

### **Online supplemental material 1. Data sources and ICD-10 codes for cancer types related to smoking included in this study**

We obtained national tabulated data on the numbers of deaths from cancer in Australia from 1955 to 2019 by sex, age and calendar year from the World Health Organization's Mortality Database<sup>1</sup> sourced from the Australian Institute of Health and Welfare.<sup>2</sup> In Australia, it is mandatory for each state and territory to record all deaths in registries administered by the state and territory Registries of Births, Deaths and Marriages, and either a medical practitioner or a coroner is required to certify the cause of death.<sup>3</sup> For the purposes of our analyses, the cancer mortality data were aggregated into 5-year age groups and 5-year calendar periods. All age-standardised rates were standardised to the 2001 Australian population.

Australian population data by sex, 5-year age group and calendar year from 1955 to 2044 (Series B, based on medium population growth) were obtained from the Australian Bureau of Statistics (ABS).<sup>4,5</sup> Smoking data for 1945-2004 were obtained from the International Smoking Statistics Web Edition, which provides data from several different surveys and information on annual tobacco sales,<sup>6</sup> and the National Drug Strategy Household Survey (NDSHS) data for 2007-2019.<sup>7</sup> Detailed descriptions of the data sources for smoking exposure can be found in our recent report on lung cancer mortality in Australia.<sup>8</sup> In brief, sex-age-period-specific smoking prevalence and cigarette tar exposure per capita in Australia were re-constructed backwards to 1920 and forwards to 2044.<sup>8</sup>

**Table S1. ICD-10 codes for cancer types related to smoking included in this study**

| <b>Cancer</b>                             | <b>ICD10</b>     |
|---|------------------|
| <b>&gt;30% of cases caused by smoking</b> |                  |
| Lung                                      | C33-C34          |
| Larynx                                    | C32              |
| Bladder                                   | C67              |
| Lip, oral cavity and pharynx              | C00-C14, C30-C31 |
| Oesophagus                                | C15              |
| <b>8-30% of cases caused by smoking</b>   |                  |
| Stomach                                   | C16              |
| Liver                                     | C22              |
| Gallbladder and biliary tract             | C23-C24          |
| Pancreas                                  | C25              |
| Colon and rectum                          | C18-C20, C26.0   |
| Kidney and ureter                         | C64-C66          |
| Myeloid Leukaemia                         | C92              |
| Cervix                                    | C53              |
| Uterus                                    | C54-C55          |
| Ovary                                     | C56              |

**References:**

1. World Health Organization. WHO Mortality database, 2021.
2. Australian Institute of Health and Welfare (AIHW). Cancer data in Australia. Cat. no: CAN 122. 8 June 2021 ed, 2021.
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5. Australian Bureau of Statistics. Population Projections, Australia, 2017 (base) to 2066. cat. no. 3222.0 2021 [updated 22 Nov 2018. Available from: <https://www.abs.gov.au/statistics/people/population/population-projections-australia/latest-release>.
6. Forey B, Hamling J, Hamling J, et al. International smoking statistics (web edition): a collection of worldwide historical data, Methods.: P N Lee Statistics & Computing Ltd; 2016 [19 Dec 2016:[Available from: [http://www.pnlee.co.uk/Downloads/ISS/ISS-Methods\\_161219.pdf](http://www.pnlee.co.uk/Downloads/ISS/ISS-Methods_161219.pdf) accessed 20 Oct 2021.
7. Australian Institute of Health and Welfare (AIHW). Our data collections: National Drug Strategy Household Survey. Available from <https://www.aihw.gov.au/about-our-data/our-data-collections/national-drug-strategy-household-survey>. Last accessed 4 Feb 2021, 2020.
8. Luo Q, Yu XQ, Wade S, et al. Lung cancer mortality in Australia: Projected outcomes to 2040. *Lung Cancer* 2018;125:68-76. doi: <https://doi.org/10.1016/j.lungcan.2018.09.001>