

**One-year relative survival rates for patients  
diagnosed with cancer of the oesophagus,  
stomach, primary liver, gallbladder, biliary tract  
and pancreas in England, 1985-2009**

**Upper Gastrointestinal Cancer Site Specific  
Clinical Reference Group (UGI SSCRG)**

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## Introduction

The National Cancer Intelligence Network (NCIN) Upper Gastrointestinal Cancer Site Specific Clinical Reference Group (UGI SSCRG) is responsible for analyses of national data for oesophago-gastric (OG) cancers (including oesophageal and stomach cancer) and primary hepatic, pancreatic and biliary cancers (including primary liver, biliary tract, gallbladder and pancreatic cancer). Thames Cancer Registry is the lead registry for the UGI SSCRG.

Survival for patients with these cancer types is lower in England than in Europe. This report aims to investigate whether one-year survival for men and women in England has improved.

## Methods

Data for this report were extracted in August 2012 from the UK Cancer Information Service (UKCIS).

Relative survival measures the survival of cancer patients in comparison to survival in the general population to estimate the effect of cancer. It assumes that some patients will die of other causes and compares the observed survival with that expected for the general population. The cohort of people is similar with respect to age, sex and year of observation. The expected survival rate is estimated using aggregated all-cause mortality data. There are several different methods of calculating relative survival and the UKCIS uses the method described by Parkin and Hakulinen.<sup>1</sup>

One-year relative survival rates presented in this report are based on patients diagnosed between 1985 and 2009 in England. The final year of follow-up was 2010. The survival rates are calculated from five-year periods. These periods overlap, for example 1985-1989 followed by 1986-1990 up to 2004-2008, and finally 2005-2009.

The relative survival rates are given for male and female patients resident in England who were diagnosed with cancers of the oesophagus (International Classification of Diseases 10<sup>th</sup> Revision code C15), stomach (ICD-10 C16), primary liver (ICD-10 C22), gallbladder (ICD-10 C23), other and unspecified parts of biliary tract (from now on referred to as biliary tract) (ICD-10 C24), and pancreas (ICD-10 C25).

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<sup>1</sup> Cancer Registration: Principles and Methods, IARC Scientific Publications No. 95, Lyon, 1991

## Summary of results

One-year relative survival rates have improved for each of the cancer types. The survival rates in men improved slightly more than in women. For the latest period, 2005-2009, one-year survival was lowest for pancreatic cancer at 19.3% for men and 18.3% for women. The highest survival was observed for biliary tract cancer at 57.0% for men and 48.9% for women. The largest absolute improvement in survival rates over the whole period was seen in biliary tract cancer, increasing by more than 20 percentage points.

Relative survival is valuable to see the impact of cancer on survival and is advantageous as it does not depend on the accuracy of the reported cause of death. However, this means it is not possible to disentangle mortality related to cancer from other causes. Future analysis could take into account other factors that may influence survival, such as stage of disease and treatment received. This may provide more robust evidence of improvements in one-year survival.

This report has shown that one-year survival is improving for all of the upper gastrointestinal cancer types presented. This may be associated with more effective multi-disciplinary working in recent years. However one-year survival for these cancers in England is still low. Initiatives aimed at raising awareness of symptoms, earlier diagnosis and improving treatments will be essential. It is important that survival continues to be monitored to make sure improvements continue.

## Results

Number of cases by cancer type and five-year period of diagnosis, England, 1985-2009\*

Cancer type ICD-10 code	Oesophageal cancer C15		Stomach cancer C16		Primary liver cancer C22		Gallbladder cancer C23		Biliary tract cancer C24		Pancreatic cancer C25	
Period	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1985-1989	11,871	8,363	27,704	17,033	2,586	1,654	668	1,599	1,433	1,542	11,713	12,208
1986-1990	12,286	8,550	27,327	16,643	2,689	1,662	653	1,549	1,454	1,526	11,709	12,293
1987-1991	12,532	8,719	26,607	16,303	2,770	1,718	647	1,483	1,479	1,566	11,761	12,303
1988-1992	12,869	8,961	26,410	15,899	2,888	1,792	639	1,442	1,589	1,605	11,742	12,339
1989-1993	13,238	9,193	25,993	15,586	3,047	1,910	586	1,433	1,621	1,635	11,742	12,466
1990-1994	13,656	9,384	25,444	14,975	3,238	2,032	542	1,387	1,628	1,616	11,551	12,258
1991-1995	13,921	9,476	24,850	14,410	3,333	2,129	539	1,317	1,580	1,618	11,284	12,036
1992-1996	14,252	9,522	24,464	13,950	3,515	2,281	492	1,307	1,569	1,595	11,060	11,890
1993-1997	14,595	9,562	24,095	13,583	3,700	2,433	467	1,299	1,489	1,524	11,093	11,782
1994-1998	14,764	9,630	23,740	13,236	3,872	2,549	477	1,274	1,434	1,505	11,048	11,498
1995-1999	14,976	9,716	23,425	12,871	4,130	2,685	496	1,241	1,422	1,457	11,304	11,715
1996-2000	15,456	9,854	23,215	12,696	4,562	2,899	494	1,271	1,418	1,447	11,651	12,034
1997-2001	15,976	10,029	22,821	12,419	4,854	3,063	522	1,254	1,376	1,444	11,919	12,293
1998-2002	16,438	10,076	22,325	11,999	5,220	3,231	524	1,240	1,369	1,443	12,115	12,563
1999-2003	17,005	10,113	21,488	11,626	5,562	3,394	537	1,239	1,370	1,401	12,336	12,977
2000-2004	17,460	10,010	20,774	11,362	5,861	3,600	548	1,305	1,369	1,353	12,571	13,207
2001-2005	17,824	10,014	20,080	10,877	6,160	3,774	559	1,358	1,399	1,337	12,752	13,474
2002-2006	18,139	9,978	19,423	10,487	6,592	3,936	565	1,442	1,457	1,354	13,087	13,778
2003-2007	18,449	9,992	18,848	10,195	6,987	4,162	590	1,529	1,548	1,366	13,302	14,060
2004-2008	18,856	9,914	18,546	9,883	7,451	4,406	633	1,606	1,653	1,433	13,748	14,443
2005-2009	19,226	9,902	18,234	9,577	8,078	4,819	659	1,655	1,694	1,536	14,114	14,746

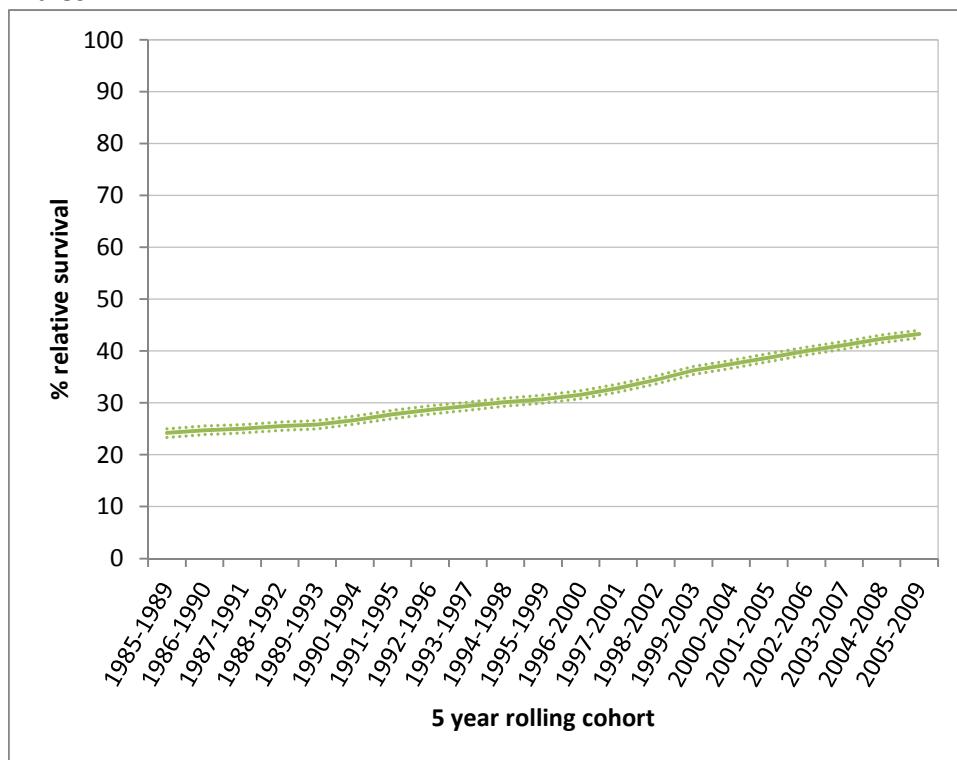
\* Each five-year period includes four diagnosis years from the previous five-year period

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## Trends in one-year survival, England, 1985-2009

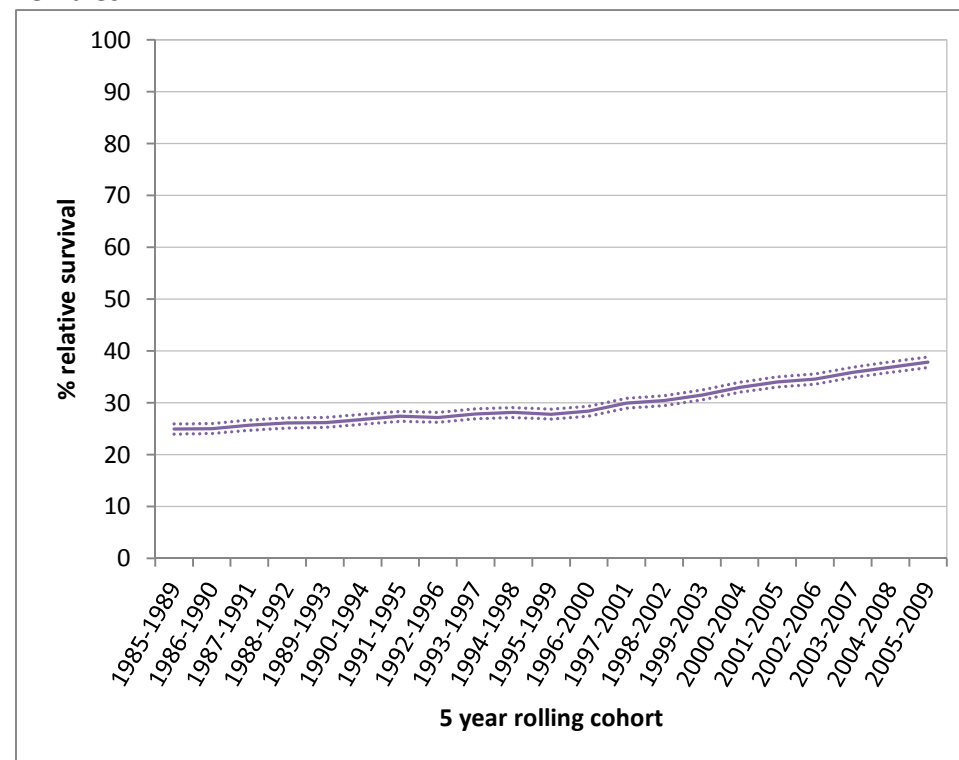
Oesophageal cancer (ICD-10 C15) – One-year relative survival with 95% confidence intervals

Males



In males diagnosed with oesophageal cancer the one-year relative survival in the earliest period (1985-1989) was 24.2%. In the most recent period (2005-2009) the survival rate was almost double at 43.3%. The absolute difference was +19.1 percentage points.

Females



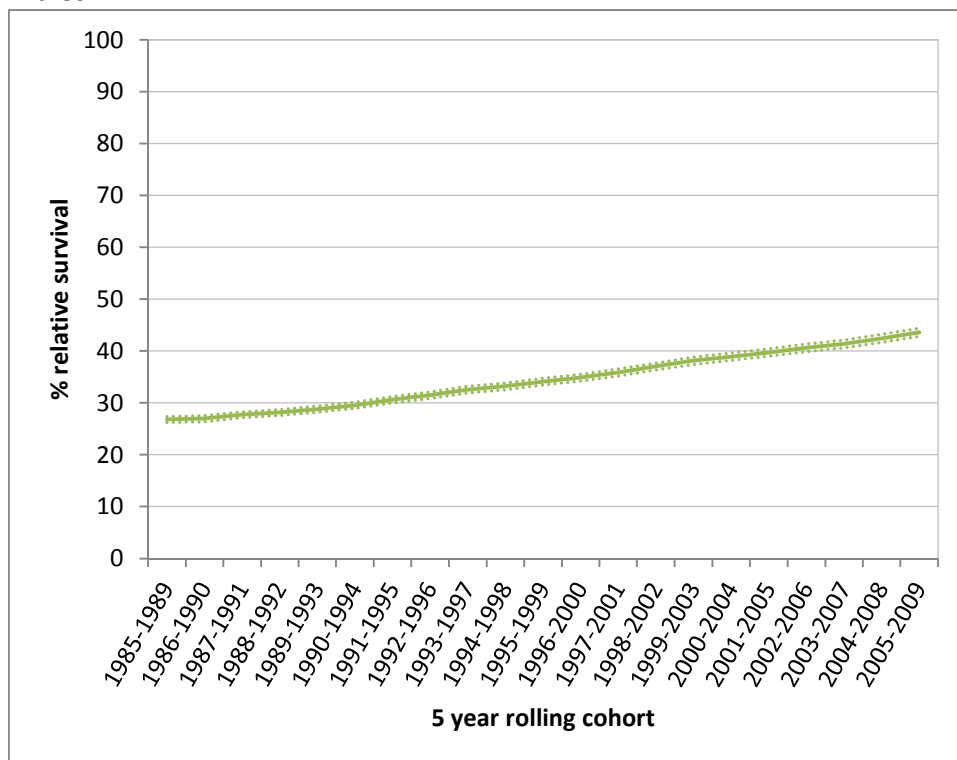
In females diagnosed with oesophageal cancer the one-year relative survival in the earliest period (1985-1989) was 24.9%. In the most recent period (2005-2009) the survival rate increased to 37.8%. The absolute difference was +12.9 percentage points.



## Trends in one-year relative survival, England, 1985-2009

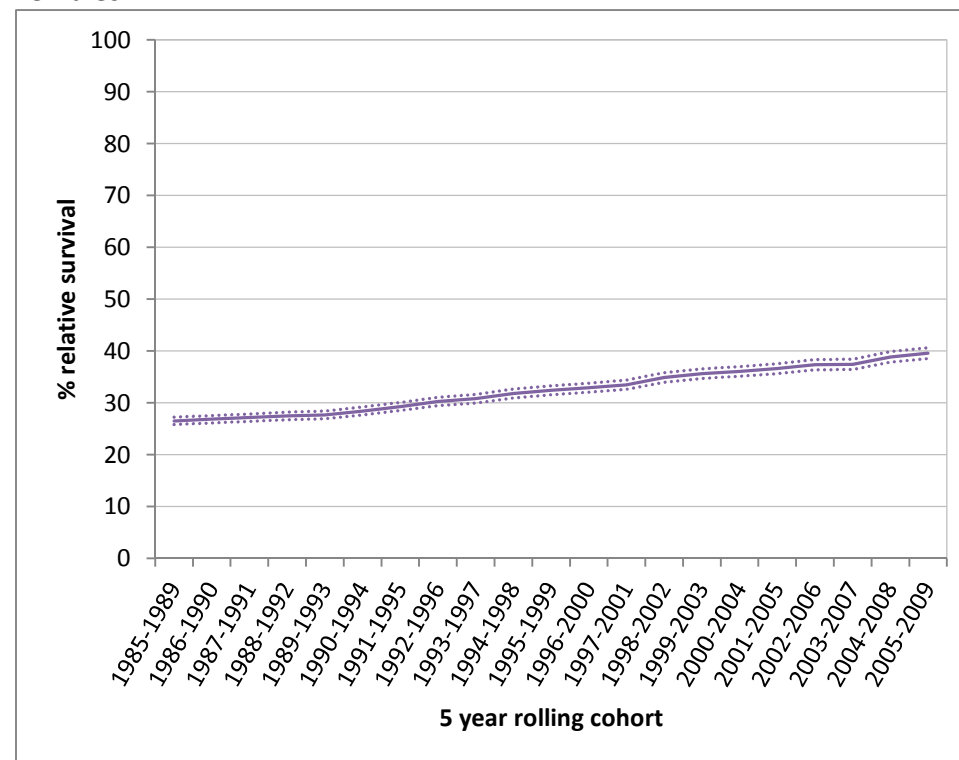
Stomach cancer (ICD-10 C16) – One-year relative survival with 95% confidence intervals

### Males



In males diagnosed with stomach cancer the one-year relative survival in the earliest period (1985-1989) was 26.8%. In the most recent period (2005-2009) the survival rate increased to 43.6%. The absolute difference was +16.8 percentage points.

### Females

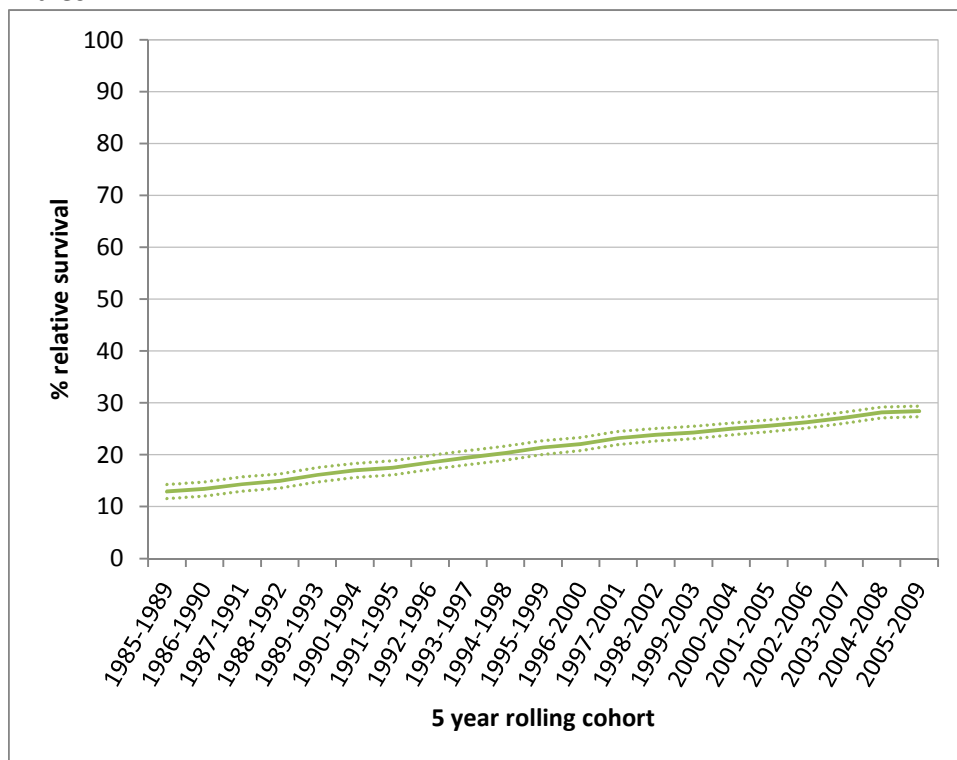


In females diagnosed with stomach cancer the one-year relative survival in the earliest period (1985-1989) was 26.5%. In the most recent period (2005-2009) the survival rate increased to 39.5%. The absolute difference was +13.1 percentage points.

∞ Trends in one-year relative survival, England, 1985-2009

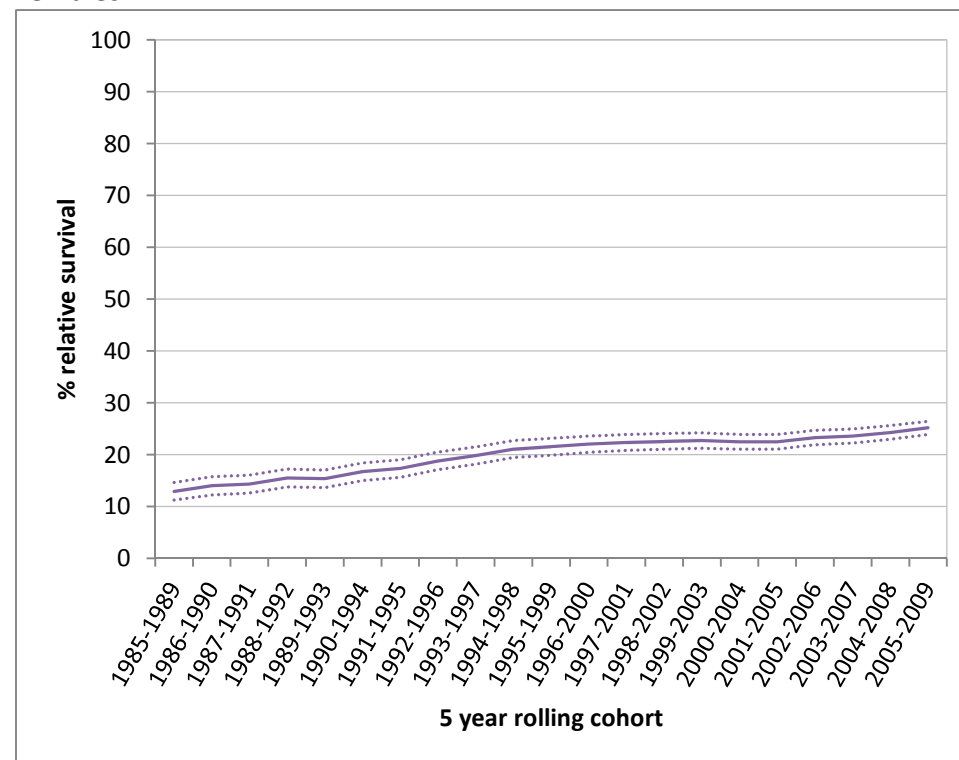
Liver cancer (ICD-10 C22) – One-year relative survival with 95% confidence intervals

Males



In males diagnosed with liver cancer the one-year relative survival in the earliest period (1985-1989) was 12.9%. In the most recent period (2005-2009) the survival rate more than doubled to 28.4%. The absolute difference was +15.5 percentage points.

Females

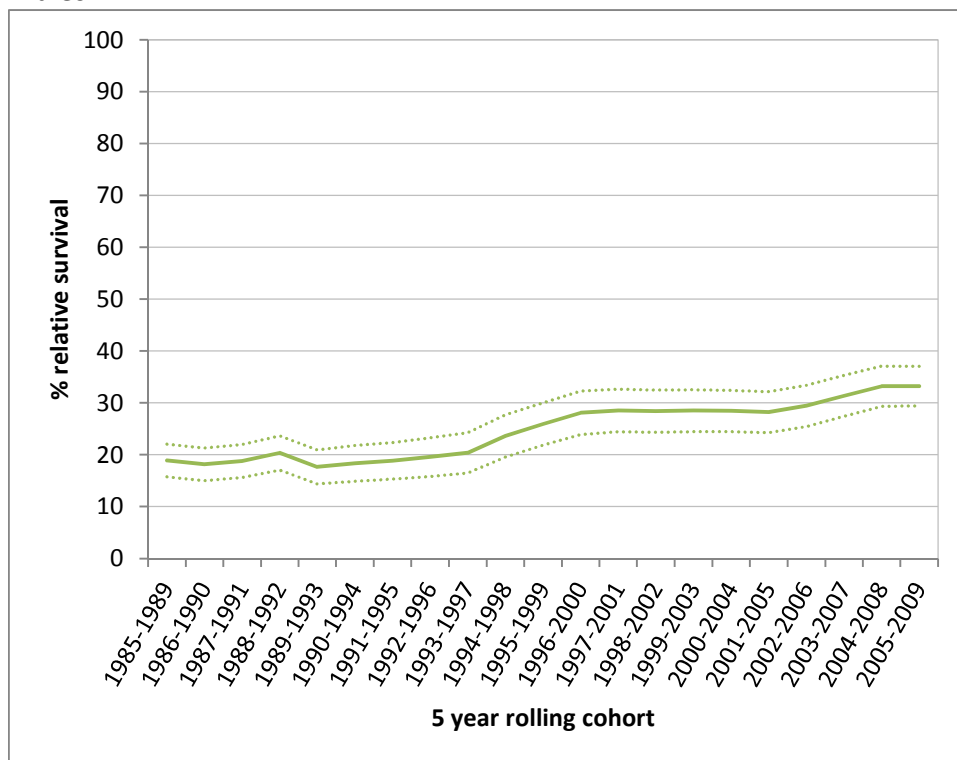


In females diagnosed with liver cancer the one-year relative survival in the earliest period (1985-1989) was 12.9%. In the most recent period (2005-2009) the survival rate almost doubled to 25.1%. The absolute difference was +12.2 percentage points.

## Trends in one-year relative survival, England, 1985-2009

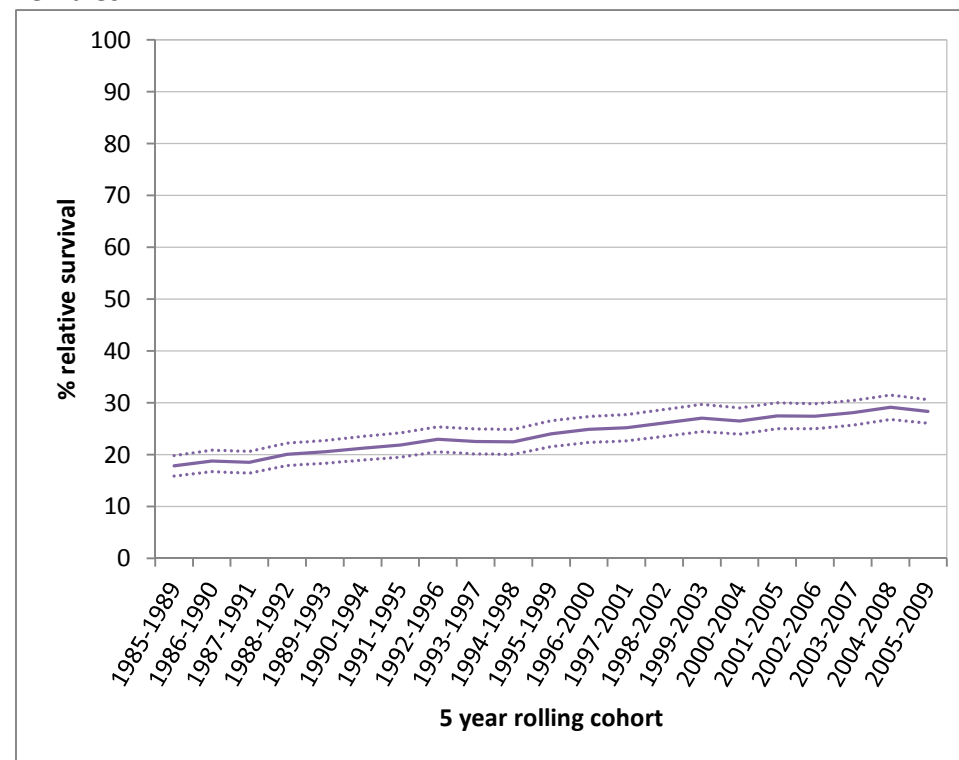
Gallbladder cancer (ICD-10 C23) – One-year relative survival with 95% confidence intervals

### Males



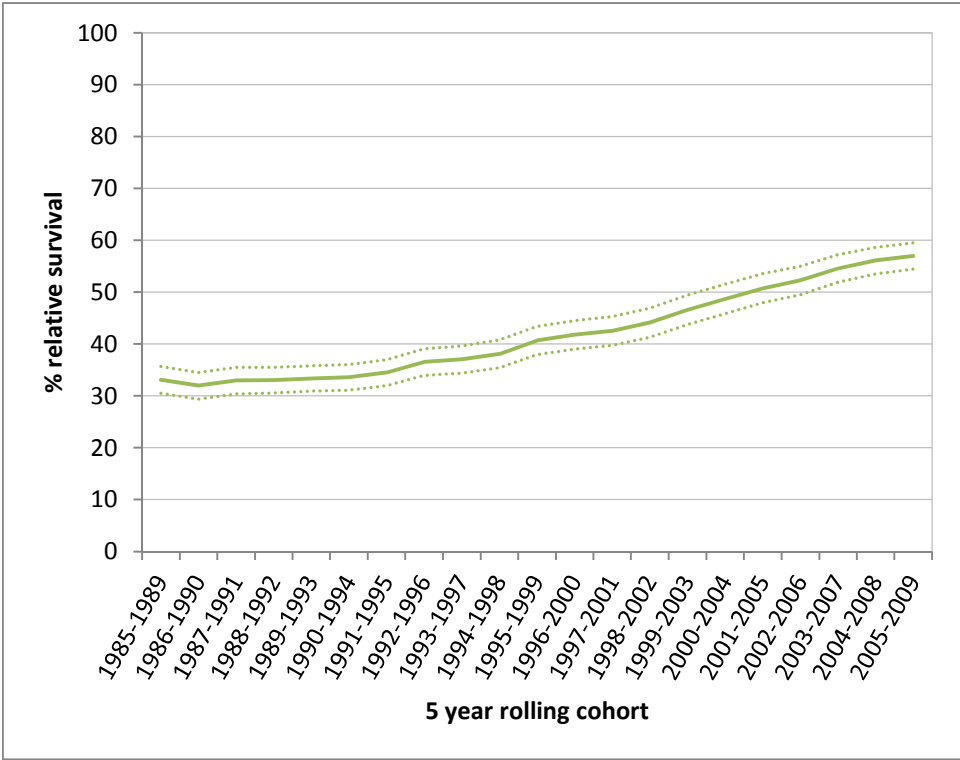
In males diagnosed with gallbladder cancer the one-year relative survival in the earliest period (1985-1989) was 18.9%. In the most recent period (2005-2009) the survival rate increased to 33.2%. The absolute difference was +14.4 percentage points.

### Females



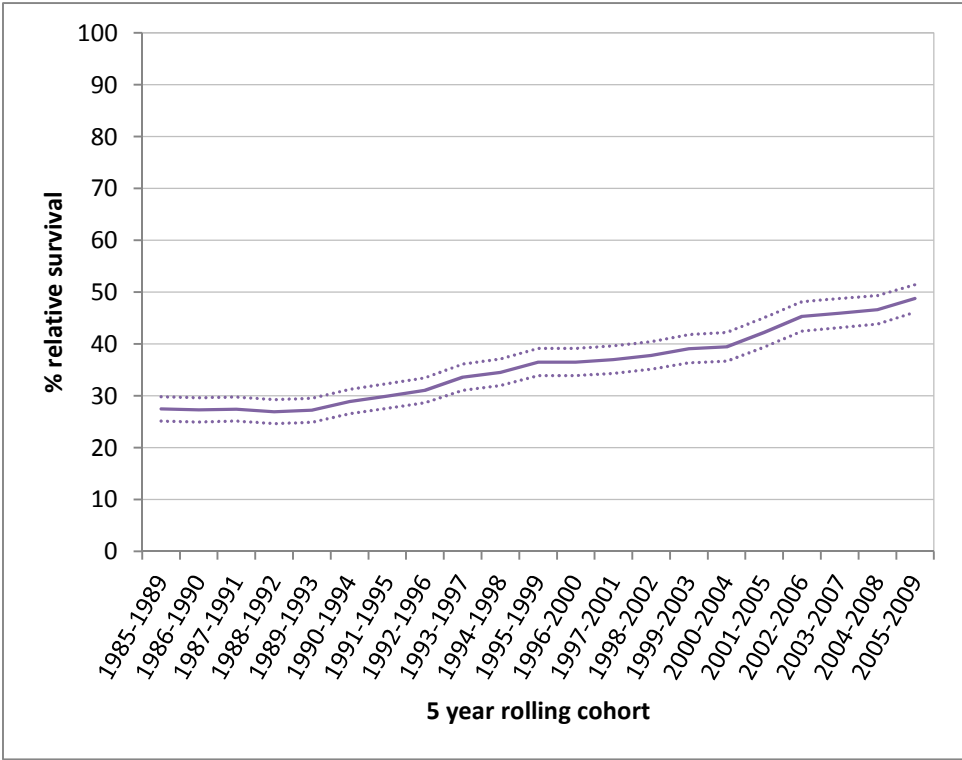
In females diagnosed with gallbladder cancer the one-year relative survival in the earliest period (1985-1989) was 17.8%. In the most recent period (2005-2009) the survival rate increased to 28.3%. The absolute difference was +10.5 percentage points.

Trends in one-year relative survival, England, 1985-2009  
Biliary tract cancer (ICD-10 C24) – One-year relative survival with 95% confidence intervals  
Males



In males diagnosed with biliary tract cancer the one-year relative survival in the earliest period (1985-1989) was 33.1%. In the most recent period (2005-2009) the survival rate increased to 57.0%. The absolute difference was +24.0 percentage points.

Females

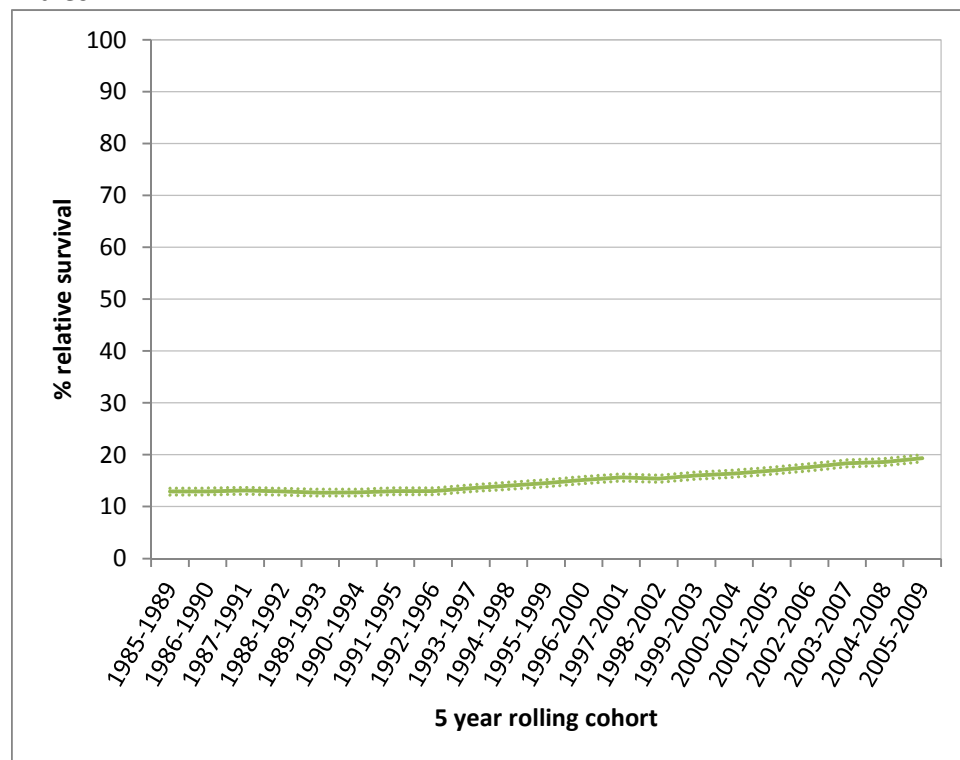


In females diagnosed with biliary cancer the one-year relative survival in the earliest period (1985-1989) was 27.5%. In the most recent period (2005-2009) the survival rate increased to 48.8%. The absolute difference was +21.3 percentage points.

# Trends in one-year relative survival, England, 1985-2009

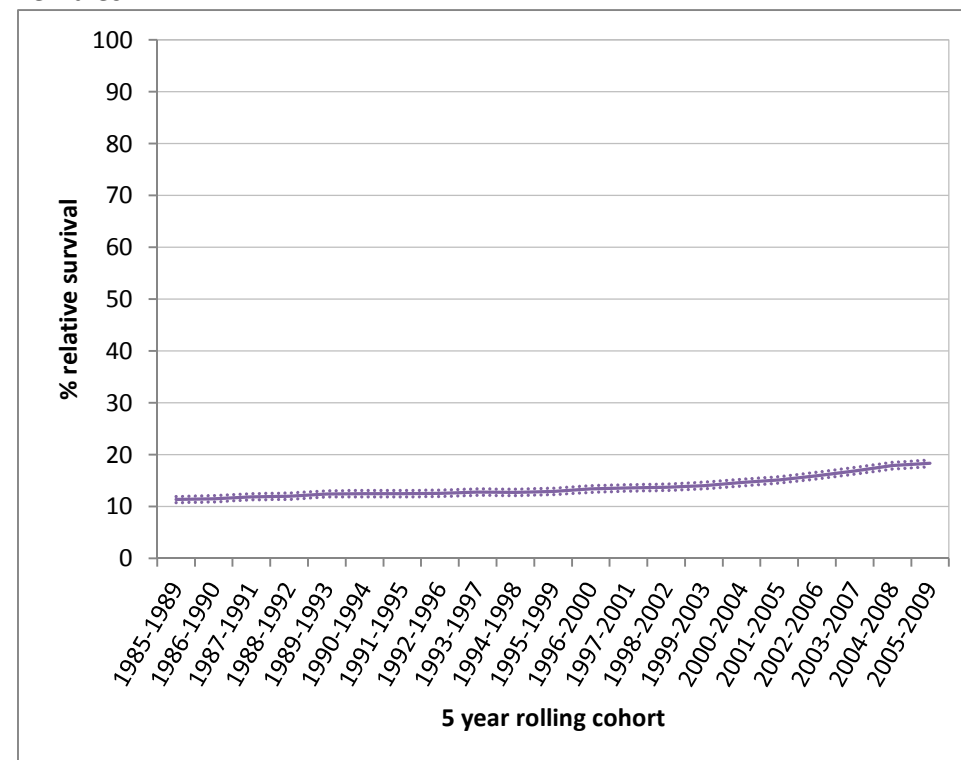
Pancreatic cancer (ICD-10 C25) – One-year relative survival with 95% confidence intervals

## Males



In males diagnosed with pancreatic cancer the one-year relative survival in the earliest period (1985-1989) was 12.9%. In the most recent period (2005-2009) the survival rate increased to 19.3%. The absolute difference was +6.4 percentage points.

## Females



In females diagnosed with pancreatic cancer the one-year relative survival in the earliest period (1985-1989) was 11.3%. In the most recent period (2005-2009) the survival rate increased to 18.3%. The absolute difference was +7.0 percentage points.

## **FIND OUT MORE:**

[Thames Cancer Registry](#) is the lead cancer registry for upper gastrointestinal cancers.

The NCIN is a UK-wide initiative, working closely with cancer services in England, Scotland, Wales and Northern Ireland, and the NCRI, to drive improvements in standards of cancer care and clinical outcomes by improving and using the information it collects for analysis, publication and research. In England, the NCIN is part of the National Cancer Programme.