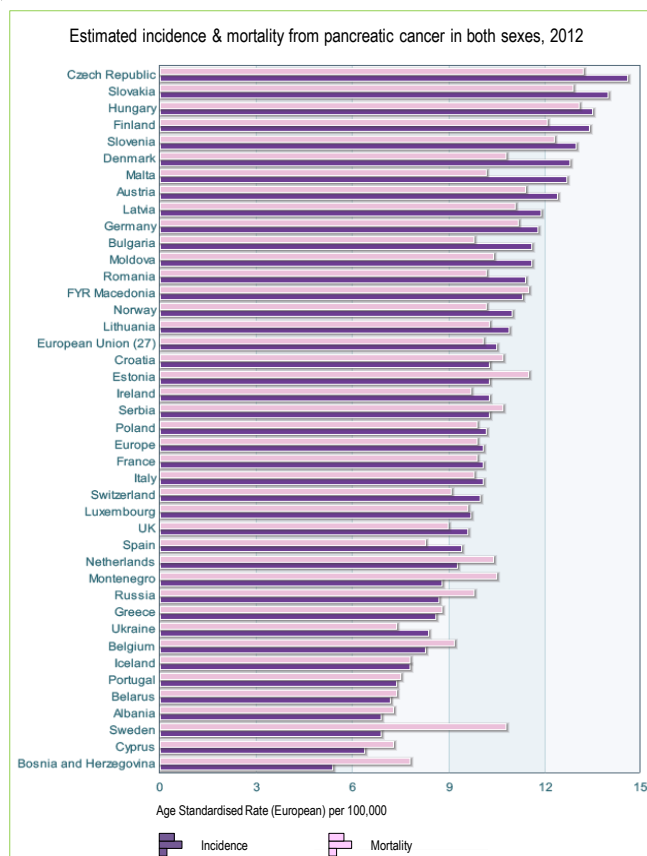
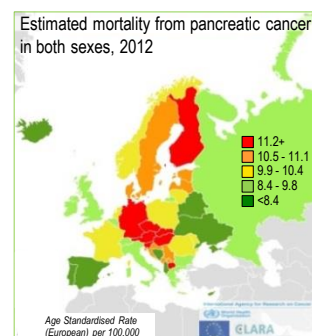
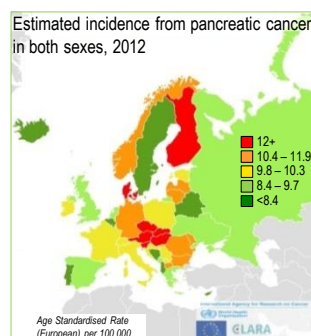


## Pancreatic Cancer (PC) Factsheet



- Pancreatic cancer (PC) begins in the tissues of the pancreas, a gland in the abdomen shaped like a pear, that lies horizontally behind the lower part of the stomach. The pancreas secretes enzymes that aid digestion and hormones that help regulate the metabolism of sugars [1].
- PCs are divided into two main groups: exocrine cancers that start in the exocrine cells which make enzymes (about 95% of PCs) and endocrine cancers, often called neuroendocrine, that start in endocrine cells which produce hormones (less than 5% of PCs). The most common type of PC is ductal adenocarcinoma.[2]
- Exocrine and neuroendocrine cancers behave and are treated differently.
- Exocrine PC has rather poor prognosis: it typically spreads rapidly, it is often asymptomatic and it is seldom detected in early stage.
- In 2012, it was estimated that 103 773 Europeans\* were diagnosed with PC and 104 481 died of it. [3]



- In 2012, PC was estimated to be the 8th most frequently diagnosed primary cancer in men in Europe and the 9th in women; in terms of cancer mortality it was the 8th highest cancer-related cause of death in men and the 9th in women [4].
- Men had higher estimated age standardized (ASR-E)\*\* incidence rates compared to women, with 12.1 and 8.3 cases per 100000 person-years respectively [4].
- Worldwide, PC was the 12th most commonly diagnosed primary cancer, with an estimated 337 872 new cases and the 7th highest cancer-related cause of death, with an estimated 330 391 deaths in 2012. [5].
- Over 1/3 of the total number of PC cases diagnosed in the world were diagnosed in Europe.

### Regional differences in Europe in 2012 Estimated incidence and mortality [4]

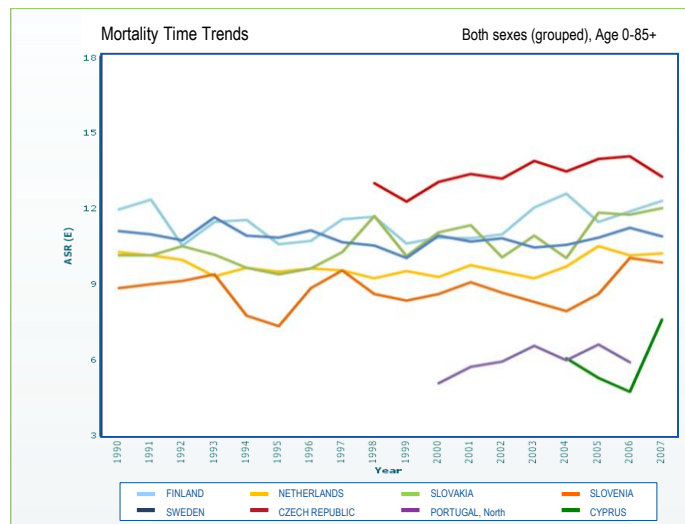
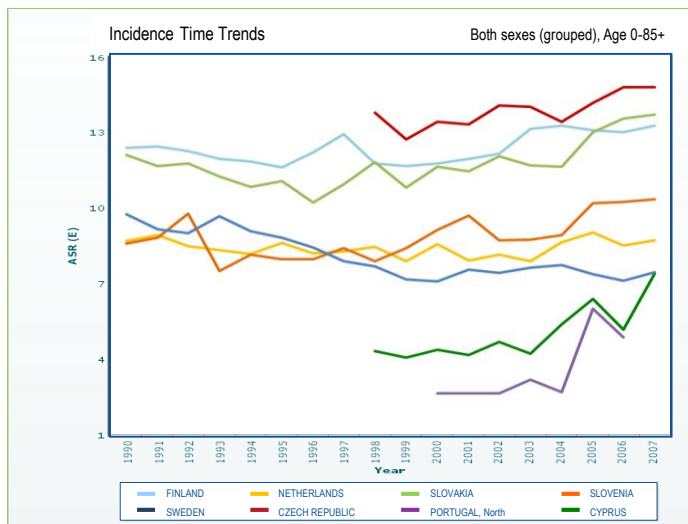
- The estimated incidence ASR-E for both sexes combined was 10.1 new cases per 100 000 person-years.
- The countries with the highest estimated incidence ASR-E were the Czech Republic (14.6), Slovakia (14), Hungary (13.5), Finland (13.4) and Slovenia (13).
- The lowest estimated ASR-E incidence were in Belarus (7.2), Albania (6.9), Sweden (6.9), Cyprus (6.4), and Bosnia and Herzegovina (5.4).
- The European estimated ASR-E mortality was 9.9 deaths per 100 000 person-years.
- The highest ASR-E mortality was seen in Czech Republic (13.2), Hungary (13.1), Slovakia (12.9), Slovenia (12.3), and Finland (12.1).
- The lowest estimated ASR-E mortality was in Portugal (7.5), Ukraine (7.4), Belarus (7.4), Albania (7.3) and Cyprus.(7.3)

\*The European Cancer Observatory (ECO) estimates refers to the European countries (plus Cyprus), as defined by the United Nations.

\*\* ASR-E: age-adjusted rate to the old European population standard (Doll & Cook, *Int J Cancer*, 1967) to account for the different age structure in various countries.

## Temporal changes in selected European countries [6]

- The incidence rates of PC have been slightly increasing over time in some countries in Europe since the 1990's. [7,8]
- The mortality rates, have remained rather stable for most countries for the same time period. A slight increase was observed in some southern European countries for both sexes and a slight decrease has been observed in some Nordic countries for males [7,8, 9,10]. A recent study however, predicted a 25% increase in PC deaths by 2025 in the EU, which could reach 111 500 [17].



- Other lifestyle choices which may lower the chances of getting pancreatic cancer, include: eating a healthy diet, maintaining healthy weight and getting regular exercise.

## Pancreatic cancer aetiology [13-16]

- Our knowledge about the aetiology of PC is very limited. Smoking is the only exposure consistently shown to increase PC risk.
- According to the International Agency for Research on Cancer, there is sufficient evidence in humans for the carcinogenic role of tobacco smoking and smokeless tobacco as risk factors for PC. Moreover, there is limited evidence for the consumption of alcohol, and red meat and the exposure to thorium-232 and its decay products, to X-radiation and gamma-radiation.
- Other factors increasing the risk of PC are: Excess body weight, chronic inflammation of the pancreas (pancreatitis), adult-onset of type II diabetes mellitus, family history of genetic syndromes that can increase cancer risk, including a BRCA2 gene mutation, Lynch syndrome and familial atypical mole-malignant melanoma and personal or family history of pancreatic cancer.

## Conclusions [11,16,17]

- In Europe PC is the 8<sup>th</sup> and 9<sup>th</sup> most frequently diagnosed primary cancer in men and women respectively and the 8<sup>th</sup> and 9<sup>th</sup> cancer-related cause of death.
- PC has a poor prognosis and no major improvement in survival has been observed over time.
- Coordinated efforts are needed to control PC: improve diagnosis and produce novel treatments in order to reduce mortality and improve PC survival.

## Pancreatic cancer survival [11]

- Using data through 2007, the European average relative survival (RS) for PC was estimated at 26% at one year and 7% at five years since diagnosis.
- The 5-year RS varied geographically, ranging from 5% in Ireland/UK to 8% in Southern Europe.
- Younger age at diagnosis resulted in higher survival in most European countries.
- No major improvement in survival of PC has been observed over time in Europe.

## Limitations

It is of note that even in countries with generally complete cancer registration, under-reporting of PC has been documented [8,12]. This is possibly the case for countries where the mortality is much higher than the reported incidence. Also, due to the small numbers, the PC rates are more sensitive to under-reporting. Therefore caution is needed in the interpretation of any statistics.

## Screening and prevention

- At this time, no major professional groups recommend routine screening for pancreatic cancer in people who are at average risk. This is because no screening test has been shown to lower the risk of dying from this cancer.
- The number one factor known for reducing the risk of PC is smoking cessation.

A list of references (1-17) is available (in PDF) at: [http://www.enccr.eu/images/docs/factsheets/ENCR\\_Factsheet\\_pancreas\\_2016\\_References.pdf](http://www.enccr.eu/images/docs/factsheets/ENCR_Factsheet_pancreas_2016_References.pdf).



The European Network of Cancer Registries (ENCR), established within the framework of the Europe Against Cancer Programme of the European Commission, has been in operation since 1990. The ENCR promotes collaboration between cancer registries, defines data collection standards, provides training for cancer registry personnel and regularly disseminates information on incidence and mortality from cancer in the European Union and Europe. To learn more, visit us at [www.enccr.eu](http://www.enccr.eu).

The European Cancer Observatory data (<http://eco.iarc.fr>) were used for the production of this factsheet.