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Templates for understanding which populations might be at highest risk   
of lung cancer

This resource may serve as a starting point for collecting top-line data to support identification of the target population for a lung cancer screening programme. It is split into multiple templates to support users to outline the population-level [incidence and mortality](#_Lung_cancer_epidemiology) from lung cancer, the [smoking prevalence](#_Smoking_prevalence_template), and which [stage](#_Lung_cancer_staging) lung cancer is most commonly diagnosed at in the health system in question.

**Please adapt each template as appropriate to your country/region or health system.**

# Lung cancer epidemiology template

This template provides a suggested structure to help understand which populations may be at greatest risk of lung cancer based on age and sex.

In addition to age and sex, there are many other factors that contribute to an increased risk of developing lung cancer,1-3 so this template could be duplicated to collect and compare data on lung cancer incidence and mortality among certain populations (e.g. racial or ethnic minorities, people who have a certain occupation).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Indicator\*** | **Age (years)\*** | **Both sexes** | **Male** | **Female** |
| **Lung cancer incidence**  (cases per 100,000 population over a defined period of time) | <40 |  |  |  |
| 40 – 49 |  |  |  |
| 50 – 59 |  |  |  |
| 60 – 69 |  |  |  |
| 70 – 79 |  |  |  |
| 80+ |  |  |  |
| **Lung cancer mortality**  (deaths per 100,000 population) | <40 |  |  |  |
| 40 – 49 |  |  |  |
| 50 – 59 |  |  |  |
| 60 – 69 |  |  |  |
| 70 – 79 |  |  |  |
| 80+ |  |  |  |

\*World-age standardised cases and deaths per 100,000 population based on GLOBOCAN 2020 are available for different age strata from the Global Cancer Observatory.4

# Smoking prevalence template

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Indicator** | **Age (years)\*** | **Both sexes** | **Male** | **Female** |
| **Smoking prevalence**  (per 100,000 population) | <20 |  |  |  |
| 20 – 29 |  |  |  |
| 30 – 39 |  |  |  |
| 40 – 49 |  |  |  |
| 50 – 59 |  |  |  |
| 60 – 69 |  |  |  |
| 70 – 79 |  |  |  |
| 80+ |  |  |  |

# Lung cancer staging data templates

**Template A** is a simplified suggested structure for capturing data on either the latest number of people confirmed to have lung cancer, or the number of lung nodules confirmed as being lung cancer.

Alternatively, where available, you may refer to the latest staging classification for lung cancer reported by the International Association for the Study of Lung Cancer (IASLC)5 and applied in **Template B**. This template uses the tumour, node and metastasis (TNM) system (please refer to the IASLC Staging Project [website](https://www.iaslc.org/research-education/research-committees-projects/staging-and-prognostic-factors-committee/9th) for further guidance).

**Template A. Lung cancer staging data (simplified)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **People diagnosed with lung cancer** | | **Nodules confirmed to be lung cancer** | |
| **Lung cancer stage** | **Number of cases** | **Proportion (%)** | **Number of nodules** | **Proportion (%)** |
| Stage 0 |  |  |  |  |
| Stage I |  |  |  |  |
| Stage II |  |  |  |  |
| Stage III |  |  |  |  |
| Stage IV |  |  |  |  |
| **Total** |  |  |  |  |

**Table B. Lung cancer staging data using the IASLC Staging Project (9th ed)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | **People diagnosed with lung cancer** | | **Nodules confirmed to be lung cancer** | |
| **Lung cancer stage\*** | | **Number of cases** | **Proportion (%)** | **Number of nodules** | **Proportion (%)** |
| T | TX |  |  |  |  |
| T0 |  |  |  |  |
| Tis |  |  |  |  |
| T1mi |  |  |  |  |
| T1a |  |  |  |  |
| T1b |  |  |  |  |
| T1c |  |  |  |  |
| T2a |  |  |  |  |
| T2b |  |  |  |  |
| T3 |  |  |  |  |
| **N** | NX |  |  |  |  |
| N0 |  |  |  |  |
| N1 |  |  |  |  |
| N2 |  |  |  |  |
| N3 |  |  |  |  |
| **M** | M0 |  |  |  |  |
| M1a |  |  |  |  |
| M1b |  |  |  |  |
| M1c |  |  |  |  |
| **Total** |  |  |  |  |  |

\* Please refer to the [definitions](https://www.iaslc.org/research-education/publications-resources-guidelines/submit-data-9th-edition-definitions-t-n-and-m) provided by IASLC for further information.

References

1. International Agency for Research on Cancer. 2019. *Reducing social inequalities in cancer: evidence and priorities for research.* Lyon: IARC

2. Kerpel-Fronius A, Tammemägi M, Cavic M*, et al.* 2021. Screening for lung cancer in individuals who never smoked: an International Association for the Study of Lung Cancer Early Detection and Screening Committee report. *Journal of Thoracic Oncology* 17(1): 56-66

3. Lung Cancer Policy Network. 2022. *Lung cancer screening: learning from implementation.* London: The Health Policy Partnership

4. Ferlay J, Ervik M, Lam F*, et al.* 2020. Global Cancer Observatory: cancer today. [Updated 01/12/20]. Available from: <https://gco.iarc.fr/today> [Accessed 20/03/23]

5. International Association for the Study of Lung Cancer. IASLC 9th Edition Staging Project (Guide to data elements). Available from: <https://www.iaslc.org/research-education/publications-resources-guidelines/iaslc-9th-edition-staging-project-data> [Accessed 10/03/23]