

Victorian Cancer Registry

Cancer Facts

Number 12 - October 2017



Pancreatic cancer in Victoria

Most pancreatic cancers are exocrine tumours arising in in the lining of the pancreatic ducts - these are mainly adenocarcinomas, but also include adenosquamous and undifferentiated carcinomas.

The other major group of pancreatic cancers are the neuroendocrine tumours (NETs) arising in the hormone-producing endocrine cells. NETs account for about 5% of pancreatic cancers, and include a wide variety of tumours named after the type of hormone they produce.

Early stage pancreatic cancer rarely causes symptoms - this results in a diagnosis often being made at late stage once the tumour has spread to adjacent organs or metastasised. About 1/4 of all diagnoses are clinical, with 7% notified to the registry on the basis of death certificate only (without any hospital admission or microscopic diagnosis). Of those diagnosed microscopically, the tissue examined is metastatic disease for more than a quarter.

How common is cancer of the pancreas?

In 2015, 861 Victorians were diagnosed with pancreatic cancer, of who 52% were men, making this the 10th most common new cancer. With high mortality, pancreatic cancer was the 5th most common cancer death with 692 Victorians dying in 2015 (6% of all cancer deaths).

Pancreatic cancer is a disease of older age with nearly 60% of cases being diagnosed in Victorians aged over 70 years, and less than 20% aged under 60 years (Figure 1).

Trends in pancreatic cancer

Figure 2 shows the trends in incidence and mortality for pancreatic cancer since 1982. Incidence has increased in both men and women across this period (by 0.3% and 0.5% per year respectively) - similar increases have been observed elsewhere, and may in part reflect improvements in the specificity of diagnosis. Whilst mortality and incidence were very close until the early 2000s, there are pleasing signs of a widening gap since that time - this may reflect improvements in treatment including the introduction of post-operative adjuvant therapy.

Survival for Victorians with pancreatic cancer

The five-year survival of all Victorians with pancreatic cancer in 2011-2015 was 9%, a significant increase from 3% in 1986-1990 and 6% in 2006-2010, but remaining amongst the lowest for all cancers.

Survival was similar in men and women, and decreased significantly with increasing age from 23% in those aged under 55 years to diagnosis to just 4% in those aged over 75 years.

Poor outcomes for patients with pancreatic cancer are largely related to presentation in a state too advanced for curative treatment. The mainstay of management remains surgery though combined modality therapy (surgery, radiation and chemotherapy) at specialist units helps to achieve optimal outcomes.

Figure 1: Pancreatic cancer diagnoses by age and sex 2015

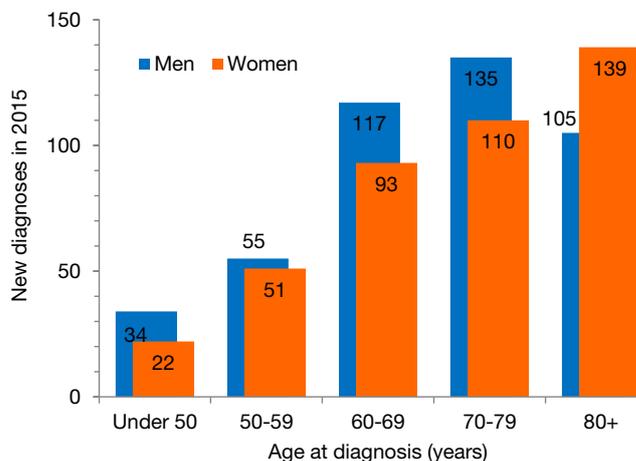
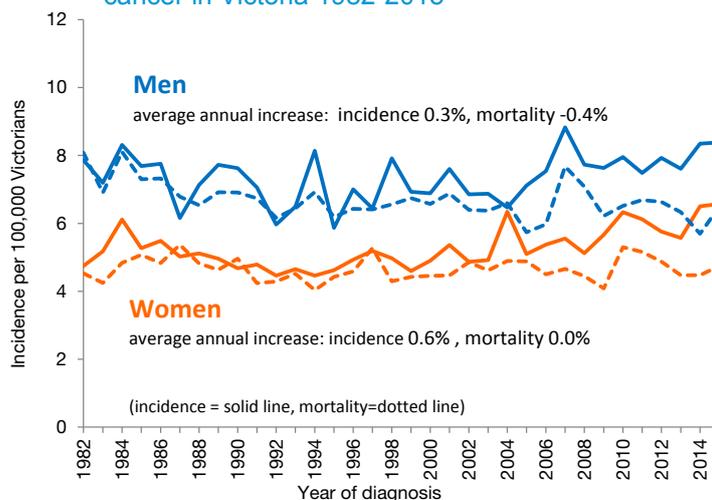


Figure 2: Trends in incidence and mortality for pancreatic cancer in Victoria 1982-2015



- 861 Victorians were diagnosed with, and 692 died from, pancreatic cancer in 2015
- Cancer of the pancreas affects mainly older Victorians with 60% of new diagnoses in persons aged over 70 years
- Late stage presentation (due to lack of obvious symptoms in early stage disease) leads to poor outcomes for pancreatic cancer - five-year survival is just 9%.
- There are about 1,000 Victorians living who have ever had a diagnosis of pancreatic cancer

Pancreas cancer in Victorians born overseas

Figure 3 shows the incidence of pancreas cancer in Australian-born Victorian men and women compared with that for major migrant groups. Incidence in migrants from the UK and Europe is generally quite similar to that the Australian-born, whereas rates in those born in Asia tend to be lower. The only rates that differ significantly from the Australian-born are observed in both men and women born in South and Central Asia (lower) and in women from the Middle East and North Africa (higher).

In Figure 4, pancreatic cancer incidence rates for selected countries in 2012 are shown.

What do we know about the causes of pancreatic cancer?

In Australia, 31% of pancreatic cancer in men and 28% in women is attributed to modifiable causes, with almost a quarter attributable to tobacco use⁶.

Factors known to increase the risk of pancreatic cancer include:

- Age – pancreatic cancer is rare in persons aged under 50 years and becomes more common with increasing age.
- Smoking – it is estimated that almost a quarter of pancreatic cancers in Australian men and women in 2010 were attributable to tobacco use².
- New onset type 2 diabetes – about 15–20% of people with pancreatic cancer have newly diagnosed diabetes.
- Pancreatitis – chronic inflammation of the pancreas.
- Alcohol - IARC rates the evidence for an association between alcohol and pancreatic cancer as 'Limited'. However, almost three-quarters of those with chronic pancreatitis are long term heavy alcohol drinkers.
- Obesity - about 9% of pancreatic cancer in men and 6% in women is attributed to overweight and obesity² (defined by WHO as BMI ≥ 25.0 kg/m²).
- Family history and inherited conditions - about one in 10 people who develops pancreatic cancer has an inherited genetic syndrome.
 - Some inherited syndromes associated with pancreatic cancer are Peutz-Jeghers syndrome, the familial breast cancer gene (BRCA1 and BRCA2), familial atypical multiple mole melanoma syndrome, Lynch syndrome and hereditary pancreatitis.
 - Some pancreatic NETs are caused by a rare inherited syndrome, such as multiple endocrine neoplasia type 1 (MEN-1) or neurofibromatosis.

Figure 3: Pancreas cancer incidence by birthplace, 2011-2015.

The figures below show the average annual incidence of liver cancer (age-standardised to the Segi World Standard Population) with 95% confidence intervals in the Australian-born (blue band), and by birth regions (blue symbols).

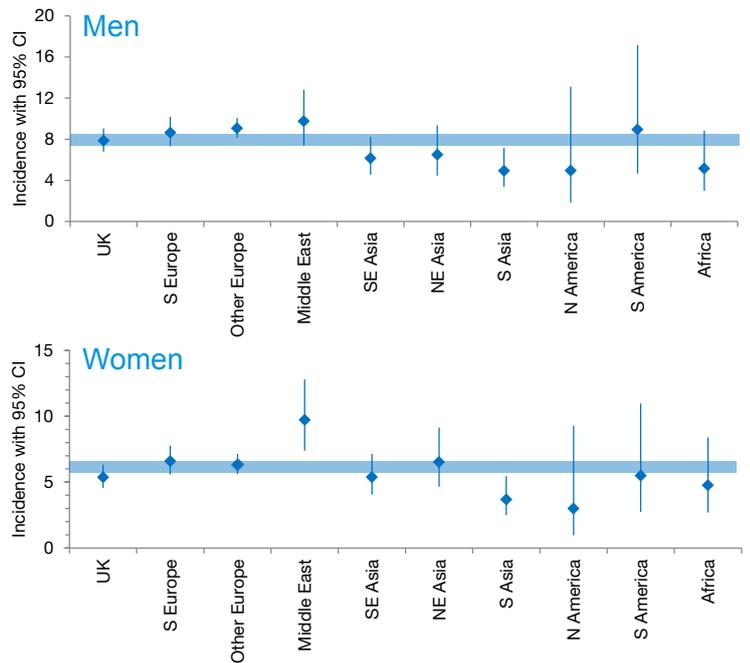
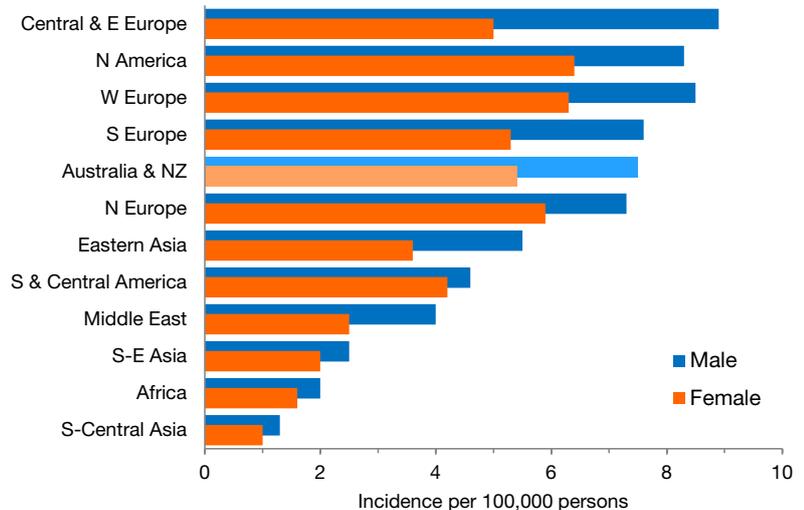


Figure 4: Pancreatic cancer incidence worldwide 2012

Estimated age-standardised incidence of pancreatic cancer for selected countries³



References and Notes:

1. Ferlay J, Soerjomataram I, Ervik M, Dikshit R, Eser S, Mathers C, Rebelo M, Parkin DM, Forman D, Bray, F. GLOBOCAN 2012 v1.0, Cancer Incidence and Mortality Worldwide: IARC CancerBase No. 11 [Internet]. Lyon, France: International Agency for Research on Cancer; 2013. Available from: <http://globocan.iarc.fr>, accessed on 9/5/2016.
2. Whiteman D et al. Cancers in Australia in 2010 attributable to modifiable factors: summary and conclusions. ANZJPH 2015; 39(5): 477-484

For more information about Victorian cancer statistics:

www.cancervic.org.au/about-our-research/registry-statistics/statistics-data www.cancervic.org.au/about-our-research/registry-statistics/cancer-in-victoria

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Cancer Council Victoria. Cancer Facts 12: Pancreatic cancer in Victoria. October 2017

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