

## 3.25 Bladder

Table 3-25.1  
Overview of key epidemiological parameters for Germany, ICD-10 C67

| Incidence  | 2019          |                 | 2020          |                 |          |        |
|--|---------------|-----------------|---------------|-----------------|----------|--------|
|  | Women         | Men             | Women         | Men             |          |        |
| Incident cases <sup>4</sup>                      | 4,930 (7,790) | 13,690 (24,410) | 4,630 (7,540) | 12,500 (23,270) |          |        |
| Crude incidence rate <sup>1,4</sup>              | 11.7 (18.5)   | 33.4 (59.5)     | 11.0 (17.9)   | 30.5 (56.7)     |          |        |
| Age-standardised incidence rate <sup>1,2,4</sup> | 5.6 (9.3)     | 19.6 (35.4)     | 5.2 (8.9)     | 17.6 (33.2)     |          |        |
| Median age at diagnosis <sup>4</sup>             | 77 (75)       | 75 (74)         | 77 (76)       | 75 (74)         |          |        |
| Mortality  | 2019          |                 | 2020          |                 | 2021     |        |
|  | Women         | Men             | Women         | Men             | Women    | Men    |
| Deaths   | 1,814         | 3,824           | 1,935         | 3,942           | 1,852    | 3,891  |
| Crude mortality rate <sup>1</sup>                | 4.3           | 9.3             | 4.6           | 9.6             | 4.4      | 9.5    |
| Age-standardised mortality rate <sup>1,2</sup>   | 1.6           | 5.0             | 1.7           | 4.9             | 1.7      | 4.8    |
| Median age at death                              | 82            | 80              | 83            | 81              | 82       | 81     |
| Prevalence and survival rates                    | 5 Jahre       |                 | 10 Jahre      |                 | 25 Jahre |        |
|  | Women         | Men             | Women         | Men             | Women    | Men    |
| Prevalence                                       | 12,200        | 40,300          | 19,100        | 63,800          | 30,400   | 97,500 |
| Absolute survival rate (2019–2020) <sup>3</sup>  | 37 (31–48)    | 45 (42–54)      | 27 (23–32)    | 29 (26–38)      |          |        |
| Relative survival rate (2019–2020) <sup>3</sup>  | 46 (38–58)    | 58 (53–67)      | 43 (35–50)    | 50 (44–62)      |          |        |

<sup>1</sup> per 100,000 persons <sup>2</sup> age-standardised (old European Standard) <sup>3</sup> in percent (lowest and highest value of the included German federal states)  
<sup>4</sup> in parentheses: including in situ tumours and neoplasms of uncertain or unknown behavior (D09.0, D41.4)

### Epidemiology

Around 17,100 people were diagnosed with invasive bladder cancer in 2020, including 4,630 women. In addition, about 13,680 people were diagnosed with non-invasive papillary carcinomas and in situ carcinomas of the bladder. The latter in particular have an increased risk of tumour growth (progression) and recurrence of the disease (relapse). They are therefore of particular clinical relevance, although they are not currently classified as malignant tumours according to ICD-10. Urinary bladder cancers are predominantly urothelial tumours, which often occur simultaneously in different parts of the bladder and urinary tract.

The age-standardised incidence and mortality rates for men have fallen significantly since the end of the 1990s. This is probably due to a reduction in tobacco consumption and possibly also to a decrease in occupational exposure to carcinogenic substances. For women, both rates have remained largely constant over the years, but at a significantly lower level than for men.

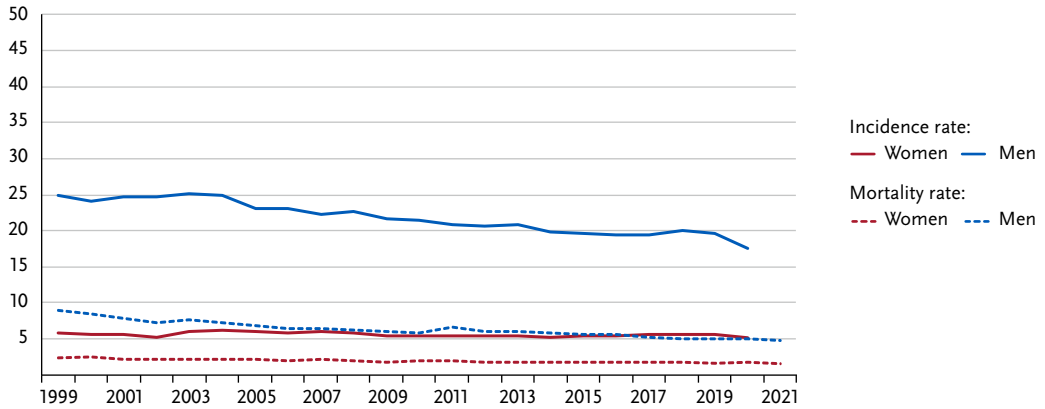
The higher relative 5-year survival rates of men (58%) compared to women (46%) correspond to a more favourable distribution of tumour stages.

### Risk factors

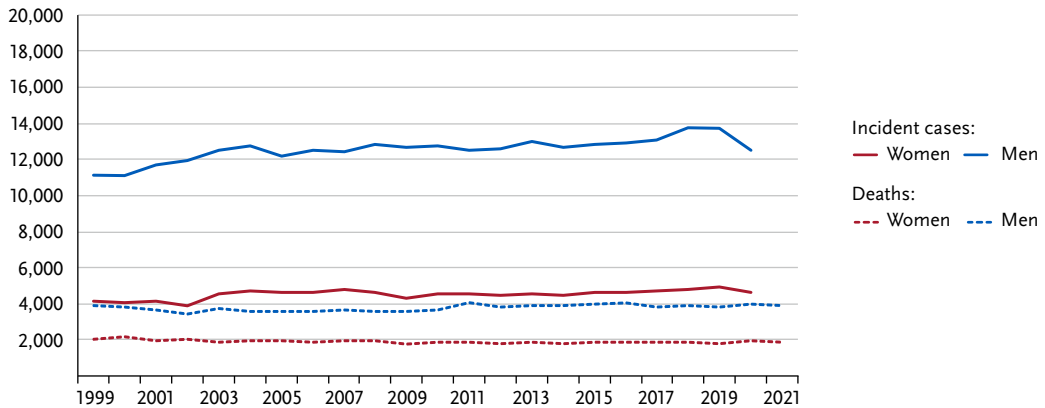
Active and passive smoking are the most important risk factors for bladder cancer. In addition, some chemical substances such as aromatic amines increase the risk. The known risk-increasing substances have now largely disappeared from everyday working life in Europe. However, the latency period between exposure and the development of cancer is long, so that work-related bladder cancers continue to be registered. Cytostatic drugs used in cancer therapy and radiotherapy of this body region can increase the risk. Other drugs such as the antidiabetic drug pioglitazone also appear to trigger bladder cancer.

Air pollution and arsenic or chlorine in drinking water increase the risk of developing bladder cancer as well. Aristolochic acid from Aristolochia plants such as Easter lily also increases the risk of bladder cancer. Chronic inflammatory damage to the bladder mucosa increases the risk of the disease, too. Familial clusters are observed: There is evidence that genetic factors play a role in the development of bladder cancer by influencing sensitivity to carcinogens.

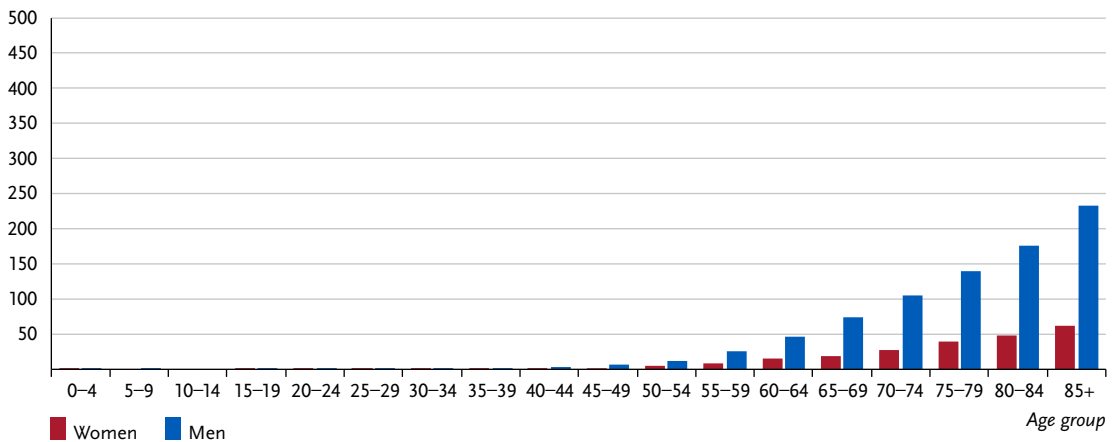
**Figure 3.25.1a**  
 Age-standardised incidence and mortality rates by sex, ICD-10 C67, Germany 1999 – 2020/2021  
 per 100,000 (old European Standard)



**Figure 3.25.1b**  
 Absolute numbers of incident cases and deaths by sex, ICD-10 C67, Germany 1999 – 2020/2021



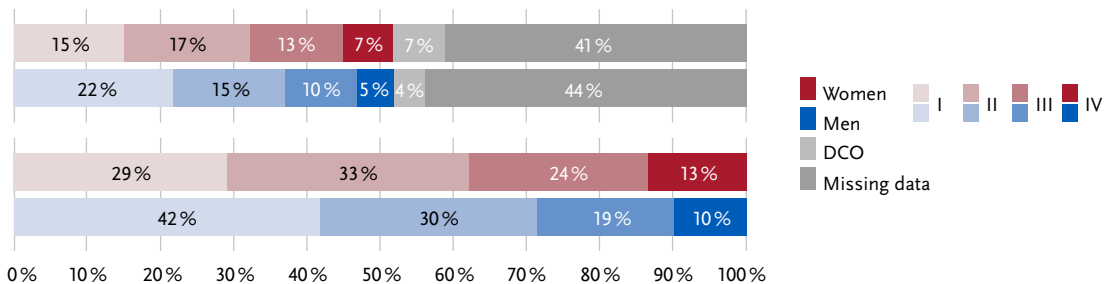
**Figure 3.25.2**  
 Age-specific incidence rates by sex, ICD-10 C67, Germany 2019 – 2020  
 per 100,000



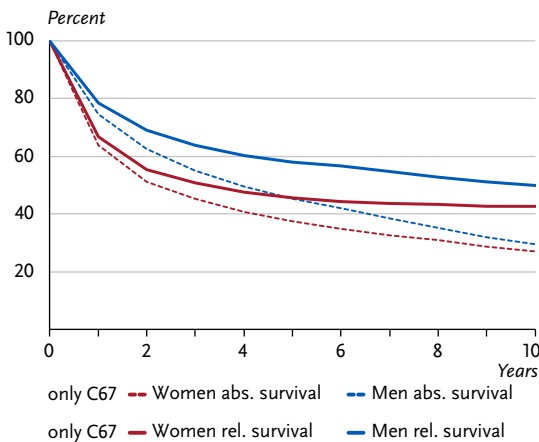
**Table 3.25.2**  
Cancer incidence and mortality risks in Germany by age and sex, ICD-10 C67, database 2019

| Risk of developing cancer |         |                      |       | Mortality risk |         |                      |       |            |  |
|---------------------------|---------|----------------------|-------|----------------|---------|----------------------|-------|------------|--|
| Women aged                |         | in the next 10 years |       | ever           |         | in the next 10 years |       | ever       |  |
| 35 years                  | < 0.1 % | (1 in 9,000)         | 0.9 % | (1 in 110)     | < 0.1 % | (1 in 43,900)        | 0.4 % | (1 in 270) |  |
| 45 years                  | < 0.1 % | (1 in 2,600)         | 0.9 % | (1 in 110)     | < 0.1 % | (1 in 16,800)        | 0.4 % | (1 in 270) |  |
| 55 years                  | 0.1 %   | (1 in 860)           | 0.9 % | (1 in 110)     | < 0.1 % | (1 in 4,800)         | 0.4 % | (1 in 270) |  |
| 65 years                  | 0.2 %   | (1 in 430)           | 0.8 % | (1 in 120)     | 0.1 %   | (1 in 1,800)         | 0.4 % | (1 in 270) |  |
| 75 years                  | 0.4 %   | (1 in 250)           | 0.7 % | (1 in 150)     | 0.2 %   | (1 in 640)           | 0.4 % | (1 in 280) |  |
| Lifetime risk             |         |                      | 0.9 % | (1 in 110)     |         |                      | 0.4 % | (1 in 270) |  |
| Men aged                  |         | in the next 10 years |       | ever           |         | in the next 10 years |       | ever       |  |
| 35 years                  | < 0.1 % | (1 in 4,200)         | 2.7 % | (1 in 37)      | < 0.1 % | (1 in 42,900)        | 0.9 % | (1 in 120) |  |
| 45 years                  | 0.1 %   | (1 in 920)           | 2.7 % | (1 in 37)      | < 0.1 % | (1 in 8,100)         | 0.9 % | (1 in 110) |  |
| 55 years                  | 0.4 %   | (1 in 260)           | 2.7 % | (1 in 37)      | 0.1 %   | (1 in 1,800)         | 0.9 % | (1 in 110) |  |
| 65 years                  | 0.9 %   | (1 in 120)           | 2.6 % | (1 in 39)      | 0.2 %   | (1 in 610)           | 0.9 % | (1 in 110) |  |
| 75 years                  | 1.3 %   | (1 in 77)            | 2.2 % | (1 in 46)      | 0.4 %   | (1 in 250)           | 1.0 % | (1 in 110) |  |
| Lifetime risk             |         |                      | 2.7 % | (1 in 37)      |         |                      | 0.9 % | (1 in 120) |  |

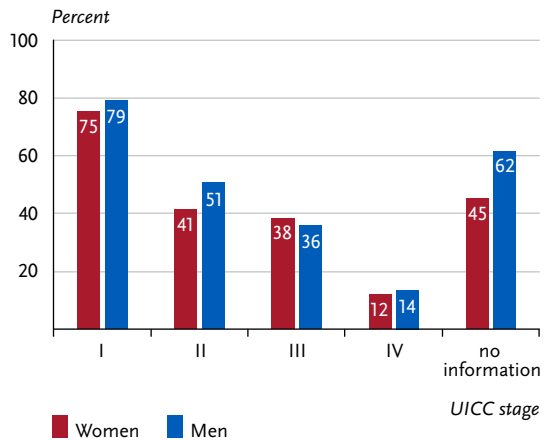
**Figure 3.25.3**  
Distribution of UICC stages at diagnosis by sex, ICD-10 C67, Germany 2019 – 2020  
(top: incl. missing data and DCO cases; bottom: valid values only)



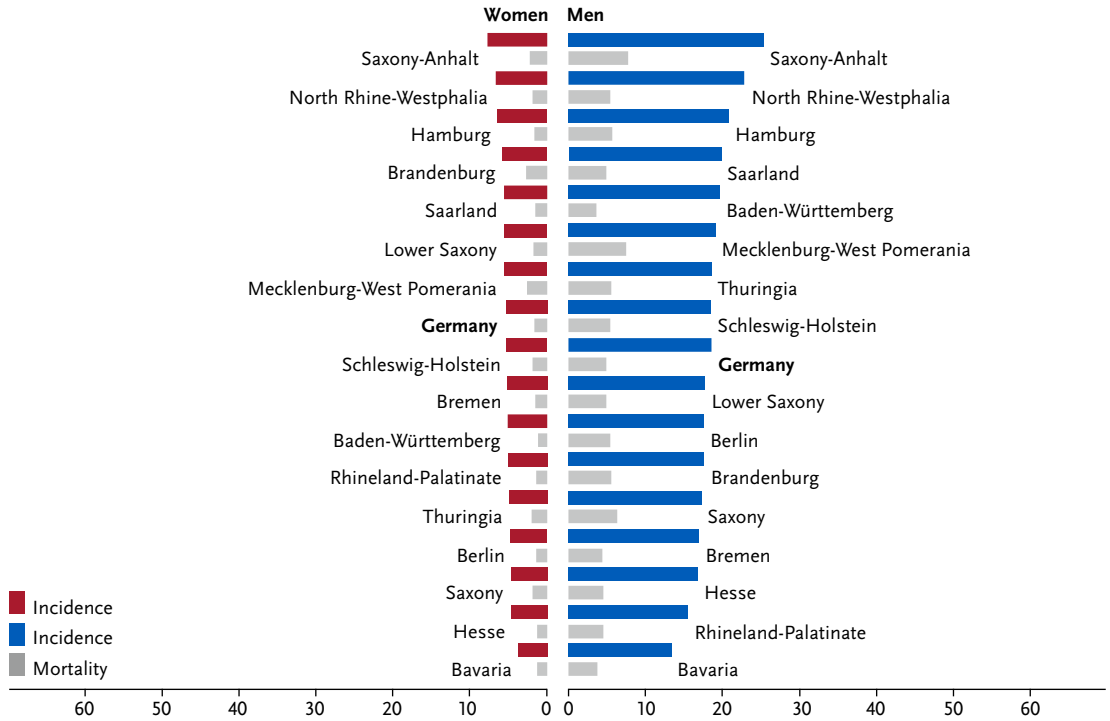
**Figure 3.25.4**  
Absolute and relative survival rates up to 10 years after diagnosis, by sex, ICD-10 C67, Germany 2019 – 2020



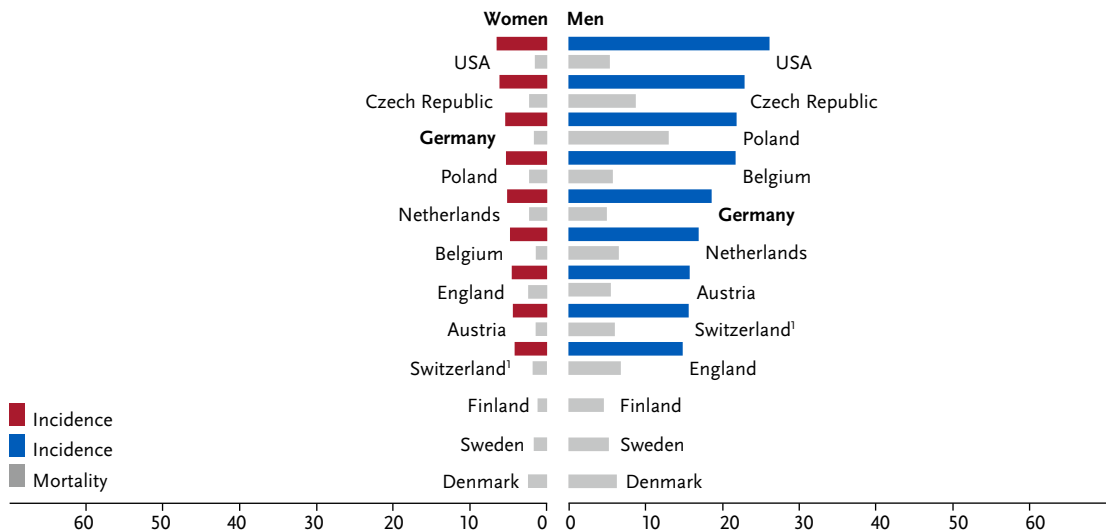
**Figure 3.25.5**  
Relative 5-year survival by UICC stage (7th and 8th edition TNM) and sex, ICD-10 C67, Germany 2019 – 2020



**Figure 3.25.6**  
 Age-standardised incidence and mortality rates in German federal states by sex, ICD-10 C67, 2019 – 2020  
 per 100,000 (old European Standard)



**Figure 3.25.7**  
 International comparison of age-standardised incidence and mortality rates by sex,  
 ICD-10 C67, 2019 – 2020 or latest available year (details and sources, see appendix)  
 per 100,000 (old European Standard)



<sup>1</sup> Switzerland: incidence data for 2015 – 2019