

### 3.6 Colon and rectum

Table 3.6.1  
Overview of key epidemiological parameters for Germany, ICD-10 C18–C20

| Incidence                                       | 2015       |            | 2016       |            | Prediction for 2020 |        |
|---|------------|------------|------------|------------|---------------------|--------|
|   | Women      | Men        | Women      | Men        | Women               | Men    |
| Incident cases                                  | 26,740     | 33,000     | 25,990     | 32,300     | 24,100              | 31,300 |
| Crude incidence rate <sup>1</sup>               | 64.4       | 82.1       | 62.3       | 79.5       | 57.9                | 77.3   |
| Age-standardised incidence rate <sup>1,2</sup>  | 33.0       | 52.7       | 31.8       | 50.7       | 28.3                | 46.1   |
| Median age at diagnosis                         | 75         | 72         | 76         | 72         |                     |        |
| Mortality                                       | 2015       |            | 2016       |            | 2017                |        |
|   | Women      | Men        | Women      | Men        | Women               | Men    |
| Deaths  | 11,479     | 13,468     | 11,391     | 13,411     | 10,879              | 12,873 |
| Crude mortality rate <sup>1</sup>               | 27.7       | 33.5       | 27.3       | 33.0       | 26.0                | 31.6   |
| Age-standardised mortality rate <sup>1,2</sup>  | 12.1       | 20.3       | 11.8       | 19.8       | 11.3                | 18.8   |
| Median age at death                             | 80         | 75         | 80         | 76         | 80                  | 76     |
| Prevalence and survival rates                   | 5 years    |            | 10 years   |            |                     |        |
|   | Women      | Men        | Women      | Men        |                     |        |
| Prevalence                                      | 91,900     | 115,000    | 159,500    | 196,100    |                     |        |
| Absolute survival rate (2015–2016) <sup>3</sup> | 52 (50–55) | 51 (48–54) | 39 (36–42) | 36 (34–39) |                     |        |
| Relative survival rate (2015–2016) <sup>3</sup> | 63 (60–66) | 62 (58–66) | 60 (55–64) | 56 (52–60) |                     |        |

<sup>1</sup> per 100,000 persons <sup>2</sup> age-standardised (old European Standard) <sup>3</sup> in percentages (lowest and highest value of the included German federal states)

► Additional information under [www.krebsdaten.de/cancer-sites](http://www.krebsdaten.de/cancer-sites)

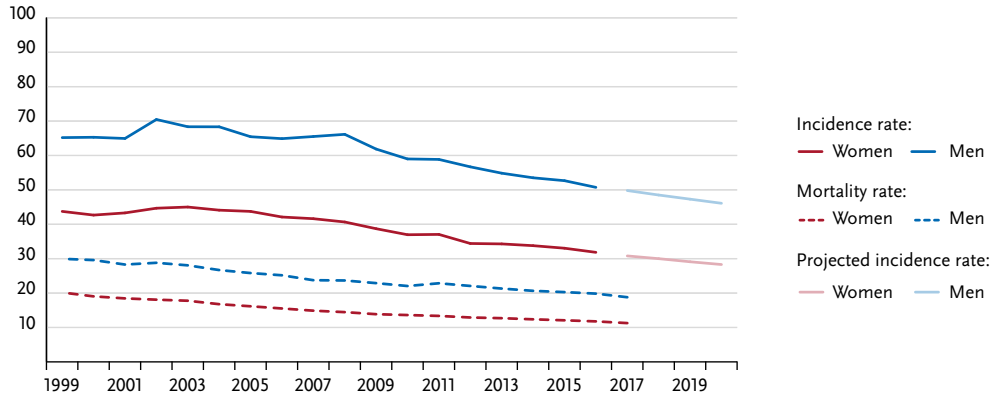
#### Epidemiology

About one in eight cancer diagnoses in Germany are of cancer of the colon or rectum. In 2016, around 32,300 men and around 25,990 women were diagnosed with colorectal cancer. One in 17 men and one in 20 women will develop this cancer during their lifetime. Almost two-thirds of colorectal cancers are detected in the colon. The risk of colorectal cancer increases with age and continues to rise into old age. More than half of all cases occur in individuals aged 70 or above, with only about 10 % of diagnoses among people below the age of 55. This corresponds to a comparatively high median age at diagnosis of 76 years for women and 72 years for men. After a short-term increase, in 2003, age-standardised disease rates began to decline, and this trend has strengthened recently. New cases of colorectal cancer have decreased, with the exception of cancers of the ascending colon. The last 10 years have seen a particularly pronounced decline in age-standardised mortality rates, with this period accounting for more than 20 % of the reduction that has occurred since 2003. Relative 5-year-survival rates from colorectal cancer are approximately 63 % for women and 62 % for men.

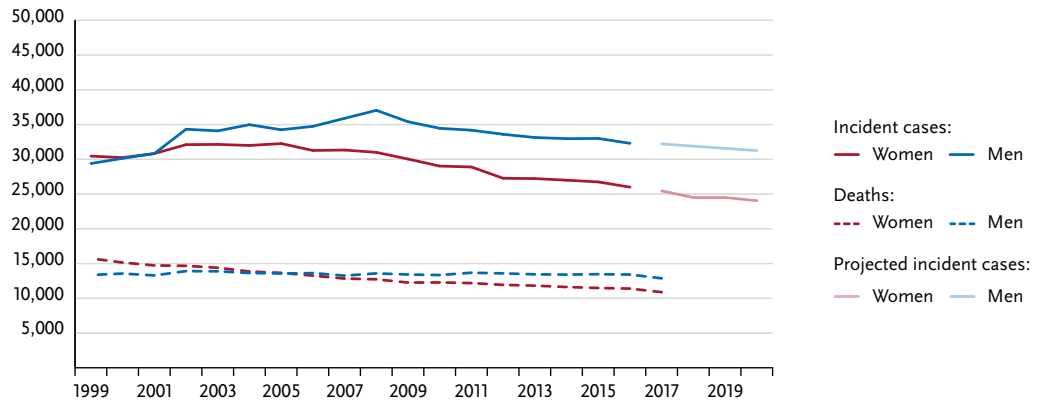
#### Risk factors and early detection

Tobacco use and excess body weight are the most important risk factors associated with colorectal cancer. These are followed by a lack of exercise and a diet low in fibre. People who regularly consume alcohol or who eat large quantities of red meat or processed red meat are more prone to developing colorectal cancer. First-degree relatives of colorectal cancer patients also have an above average risk of developing this condition. Some rare, inherited conditions come with a very high risk of contracting colorectal cancer at a young age. Chronic inflammatory bowel diseases also slightly increase the risk of developing cancer of the large intestine. Statutory cancer screening in Germany offers people between the ages of 50 and 54 years an annual immunological test for hidden blood in stool (starting at age 55, this test can be conducted every two years). The screening program also offers a colonoscopy for men 50 years and older and for women 55 years and older. Colonoscopies can also be used to remove intestinal polyps that might otherwise develop into cancer. If colonoscopy results are negative, one additional colonoscopy may be conducted ten years later. Although a stool test can be used as an alternative to colonoscopy, a colonoscopy will usually be recommended in the case of a positive stool test. Different recommendations apply to people with a higher risk of developing colorectal cancer.

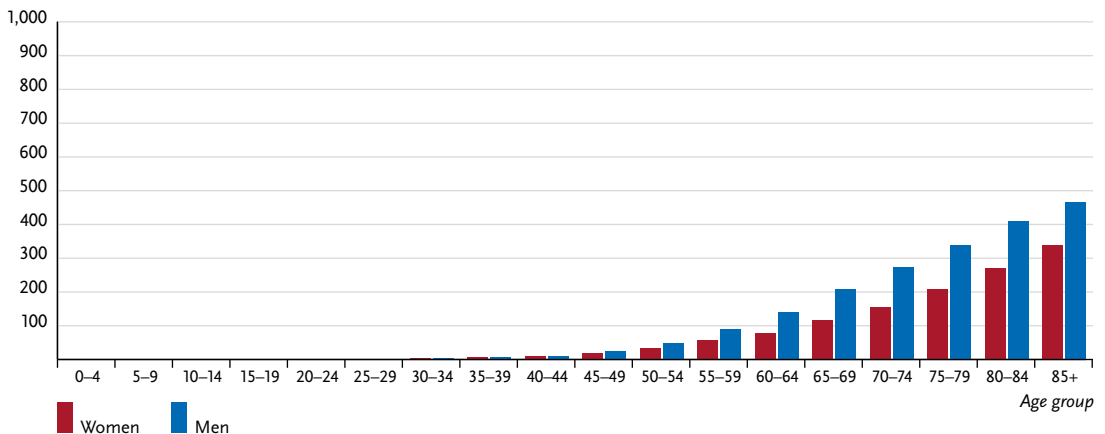
**Figure 3.6.1a**  
 Age-standardised incidence and mortality rates by sex, ICD-10 C18–C20, Germany 1999–2016/2017, projection (incidence) through 2020 per 100,000 (old European Standard)



**Figure 3.6.1b**  
 Absolute numbers of incident cases and deaths by sex, ICD-10 C18–C20, Germany 1999–2016/2017, projection (incidence) through 2020



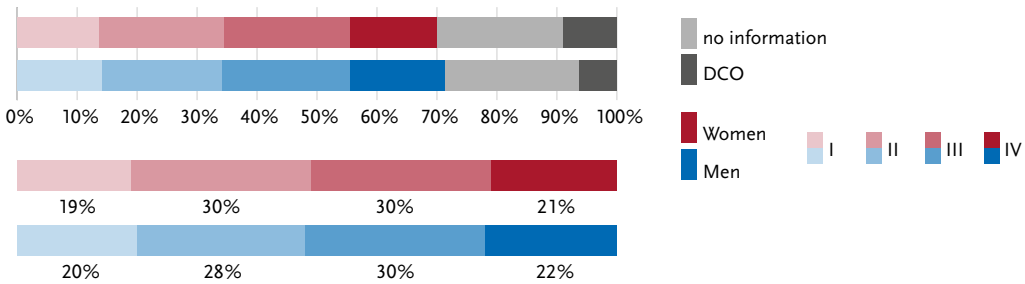
**Figure 3.6.2**  
 Age-specific incidence rates by sex, ICD-10 C18–C20, Germany 2015–2016 per 100,000



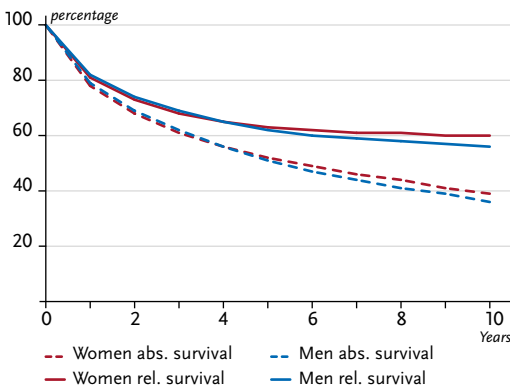
**Table 3.6.2**  
Cancer incidence and mortality risks in Germany by age and sex, ICD-10 C18–C20, database 2016

| Women aged    | Risk of developing cancer |              |      |           | Mortality risk        |              |      |           |
|---------------|---------------------------|--------------|------|-----------|-----------------------|--------------|------|-----------|
|               | in the next ten years     |              | ever |           | in the next ten years |              | ever |           |
| 35 years      | 0.1%                      | (1 in 1,200) | 4.9% | (1 in 20) | < 0.1%                | (1 in 4,900) | 2.4% | (1 in 42) |
| 45 years      | 0.3%                      | (1 in 370)   | 4.9% | (1 in 20) | 0.1%                  | (1 in 1,400) | 2.4% | (1 in 42) |
| 55 years      | 0.7%                      | (1 in 150)   | 4.7% | (1 in 21) | 0.2%                  | (1 in 530)   | 2.3% | (1 in 43) |
| 65 years      | 1.3%                      | (1 in 78)    | 4.3% | (1 in 23) | 0.4%                  | (1 in 240)   | 2.3% | (1 in 44) |
| 75 years      | 2.0%                      | (1 in 50)    | 3.5% | (1 in 29) | 1.0%                  | (1 in 100)   | 2.1% | (1 in 48) |
| Lifetime risk |                           |              | 4.9% | (1 in 20) |                       |              | 2.3% | (1 in 43) |
| Men aged      | in the next ten years     |              | ever |           | in the next ten years |              | ever |           |
| 35 years      | 0.1%                      | (1 in 1,100) | 6.1% | (1 in 16) | < 0.1%                | (1 in 4,100) | 2.9% | (1 in 35) |
| 45 years      | 0.4%                      | (1 in 270)   | 6.1% | (1 in 16) | 0.1%                  | (1 in 1,000) | 2.9% | (1 in 35) |
| 55 years      | 1.1%                      | (1 in 90)    | 6.0% | (1 in 17) | 0.3%                  | (1 in 290)   | 2.9% | (1 in 35) |
| 65 years      | 2.2%                      | (1 in 46)    | 5.4% | (1 in 18) | 0.8%                  | (1 in 130)   | 2.8% | (1 in 36) |
| 75 years      | 2.9%                      | (1 in 35)    | 4.2% | (1 in 24) | 1.5%                  | (1 in 66)    | 2.5% | (1 in 39) |
| Lifetime risk |                           |              | 6.0% | (1 in 17) |                       |              | 2.8% | (1 in 36) |

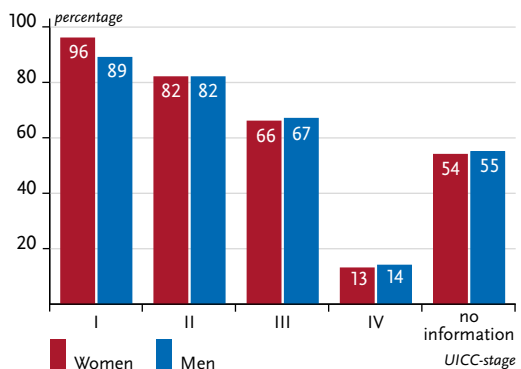
**Figure 3.6.3**  
Distribution of UICC-stages at first diagnosis by sex, ICD-10 C18–C20, Germany 2015–2016  
(top: all cases; bottom: only valid reports)



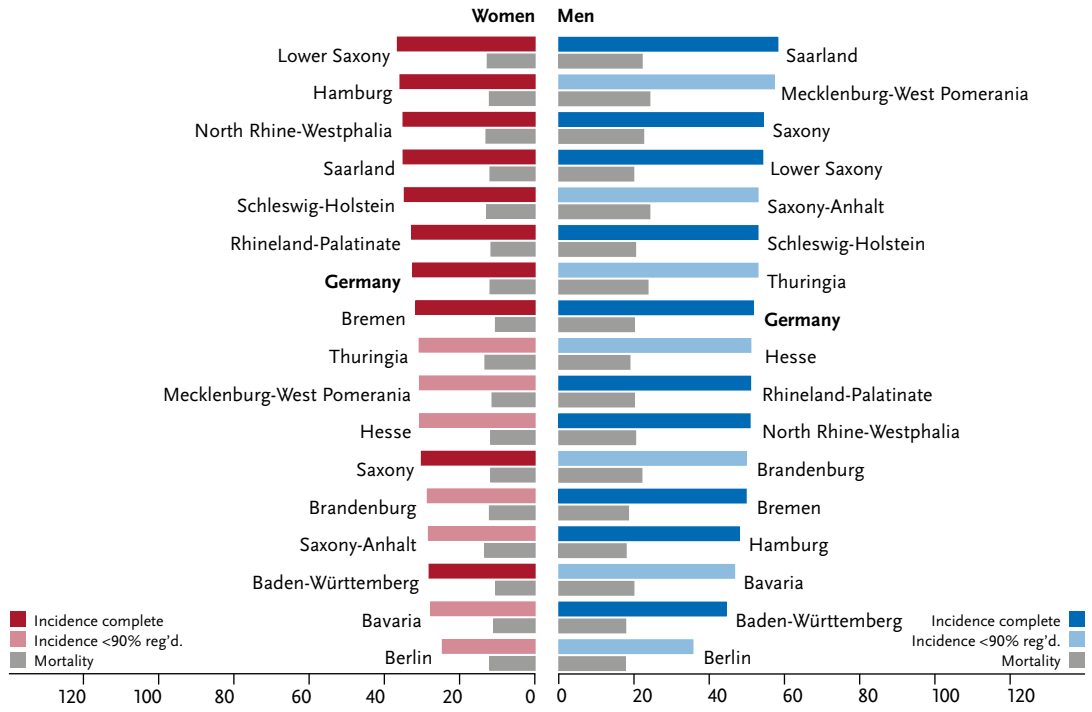
**Figure 3.6.4**  
Absolute and relative survival rates up to 10 years after first diagnosis, by sex, ICD-10 C18–C20, Germany 2015–2016



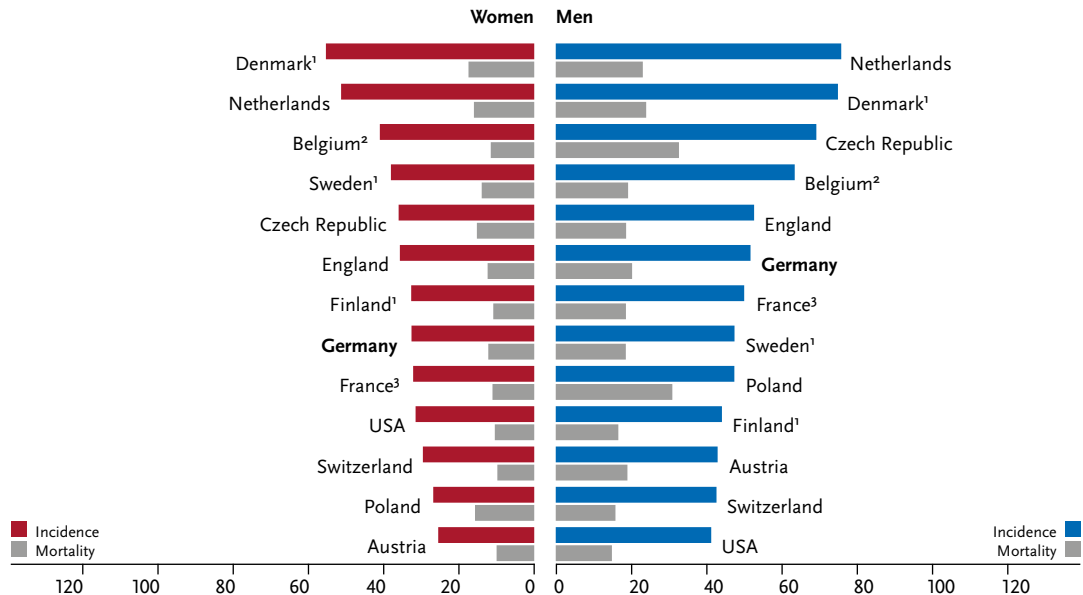
**Figure 3.6.5**  
Relative 5-year survival by UICC-stage and sex, ICD-10 C18–C20, Germany 2015–2016



**Figure 3.6.6**  
 Age-standardised incidence and mortality rates in German federal states by sex, ICD-10 C18–C20, 2015–2016  
 (Incidence in Bremen for 2014 and 2016, incidence in eastern Germany for 2014 to 2015)  
 per 100,000 (old European Standard)



**Figure 3.6.7**  
 International comparison of age-standardised incidence and mortality rates by sex,  
 ICD-10 C18–C20, 2015–2016 or latest available year (details and sources, see appendix)  
 per 100,000 (old European Standard)



<sup>1</sup> Data including C21

<sup>2</sup> Mortality only for 2015 from WHO mortality database

<sup>3</sup> Mortality including C21