8	59.7	54.6	22.2
Central nervous system	22.9	17.1	16.8	16.3	–6.6
Thyroid	—	86.1	94.5	91.4	—
Hodgkin's lymphoma	37.3	64.2	—	85.1	47.8
Non-Hodgkin's lymphoma	50.1	59.9	49.3	64.1	14.0
Multiple myeloma	40.9	38.9	47.9	41.3	0.4
Leukaemias	47.9	52.9	43.5	58.7	10.8
MALIGNANT TUMOURS	**51.1**	**55.2**	**59.1**	**61.8**	**10.7**

BIZKAIA				
1986-1989	1990-1994	1995-1999	2000-2004	% CHANGE
45.9	54.0	55.2	61.9	16.1
3.8	10.3	7.0	12.9	9.1
23.5	26.6	29.1	28.7	5.2
46.5	49.1	53.0	54.5	8.0
36.5	42.4	45.0	52.8	16.3
5.2	0.9	11.7	8.6	3.4
0.7	2.5	1.4	5.9	5.1
59.8	78.1	70.1	74.4	14.5
11.1	8.1	15.1	12.0	0.9
83.1	89.7	89.4	89.7	6.6
68.1	74.4	80.9	85.7	17.6
57.9	65.2	70.3	67.7	9.9
67.6	72.1	74.5	77.5	9.9
43.3	41.8	45.6	50.2	7.0
64.7	57.3	52.8	58.6	–6.2
61.3	62.8	51.0	59.7	–1.6
14.1	10.6	20.5	13.4	–0.7
75.9	84.4	87.3	91.2	15.3
74.8	82.9	91.4	98.4	23.6
34.0	53.6	54.9	62.7	28.7
26.3	27.7	35.9	37.9	11.6
37.4	37.5	47.5	46.4	9.0
47.4	**52.2**	**56.5**	**59.0**	**11.6**

GIPUZKOA				
1986-1989	1990-1994	1995-1999	2000-2004	% CHANGE
48.4	52.0	63.0	58.4	10.0
10.7	5.0	12.6	6.5	–4.2
15.6	23.6	23.5	26.9	11.4
40.4	48.3	54.9	55.9	15.6
49.0	43.7	49.3	56.6	7.6
3.5	3.0	6.7	8.3	4.8
2.3	3.1	4.2	5.1	2.8
—	59.1	74.6	80.7	—
10.8	14.2	19.2	15.3	4.5
78.4	87.3	81.3	91.9	13.5
67.0	74.5	84.6	88.9	22.0
60.7	66.8	62.9	66.1	5.4
76.3	76.1	76.0	83.8	7.6
54.6	41.5	60.4	51.7	–2.9
51.4	58.2	61.2	58.0	6.7
52.4	60.3	65.9	63.6	11.2
15.2	5.6	12.1	12.7	–2.5
80.7	93.5	84.7	97.2	16.5
74.5	87.3	84.7	94.8	20.3
43.9	47.0	55.0	66.0	22.1
26.4	28.6	34.3	39.0	12.7
32.4	44.9	38.9	51.1	18.7
48.3	**52.2**	**59.3**	**61.2**	**12.9**

SELECTED SITES

HEAD AND NECK (C00-C14)

The number of new tumours diagnosed at sites on the head and neck in men in the period 1986-2006 has remained stable, whereas the number of deaths has decreased slightly. In contrast, the number of both incident cases and deaths has increased in women (Figure 1).

The age-adjusted incidence rates for men increased in a non-significant up to 1992, although they subsequently decreased significantly by 2.2% per year, from 38.5 in 1992 to 25.9 in 2006. A significant annual increase of 2.8% was observed over the whole study period for women (from 3.7 in 1986 to 6.2 in 2006).

The mortality rates have decreased significantly (2.9%) in men since 1994 (15.0 in 1994 to 8.3 in 2008), whereas no significant change has been observed for women over this time period.

The survival rate for this class of tumours has increased for both sexes, with a greater increase for women, for whom the five-year relative survival has increased from 46.2% in 1986-1989 to 58.9% in the period 2002-2004. The increase over the same period for men has been from 39.7% to 43.4% (Figure 2).

The changes observed are similar in all three provinces (Figures 3 and 4), with significant decreases in the incidence of head and neck tumours, although the incidence rate in men from Bizkaia was highest throughout the study period. Similarly to the incidence, the mortality rate has also decreased, with the largest drop being observed in Alava.

Differences in the survival rate were observed between the different territories. Thus, in the first study period (1986-1989), the survival

FIGURE 1. **TREND OF THE INCIDENCE AND MORTALITY RATES FOR CANCER OF THE HEAD AND NECK BY SEX. ACBC**

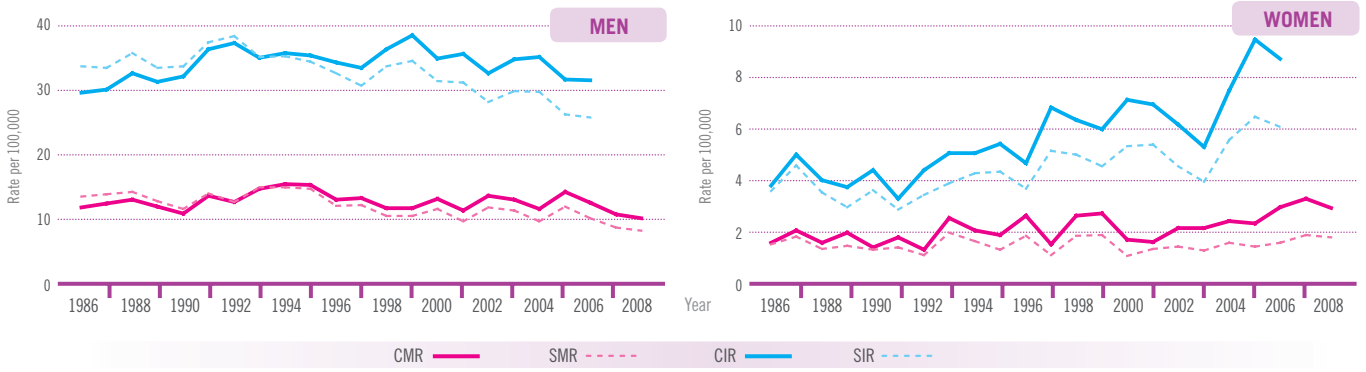


FIGURE 2. **TREND OF THE SURVIVAL (%) FOR CANCER OF THE HEAD AND NECK BY SEX. ACBC, 1986-2004**

rate for men in Bizkaia was lower, up to 10 points than that in Alava. Nevertheless, the survival rate for men has increased steadily over the years, and the five-year relative survival is similar in all three provinces for the period 2000-2004. The situation for women is somewhat different. Thus, although survival was similar in all three provinces at the beginning of the study period, it has increased to such an extent that the RS for women in Bizkaia in the final period is more than 10 points higher than for those in Alava (Figure 5).

FIGURE 3. **TREND OF THE INCIDENCE RATES OF HEAD AND NECK CANCER BY PROVINCE AND SEX. ACBC, 1986-2006**

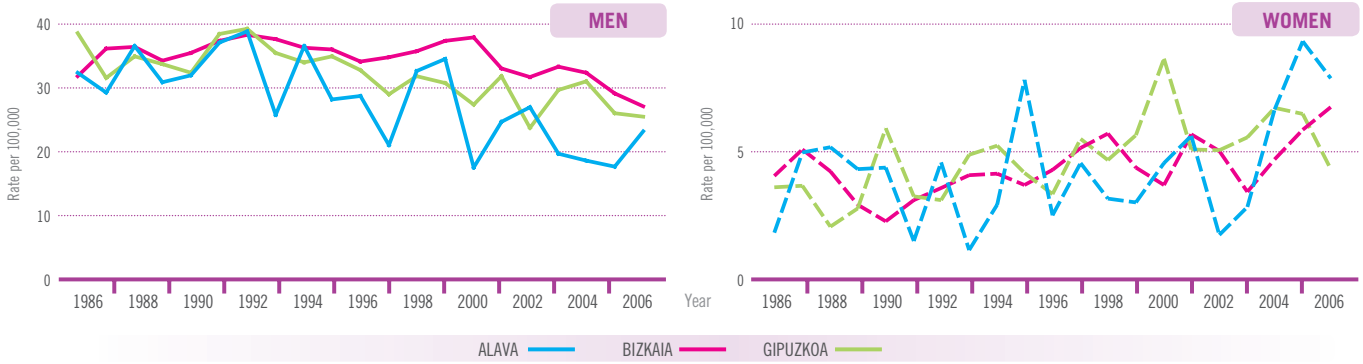


FIGURE 4. **TREND OF THE MORTALITY RATES OF HEAD AND NECK CANCER BY PROVINCE AND SEX. ACBC, 1986-2008**

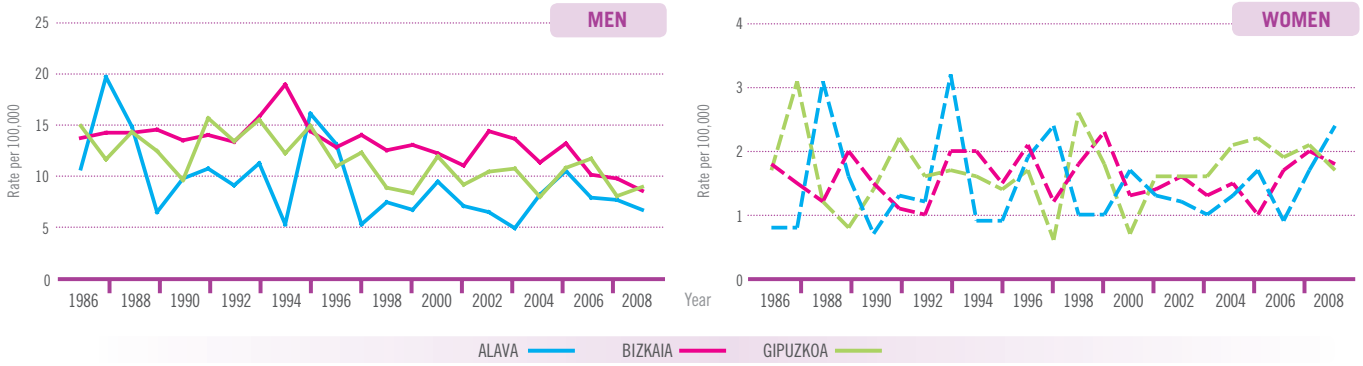


FIGURE 5. **TREND OF THE RELATIVE SURVIVAL (%) FOR HEAD AND NECK CANCER BY PROVINCE AND SEX. ACBC, 1986-2004**

STOMACH (C16)

The incidence and mortality rates for stomach cancer have decreased steadily over the period studied (Figure 1). Thus, the adjusted incidence rates for men have decreased significantly (2.9% per year) from 41.7 cases per 100,000 inhabitants in 1986 to 22.8 per 100,000 in 2006. A slightly larger yet still significant decrease (3.3% per year) was observed for women (from 17.0 in 1986 to 8.2 in 2006).

The mortality rates for men have also decreased significantly (3.3% per year) over the whole period studied (from 26.8 in 1986 to 14.4 in 2008) and, as was the case for the incidence, the decrease in the mortality rate for women (4.2% per year) has been somewhat larger (from 12.6 in 1986 to 4.7 in 2008).

The survival rate for stomach tumours has increased by five points for women, for whom the five-year relative survival has increased from 21.3% in 1986-1989 to 27.5% in the period 2000-2004. In contrast, the increase in the RS for men has been minimal (from 24.3% in 1986-1989 to 25.7% in the 2000-2004; Figure 2).

The province of Alava has a higher incidence rate than the other two provinces over the whole period studied and has also experienced the lowest fall in adjusted rates.

However, these inter-provincial differences vary as regards the changes in mortality rates, with Alava showing the greatest de-

FIGURE 1. **TREND OF THE INCIDENCE AND MORTALITY RATES FOR STOMACH CANCER, BY SEX. ACBC**

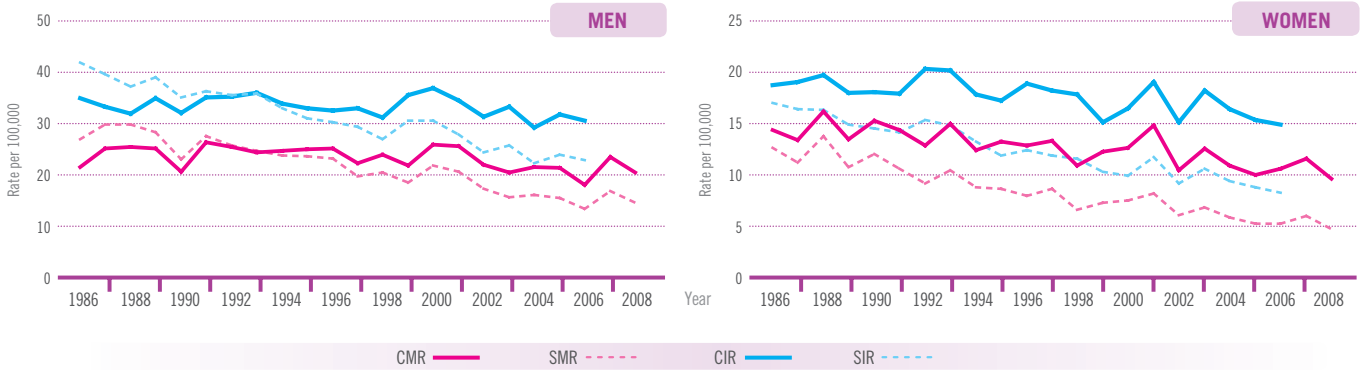


FIGURE 2. **TREND OF THE SURVIVAL (%) FOR STOMACH CANCER, BY SEX. ACBC, 1986-2004**

crease in these rates for men and Gipuzkoa the greatest decrease for women (Figures 3 and 4).

Analysis of the RS for women by province shows that Bizkaia and Gipuzkoa have experienced the greatest increase in survival rates for stomach cancer, whereas the greatest increase in RS for men was observed in Alava (Figure 5).

FIGURE 3. **TREND OF THE INCIDENCE RATES OF STOMACH CANCER BY PROVINCE AND SEX. ACBC, 1986-2006**

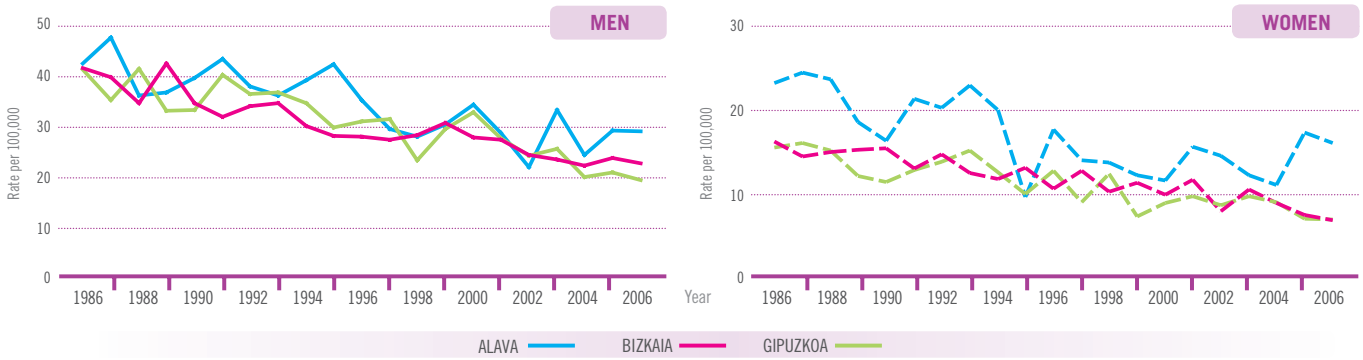


FIGURE 4. **TREND OF THE MORTALITY RATES STOMACH CANCER BY PROVINCE AND SEX. ACBC, 1986-2008**

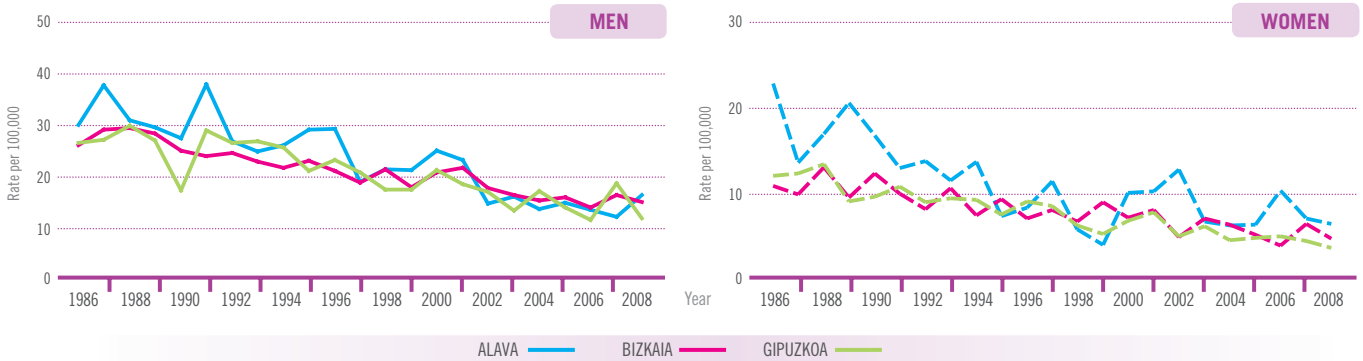
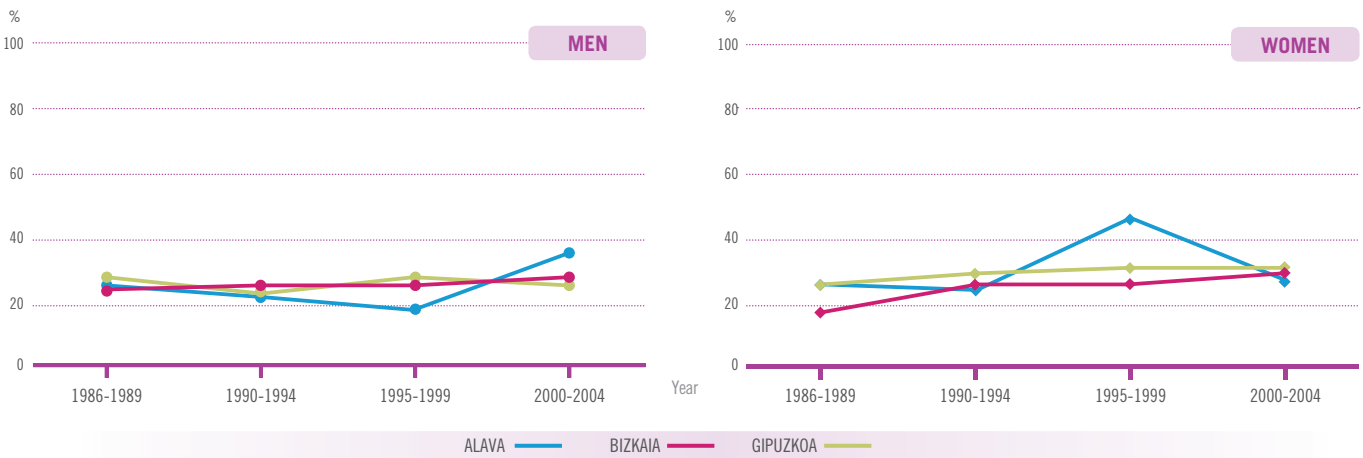


FIGURE 5. **TREND OF THE RELATIVE SURVIVAL (%) FOR STOMACH CANCER BY PROVINCE AND SEX. ACBC, 1986-2004**



COLON (C18)

The incidence and, to a lesser extent, mortality rates for colon cancer have increased steadily (Figure 1). Thus, the adjusted incidence rates have increased significantly, by 3.7% per year in men (from 24.8 in 1986 to 47.9 in 2006) and 2.2% per year in women (from 14.4 in 1986 to 21.9 in 2006).

The mortality rates for men have also increased significantly (2.0% per year) over the whole study period (from 16.9 in 1986 to 25.1 in 2008). For women, the adjusted mortality rates increased significantly (by 1.6% per year) during the first three periods (from 8.7 in 1986 to 18.8 in 2000), but subsequently decreased, also significantly, to a value of 10.1/100,000 in 2008.

The relative survival rate for colon cancer has increased steadily. In men, it has passed from a value of 43.3% in the period 1986-1989 to 57.2% in the final period. Likewise, the RS for women has increased by 10 points from 44.2% in 1986-1989 to 54.3% in the period 2000-2004 (Figure 2).

Although the increase in the incidence rate has been significant for the ACBC as a whole, the increase in Alava was somewhat lower than those for Bizkaia and Gipuzkoa in men; the increase for women in this territory was not significant due to the lower number of cases (Figure 3).

FIGURE 1. **TREND OF THE INCIDENCE AND MORTALITY RATES FOR COLON CANCER BY SEX. ACBC**

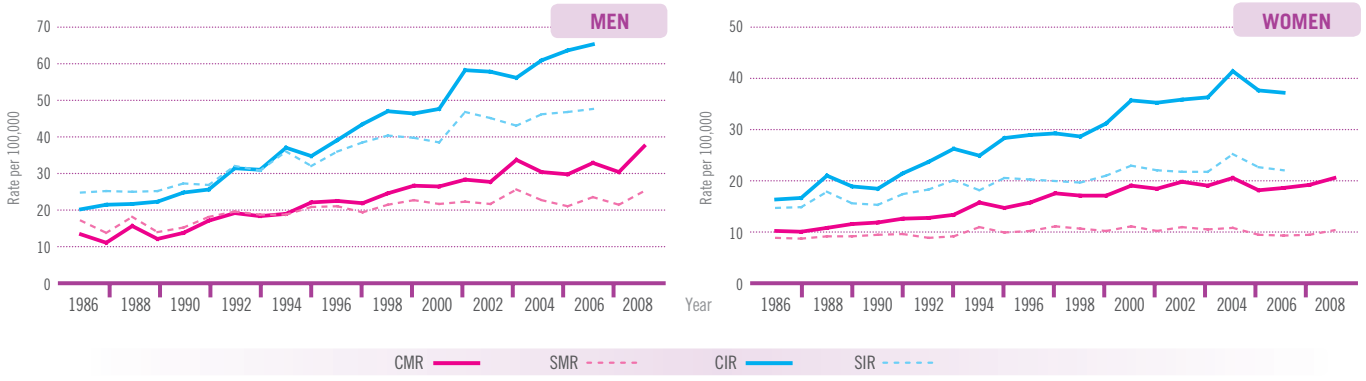


FIGURE 2. **TREND OF THE SURVIVAL (%) FOR COLON CANCER BY SEX. ACBC, 1986-2004**

The increase in male mortality was also significant in all three provinces (highest in Bizkaia), whereas only the increase for women in Bizkaia was significant (Figure 4).

The five-year relative survival increased by more than 10 points over the period studied, with a similar evolution in both sexes and all three provinces (Figure 5).

FIGURE 3. **TREND OF THE INCIDENCE RATES OF COLON CANCER BY PROVINCE AND SEX. ACBC, 1986-2006**

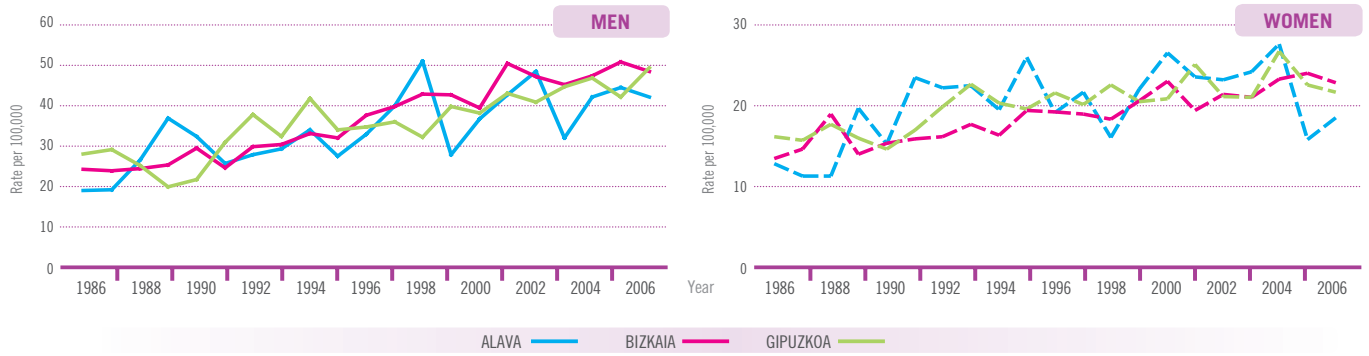


FIGURE 4. **TREND OF THE MORTALITY RATES FOR COLON CANCER BY PROVINCE AND SEX. ACBC, 1986-2008**

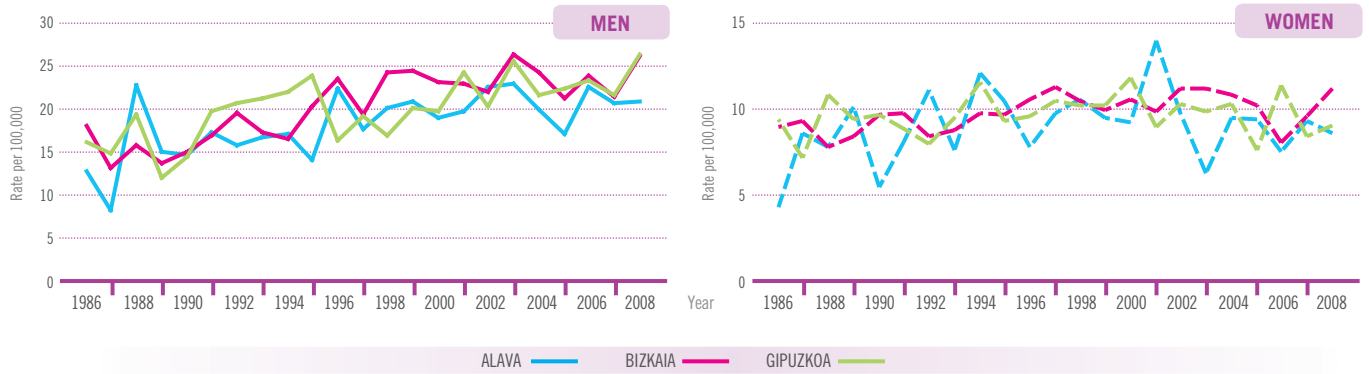


FIGURE 5. **TREND OF THE RELATIVE SURVIVAL (%) FOR COLON CANCER BY PROVINCE AND SEX. ACBC, 1986-2004**

RECTOSIGMOID JUNCTION, RECTUM AND ANUS (C19-C21)

The adjusted incidence rates for cancer of the rectosigmoid junction, rectum and anus in men increased significantly up until 2004 (2.1% per year), from 23.1 to 31.2 cases per 100,000 inhabitants, and then decreased in a non-significant manner between 2004 and 2006. In women, they increased by a statistically significant 1.4% per year (from 10.1 in 1986 to 12.2 en 2006).

The male mortality rates did not change significantly over the period studied, whereas those for women decreased significantly over the entire period studied, at an annual rate of 1.6%, from 4.0 in 1986 to 3.0 in 2008.

The survival rate for these tumours increased in both sexes, although to a greater extent in men (22.7 points) than in women (14.3). Likewise, the five-year RS for men increased from 35.6% in the period 1986-1989 to 58.2% in 2000-2004. The change for women over the same period was from 41.1% to 55.4% (Figure 2).

Analysis of the evolution of the incidence rates by province showed that these rates increased significantly for men from Bizkaia and Gipuzkoa and for women from Bizkaia. The increases observed for men and women from Alava and women from Gipuzkoa are not significant (Figure 3).

The male mortality rates did not vary significantly for any of the three territories, and only women from Bizkaia showed a statistically significant decrease (–1.72 %) for the period under study (Figure 4).

FIGURE 1. **TREND OF THE INCIDENCE AND MORTALITY RATES FOR CANCER OF THE RECTOSIGMOID JUNCTION, RECTUM AND ANUS BY SEX. ACBC**

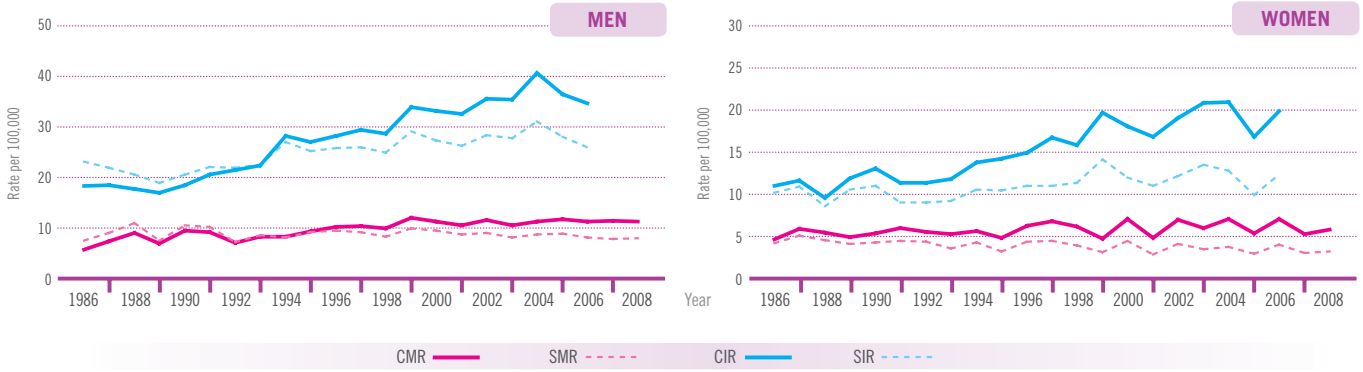


FIGURE 2. **TREND OF THE SURVIVAL (%) FOR CANCER OF THE RECTOSIGMOID JUNCTION, RECTUM AND ANUS BY SEX. ACBC, 1986-2004**

The survival rate by province mirrored that for the ACBC as a whole, with the five-year relative survival increasing with time for both sexes from all three territories. The highest survival rate was observed for Alava, especially in women, for whom the rate was 12 points higher than for those from Bizkaia and eight points higher than those from Gipuzkoa (Figure 5).

FIGURE 3. **TREND OF THE INCIDENCE OF CANCER RATES OF THE RECTOSIGMOID JUNCTION, RECTUM AND ANUS BY PROVINCE AND SEX. ACBC, 1986-2006**

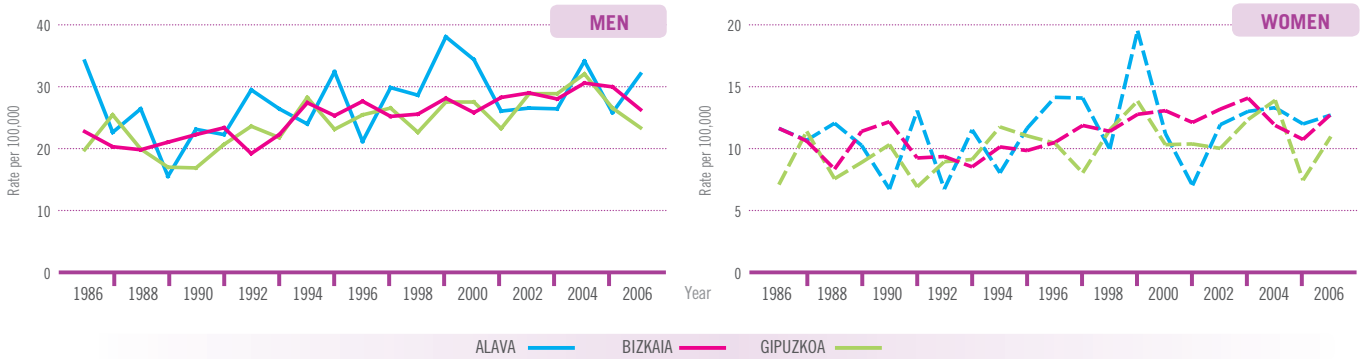


FIGURE 4. **TREND OF THE MORTALITY RATES FOR CANCER OF THE RECTOSIGMOID JUNCTION, RECTUM AND ANUS BY PROVINCE AND SEX. ACBC, 1986-2008**

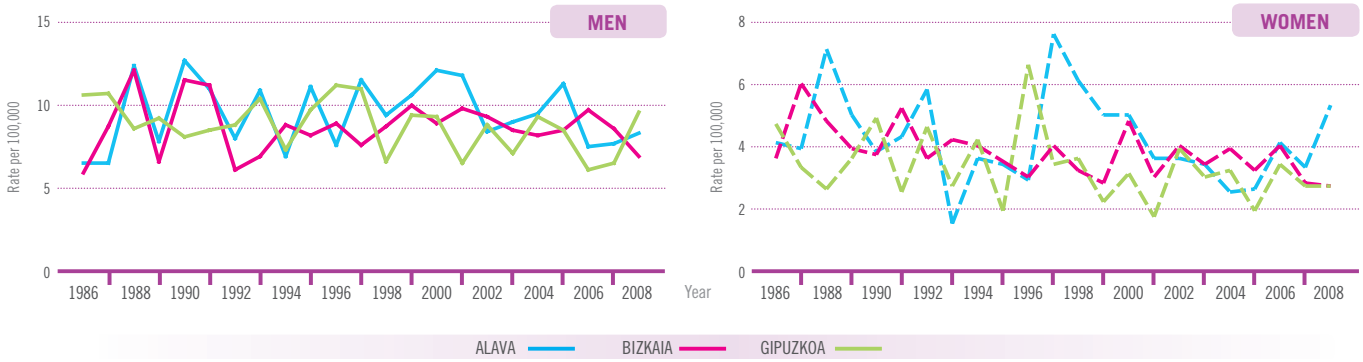
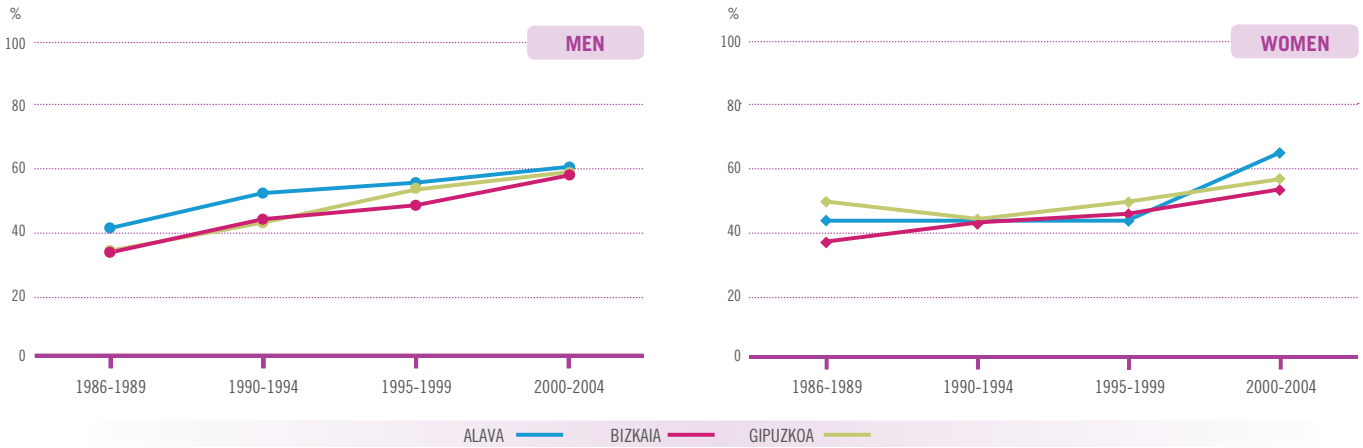


FIGURE 5. **TREND OF THE RELATIVE SURVIVAL (%) FOR CANCER OF THE RECTOSIGMOID JUNCTION, RECTUM AND ANUS BY PROVINCE AND SEX. ACBC, 1986-2004**



TRACHEA, BRONCHI AND LUNG (C33-C34)

The number of cases diagnosed annually in men from the ACBC has almost doubled, increasing from 685 during the initial period of this study to 1025 in 2006, whereas it has more than tripled in women (from 66 to 211). The ratio of the age-adjusted rates for men and women has decreased notably from 13 in 1986 to 5 in 2006, thus reflecting the changes in smoking habits which have occurred over this period.

The incidence rate for men increased significantly by 1.3% per year between 1986 (77.2) and 1994 (85.5), but decreased significantly thereafter by 0.7% per year to 75.8 in 2006. The rate for women increased significantly (5.5% per year) over the whole period studied (from 5.9 in 1986 to 15.0 in 2006).

The male mortality rates increased by 1.5% per year up until 1995 (from 62.2 in 1986 to 72.5 in 1995), then decreased, also significantly, by 1.6% over the following decade. In the past few years they have begun to increase again, although in a non-significant manner, to reach 67.7 cases per 100,000 inhabitants in 2008. In contrast, the mortality rates for women have increased significantly by 5.0% per year over the whole period studied (from 5.1 in 1986 to 12.8 in 2008), although from a much lower initial level.

Although the survival rate for lung cancer has increased from 8.2% in 1986-1989 to 10.2% in 2000-2004 for men, and from 12.2% to 13.9% for women over the same period, these increases are relatively small and the five-year survival remains low (Figure 2).

As regards the variations by province, the incidence and mortality rates for men from Bizkaia remain higher than those for men from Alava and Gipuzkoa (Figures 3 and 4). The increase in male mortality rates was only significant in Bizkaia up until 1995, although the mortality rate for this cancer increased significantly for women over the whole period studied.

FIGURE 1. **TREND OF THE INCIDENCE AND MORTALITY RATES FOR CANCER OF THE TRACHEA, BRONCHI AND LUNG BY SEX. ACBC**

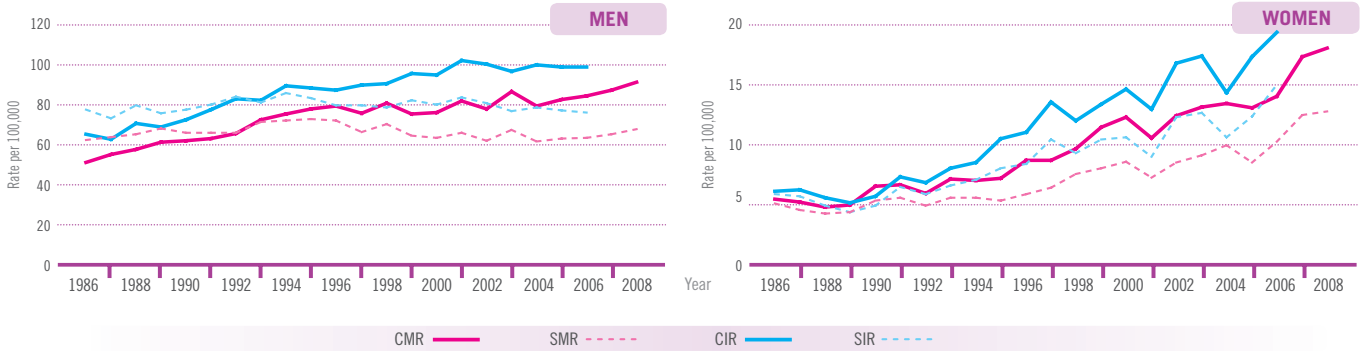


FIGURE 2. **TREND OF THE SURVIVAL (%) FOR CANCER OF THE TRACHEA, BRONCHI AND LUNG BY SEX. ACBC, 1986-2004**

Although the survival rate increased the most in Bizkaia (by 3.3 percentage points), this province nevertheless has the lowest five-year RS for the period 2000-2004 (9.8%), similar to that for men from Gipuzkoa (10.2%) but less than that for those from Alava (12.1%). The greatest increase in women from the beginning to the end of the period studied (4.5 percentage points) occurred in Gipuzkoa. The five-year RS in this province for the period 2000-2004 was 15.3%, higher than that for Bizkaia (12%) and lower than that for Alava (19.7%; Figure 5).

FIGURE 3. **TREND OF THE INCIDENCE RATES OF CANCER OF THE TRACHEA, BRONCHI AND LUNG BY PROVINCE AND SEX. ACBC, 1986-2006**

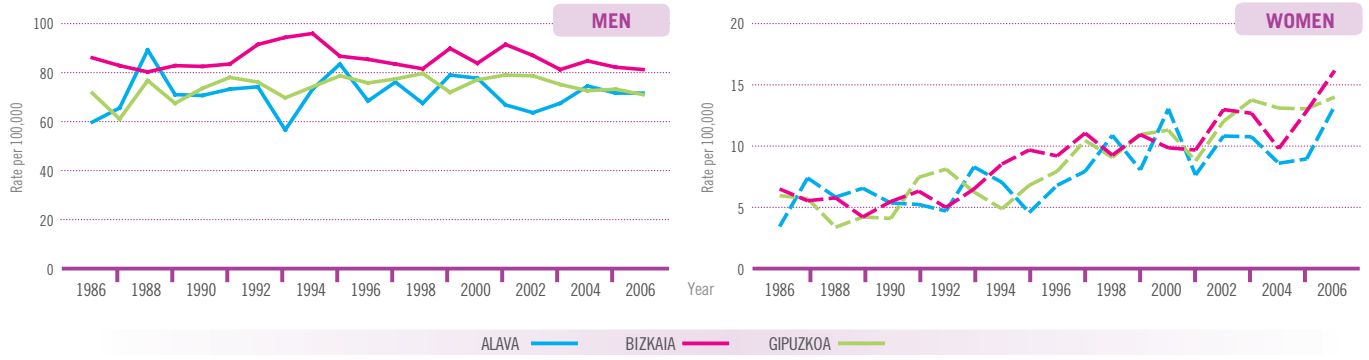


FIGURE 4. **TREND OF THE MORTALITY RATES FOR CANCER OF THE TRACHEA, BRONCHI AND LUNG BY PROVINCE AND SEX. ACBC, 1986-2008**

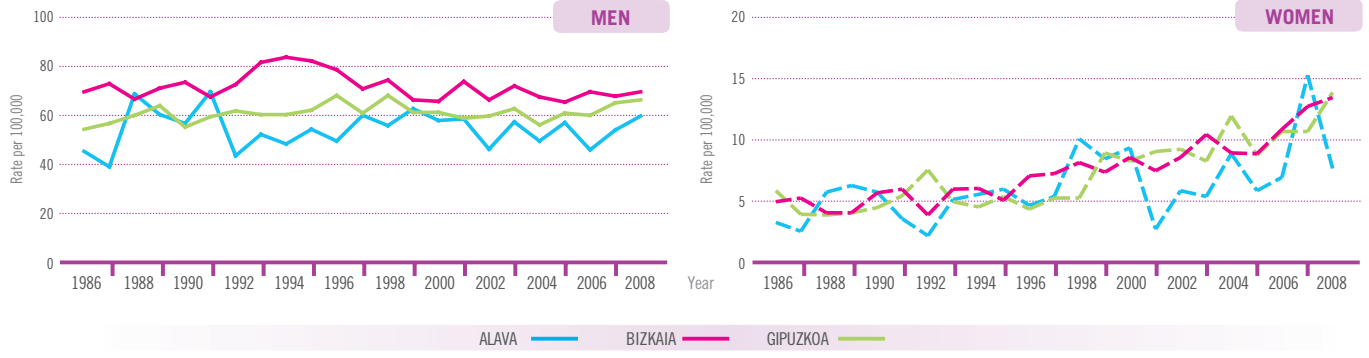
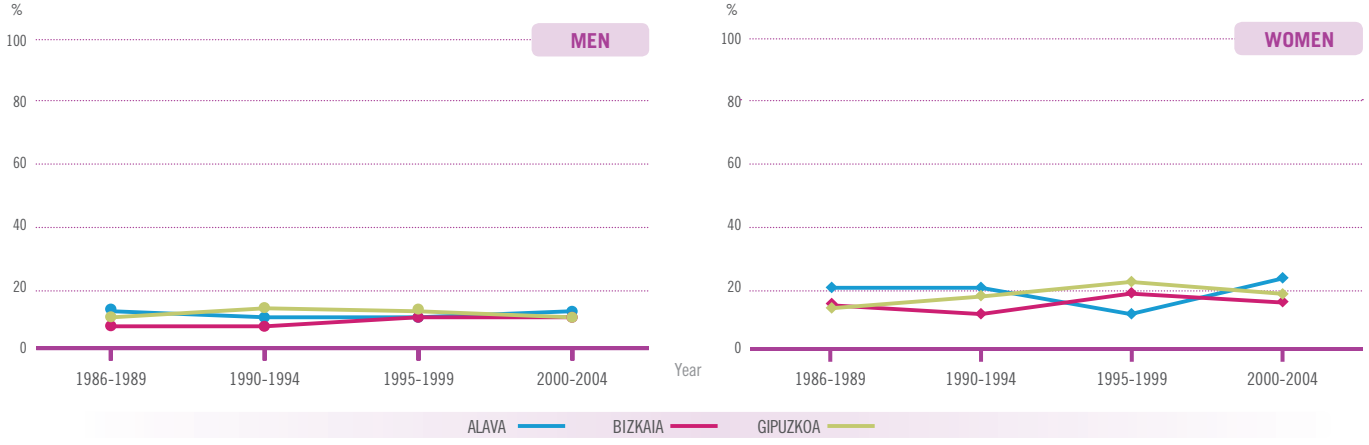


FIGURE 5. **TREND OF THE RELATIVE SURVIVAL (%) FOR CANCER OF THE TRACHEA, BRONCHI AND LUNG BY PROVINCE AND SEX. ACBC, 1986-2004**



MELANOMA OF THE SKIN (C43)

The incidence and mortality rates for melanoma of the skin have increased for both sexes (Figure 1), with the increase in incidence being greater for men (APC 5.2%) than for women (APC 3.8%). The age-adjusted incidence rates increased from 3.1 to 8.9/100,000 in men and from 4.6 to 10.7/100,000 in women between 1986 and 2006.

The mortality rate for men increased significantly by an average of 2.8% per year over the whole period studied (from 0.8 in 1986 to 1.5 in 2008), whereas no significant change was observed for women.

The survival rate for melanoma has increased for both sexes, with a greater increase for men, for whom the five-year relative survival has increased from 61.5% in 1986-1989 to 78.9% in the period 2002-2004. The increase for women has, in general, been lower (nine points), from 81.7% to 90.8% over the same period, although the rate for women is higher than that for men (Figure 2).

Although the age-standardised incidence rates increased significantly for both men and women in all three territories, some province-related differences can be seen as regards the magnitude of this change. The mortality rate only increased significantly for men from Bizkaia over the period studied (Figures 3 and 4).

The evolution of the survival rate by province was similar for both sexes and all three territories, with the relative survival increasing in all cases except for men from Gipuzkoa, where the evolution was

FIGURE 1. **TREND OF THE INCIDENCE AND MORTALITY RATES FOR MELANOMA OF THE SKIN, BY SEX. ACBC**

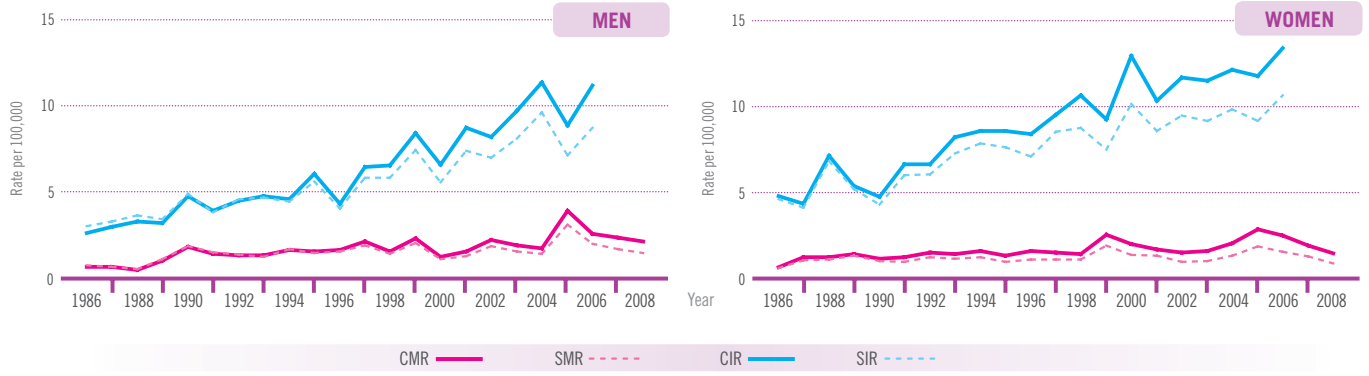


FIGURE 2. **TREND OF THE SURVIVAL (%) FOR MELANOMA OF THE SKIN, BY SEX. ACBC, 1986-2004**

discontinuous. Thus, the RS decreased during the periods 1990-1994 and 1995-1999, but then increased again during the final period to a similar level to that seen at the start of the study (73.3% in 1986-1989 and 72.8% in 2000-2004; Figure 5).

FIGURE 3. **TREND OF THE INCIDENCE RATES OF MELANOMA OF THE SKIN BY PROVINCE AND SEX. ACBC, 1986-2006**

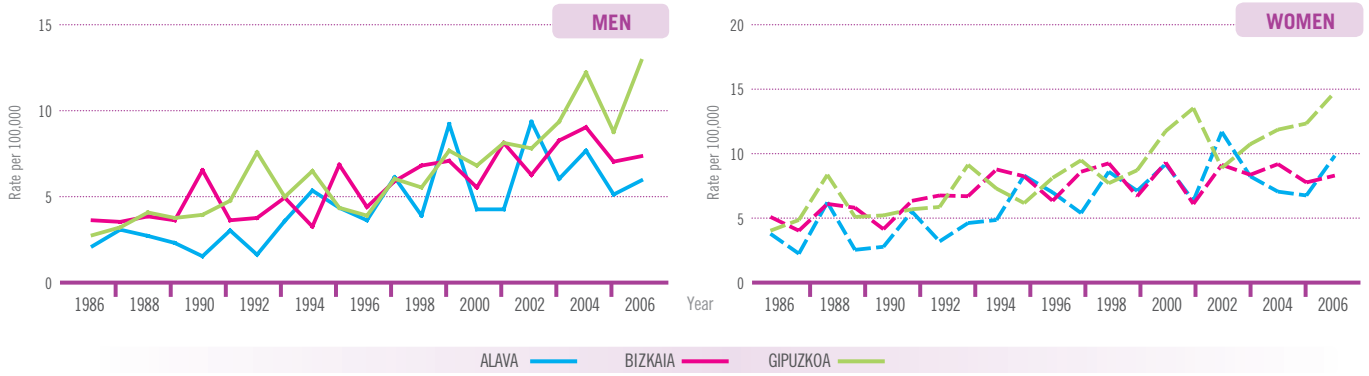


FIGURE 4. **TREND OF THE MORTALITY RATES FOR MELANOMA OF THE SKIN BY PROVINCE AND SEX. ACBC, 1986-2008**

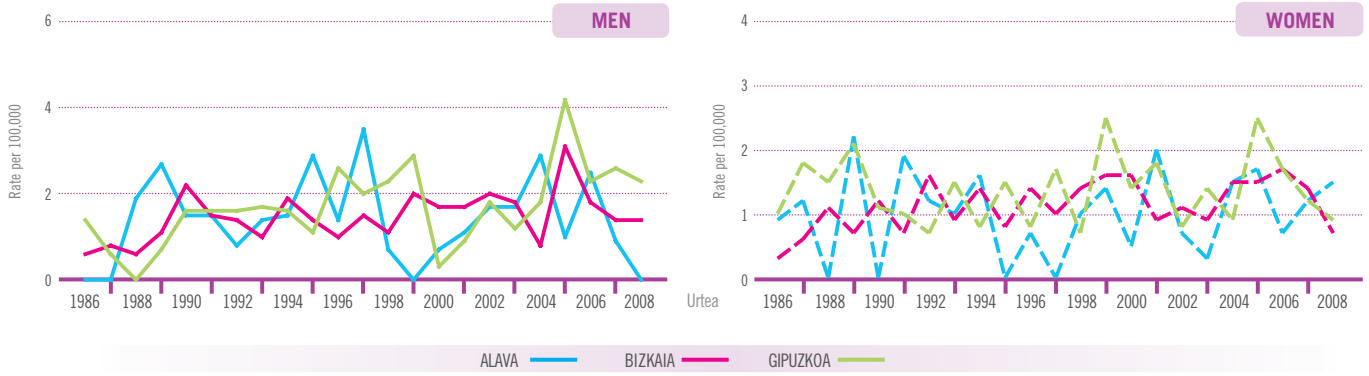
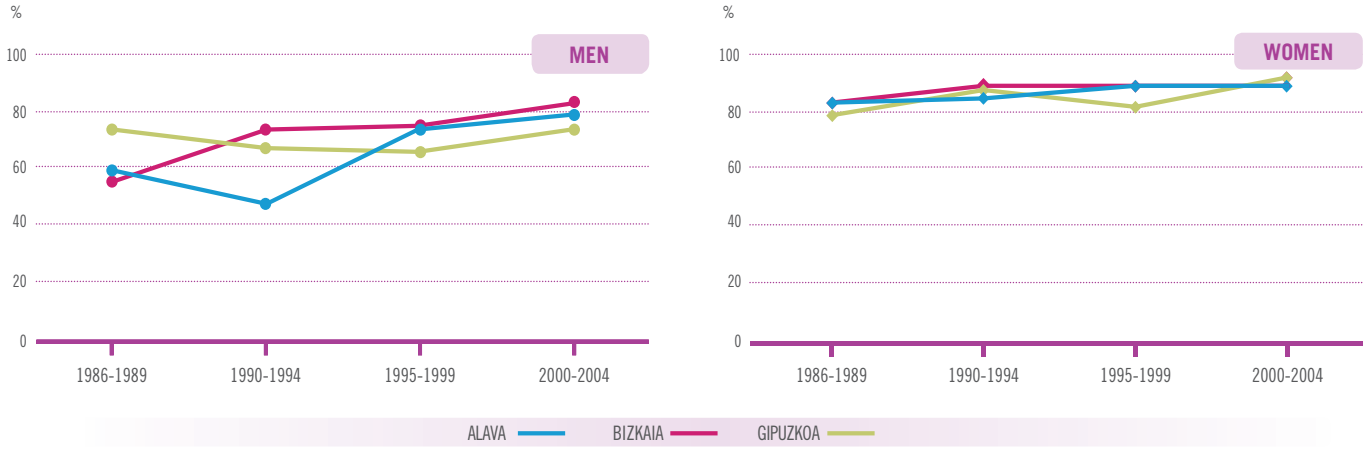


FIGURE 5. **TREND OF THE RELATIVE SURVIVAL (%) FOR MELANOMA OF THE SKIN BY PROVINCE AND SEX. ACBC, 1986-2004**



FEMALE BREAST (C50)

Breast cancer continues to be the most common such disease in women. Its incidence has increased significantly, especially during the second five-year period of the 1990s, due to the introduction of population-based screening in this period. Thus, the number of cases diagnosed has increased from 687 per year in 1986 to 1226 in 2006, although the increase in the age-adjusted rates has been less notable. The increase in rates has been unequal (Figure 1). Thus, the non-significant decrease observed between 1986 and 1989 was followed by two inflexion points corresponding to a statistically significant increase of 4% between 1989 and 1997 and a non-significant decrease between 1997 and 2006. Overall, the rate has increased from 65.0 in 1986 to 86.9 in 2006.

The mortality has decreased significantly by 2.8% per year since 1992 (from 26.0 in 1992 to 17.6 in 2008), thus indicating an improved survival as a result of improved treatment procedures and earlier diagnosis (Figure 1).

Indeed, the survival rate for breast cancer has increased by 19.5 points, from 67.9% for the period 1986-1989 to a five-year relative survival of 87.4% in 2000-2004 (Figure 2).

The incidence by province has also varied to different extents, increasing notably up until 1998 in Bizkaia and Gipuzkoa, then subsequently decreasing in a non-significant manner, whereas Alava has experienced a more moderate, yet steady increase over the whole period studied. The change in the mortality rate by province has also differed. Thus, the mortality rate for women in Alava and Bizkaia has decreased significantly over the whole period studied, whereas in Gipuzkoa it only decreased significantly between 1992 and 2005 (Figures 3 and 4).

The survival rate by province has varied in a similar manner to that for the ACBC as a whole, with the highest rate for the period 2000-2004 corresponding to Alava (91.2%), where the population-based screening programme was first introduced, followed by Gipuzkoa (88.9%) and Bizkaia (85.7%). (Figure 5).

FIGURE 1. **TREND OF THE INCIDENCE AND MORTALITY RATES FOR BREAST CANCER. ACBC**

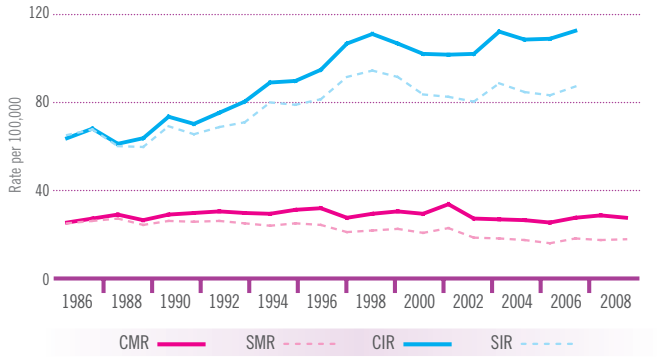


FIGURE 2. **TREND OF THE SURVIVAL (%) FOR BREAST CANCER. ACBC, 1986-2004**

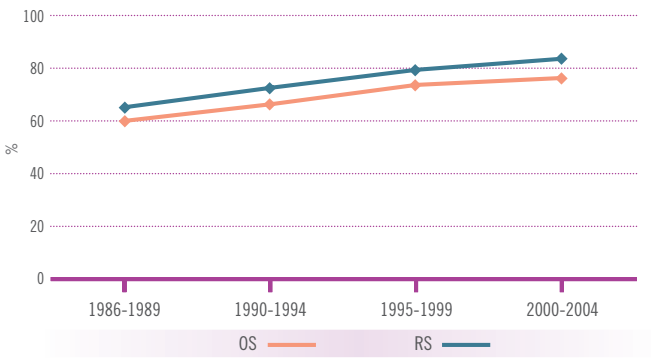


FIGURE 3. **TREND OF THE INCIDENCE RATES OF BREAST CANCER BY PROVINCE. ACBC, 1986-2006**

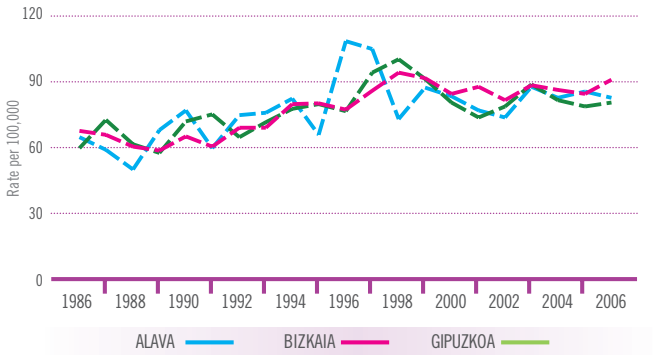


FIGURE 4. **TREND OF THE MORTALITY RATES FOR BREAST CANCER BY PROVINCE. ACBC, 1986-2008**

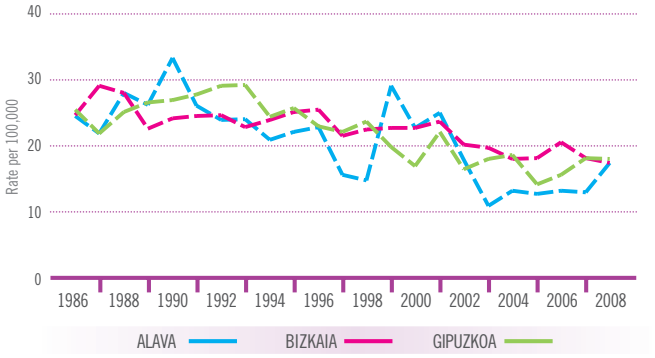
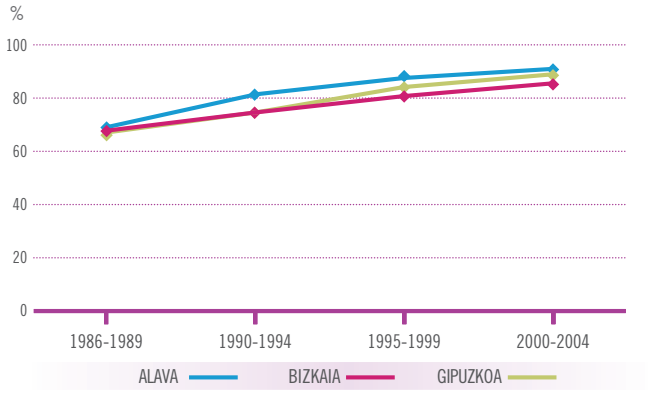


FIGURE 5. **TREND OF THE RELATIVE SURVIVAL (%) FOR BREAST CANCER BY PROVINCE. ACBC, 1986-2004**



CERVIX UTERI (C53)

The incidence rates for cervical cancer have decreased significantly, by 1.1% per year on average, although the initial and final rates remained similar (6.8 and 7.3 per 100,000).

In contrast, the mortality rates have not varied significantly and have remained stable throughout the study period (Figure 1).

The five-year relative survival for cervical cancer has increased by 3.9 points between 1986-1989 and 2000-2004, although this increase has not been continuous. Thus, the RS increased by 8.6 points up to the end of the period 1995-1999 (69.5%) but subsequently decreased to 64.8% (Figure 2).

No significant changes in the incidence rate have been observed in either Alava or Gipuzkoa, therefore Bizkaia is the only province to have experienced a significant decrease in this indicator. In contrast, none of the three provinces has experienced a statistically significant change in mortality.

An analysis of the evolution of the survival rate by province does, however, highlight some differences. Thus, Bizkaia follows the same trend as regards the survival rate for cervical cancer as the ACBC as a whole, whereas the situation for Gipuzkoa, where the RS decreases in the period 1990-1999 and then increases again in the final period, is slightly different. In contrast, a notable decrease in the survival rate is observed for the final period in Alava (Figure 5).

FIGURE 1. **TREND OF THE INCIDENCE AND MORTALITY RATES FOR CERVICAL CANCER. ACBC**

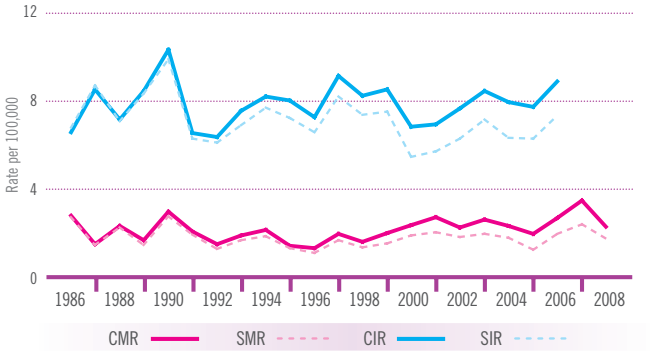


FIGURE 2. **TREND OF THE SURVIVAL (%) FOR CERVICAL CANCER. ACBC, 1986-2004**

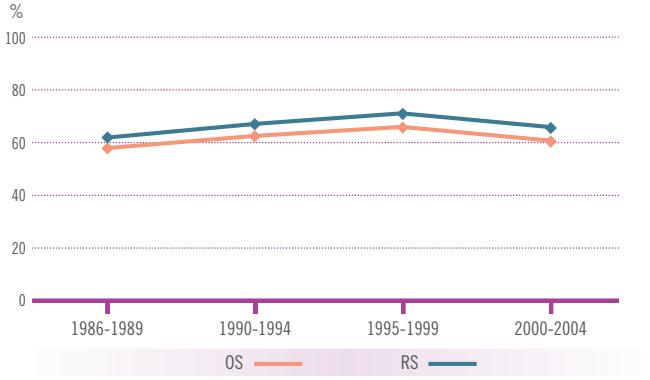


FIGURE 3. **TREND OF THE INCIDENCE RATES OF CERVICAL CANCER BY PROVINCE. ACBC, 1986-2006**

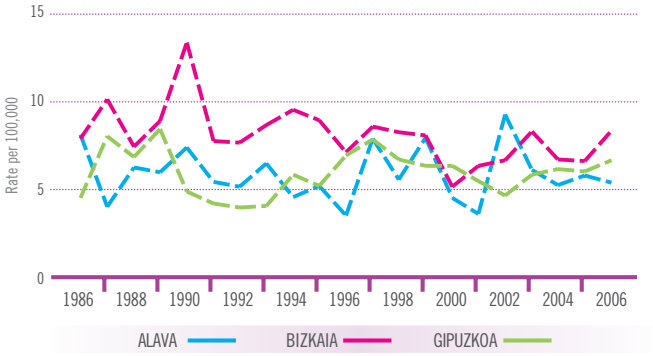


FIGURE 4. **TREND OF THE MORTALITY RATES FOR CERVICAL CANCER BY PROVINCE. ACBC, 1986-2008**

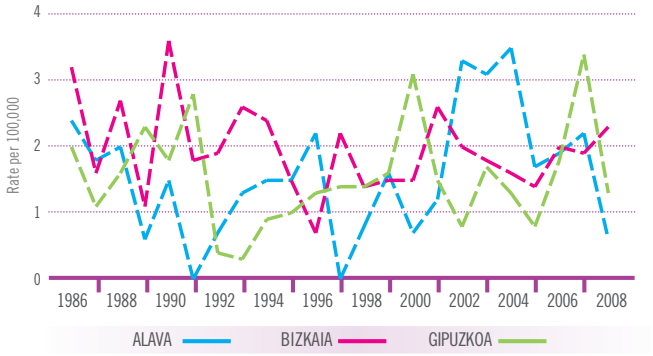
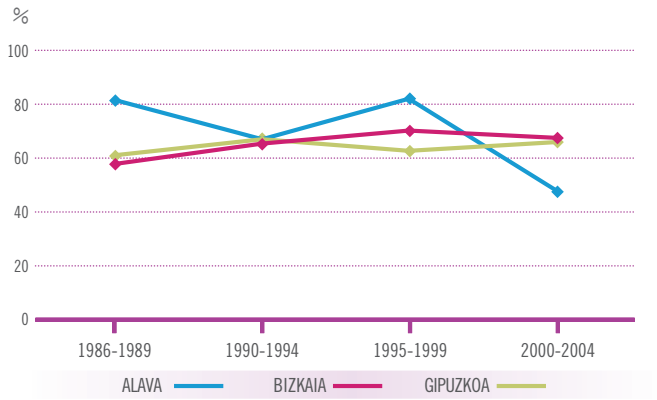


FIGURE 5. **TREND OF THE RELATIVE SURVIVAL (%) FOR CERVICAL CANCER BY PROVINCE. ACBC, 1986-2004**



CORPUS UTERI AND OTHER PARTS OF UTERUS (C54-C55)

The incidence rates for cancer of the corpus uteri and other parts of the uterus have increased significantly, at an annual rate of 2%, from 16.6 in 1986 to 21.3 in 2006.

In contrast, the mortality rates have decreased significantly over the entire period studied, at an annual rate of 1.2%, from 5.3/100,000 in 1986 to 3.1/100,000 in 2008 (Figure 1).

This has resulted in an increase in the five-year survival rate for these tumours of eight points, from 71.2% in the period 1986-1989 to 79.5% in 2000-2004 (Figure 2).

The incidence rates for tumours of the corpus uteri and other parts of the uterus have evolved in a similar manner, increasing in all three provinces (Figure 3).

The mortality rate has decreased significantly for women from Bizkaia and Gipuzkoa, but not for those from Alava (Figure 4).

No differences in the evolution of the survival by province were noted, with this indicator following the same upwards trend as that for the ACBC as a whole.

FIGURE 1. **TREND OF THE INCIDENCE AND MORTALITY RATES FOR CANCER OF THE CORPUS UTERI AND OTHER PARTS OF THE UTERUS. ACBC**

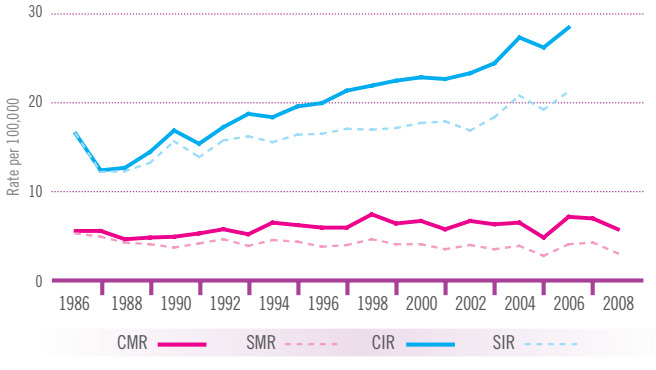


FIGURE 2. **TREND OF THE SURVIVAL (%) FOR CANCER OF THE CORPUS UTERI AND OTHER PARTS OF THE UTERUS. ACBC, 1986-2004**

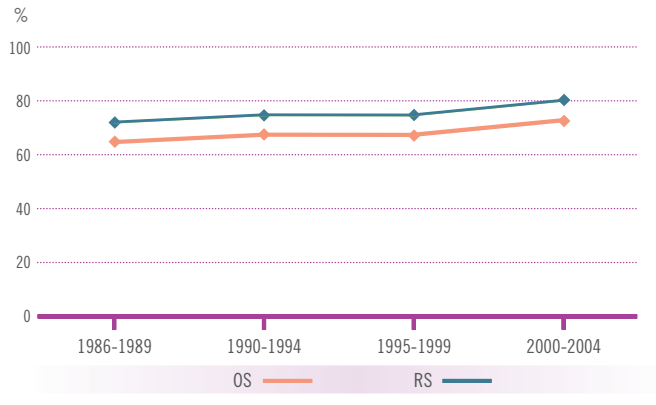


FIGURE 3. **TREND OF THE INCIDENCE OF CANCER RATES OF THE CORPUS UTERI AND OTHER PARTS OF THE UTERUS BY PROVINCE. ACBC, 1986-2006**

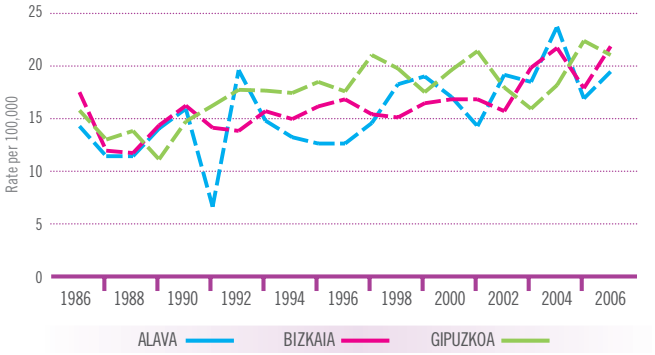


FIGURE 4. **TREND OF THE MORTALITY RATES FOR CANCER OF THE CORPUS UTERI AND OTHER PARTS OF THE UTERUS BY PROVINCE. ACBC, 1986-2008**

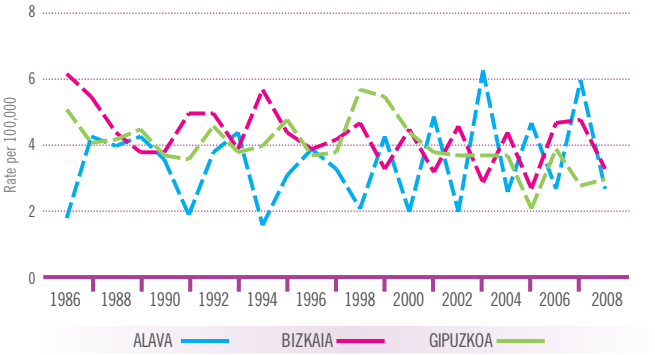
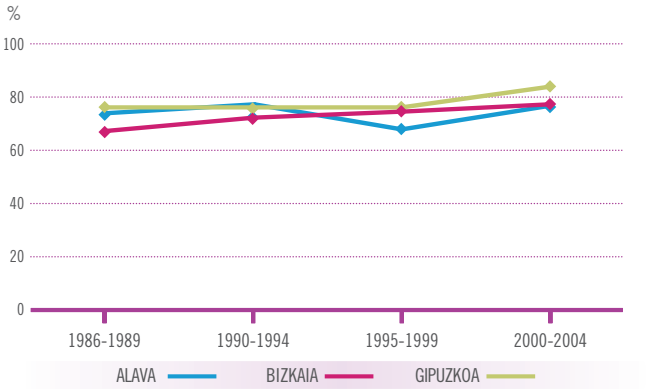


FIGURE 5. **TREND OF THE RELATIVE SURVIVAL (%) FOR CANCER OF THE CORPUS UTERI AND OTHER PARTS OF THE UTERUS BY PROVINCE. ACBC, 1986-2004**



OVARY (C56)

The coding of ovarian cancer has undergone several changes as a result of the different classifications used; therefore this should be taken into account when interpreting the changes observed in the incidence and survival rates.

Although the absolute number of cases of ovarian cancer has increased from 106 in 1986 to 131 in 2006, no significant changes can be seen as regards the evolution of the adjusted incidence and mortality rates over the period studied (Figure 1).

The survival rate for this tumour has remained relatively unchanged, increasing by only 1.2 points from a five-year relative survival of 49.2% in 1986-1989 to 50.3% in the period 2000-2004 (Figure 2).

The significant annual decrease (1.5%) in both the incidence and mortality rates by province for this tumour in women from Gipuzkoa should be highlighted. In contrast, there were no significant changes in either of these indicators for Alava or Bizkaia (Figures 3 and 4).

The change in survival rate for ovarian cancer by province also differed, increasing steadily in Bizkaia (seven points) but decreasing on the other two territories. Indeed, the notable decrease in the RS observed for Alava over the first period (–23.2 points) affects the evolution of the overall trend. The decrease in RS observed for Gipuzkoa (–2.7 points) is lower (Figure 5).

FIGURE 1. **TREND OF THE INCIDENCE AND MORTALITY RATES FOR OVARIAN CANCER, BY SEX. ACBC**

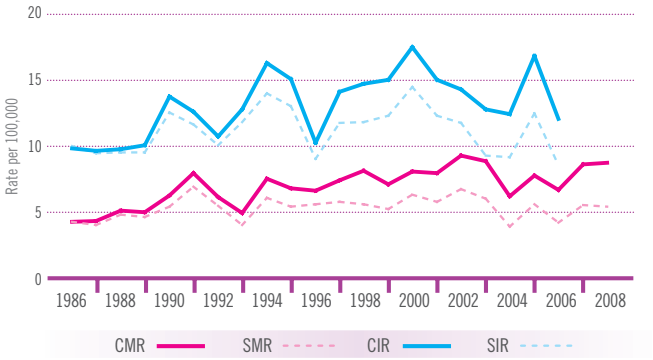


FIGURE 2. **TREND OF THE SURVIVAL (%) FOR OVARIAN CANCER. ACBC, 1986-2004**

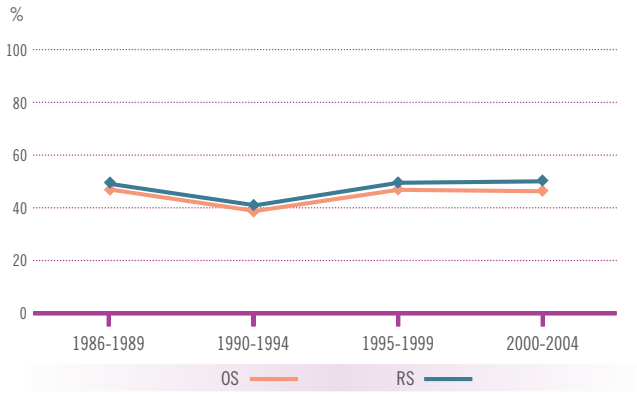


FIGURE 3. **TREND OF THE INCIDENCE RATES OF OVARIAN CANCER BY PROVINCE. ACBC, 1986-2006**

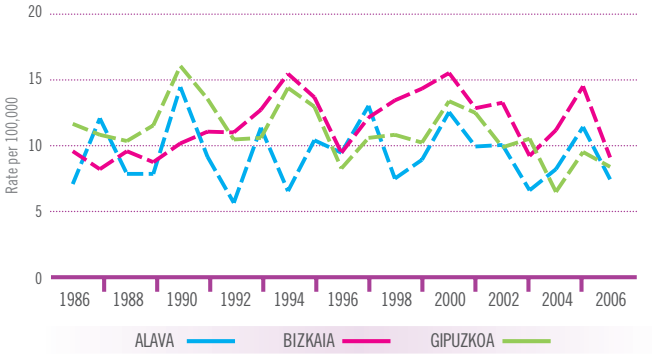


FIGURE 4. **TREND OF THE MORTALITY RATES FOR OVARIAN CANCER BY PROVINCE. ACBC, 1986-2008**

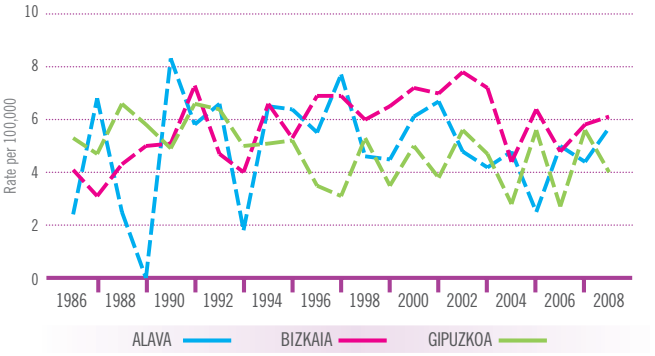
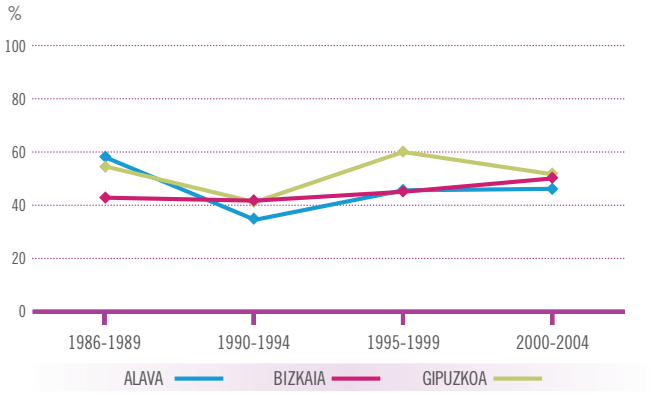


FIGURE 5. **TREND OF THE RELATIVE SURVIVAL (%) FOR OVARIAN CANCER BY PROVINCE. ACBC, 1986-2004**



PROSTATE (C61)

Prostate cancer has become the most common tumour in men form the ACBC in the past few years, thereby mirroring the international situation. The number of cases diagnosed has increased from 239 per year in 1986 to 1414 in 2006, although the increase in the age-adjusted rates has been less notable. These rates have increased in an unequal manner over the period studied (Figure 1). Thus, the significant annual 4.1% increase (from 31.2 in 1986 to 45.6 in 1995) observed for the first 10-year period was followed by a much higher 14.1% annual increase in the second 10-year period to 103.5/100,000 in 2001; the rate subsequently stabilised.

The mortality rates for this cancer did not change significantly up until 2000, although since then they have decreased by 3.6% per year, from 24.1/100,000 in 2000 to 19.3/100,000 in 2008.

Prostate cancer has experienced the highest increase in five-year relative survival of all malignant tumours, increasing by 47.1 points from 43.6% for those tumours diagnosed in the period 1986-1989 to 90.7% for those diagnosed between 2000 and 2004 (Figure 2).

The change in the rates by province differs (Figure 3), with the higher adjusted incidence rates for Gipuzkoa and Alava most likely reflecting the different speed of adoption of the prostate-specific antigen (PSA) test.

Both the mortality and incidence rates show province-related differences (Figure 4). Thus, whereas no significant change was observed in Gipuzkoa for the whole period studied, a significant annual decrease of 1.5% was observed in Bizkaia. The trend in Alava is discontinuous, with the mortality increasing significantly by 2.9% up until 1998 and then decreasing 4.5% annually until 2008.

The variation in survival rate by province for this tumour mirrored that for the ACBC as a whole, increasing notably in all three territories, especially in Bizkaia, followed by Gipuzkoa and Alava. However, the highest RS of all three provinces for the period 2000-2004 was observed in the latter (Figure 5).

FIGURE 1. **TREND OF THE INCIDENCE RATES AND MORTALITY RATES FOR PROSTATE CANCER. ACBC**

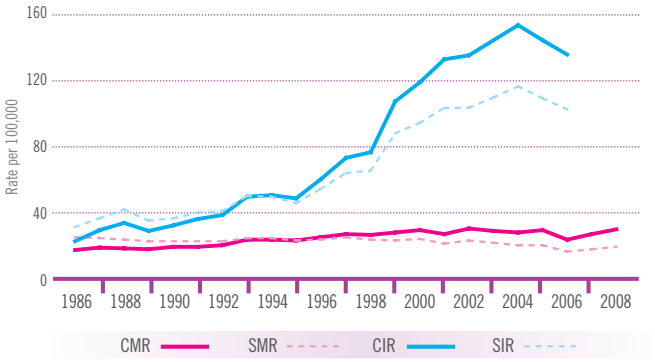


FIGURE 2. **TREND OF THE SURVIVAL (%) FOR PROSTATE CANCER. ACBC, 1986-2004**

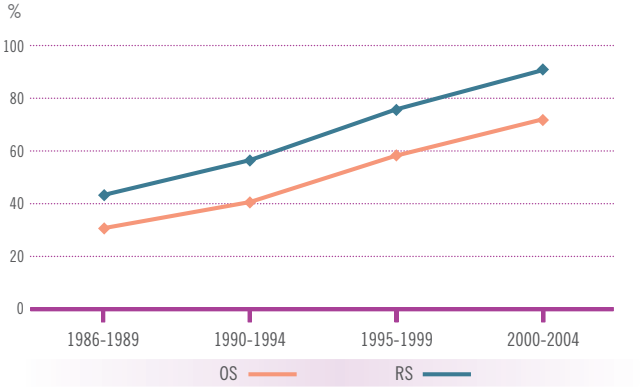


FIGURE 3. **TREND OF THE INCIDENCE RATES OF PROSTATE CANCER BY PROVINCE. ACBC, 1986-2006**

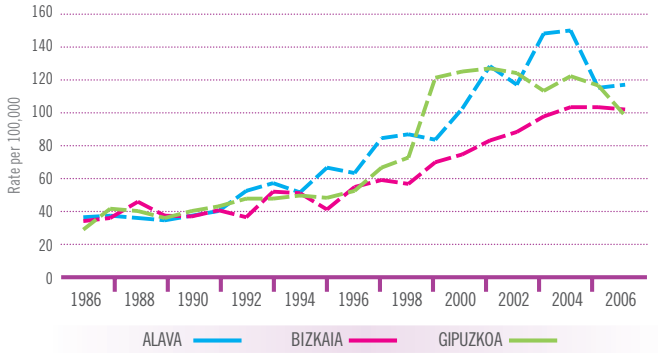


FIGURE 4. **TREND OF THE MORTALITY RATES FOR PROSTATE CANCER BY PROVINCE. ACBC, 1986-2008**

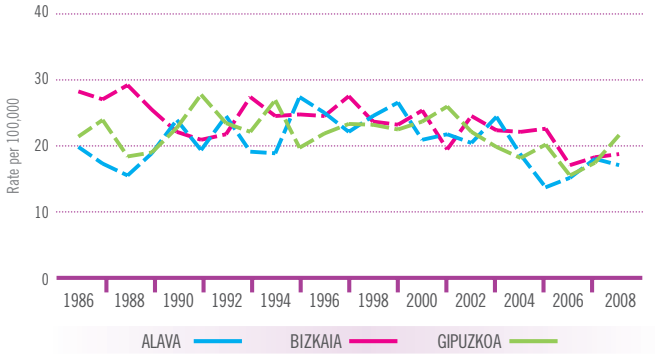
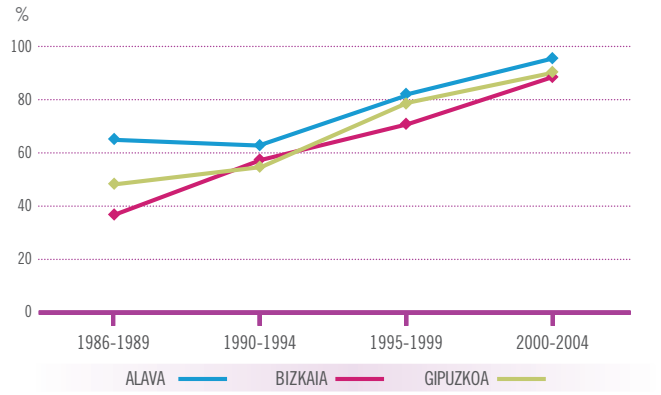


FIGURE 5. **TREND OF THE RELATIVE SURVIVAL (%) FOR PROSTATE CANCER BY PROVINCE. ACBC, 1986-2004**



BLADDER (C67)

The number of malignant bladder tumours diagnosed in men increased from 363 in 1986 to 482 in 2006. Likewise, the number of cases diagnosed in women more than doubled from 49 in 1986 to 100 in 2006. However, the age-adjusted rates showed no significant variations for either men or women over the period studied.

The number of bladder cancer-related deaths also increased for both sexes, although, as above, the adjusted mortality rates showed no significant changes (Figure 1).

The female survival rate for bladder cancer varied only slightly over the period studied, with the five-year RS being close to 60% for both tumours diagnosed in the period 1986-1989 and those diagnosed between 2000 and 2004. The RS for men decreased by 2.8 points, from 67.2% for the period 1986-1989 to 64.4% in 2000-2004 (Figure 2).

The differences observed in the incidence rates for each province should be treated with some caution due to the different coding guidelines used and the problems encountered when applying them, which resulted in difficult-to-explain peaks (Figures 3 and 4). Thus, the adjusted incidence rate for men from Bizkaia decreased by 3.9% in the period 1986-1995, whereas the rate for those from Gipuzkoa decreased by 6.8% but only after 2001; no significant change was observed for men from Alava. In contrast, no significant changes in the incidence rates were observed for women (Figure 3).

The bladder cancer-related mortality rates also showed no statistically significant variations for either sex in any of the three provinces (Figure 4).

FIGURE 1. **TREND OF THE INCIDENCE AND MORTALITY RATES FOR BLADDER CANCER BY SEX. ACBC**

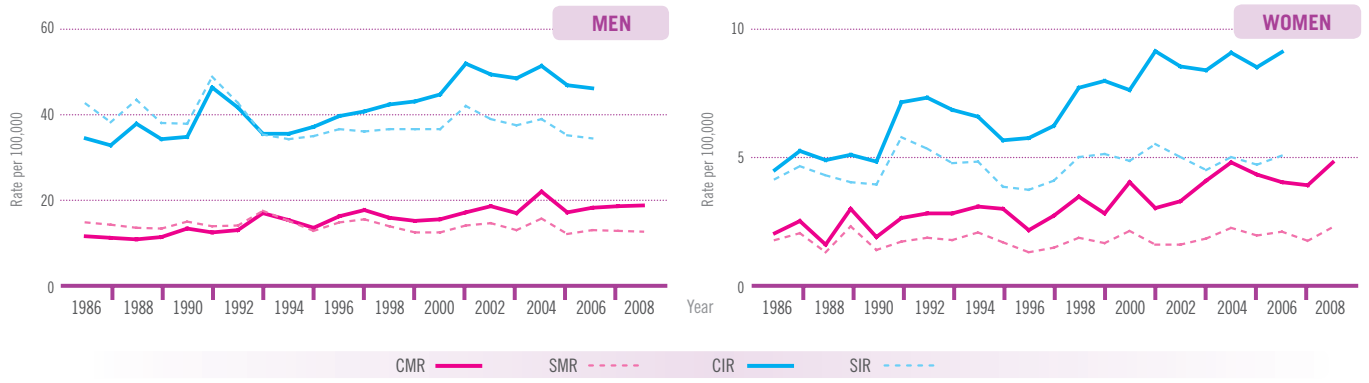


FIGURE 2. **TREND OF THE SURVIVAL (%) FOR BLADDER CANCER BY SEX. ACBC, 1986-2004**

In contrast, similar changes in survival rates for bladder cancer for each province with respect to that for the ACBC were observed for both sexes. Thus, the survival rate for both men and women decreased in both Alava and Bizkaia but increased in Gipuzkoa (Figure 5).

FIGURE 3. **TREND OF THE INCIDENCE RATES OF BLADDER CANCER BY PROVINCE AND SEX. ACBC, 1986-2006**

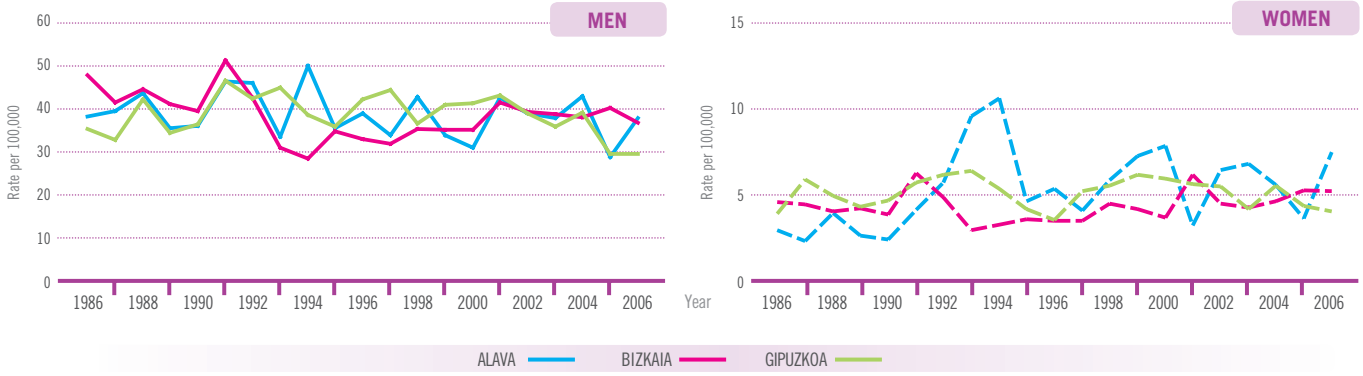


FIGURE 4. **TREND OF THE MORTALITY RATES FOR BLADDER CANCER BY PROVINCE AND SEX. ACBC, 1986-2008**

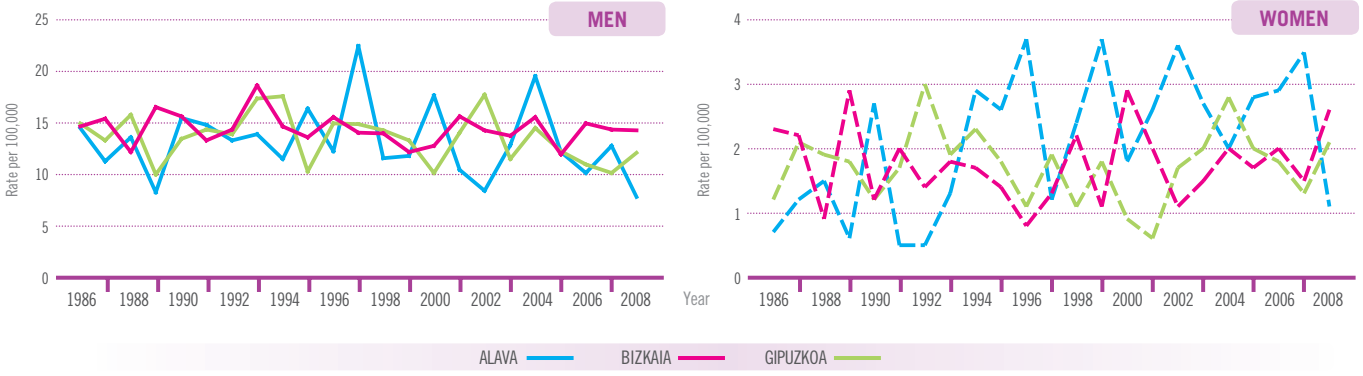


FIGURE 5. **TREND OF THE RELATIVE SURVIVAL (%) FOR BLADDER CANCER BY PROVINCE AND SEX. ACBC, 1986-2004**

NON-HODGKIN'S LYMPHOMA (C82-C85, C96)

Both the number of cases of Non-Hodgkin's Lymphoma and the number of deaths per year have increased more than twofold for both sexes over the period 1986-2006 (Figure 1). The adjusted incidence rates for men increased significantly by 7.1% per year over the first period (from 9.1 in 1986 to 13.4 in 1993), although they subsequently stabilised. In contrast, the rates for women increased significantly at an annual rate of 3% over the whole period studied (from 5.9 in 1986 to 8.8 in 2006). The mortality rate for women increased significantly by 2.4% up to 2001 (from 2.2 in 1986 to 4.0 in 2001), although it subsequently decreased in a non-significant manner up to the end of the period studied. In contrast, no significant change in the mortality rate was observed for men.

The survival rate for Non-Hodgkin's Lymphoma increased in both sexes, although to a greater extent in women (24.5 points). Likewise, the five-year RS increased from 39.5% in the period 1986-1989 to 64% in 2000-2004. The increase over the same period for men has been from 45.9% to 59.3% (Figure 2).

Some differences can be seen as regards the adjusted incidence rates for Non-Hodgkin's Lymphoma by province, especially for men. Thus, a significant initial increase of 22.8% per year can be seen for the period 1986-1991 in Alava, with a non-significant increase in Bizkaia, which was also somewhat higher during the initial period, whereas Gipuzkoa experienced a significant annual increase of 2.7% throughout the period studied. In contrast, a steady yet significant increase of 3% per year can be seen for women from all three provinces. None of the three territories has experienced a statistically significant change in mortality (Figures 3 and 4).

FIGURE 1. **TREND OF THE INCIDENCE AND MORTALITY RATES FOR NON-HODGKIN'S LYMPHOMA, BY SEX. ACBC**

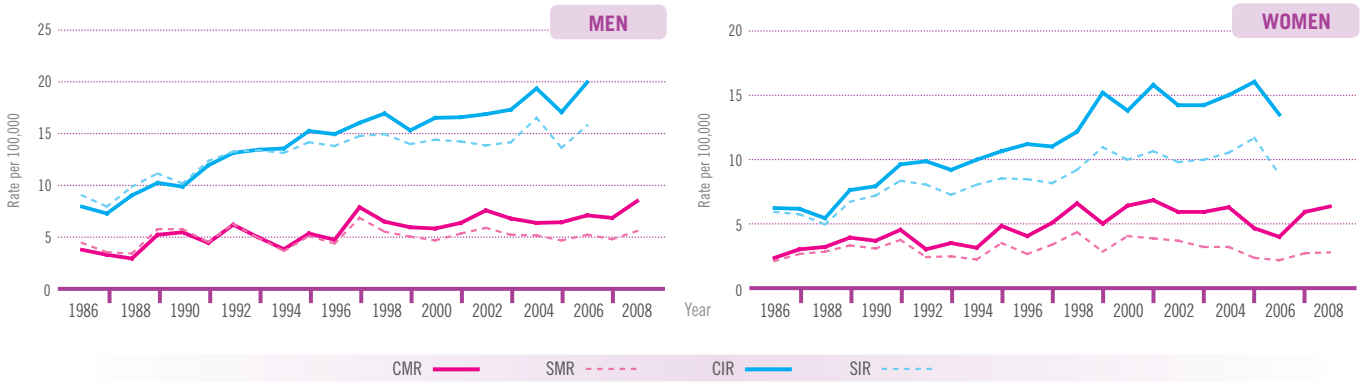


FIGURE 2. **TREND OF THE SURVIVAL (%) FOR NON-HODGKIN'S LYMPHOMA, BY SEX. ACBC, 1986-2004**

The survival rates by province have increased to a similar extent for both sexes in all three territories, with the smallest increases being found for men from Bizkaia and women from Alava (Figure 5).

FIGURE 3. **TREND OF THE INCIDENCE RATES OF NON-HODGKIN'S LYMPHOMA BY PROVINCE AND SEX. ACBC, 1986-2006**

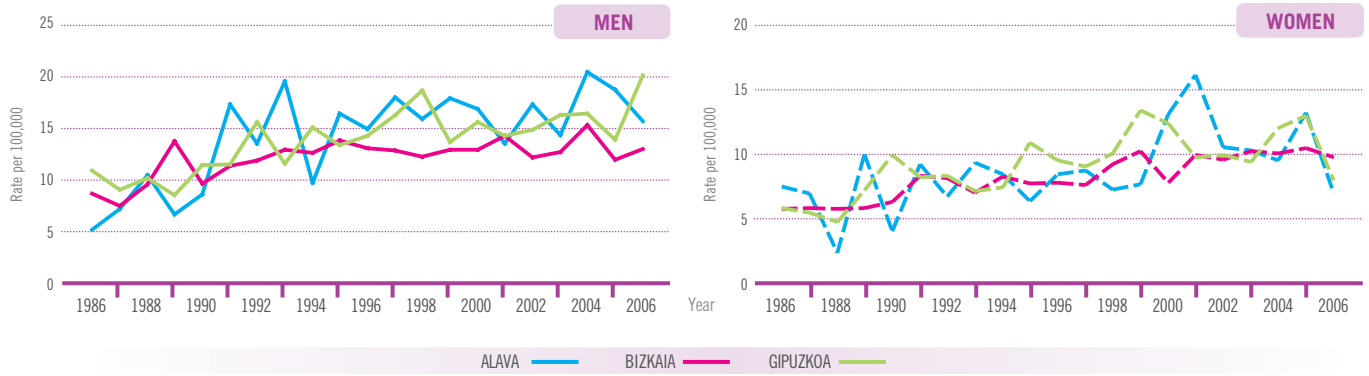


FIGURE 4. **TREND OF THE MORTALITY RATES FOR NON-HODGKIN'S LYMPHOMA BY PROVINCE AND SEX. ACBC, 1986-2008**

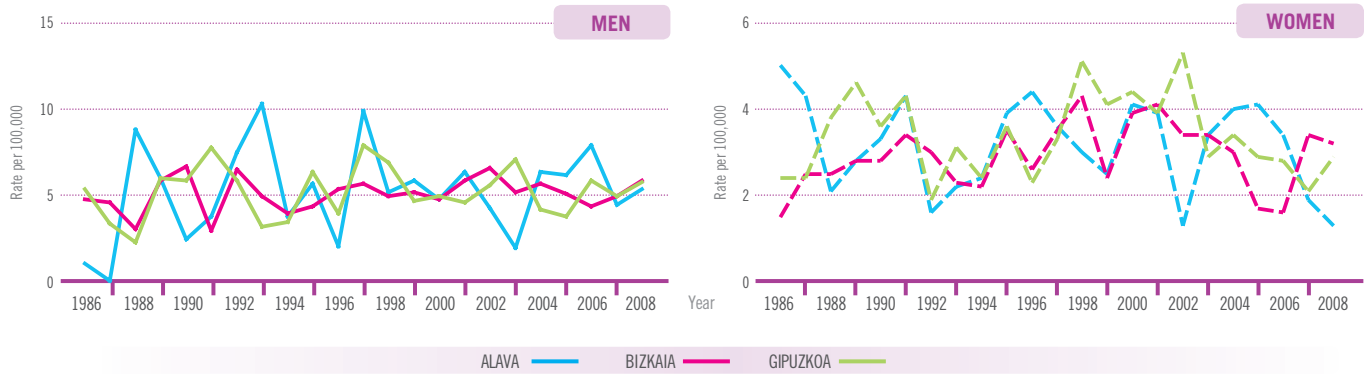
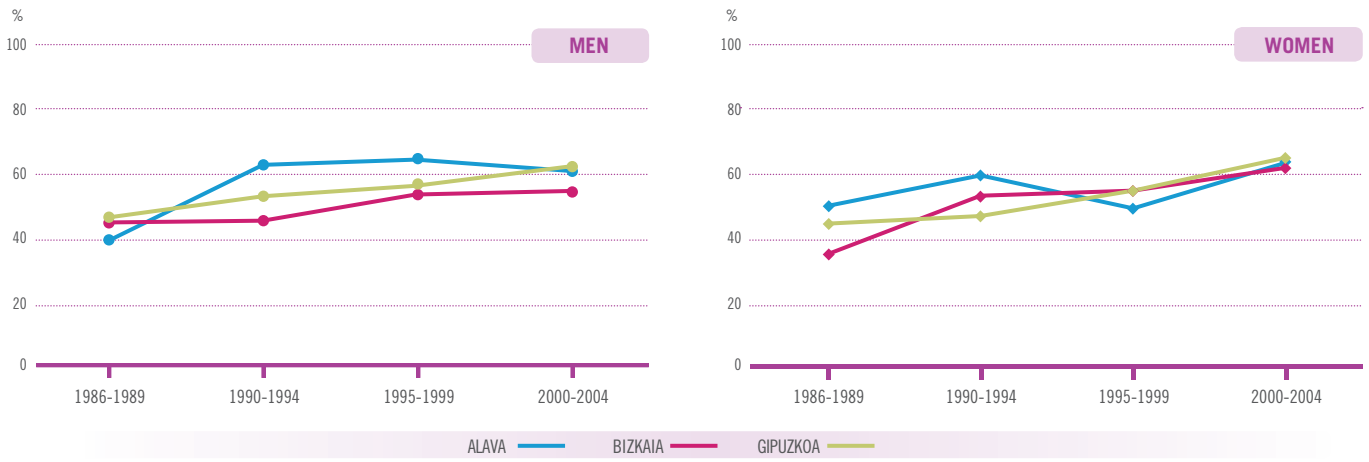


FIGURE 5. **TREND OF THE RELATIVE SURVIVAL (%) FOR NON-HODGKIN'S LYMPHOMA BY PROVINCE AND SEX. ACBC, 1986-2004**



LEUKAEMIA (C91-C95)

As is the case for almost all malignant tumours, the number of leukaemia cases diagnosed annually in the period 1986-2006 increased for both men and women. However, whereas the mortality rate for women also increased, the rate for men decreased over the period studied (Figure 1).

The age-adjusted incidence rate increased in men in a non-significant manner, whereas in women it increased by 1.1% per year over the period studied (from 4.9 in 1986 to 5.9 in 2006). The mortality rate for leukaemia has evolved in a similar manner for both sexes, with a statistically significant decrease in the adjusted rates of 1% over the period studied.

The survival rate for leukaemia has also increased in a similar manner for both sexes, with the RS for men increasing from 36.4% in 1986-1989 to 51.4% in 2000-2004, and that for women increasing from 36.7% to 49.7% over the same period (Figure 2).

Analysis of the evolution of the incidence of leukaemia by province shows a statistically significant annual 1.3% increase for men in Bizkaia and a 2.7% increase for women in Alava. No other statistically significant increases were seen, although the non-significant decrease for women from Gipuzkoa should be noted (Figure 3).

FIGURE 1. **TREND OF THE INCIDENCE AND MORTALITY RATES FOR LEUKAEMIA, BY SEX. ACBC**

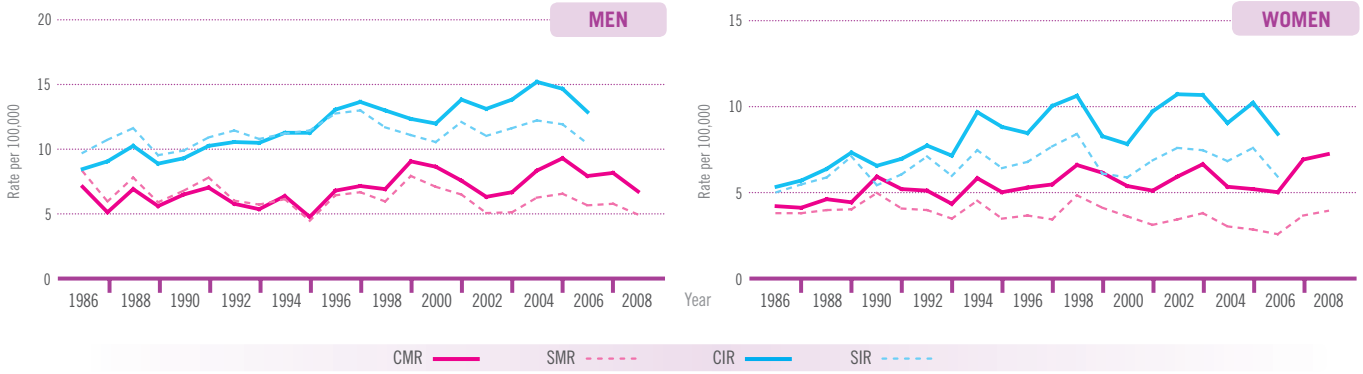


FIGURE 2. **TREND OF THE SURVIVAL (%) FOR LEUKAEMIA, BY SEX. ACBC, 1986-2004**

The mortality rates for leukaemia decreased significantly (2.5%) for men from Alava over the whole period studied. Slightly smaller, yet still significant, decreases (1.4% for men and 1.6% for women) were seen in Gipuzkoa, whereas the increase for men and decrease for women from Bizkaia were not significant (Figure 4).

The evolution of the survival rate by province mirrors that seen for the ACBC as a whole, with increases in all three territories and both sexes (Figure 5).

FIGURE 3. **TREND OF THE INCIDENCE RATES OF LEUKAEMIA BY PROVINCE AND SEX. ACBC, 1986-2006**

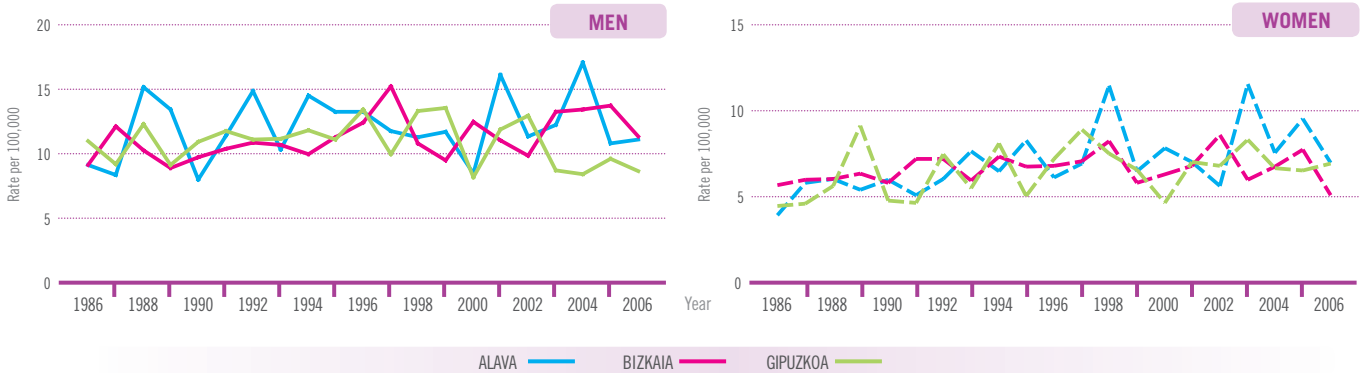


FIGURE 4. **TREND OF THE MORTALITY RATES FOR LEUKAEMIA BY PROVINCE AND SEX. ACBC, 1986-2008**

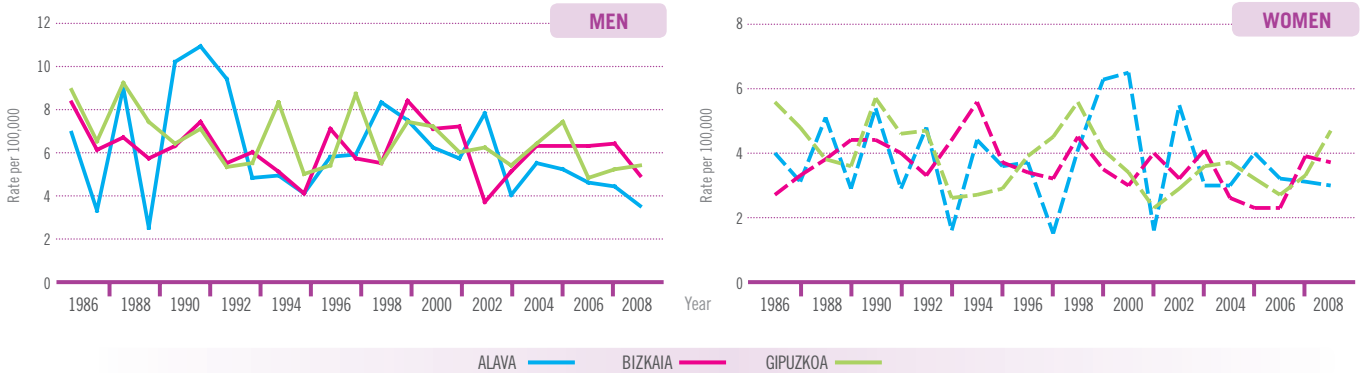
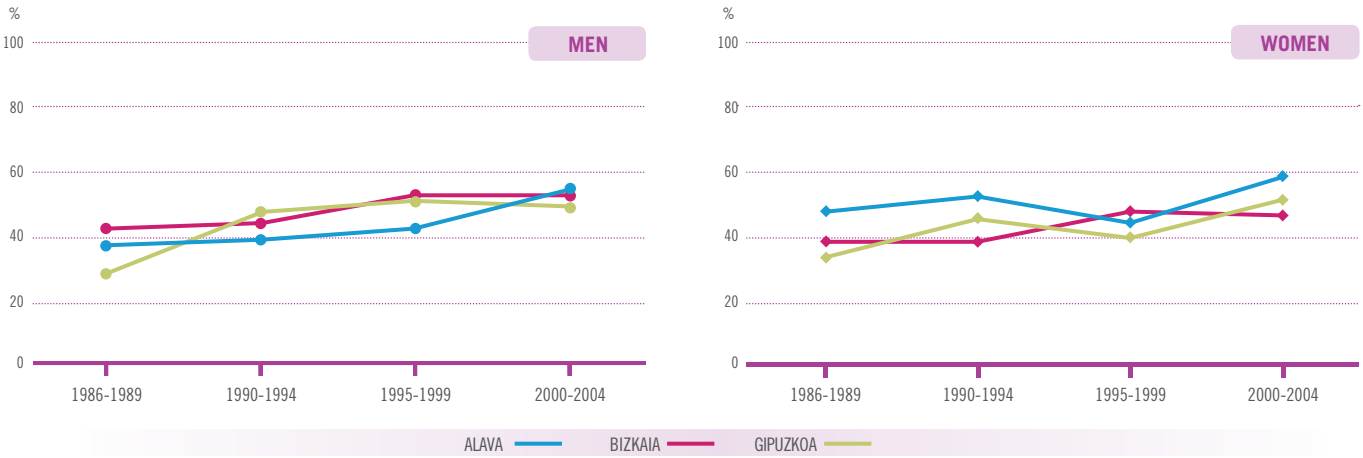


FIGURE 5. **TREND OF THE RELATIVE SURVIVAL (%) FOR LEUKAEMIA BY PROVINCE AND SEX. ACBC, 1986-2004**



ANNEXES

INCIDENCE and MORTALITY

ANNEX 1. AGE SPECIFIC INCIDENCE RATES BY AGE GROUP AND SITE. MEN. ACBC, 2002-2006

	0	1-4	5-9	10-14	15-19	20-24	25-29	30-34
SITES	RATE	RATE	RATE	RATE	RATE	RATE	RATE	RATE
HEAD AND NECK								
Lip	—	—	—	—	—	—	—	—
Tongue	—	—	—	—	0.4	—	0.2	—
Oral cavity, others	—	—	—	—	—	—	—	0.2
Salivary glands	—	—	—	—	—	—	—	—
Pharynx	—	—	—	0.5	—	—	0.2	1.1
DIGESTIVE ORGANS								
Oesophagus	—	—	—	—	—	—	—	0.2
Stomach	—	—	—	—	—	0.3	1.2	1.1
Small intestine	—	—	—	—	—	—	0.2	0.0
Colon	—	—	—	—	—	0.3	0.5	0.7
Rectosigmoid junction, rectum, anus	—	—	—	—	—	—	0.7	1.1
Liver	—	—	0.5	—	—	0.3	—	0.4
Bile ducts and biliary tract	—	—	—	—	—	0.3	—	—
Pancreas	—	—	—	—	—	—	0.7	0.4
RESPIRATORY ORGANS								
Nasal cavity and sinuses	—	—	0.5	—	—	—	0.2	0.2
Larynx	—	—	—	—	—	—	—	0.2
Trachea and lung	—	—	—	—	—	—	0.2	1.5
Mediastinum, pleura (exc. mesothelioma) and others	2.0	1.6	0.5	—	0.4	1.2	0.7	0.7
BONE	—	—	0.9	3.3	1.2	1.5	0.5	0.8
MELANOMA OF THE SKIN	—	—	0.5	0.5	—	1.8	3.0	4.4
MESOTHELIOMA	—	—	—	—	—	—	—	—
KAPOSI'S SARCOMA	—	—	—	—	—	—	1.2	0.7
NERVES AND SOFT TISSUE	4.0	1.1	0.9	3.8	2.4	2.1	2.1	2.0
BREAST	—	—	—	—	—	—	0.2	—
MALE GENITAL ORGANS								
Prostate	2.0	—	—	—	—	—	0.2	—
Testicles	—	0.5	0.5	—	6.5	11.1	19.1	15.6
Other male genitals	—	0.5	—	—	—	—	—	0.4
URINARY ORGANS								
Kidney	2.0	—	0.5	—	—	—	1.6	3.7
Renal pelvis	—	—	—	—	—	—	—	0.2
Bladder	—	—	—	—	—	—	0.5	0.9
Urethra and other urinary	—	—	—	—	—	—	—	—
EYE	—	0.5	—	0.5	—	—	—	0.4
CENTRAL NERVOUS SYSTEM	—	3.2	3.3	1.9	1.2	0.9	1.9	4.4
THYROID GLANDS	—	—	—	1.0	0.4	0.6	2.1	3.9
OTHER ENDOCRINE GLANDS	4.0	1.1	0.9	0.5	—	—	—	0.2
SKIN NON-MELANOMA AND OTHER UNSPECIFIED	2.0	1.1	0.5	—	0.4	—	0.7	1.5
POORLY DEFINED SITE	—	—	—	—	0.4	0.6	0.5	1.3
LYMPHOMAS AND HAEMATOPOIETIC TISSUES								
Hodgkin's lymphoma	—	—	0.5	2.4	5.3	7.5	5.6	4.6
Non-Hodgkin's lymphoma	2.0	1.1	0.5	3.3	2.8	2.7	2.8	4.4
Malignant immunoproliferative diseases	—	—	—	—	—	—	—	—
Multiple myeloma	—	—	—	—	—	—	—	—
Lymphatic leukaemia	—	8.0	5.7	1.9	1.6	0.3	0.7	0.4
Myeloid and monocytic leukaemias	—	1.1	0.5	—	0.4	—	1.9	2.2
Other leukaemias	2.0	0.5	—	1.0	0.4	0.3	0.7	0.7
OTHER LYMPHATIC, HAEMATOPOIETIC UNSPECIFIED	2.0	—	—	—	0.4	—	0.5	0.1
ALL SITES	**19.9**	**20.4**	**15.6**	**17.2**	**22.7**	**30.3**	**49.8**	**60.1**

35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 and older
RATE	RATE	RATE	RATE	RATE	RATE	RATE	RATE	RATE	RATE	RATE
—	0.5	1.0	2.2	3.3	7.9	14.8	18.7	27.1	14.4	19.5
0.4	3.3	6.6	11.7	18.1	14.0	21.3	11.1	13.3	15.4	7.1
0.7	0.5	2.3	4.5	5.7	5.4	4.5	6.0	5.2	5.1	1.8
0.2	1.2	0.5	1.4	1.8	1.4	3.7	6.8	5.8	5.1	14.2
2.5	0.9	19.4	39.9	42.2	41.0	31.6	41.8	30.0	16.5	19.5
0.5	3.3	12.7	23.7	27.7	36.7	28.5	39.2	46.7	36.1	32.0
3.9	5.6	14.0	26.2	43.7	62.9	93.2	142.8	162.6	196.7	200.6
0.2	0.7	1.5	2.5	3.6	2.9	4.5	6.0	6.9	4.1	12.4
4.3	9.2	21.4	48.3	81.0	121.9	171.2	279.6	343.6	393.4	333.8
2.5	6.6	18.3	32.4	62.4	81.6	116.2	153.4	173.0	202.9	152.7
2.5	5.9	9.7	18.4	30.4	47.8	74.7	105.7	96.9	99.9	72.8
0.2	0.5	2.0	2.5	5.7	9.3	15.2	29.4	35.7	49.4	42.6
1.1	4.5	7.6	17.3	24.1	29.1	46.0	50.3	60.0	73.1	79.9
0.2	0.5	1.0	1.9	1.8	2.2	4.5	5.5	3.5	8.2	1.8
2.7	10.3	22.7	44.1	57.8	73.0	64.5	60.5	69.2	50.5	23.1
8.4	27.5	62.2	117.8	181.4	208.9	309.1	364.8	461.8	477.9	376.4
0.4	0.5	2.0	0.6	1.8	2.2	1.6	4.3	2.3	7.2	5.3
0.7	0.7	1.3	0.6	0.9	1.1	1.6	1.7	3.5	3.1	1.8
3.9	6.8	8.7	15.1	18.4	17.6	22.2	28.5	27.7	36.1	37.3
—	0.7	1.3	1.7	4.2	5.4	5.3	9.0	8.7	11.3	3.6
2.1	2.8	0.5	0.3	0.6	1.4	1.6	0.4	1.7	5.2	3.5
3.4	3.1	5.1	5.6	6.6	6.1	8.6	15.8	15.0	14.4	10.6
0.2	0.5	0.5	1.1	1.5	3.2	5.3	8.5	5.2	8.2	7.1
—	0.9	8.4	63.6	168.1	360.6	611.7	766.3	772.6	575.7	632.1
9.8	2.3	3.3	1.4	1.8	0.7	0.8	0.8	1.7	3.1	1.8
0.2	0.2	0.5	1.7	1.8	3.2	4.9	8.1	10.4	15.4	17.8
8.2	11.5	13.2	24.6	34.9	43.9	55.4	66.1	83.6	73.1	69.2
0.2	0.5	1.3	1.4	2.1	1.8	5.6	6.0	10.4	6.2	12.4
2.1	7.8	21.9	40.2	65.1	94.9	148.6	192.6	252.5	328.5	314.3
0.2	—	—	1.1	3.3	4.3	4.9	6.8	9.2	9.3	8.9
—	0.2	0.8	1.4	0.6	1.8	2.1	2.1	1.7	6.2	3.6
4.5	6.1	10.7	12.3	16.3	24.4	29.1	32.8	29.4	31.9	26.6
2.3	2.8	5.3	4.2	5.4	5.0	4.9	4.7	4.0	5.1	5.3
—	0.5	0.8	0.3	0.9	0.4	1.2	—	2.3	—	1.8
1.8	1.6	1.5	2.5	3.3	4.3	4.9	9.8	13.3	18.5	32.0
0.9	4.2	11.7	14.5	23.5	41.3	48.0	66.9	84.7	149.3	186.4
3.6	3.8	3.1	2.8	3.3	2.5	3.3	2.1	6.3	2.1	3.5
9.8	14.6	13.2	14.2	22.6	23.0	35.7	41.3	52.5	69.0	46.2
—	—	0.2	0.3	0.3	0.7	2.5	2.6	2.9	3.1	5.3
0.7	0.5	3.3	5.0	6.0	7.9	18.5	28.5	29.4	41.2	33.7
0.5	2.6	3.3	5.6	9.0	11.9	17.6	23.0	33.4	28.8	44.4
2.5	3.1	3.1	3.1	6.3	7.2	11.1	24.3	23.6	31.9	26.6
0.7	1.9	1.5	4.5	5.7	9.3	14.8	27.7	45.0	75.2	74.6
0.4	1.6	1.0	3.9	4.8	1.9	11.9	73.4	35.7	59.7	47.9
89.8	**172.5**	**335.4**	**634.7**	**1,020.4**	**1,444.3**	**2,114.4**	**2,709.7**	**3,084.1**	**3,216.3**	**3,006.2**

ANNEX 2. AGE SPECIFIC INCIDENCE RATES BY AGE GROUP AND SITE. WOMEN. ACBC, 2002-2006

	0	1-4	5-9	10-14	15-19	20-24	25-29	30-34
SITES	RATE	RATE	RATE	RATE	RATE	RATE	RATE	RATE
HEAD AND NECK								
Lip	—	—	—	—	—	—	—	—
Tongue	—	—	—	—	—	0.3	—	—
Oral cavity, others	—	—	—	—	—	—	—	—
Salivary glands	—	—	—	0.5	—	0.3	0.5	0.2
Pharynx	—	—	—	—	—	—	0.5	0.2
DIGESTIVE ORGANS								
Oesophagus	—	—	—	—	—	—	—	0.2
Stomach	—	—	—	—	0.4	—	0.2	0.9
Small intestine	—	—	—	—	—	—	—	—
Colon	—	—	—	—	—	0.3	1.2	2.5
Rectosigmoid junction, rectum, anus	—	—	—	—	—	—	0.5	1.4
Liver	—	—	—	—	0.4	0.3	0.2	0.5
Bile ducts and biliary tract	—	—	—	—	—	—	—	—
Pancreas	—	—	—	—	—	0.3	0.2	0.2
RESPIRATORY ORGANS								
Nasal cavity and sinuses	—	—	—	—	—	—	0.2	—
Larynx	—	—	—	—	—	—	—	—
Trachea and lung	—	—	—	—	—	—	0.2	0.7
Mediastinum, pleura (exc. mesothelioma) and others	2.1	1.1	—	—	—	—	0.5	—
BONE	—	0.6	—	1.5	0.8	0.6	0.5	—
MELANOMA OF THE SKIN	—	—	—	—	2.1	4.7	7.4	9.0
MESOTHELIOMA	—	—	—	—	—	—	—	0.5
KAPOSI'S SARCOMA	—	—	—	—	—	0.3	—	0.5
NERVES AND SOFT TISSUE	4.2	1.1	—	0.5	0.8	0.9	0.5	1.6
BREAST	—	—	—	—	—	1.9	6.9	24.8
FEMALE GENITAL ORGANS								
Cervix uteri	—	—	—	—	—	0.3	1.7	4.6
Corpus uteri	—	—	—	—	—	0.3	0.5	1.2
Other parts of uterus	—	—	—	0.5	—	—	—	0.2
Ovary	—	—	—	1.0	1.3	1.6	1.7	3.5
Placenta	—	—	—	—	0.4	—	—	0.2
Other genitals	—	0.6	—	0.5	—	—	—	—
URINARY ORGANS								
Kidney	2.1	2.2	1.0	—	—	0.3	0.2	2.8
Renal pelvis	—	—	—	—	—	—	—	—
Bladder	—	—	—	—	—	—	0.5	1.4
Urethra and other urinary	—	—	—	—	—	—	—	—
EYE	—	1.1	0.5	—	—	0.3	—	0.2
CENTRAL NERVOUS SYSTEM	6.3	3.9	3.0	2.0	2.1	1.6	2.7	1.9
THYROID GLANDS	—	—	—	—	1.7	7.8	4.9	8.6
OTHER ENDOCRINE GLANDS	6.3	0.6	0.5	—	—	0.3	—	—
SKIN NON-MELANOMA AND OTHER UNSPECIFIED	2.1	1.1	0.5	—	0.4	0.6	1.2	0.7
POORLY DEFINED SITE	—	—	—	—	0.4	0.3	0.2	0.2
LYMPHOMAS AND HAEMATOPOIETIC TISSUES								
Hodgkin's lymphoma	—	—	—	0.5	2.1	7.2	5.9	3.0
Non-Hodgkin's lymphoma	2.1	—	1.5	—	1.7	1.8	2.2	3.5
Malignant immunoproliferative diseases	—	—	—	—	—	—	—	0.2
Multiple myeloma	—	—	—	—	—	—	—	—
Lymphatic leukaemia	4.2	7.9	3.5	3.0	1.3	0.3	0.5	0.9
Myeloid and monocytic leukaemias	—	0.6	—	1.0	—	0.3	0.5	1.6
Other leukaemias	—	1.1	0.5	—	1.7	1.6	0.7	0.7
OTHER LYMPHATIC, HAEMATOPOIETIC UNSPECIFIED	—	0.6	0.5	—	1.3	1.3	0.7	0.7
ALL SITES	**29.4**	**21.4**	**11.0**	**11.0**	**17.5**	**34.8**	**42.8**	**78.6**

35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 and older
RATE	RATE	RATE	RATE	RATE	RATE	RATE	RATE	RATE	RATE	RATE
—	0.2	0.2	0.3	—	1.0	1.1	2.8	4.5	4.6	7.2
0.2	1.2	1.7	3.3	4.1	3.7	4.0	2.1	6.2	1.7	6.5
—	0.9	2.7	2.2	4.7	2.0	3.6	5.9	6.6	6.9	12.4
—	0.5	—	0.8	1.5	2.7	1.8	2.1	1.2	2.3	2.6
0.5	2.6	6.5	5.8	5.6	2.4	2.6	3.1	2.5	4.6	3.9
—	0.7	4.0	1.6	2.3	1.7	3.6	2.4	6.6	9.2	10.4
1.9	3.3	7.5	10.2	13.5	23.1	35.8	44.8	68.8	83.9	100.2
—	1.6	0.5	0.5	1.8	1.4	2.6	2.1	5.8	4.6	7.8
3.7	10.3	15.8	26.4	42.6	48.6	86.5	109.8	147.5	164.3	201.1
0.7	6.1	7.5	19.0	21.4	33.3	41.6	58.7	70.0	92.5	83.3
0.2	1.6	2.5	3.3	7.6	9.2	13.1	23.8	30.9	37.3	40.4
—	0.5	1.0	2.5	6.2	8.2	11.3	21.7	38.7	40.8	48.8
0.2	1.9	3.7	6.0	12.6	15.3	27.8	39.2	50.7	50.6	89.2
0.5	—	0.2	1.4	1.5	0.3	1.5	1.4	2.1	4.6	1.9
0.5	2.1	4.0	1.1	2.6	3.1	2.6	1.7	3.7	1.1	2.6
4.9	18.7	30.5	31.0	26.4	22.1	29.9	34.6	41.6	46.5	46.9
—	0.5	0.2	—	0.6	1.7	0.7	2.1	0.8	1.1	3.2
0.7	0.5	1.2	0.6	0.9	1.4	1.5	1.7	0.8	2.3	1.9
11.7	11.0	13.5	16.5	18.8	18.0	19.4	22.0	21.0	19.5	24.7
0.2	0.2	0.5	0.8	0.6	1.7	2.6	1.4	3.7	2.3	0.6
—	0.5	—	0.3	0.6	0.7	0.4	0.7	2.1	2.9	1.9
0.7	3.5	3.0	3.3	4.4	6.1	7.3	5.6	7.4	12.6	6.5
60.7	126.5	186.2	206.2	193.2	196.1	145.0	201.7	218.3	221.2	207.0
10.3	11.2	14.5	12.9	18.2	9.5	12.4	10.8	8.6	9.2	16.3
2.6	7.0	20.8	38.2	63.7	60.5	63.9	69.2	61.8	55.2	39.7
0.5	0.9	0.5	2.2	2.3	1.7	1.5	1.0	2.9	6.3	7.8
4.7	10.5	14.0	22.8	31.4	20.4	23.7	27.3	29.2	36.2	37.7
—	—	—	—	—	—	—	—	—	—	—
1.2	0.2	0.7	2.2	5.0	5.4	11.0	11.5	19.8	19.0	34.5
2.8	4.7	6.8	8.8	12.9	15.0	15.0	18.2	32.5	29.3	31.2
—	—	0.2	0.5	1.2	—	1.8	2.1	3.3	4.0	3.2
1.4	1.6	2.7	6.3	8.5	8.8	11.0	19.9	38.7	50.0	63.1
—	0.2	0.2	0.3	0.3	0.3	0.7	1.4	1.2	1.7	2.6
—	0.2	0.7	—	0.9	2.0	2.6	2.8	2.1	4.6	1.9
2.1	4.7	6.8	9.1	10.3	16.0	20.4	18.2	27.6	21.3	24.7
9.1	13.6	11.0	14.8	12.9	13.3	13.5	10.8	7.8	8.6	9.1
0.2	—	0.7	0.8	0.6	—	0.4	—	1.2	1.1	1.3
0.7	0.7	2.5	1.1	1.5	2.4	3.3	5.2	10.7	14.4	45.6
1.4	3.5	5.3	8.0	5.3	13.9	22.3	24.1	40.0	8.6	112.0
2.1	1.9	1.7	1.1	0.3	1.0	2.9	3.1	2.9	3.4	2.6
4.0	7.0	6.3	11.5	16.1	23.4	28.5	32.9	43.2	45.5	28.0
—	—	—	0.3	0.6	0.7	0.4	0.7	0.8	2.3	0.6
0.7	0.7	2.7	5.2	5.3	10.0	14.6	15.0	20.6	28.7	21.5
0.2	1.4	2.5	3.6	4.4	6.1	6.9	10.8	13.2	14.4	18.2
1.4	1.9	3.0	3.0	5.3	5.1	7.3	11.9	8.6	12.1	15.6
1.2	2.1	2.0	3.0	4.7	5.8	10.2	17.1	25.9	31.6	43.0
0.9	1.6	1.7	2.2	3.8	4.1	8.7	13.3	19.8	21.8	29.3
133.7	**268.2**	**398.9**	**497.6**	**585.0**	**624.1**	**719.8**	**905.2**	**1,143.5**	**1,294.7**	**1,472.4**

ANNEX 3. AGE SPECIFIC MORTALITY RATES BY AGE GROUP AND SITE. MEN. ACBC, 2004-2008

	0	1-4	5-9	10-14	15-19	20-24	25-29	30-34
SITES	RATE	RATE	RATE	RATE	RATE	RATE	RATE	RATE
HEAD AND NECK								
Lip	—	—	—	—	—	—	—	—
Tongue	—	—	—	—	—	—	—	—
Oral cavity, others	—	—	—	—	—	—	—	—
Salivary glands	—	—	—	—	—	—	—	—
Pharynx	—	—	—	—	—	—	—	—
DIGESTIVE ORGANS								
Oesophagus	—	—	—	—	—	—	—	—
Stomach	—	—	—	—	0.4	—	0.7	0.6
Small intestine	—	—	—	—	—	—	—	—
Colon	—	—	—	—	—	—	0.2	—
Rectosigmoid junction, rectum, anus	—	—	—	—	—	—	—	0.4
Liver	1.9	—	—	—	—	0.3	0.2	0.2
Bile ducts and biliary tract	—	—	—	—	—	—	—	—
Pancreas	—	—	—	—	—	—	0.5	0.6
RESPIRATORY ORGANS								
Nasal cavity and sinuses	—	—	—	—	—	—	—	0.2
Larynx	—	—	—	—	—	—	—	—
Trachea and lung	—	—	—	—	—	0.3	0.2	0.6
Mediastinum, pleura (exc. mesothelioma) and others	—	—	—	0.5	—	0.3	—	0.2
BONE	—	—	—	1.5	0.4	0.7	—	0.2
MELANOMA OF THE SKIN	—	—	—	—	—	—	0.2	0.4
MESOTHELIOMA	—	—	—	—	—	—	—	0.2
KAPOSI'S SARCOMA	—	—	—	—	—	—	—	0.2
NERVES AND SOFT TISSUE	—	—	—	—	0.4	—	—	0.2
BREAST	—	—	—	—	—	—	—	—
MALE GENITAL ORGANS								
Prostate	—	—	—	—	—	—	—	0.2
Testicles	—	—	—	—	0.9	0.3	—	0.4
Other male genitals	—	0.5	—	—	—	—	—	0.2
URINARY ORGANS								
Kidney	—	—	—	—	0.4	—	0.2	0.4
Renal pelvis	—	—	—	—	—	—	—	—
Bladder	—	—	—	—	—	—	0.2	—
Urethra and other urinary	—	—	—	—	—	—	—	—
EYE	—	—	—	—	—	—	—	0.2
CENTRAL NERVOUS SYSTEM	—	0.5	1.8	1.0	0.4	0.7	1.5	1.3
THYROID GLANDS	—	—	—	—	—	—	—	—
OTHER ENDOCRINE GLANDS	1.9	0.5	0.5	—	0.4	—	0.2	—
SKIN NON-MELANOMA AND OTHER UNSPECIFIED	—	—	—	—	—	—	—	—
POORLY DEFINED SITE, SECONDARY AND MULTIPLE	—	—	—	—	0.4	0.7	0.2	1.1
LYMPHOMAS AND HAEMATOPOIETIC TISSUES								
Hodgkin's lymphoma	—	—	—	—	—	—	0.5	0.6
Non-Hodgkin's lymphoma	—	—	—	1.0	0.4	—	0.5	0.2
Malignant immunoproliferative diseases	—	—	—	—	—	—	—	—
Multiple myeloma	—	—	—	—	—	—	—	—
Lymphatic leukaemia	—	—	1.4	1.0	0.9	—	—	—
Myeloid and monocytic leukaemias	—	—	—	—	—	0.3	—	0.2
Other leukaemias	—	—	0.5	0.5	—	—	0.2	—
ALL SITES	**3.8**	**1.5**	**4.1**	**5.4**	**5.3**	**3.7**	**5.8**	**9.2**

35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 and older
RATE	RATE	RATE	RATE	RATE	RATE	RATE	RATE	RATE	RATE	RATE
—	—	0.2	—	—	—	—	0.4	0.5	0.9	—
0.2	0.7	1.7	2.8	4.7	6.7	6.7	8.3	7.5	4.5	8.2
—	0.9	2.4	5.8	5.0	8.7	8.5	7.1	5.4	11.8	9.8
—	—	—	—	0.3	0.3	1.3	1.3	2.1	3.6	13.1
0.7	2.8	6.8	14.6	19.9	15.4	16.9	19.2	11.8	11.8	8.2
0.7	1.6	7.6	21.8	21.4	32.4	35.1	32.9	45.4	32.6	37.6
1.8	4.1	5.9	14.9	21.1	37.4	52.9	82.1	115.5	142.9	161.7
—	—	—	0.8	1.2	1.0	—	0.8	2.1	6.3	3.3
1.1	3.0	7.6	14.6	29.3	42.4	78.7	125.5	180.1	275.8	369.1
0.5	0.9	2.2	4.1	13.8	25.1	36.0	38.8	63.1	73.3	107.8
1.1	3.9	3.7	10.2	12.6	22.0	44.0	69.6	86.1	96.8	125.8
—	—	0.2	0.6	2.1	3.7	5.8	10.8	13.9	23.5	29.4
0.7	3.2	4.9	14.4	18.7	25.7	48.5	53.8	58.8	89.5	75.1
—	—	0.5	—	0.3	1.0	1.3	0.4	2.1	0.9	3.3
—	1.2	6.3	11.9	19.9	25.1	20.0	25.4	34.2	29.9	32.7
5.6	12.8	44.9	89.0	142.5	184.4	256.9	301.8	395.5	455.8	375.7
0.2	—	0.7	0.3	0.9	1.0	2.2	1.7	3.2	3.6	4.9
0.5	0.5	1.0	1.4	0.6	—	0.9	0.8	1.6	1.8	3.3
0.2	0.9	0.7	2.2	4.7	5.3	8.9	10.4	8.0	13.6	13.1
—	0.2	1.0	1.4	4.4	4.0	8.0	8.3	9.6	16.3	4.9
—	—	—	—	—	—	—	—	—	—	6.5
0.2	1.2	0.5	2.5	1.8	4.3	4.0	4.6	9.1	10.9	13.1
—	—	—	0.3	—	1.3	0.9	1.7	1.1	—	1.6
—	—	1.0	2.5	8.5	17.4	44.9	82.5	168.9	296.6	656.6
—	0.2	—	0.3	0.3	—	—	0.4	—	—	3.3
0.2	—	0.2	0.3	0.6	1.3	0.9	0.8	1.6	7.2	11.4
0.5	2.1	3.7	6.9	7.9	15.4	14.2	29.6	41.7	46.1	70.2
—	—	—	0.3	0.6	—	0.4	—	0.5	1.8	1.6
—	1.8	2.2	6.9	14.6	25.7	42.7	68.8	100.0	185.4	266.2
0.2	—	—	—	0.6	1.3	0.9	2.5	2.7	4.5	16.3
—	—	—	—	0.3	—	0.4	0.4	0.5	—	—
2.2	2.8	5.9	9.1	14.9	17.7	22.2	27.1	29.9	27.1	29.4
—	0.5	—	0.3	0.6	1.0	1.8	2.1	2.7	3.6	—
—	0.7	—	0.6	0.9	1.7	1.8	0.8	0.5	—	3.3
0.2	1.6	3.9	4.4	11.1	11.4	19.1	18.8	20.9	43.4	81.7
1.4	1.8	5.1	11.9	24.3	32.1	56.0	83.4	104.2	186.3	277.7
0.5	0.5	0.2	0.6	0.3	1.3	0.9	2.1	1.1	1.8	6.5
1.6	2.5	2.9	5.3	10.0	8.0	14.2	19.2	36.9	63.3	62.1
—	—	—	—	—	0.3	0.9	—	1.1	0.9	1.6
—	—	0.2	0.8	2.6	5.3	7.6	13.3	21.9	33.5	45.7
—	0.2	1.2	0.8	0.6	3.0	4.9	12.9	11.8	18.1	42.5
0.2	0.2	1.0	0.3	2.3	3.0	4.9	10.4	19.2	26.2	31.0
0.7	0.5	0.5	0.3	0.9	3.0	5.8	10.4	16.6	21.7	32.7
21.1	**53.2**	**126.8**	**264.9**	**426.5**	**596.1**	**882.0**	**1,191.0**	**1,639.0**	**2,274.0**	**3,048.0**

ANNEX 4. AGE SPECIFIC MORTALITY RATES BY AGE GROUP AND SITE. WOMEN. ACBC, 2004-2008

	0	1-4	5-9	10-14	15-19	20-24	25-29	30-34
SITES	RATE	RATE	RATE	RATE	RATE	RATE	RATE	RATE
HEAD AND NECK								
Lip	—	—	—	—	—	—	—	—
Tongue	—	—	—	—	—	—	—	—
Oral cavity, others	—	—	—	—	—	—	—	—
Salivary glands	—	—	—	—	—	—	—	—
Pharynx	—	—	—	—	—	0.4	—	—
DIGESTIVE ORGANS								
Oesophagus	—	—	—	—	—	—	—	—
Stomach	—	—	—	—	—	—	—	0.9
Small intestine	—	—	—	—	—	—	—	—
Colon	—	—	—	—	—	0.4	—	0.9
Rectosigmoid junction, rectum, anus	—	—	—	—	—	—	—	—
Liver	—	—	—	—	0.5	—	—	0.5
Bile ducts and biliary tract	—	—	—	—	—	—	—	—
Pancreas	—	—	—	—	—	0.4	—	0.5
RESPIRATORY ORGANS								
Nasal cavity and sinuses	—	—	—	—	—	—	—	—
Larynx	—	—	—	—	—	—	—	—
Trachea and lung	—	—	—	—	—	—	—	0.2
Mediastinum, pleura (exc. mesothelioma) and others	—	—	—	—	—	—	—	—
BONE	—	0.5	—	0.5	—	—	—	—
MELANOMA OF THE SKIN	—	—	—	—	—	0.7	—	0.7
MESOTHELIOMA	—	—	—	—	—	—	—	—
KAPOSI'S SARCOMA	—	—	—	—	—	—	—	—
NERVES AND SOFT TISSUE	—	—	0.5	—	0.5	0.7	0.3	0.2
BREAST	—	—	—	—	—	0.4	1.0	2.7
ÓRGANOS GENITALES								
Cervix uteri	—	—	—	—	—	—	—	0.5
Corpus uteri	—	—	—	—	—	—	—	—
Other parts of uterus	—	—	—	—	0.5	—	—	0.2
Ovary	—	—	—	—	—	—	—	0.7
Placenta	—	—	—	—	—	—	—	—
Other genitals	—	—	—	—	—	0.4	0.3	—
URINARY ORGANS								
Kidney	—	—	—	—	—	0.4	—	0.2
Renal pelvis	—	—	—	—	—	—	—	—
Bladder	—	—	—	—	—	—	—	—
Urethra and other urinary	—	—	—	—	—	—	—	—
EYE	—	—	—	—	—	—	—	—
CENTRAL NERVOUS SYSTEM	—	0.5	0.5	—	0.9	—	1.0	0.9
THYROID GLANDS	—	—	—	—	—	—	—	—
OTHER ENDOCRINE GLANDS	—	—	—	—	—	—	—	—
SKIN NON-MELANOMA AND OTHER UNSPECIFIED	—	—	—	—	—	—	—	0.2
POORLY DEFINED SITE, SECONDARY AND MULTIPLE	—	—	—	—	0.5	—	0.5	0.5
LYMPHOMAS AND HAEMATOPOIETIC TISSUES								
Hodgkin's lymphoma	—	—	—	—	—	—	0.3	0.2
Non-Hodgkin's lymphoma	—	—	—	—	—	—	0.5	0.7
Malignant immunoproliferative diseases	—	—	—	—	—	—	—	—
Multiple myeloma	—	—	—	—	—	—	—	—
Lymphatic leukaemia	—	1.1	0.5	—	—	0.4	0.3	0.2
Myeloid and monocytic leukaemias	—	—	—	—	—	—	0.3	0.5
Other leukaemias	—	0.5	—	—	—	0.4	—	0.5
ALL SITES	**—**	**2.7**	**1.4**	**0.5**	**2.8**	**4.2**	**4.4**	**11.8**

35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85 and older
RATE	RATE	RATE	RATE	RATE	RATE	RATE	RATE	RATE	RATE	RATE
—	—	—	—	—	—	—	—	—	—	—
—	0.2	—	0.8	0.6	1.6	1.2	1.4	2.4	4.2	6.7
—	—	0.5	1.6	1.1	1.3	0.4	0.7	3.1	5.7	7.9
—	—	—	0.3	—	—	0.8	1.0	0.4	0.5	2.4
—	0.5	1.4	1.9	2.3	1.3	1.2	1.4	2.0	3.6	1.8
—	0.2	1.7	1.6	3.4	1.9	2.4	1.4	5.1	11.4	8.5
0.2	1.6	2.6	3.5	7.7	10.4	17.1	27.0	43.2	55.6	82.6
—	—	0.2	—	0.6	1.0	—	1.4	1.2	3.6	4.3
0.7	2.3	4.3	7.3	14.8	18.9	31.3	43.7	64.4	116.4	167.6
0.2	1.4	1.7	4.1	4.6	6.6	9.5	16.4	18.8	30.7	46.8
0.5	0.5	1.9	1.4	3.4	2.5	8.3	14.0	33.0	48.8	49.8
—	0.2	—	1.1	2.0	2.2	7.9	9.2	20.0	22.9	21.9
—	1.6	2.6	5.1	8.3	11.7	28.6	34.8	43.9	56.6	77.7
—	—	—	0.3	—	0.3	0.4	1.4	1.2	2.1	0.6
—	0.5	0.7	1.1	—	0.3	—	0.7	0.8	1.0	1.8
2.6	10.1	22.9	29.7	23.7	25.2	25.0	32.1	34.1	41.6	48.6
—	—	0.2	0.3	—	0.6	0.4	—	1.6	2.1	1.2
—	—	0.5	—	0.3	0.6	—	0.7	2.8	0.5	1.8
0.5	0.9	1.2	2.4	1.7	2.8	5.2	5.1	7.1	5.7	12.1
0.5	—	0.5	0.5	1.1	0.6	2.4	2.1	3.1	3.6	3.6
—	—	—	—	—	—	—	—	—	—	0.6
0.2	0.9	0.7	0.8	2.0	1.3	3.2	3.1	5.5	3.6	5.5
5.9	14.0	26.3	35.1	37.1	37.9	38.1	56.4	75.7	89.4	154.8
1.7	2.1	2.9	3.0	5.7	3.8	4.4	5.5	3.9	5.7	10.3
—	0.9	0.2	1.9	3.7	8.8	11.1	12.3	13.3	19.7	20.0
—	0.5	1.0	2.4	2.0	2.5	6.7	4.1	3.1	17.1	12.1
0.7	2.3	4.3	10.0	13.7	13.9	15.1	16.4	23.9	27.5	31.0
—	—	—	—	—	—	—	—	—	—	—
0.7	0.2	1.2	1.1	1.7	2.2	3.6	4.1	11.4	14.0	27.3
0.5	0.2	1.0	2.7	2.3	3.8	4.8	8.5	11.4	15.1	29.8
—	—	—	—	0.6	—	—	—	0.4	—	0.6
0.2	—	1.2	1.1	3.1	3.5	7.1	5.1	11.0	30.7	52.8
—	—	—	0.3	—	0.3	—	0.3	0.4	0.5	1.8
—	—	—	—	—	0.6	0.4	0.7	—	0.5	0.6
1.4	2.3	5.3	6.2	8.0	12.3	19.4	15.4	18.8	19.7	15.2
—	0.2	0.5	0.8	0.3	1.0	1.6	3.1	5.9	4.7	6.7
—	—	0.5	—	0.6	0.3	1.2	0.3	0.8	1.0	0.6
—	0.2	1.2	1.9	1.7	1.6	2.0	6.2	14.9	21.8	68.0
1.2	2.8	4.1	8.9	10.0	17.0	22.2	31.8	48.7	81.6	125.1
—	0.2	—	—	—	1.0	—	0.7	0.8	2.6	3.0
0.2	0.2	0.5	2.2	5.1	4.7	5.2	13.7	23.2	35.3	41.3
—	0.2	—	—	—	—	—	—	0.8	1.0	—
—	0.5	0.5	1.1	3.1	3.5	7.1	12.6	15.3	23.4	27.9
0.2	—	0.2	0.5	—	2.5	1.2	4.1	5.5	10.4	20.0
0.2	0.2	—	1.1	1.4	2.5	4.8	6.2	6.3	9.9	20.0
0.7	0.9	0.2	—	1.7	2.5	2.8	4.4	7.5	8.3	12.1
19.1	**49.0**	**94.6**	**143.9**	**179.4**	**217.3**	**303.8**	**409.2**	**596.4**	**860.2**	**1,235.0**

GLOSSARY OF TERMS

ACBC:	Autonomous Community of the Basque Country
APC:	Annual Percentage Change
BCR:	Basque Cancer Registry
CI:	95% confidence interval for the standardised rate (RS), defined as: RS ± 1,96 × standard error in said rate
CIR:	Crude Incidence rate per 100,000
CMR:	Crude Mortality rate per 100,000
CR:	Crude Rate per 100,000
DCO:	Death Certificate Only
ESR:	European Standardised Rate per 100,000
EUSTAT:	Basque Institute of Statistics
ICD:	International Classification of Diseases and related health problems
IT:	Information Technologies
LCL95:	Lower Confidence Limit at 95% confidence level
MV:	Microscopic verification (%)
NHL:	Non-Hodgkin's Lymphoma
OS:	Observed survival
RS:	Relative survival
RSJ:	Rectosigmoid Junction
SEIR:	European population Standardised Incidence Rate per 100,000
SIR:	Standardised Incidence Rate per 100,000
SMR:	Standardised Mortality Rate per 100,000
UCL95:	Upper Confidence Limit at 95% confidence level
WSR:	World Standardised Rate per 100,000

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