

## Skin cancers are the most common cancer in England

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Dear Editor,

When asking a search engine ‘What is the most common cancer in England’, all the top results give an answer which excludes keratinocyte cancers (KC, the grouped term for basal cell carcinomas (BCC) and cutaneous squamous cell carcinomas (cSCC)), and similar results are given by artificial intelligence based chatbots.

Non-melanoma skin cancers (NMSC) have historically been excluded from national statistics and official skin cancer reporting worldwide. This is because of low prioritisation due to high incidence, relatively low mortality rates and difficulty in accurate recording<sup>1</sup>. However, improvements in technology have provided opportunities for cancer registries to improve their data collection and reporting on all NMSC to show the burden of these cancers at a national level<sup>2</sup>.

From 2020 to 2040, skin cancer cases are expected to grow by 34%, largely driven by KCs which are projected to increase by 42%<sup>3</sup>. The growth in incidence is estimated to be higher in males than in females, with KC projected to rise by 49% in males and 33% in females, alongside melanoma increasing by 20% in males and 8% in females<sup>3</sup>.

Additionally, we emphasise the neglect of reporting on rare and poorly understood skin cancers, such as Merkel cell carcinomas, which exhibit the worst 5-year net survival outcomes among skin cancers at approximately 50%<sup>4</sup>. The grouping of these diverse entities under the umbrella of 'non-melanoma skin cancers' has inadvertently marginalised their significance in research and public health efforts.

We present data extracted from the National Disease Registration Service openly available sources which highlight the striking burden of skin cancer incidence in England with latest available data from 2022. Skin cancers grouped together are by far the most common cancer in England accounting for 230,968 diagnoses, followed by prostate cancer (n= 54,732) and breast cancer (n = 50,980) diagnoses<sup>5</sup>. This makes skin cancers currently over four times more common than the next most common type of cancer.

BCC is the most common of all cancer types reported with 158,307 diagnoses in 2022. cSCC is the 3<sup>rd</sup> most common cancer overall with 52,973 diagnoses, surpassed by prostate cancer. Melanoma (n=17,686) and rare skin cancers (n=2,002) are 9<sup>th</sup> and 25<sup>th</sup> respectively, placing all 4 skin cancer types in the top 25 cancers diagnosed in 2022 (Figure 1).

European Age-standardised incidence rates (EASRs) of all skin cancer were 544.9 per 100,000 persons-years (PY) (95% confidence interval (CI): 542.0 - 547.8) for males and 314.7 PY (95%CI: 312.7 - 316.8) for females.

For all skin cancer types higher EASRs were observed in males than in females, with the highest ratio of 2.5 times observed in cSCCs (males: 144.4 PY; 95%CI: 142.8-145.9, females: 57.3 PY; 95%CI: 56.5 – 58.2). BCC incidence in males was 359.9 PY (95%CI: 357.6 – 362.3) 1.6 times the incidence in females (225.8 PY; 95%CI: 224.1 – 227.5). Melanoma EASRs were 35.5 PY (95%CI: 4.8 – 36.3) for males and 29.2 PY (95%CI: 28.6 – 29.8) for females. Rare skin cancer EASRs were 5.0 (95%CI: 4.7 – 5.3) for males and 2.5 PY (95%CI: 2.3 – 2.7) for females.

The UK population aged 85 years and over is projected to increase from 1.6 million (2.5% of the total population) to 2.6 million (3.5%) over the next 15 years<sup>6</sup>. This older population, which already has the greatest incidence of skin cancer and highest mortality rates, will put further demands on the healthcare system. As the incidence of skin cancer continues to rise, healthcare demand will accelerate thereby increasing the burden of skin cancers further.

Variations in skin cancer reporting and limited historical data hinder international comparisons, often leading to the burden of skin cancer being overlooked. In England, recent improvements in national statistics cancer groupings now mean that BCC, cSCC, rare skin cancers, and melanoma are reported on as standard, a practice we encourage other cancer registries to adopt. We hope the availability of

skin cancer data inspires increased awareness, research, and funding to develop better treatments for NMSCs. Recognising and addressing all skin cancers is vital to improve patient outcomes, advance our understanding and reduce the impact on public health.

**Conflicts of interest:** B.v.B. and S.A. are employees of the British Association of Dermatologists.

**Acknowledgments:** This work uses data that has been provided by patients and collected by the NHS as part of their care and support. The data are collated, maintained and quality assured by the National Cancer Registration and Analysis Service, which is part of NHS England.

**Funding Sources:** This work was supported through a partnership between the British Association of Dermatologists and NHS England's National Disease Registration Service.

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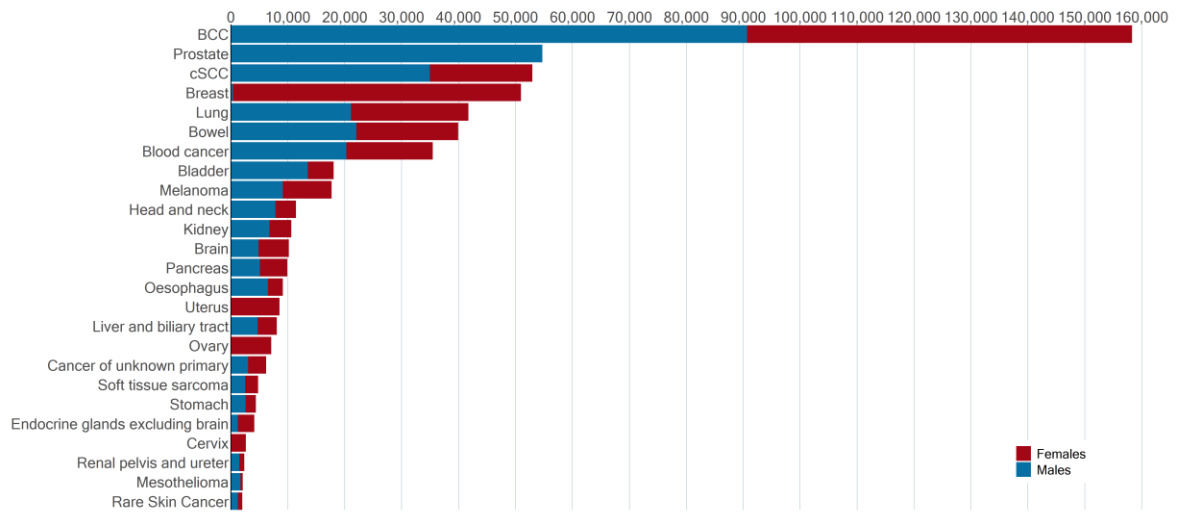
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#### **Figure legends:**

**Figure 1.** Top 25 cancers in England by incidence counts in 2022, showing the true incidence of skin cancers amongst other common cancers in England.

## Cancer Incidence in England

Top 25 in 2022



Source: Cancer Registration Statistics, England, 2022; National Disease Registration Service, NHS England

Publication Date: 17 Oct 2024