The costs of colorectal cancer

Factsheet

This factsheet provides a broad picture of the economic burden of colon and rectal cancer and is based on the Swedish Institute for Health Economics (IHE)'s study on **The Costs of Cancers of the Digestive System** commissioned in 2020 by Digestive Cancers Europe.

Introduction

3rd most common cancer in men

2nd most common cancer in women

In 2020

507.044 new cases across Europe

325.335 colon cancer

181.709 rectal cancer

12,9% of all new cancer cases in Europe

240.797 deaths

158.724 colon cancer

82.073 rectal cancer

12,6% of all cancer deaths in Europe

All data are from 2020 from the International Agency for Research on Cancer and the European Cancer Information System (ECIS).

The costs of colorectal cancer

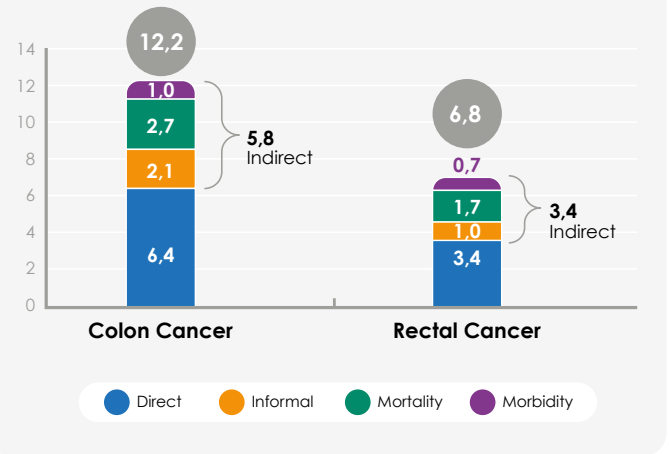
The high incidence of colorectal cancer translates into high costs: colorectal cancer today costs €19 billion in Europe.

Direct healthcare costs: these constitute the sum of the consumption of all health-related costs which include hospital beds, cancer drugs, surgery, medical experts, medical equipment and even psychosocial care and rehabilitation (in modern cancer care). Both public resources (tax money and social security) and private spending (out-of-pocket payments for medical visits and health insurance) are part of direct costs.

Informal care costs: these constitute the many hours of unpaid care spent by family and relatives, creating an opportunity cost of their time. These costs were calculated based on both wages or minimum wages, depending on the type of caregiver.[1]

Indirect costs caused by premature mortality: these constitute the future lost earnings of patients who have died due to their disease, creating productivity loss. These are based on potential years of working life lost (PYWLL) combined with average wages and employment rates per country. These costs were calculated using the Human-Capital Method (HCM).[2]

Figure 1: The costs of colon and rectal cancer in € billion in Europe (2018 data)



Indirect costs caused by morbidity: these constitute the patient's inability to work due to sickness or incapacity, creating productivity loss for a period of time. Calculations were also based on the Human-Capital Method (HCM).[3]

1 Volunteers involved in patient organisations invest a vast amount of their personal time. However, in this current report this type of informal care has not been accounted for. Digestive Cancers Europe plans to perform a separate study on the time volunteers from patient organisations spend to help patients and the cost savings this informal care translates to for our societies.

2 Different methods exist to value productivity. The HCM takes the patient's perspective and counts any hour not worked as an hour lost.

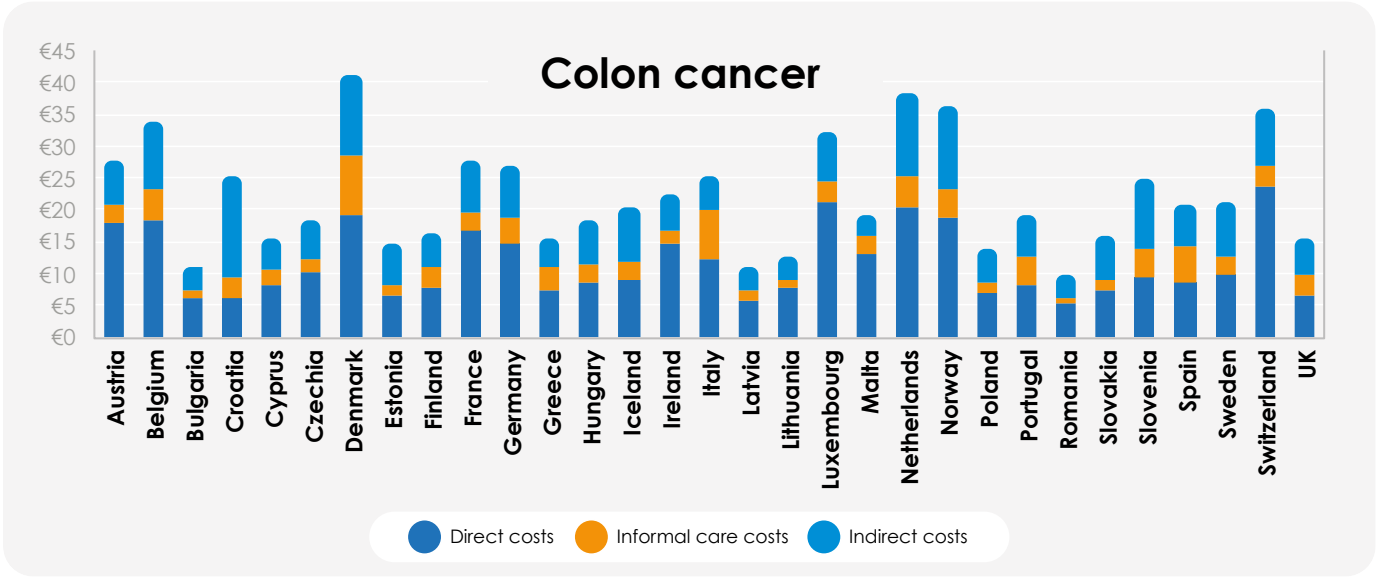
3 There are other types of indirect costs which have not been calculated in this study. These include costs related to disease comorbidities (such as such as hypertension, osteoarthritis, diabetes mellitus, poor mental health, sleep problems, etc.), treatment-related toxicities (such as bowel perforation, hypertension, arterial thrombosis) or other out-of-pocket expenses such as childcare, legal services or home health.

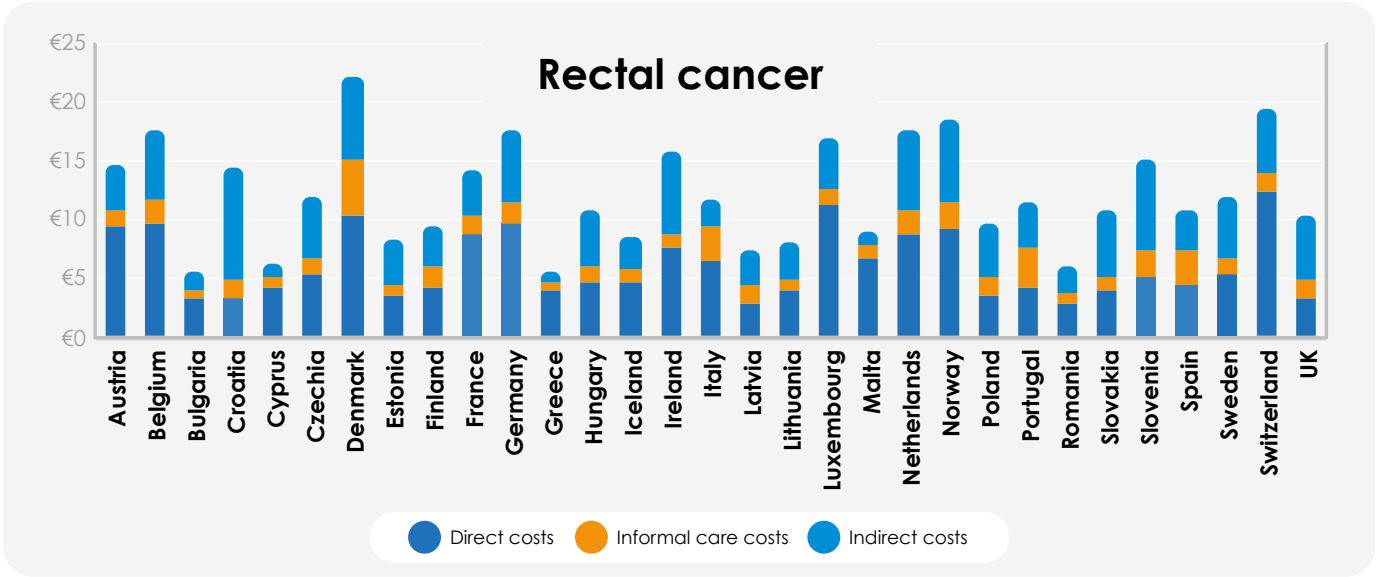
DIGESTIVE CANCERS EUROPE

- Cancer-specific pharmaceutical treatments for colon and rectal cancer amount to almost 25% of all direct costs.
- In colon and rectal cancer combined, the sum of all informal care costs and indirect costs is almost equal to that of direct costs. This shows that non-healthcare costs form a major part of the total costs.
- The survival rate for colorectal cancer is 60%. This is higher to that observed in other types of digestive cancers and translates to lower indirect costs due to premature mortality compared to those of other types of digestive cancers.

Differences in costs across European countries

There are important differences in costs from one country to another. The graphs below show the breakdown of costs per country per capita, PPP-adjusted:[4]





4 Purchasing power parity (PPP): this is a measurement of prices which considers the price of specific goods in different countries when comparing the absolute purchasing power of the countries' currencies. It, therefore, takes into consideration the differences in cost of living and, in this case, the costs of healthcare services.

Why are there differences?

- **Incidence rates differ**. Some countries have a relatively high number of patients affected by a type of cancer, impacting the total costs of each cancer.
- **Cancer care is not standardised across Europe**. Most countries do not have specific cancer programmes by cancer type. The approach to prevention, screening, diagnostics and treatment varies enormously from one country to another.
- **Survival rates differ** from one country to another, which in turn influences the total costs of each cancer. Higher survival means that indirect costs due to premature mortality are lower but potentially indirect costs due to morbidity are increased. Higher survival also means that patients who live longer receive more treatments, which might increase direct costs.
- **Countries have varying investment policies**.

Conclusion and recommendations

Based on this data, Digestive Cancers Europe has developed top-line recommendations on how to **optimise the pathway of patients with colon and rectal cancer** and ultimately reduce costs and improve patient outcomes and survival rates.

Invest in prevention and awareness programmes to educate citizens on lifestyle choices and the risk factors for developing colorectal cancer.

Promote a collaborative approach and the harmonisation of screening practices at EU and national levels to help significantly reduce the high incidence, burden and costs of colorectal cancer.

Ensure the **systematic referral of colorectal cancer patients to multidisciplinary, high-volume medical expert centres** for surgery, treatment and follow-up to help reduce disease co-morbidities, improve patient outcomes and survival rates.

DIGESTIVE CANCERS EUROPE