

# JSNA Health and Wellbeing Profile 2024/25

## Global Burden of Disease

### Summary points

- The highest burden of disease on mortality and morbidity in Bristol is cancer and cardiovascular diseases.
- Tobacco remains the highest risk factor in Bristol that leads to early death and disability.

### Findings

The Global Burden of Diseases, Injuries and Risk Factors Study (GBD) statistics are produced by a multinational academic team to estimate the burden of disease associated with a variety of major diseases and risk factors. GBD combines years of life lost due to premature mortality and years of life lost due to time lived in states of less than full health. Disability Adjusted Life Years (DALYs) are calculated as the sum of years lived with disability (YLD) and years of life lost (YLL) (Figure 1). YLDs are years lived in less than ideal health. This includes conditions that may last for only a few days, as well as conditions that can last a lifetime. YLLs are years of life lost due to premature mortality, i.e. deaths before average life expectancy.

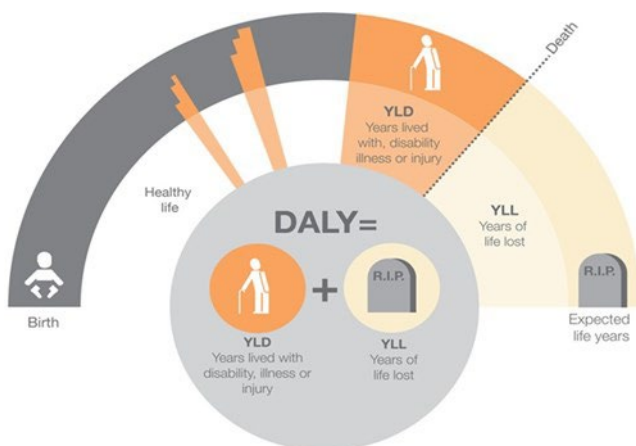


Fig 1: Method of calculating Disability Adjusted Life Years. Source: UK Health Security Agency

The latest GBD study for 2021 (published May 2024) includes data on mortality and morbidity in 204 countries and territories, 371 diseases and injuries, and 87 risk factors. The study estimates that the highest burden of disease across all age groups in Bristol is cancers (neoplasms) which were responsible for 28.8% of all deaths, and cardiovascular diseases (CVD) which accounted for 22% of deaths followed by respiratory infections (15.2%), of which COVID-19 accounted for 10.4% of deaths – Figure 2. In terms of DALY's, the biggest cause is cancer followed by cardiovascular disease, musculoskeletal (MSK) disorders and mental disorders.

**Equalities data:** For deaths, cancer, CVD and respiratory infections make up the highest burden for both males and females, followed by chronic respiratory diseases for males and neurological disorders for females. For deaths in the under 20 age group the highest burden is maternal and neo-natal disorders and other non-communicable diseases.

In terms of DALYs, although cancer is the highest burden for both males and females, CVD and respiratory infections make up the second and third highest burden for males, and muscular skeletal conditions (MSK) and mental disorders are the second and third highest burden for females. In the under 20 age group the highest burden is mental disorders followed by maternal and neonatal disorders and other non-communicable diseases.

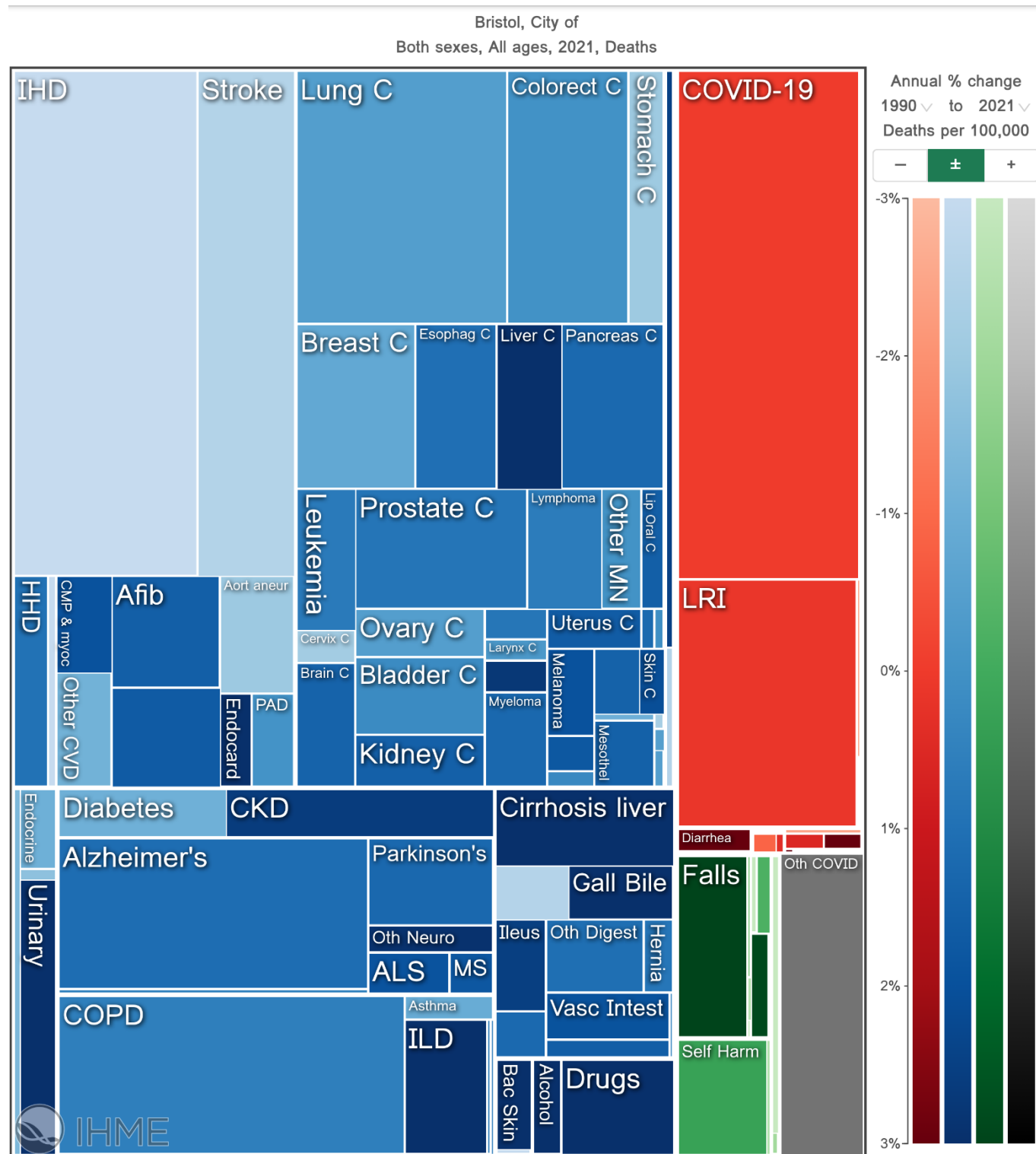


Figure 2: GBD: Cause of death in Bristol Source: Institute for Health Metrics and Evaluation

## Risk factors

Figure 3 below shows the number of Disability Adjusted Life Years by risk factor and cause of death and disability for Bristol. Tobacco, high body mass index and dietary risks (eg diets low in fruit, veg & fibre and diets high in sodium, processed meat and trans-fatty acids) are the three highest risk factors that lead to early death and disability. In addition, high fasting plasma glucose, high blood pressure and alcohol and drug misuse are also key lifestyle risk factors, and shows a similar profile to England. Tobacco is the lead risk factor for the third study in a row covering the period from 2016 to 2021, previously rating at a similar risk level as dietary issues in 2013. One factor that could be behind this change may be that Cancer is behind an increasingly large proportion of premature mortality in comparison to Cardiovascular disease.

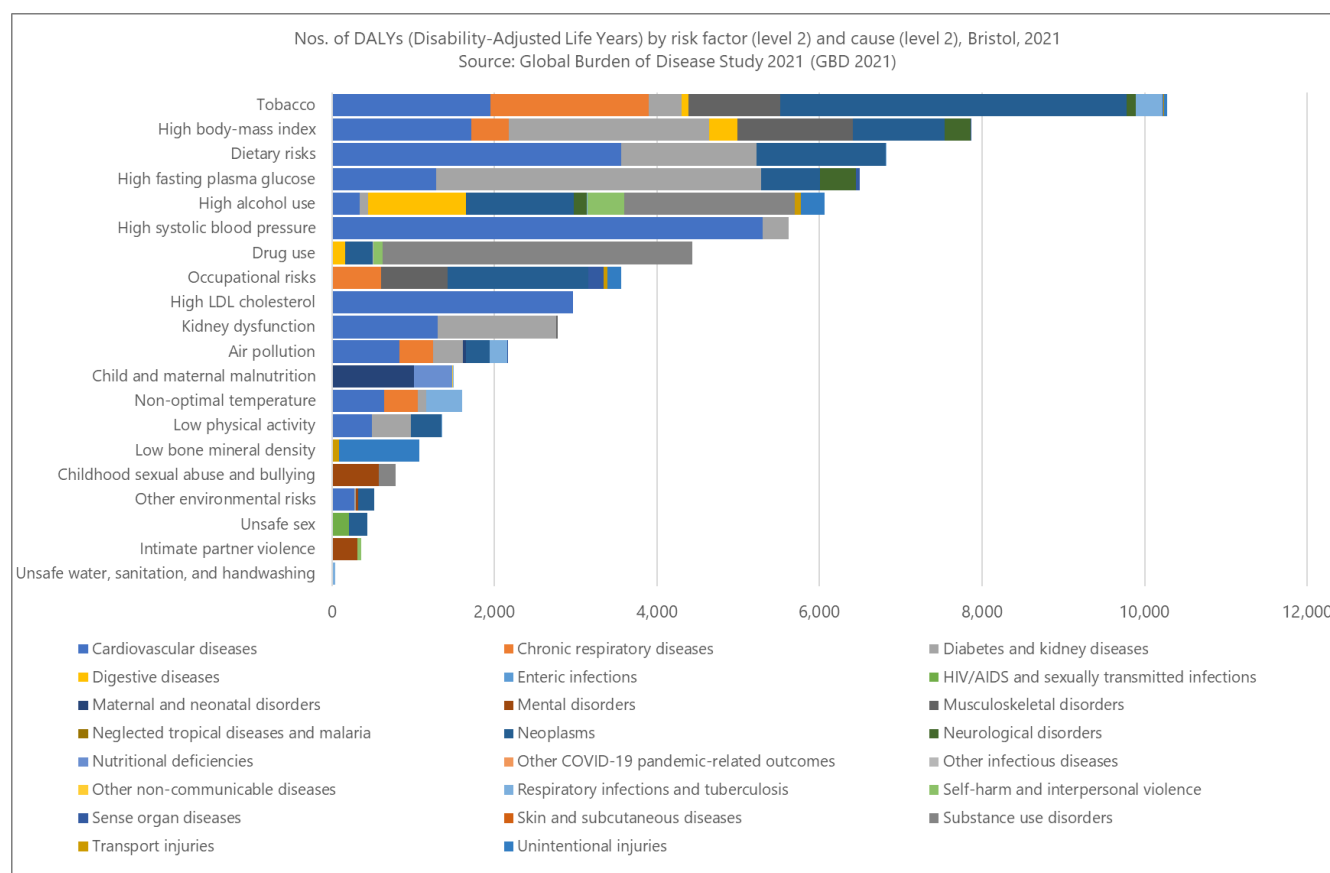


Figure 3: GBD: Risk factors leading to early death or disability in Bristol (2021). Source: Institute for Health Metrics and Evaluation (May 2024)

## Covid-19 impact:

Covid-19 has had a significant impact upon the GBD study for 2021 and was the highest cause of death in England in 2021 per 100,000 population and was the leading cause of DALY's globally in 2021.

## Further data / links / consultations:

- Global Burden of Disease: [Global Burden of Disease \(GBD 2021\) | Institute for Health Metrics and Evaluation \(healthdata.org\)](https://healthdata.org/global-burden-of-disease/)

Date updated: May 2024

Next update due: tbc