3.8 Pancreas

Table 3.8.1
Overview of key epidemiological parameters for Germany, ICD-10 C25

	2009		2010		Prediction for 2014	
	Men	Women	Men	Women	Men	Women
Incident cases	7,790	7,840	8,020	8,060	8,500	8,900
Crude incidence rate[1]	19.4	18.8	20.0	19.4	21.4	21.6
Standardised incidence rate[1,2]	13.7	9.9	13.8	10.0	13.5	10.5
Median age at diagnosis	70	74	71	75		
Deaths	7,410	7,748	7,537	7,950		
Crude mortality rate[1]	18.5	18.6	18.8	19.1		
Standardised mortality rate[1,2]	12.9	9.4	12.8	9.5		
5-year prevalence	7,100	7,200	7,300	7,400		
Absolute 5-year survival rate (2009-2010)[3]			7 (3-9)	7 (4-11)		
Relative 5-year survival rate (2009-2010)[3]			8 (4-11)	8 (5-12)		

[1] per 100,000 persons [2] age-standardised (European standard) [3] in percentages (lowest and highest value of the included German federal states)

Epidemiology

The pancreas produces hormones (endocrinal function of islet cells) as well as digestive juices (exocrine function). The vast majority of malignant tumours in the pancreas originate in the exocrine portion of the pancreas. In 2010 more than 16,000 people were diagnosed with pancreatic cancer. In line with the unfavourable prognosis, almost that many people also died of the disease. The age-standardised incidence and mortality rates have remained almost constant since the late 1990s, whereas the absolute number of new cases and deaths has risen steadily.

In the early stages, malignant neoplasms of the pancreas frequently cause no or only nonspecific symptoms, thus the tumour is frequently only detected late. Accordingly, the relative 5-year survival rate is extremely unfavourable. In Germany it is 8 % for both men and women, although the rare malignant islet cell tumours have a significantly better prognosis. The pancreatic carcinoma thus has the lowest survival rate of all forms of cancer and is the fourth most frequent cause of death due to cancer.

The median age at diagnosis is 71 years for men and 75 years for women. The mean lifetime risk of developing pancreatic cancer is 1.6 % for both sexes.

Risk factors

Smoking tobacco is a proven risk factor, and passive smoking also plays a part. Obesity (adiposity) is another risk factor. Further lifestyle-related factors and in particular the influence of diet, have not been conclusively proven. It is believed that high consumption of processed meat goods can increase the risk. High consumption of alcohol similarly appears to increase the risk.

The risk of developing pancreatic cancer is also higher for patients with type 2 diabetes mellitus. Patients with long-term chronic inflammation of the pancreas (pancreatitis) also have an increased risk.

First-degree relatives of patients with a pancreatic carcinoma have a statistically higher risk of developing the cancer themselves, although it is not clear whether this is due to a hereditary predisposition or a shared lifestyle. An inheritable risk does indeed appear to play a part for some patients at least. People with two or more first-degree relative patients are at a significantly higher risk of also developing the disease compared to the normal population. Research is being conducted to analyse which genes are involved. The risk of developing this cancer is also high for people affected by one of the known, rare, genetic cancer syndromes.

It is not yet clear what role is played by environmental factors or occupational exposure to harmful substances.

Figure 3.8.1a
Age-standardised incidence and mortality rates, by sex, ICD-10 C25, Germany 1999 – 2010
per 100,000 (European standard)

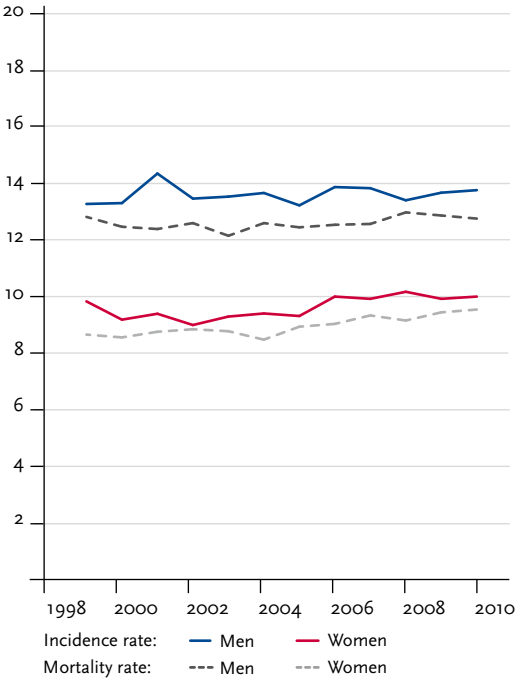

Figure 3.8.1b
Absolute numbers of incident cases and deaths, by sex, ICD-10 C25, Germany 1999 – 2010

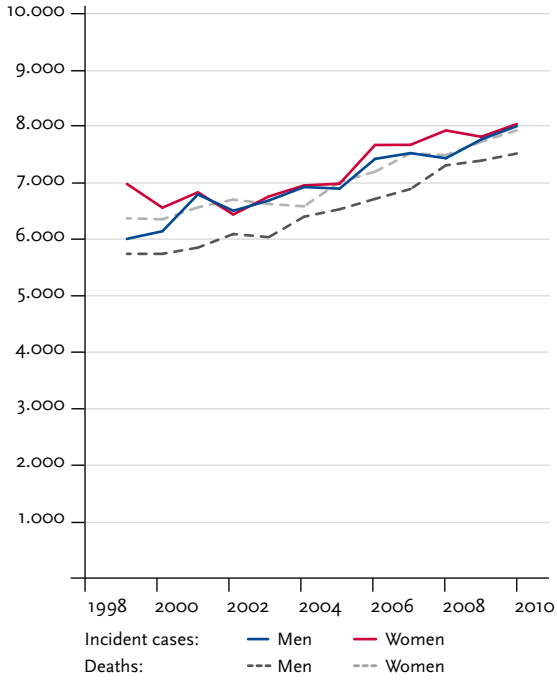

Figure 3.8.2
Age-specific incidence rates by sex, ICD-10 C25, Germany 2009 – 2010
per 100,000

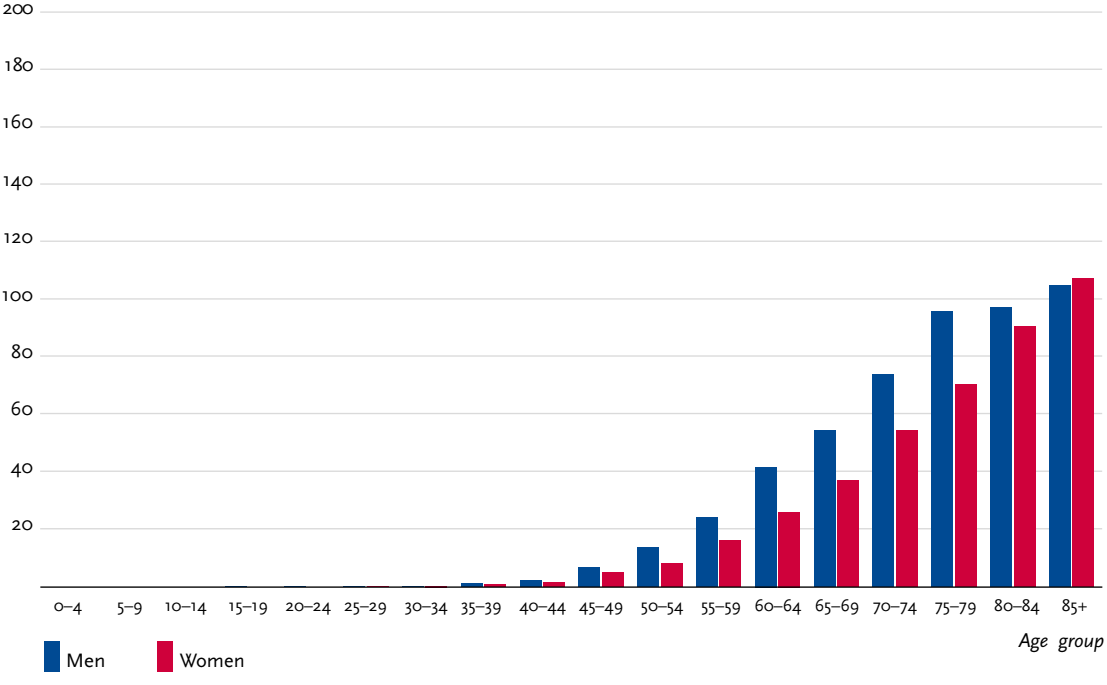

Table 3.8.2
Cancer incidence and mortality risks in Germany by age and sex, ICD-10 C25, database 2010

	Risk of developing cancer				Mortality risk			
Men aged	**in the next ten years**		**ever**		**in the next ten years**		**ever**	
35 years	<0.1%	(1 in 4,900)	1.7%	(1 in 60)	<0.1%	(1 in 6,000)	1.6%	(1 in 62)
45 years	0.1%	(1 in 1,000)	1.7%	(1 in 60)	0.1%	(1 in 1,200)	1.6%	(1 in 62)
55 years	0.3%	(1 in 300)	1.6%	(1 in 61)	0.3%	(1 in 360)	1.6%	(1 in 63)
65 years	0.6%	(1 in 170)	1.5%	(1 in 69)	0.6%	(1 in 180)	1.5%	(1 in 68)
75 years	0.8%	(1 in 130)	1.1%	(1 in 90)	0.8%	(1 in 130)	1.2%	(1 in 86)
Lifetime risk			1.6%	(1 in 61)			1.6%	(1 in 63)
Women aged	**in the next ten years**		**ever**		**in the next ten years**		**ever**	
35 years	<0.1%	(1 in 8,100)	1.6%	(1 in 61)	<0.1%	(1 in 10,000)	1.6%	(1 in 62)
45 years	0.1%	(1 in 1,500)	1.6%	(1 in 61)	0.1%	(1 in 1,800)	1.6%	(1 in 62)
55 years	0.2%	(1 in 470)	1.6%	(1 in 63)	0.2%	(1 in 550)	1.6%	(1 in 62)
65 years	0.4%	(1 in 230)	1.5%	(1 in 68)	0.4%	(1 in 240)	1.5%	(1 in 67)
75 years	0.7%	(1 in 150)	1.2%	(1 in 85)	0.7%	(1 in 140)	1.2%	(1 in 82)
Lifetime risk			1.6%	(1 in 62)			1.6%	(1 in 62)

Figure 3.8.3
Distribution of T-stages at first diagnosis by sex
Not presented due to the large proportion of missing data.

Figure 3.8.4a
Absolute survival rates up to 5 years after first diagnosis, by sex, ICD-10 C25, Germany 2009 – 2010

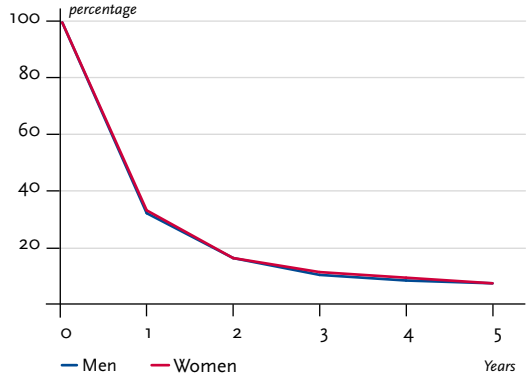

Figure 3.8.4b
Relative survival rates up to 5 years after first diagnosis, by sex, ICD-10 C25, Germany 2009 – 2010

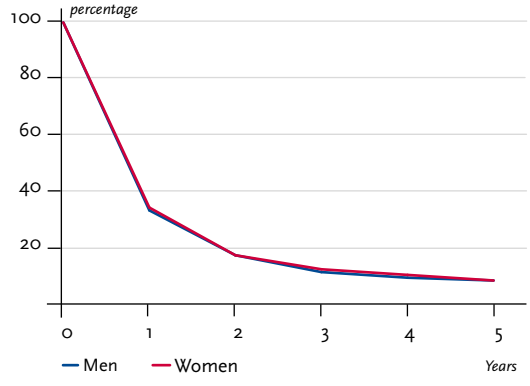

Figure 3.8.5
Registered age-standardised incidence and mortality rates in German federal states, by sex, ICD-10 C25, 2009 – 2010
per 100,000 (European standard)

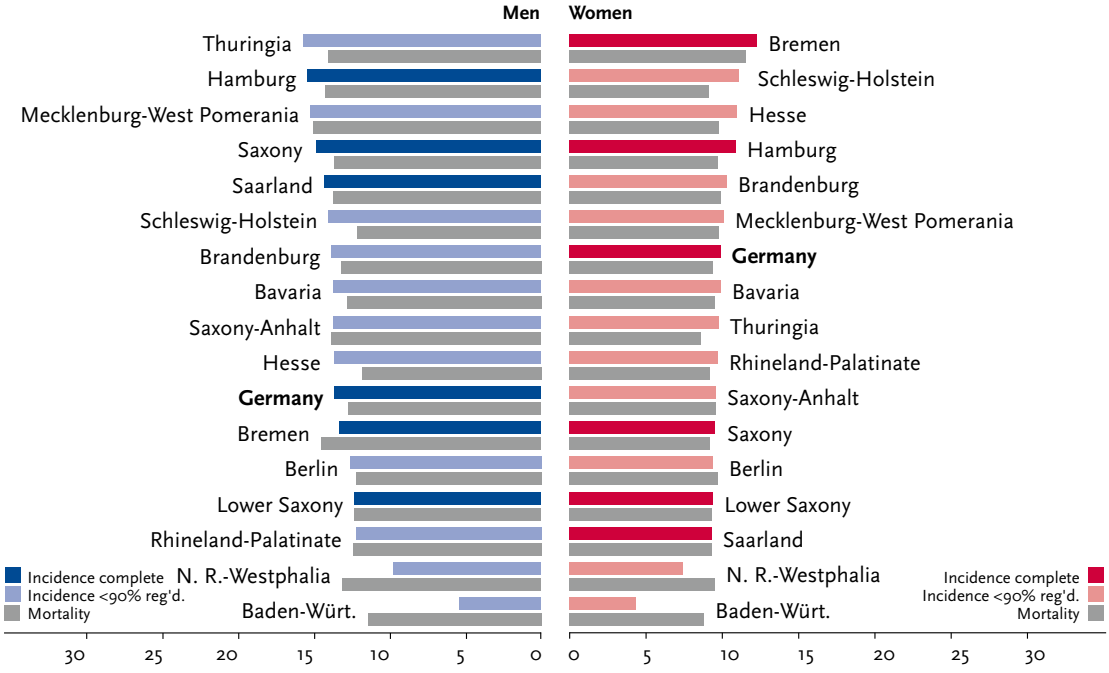

Figure 3.8.6
International comparison of age-standardised incidence and mortality rates, by sex, ICD-10 C25, 2009 – 2010 or latest available year (details and sources, see appendix)
per 100,000 (European standard)