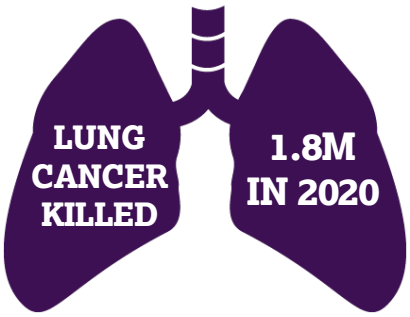
LUNG CANCER IN ASIA

Lung cancer is the second most common form of cancer globally, claiming an estimated 1.8 million lives in 2020.[1]

~60% of the world's lung cancer cases occur in Asia[1,2]

19% of cancer deaths in Asia are due to lung cancer[2]



Types of Lung Cancer

Non-small cell lung cancer (NSCLC) originates from the larger cells in the lungs, such as epithelial cells lining the lung airways or mucus-producing cells.[3] The majority of lung cancers (~85%) are classified as **NSCLC.**[4]

Small cell lung cancer (SCLC) is less common and originates from small, hormone-releasing cells. SCLC is more aggressive and fast-growing compared to NSCLC.[5]

Staging in NSCLC

Early-Stage Disease (Stages I, II, IIIA)

Up to **30%** of NSCLC patients are diagnosed with early-stage (I–IIIA) disease.[6] Early-stage lung cancer diagnoses are often only made when the cancer is found on imaging for an unrelated condition.[7,8] Five-year recurrence rates are approximately 45% in Stage IB, 62% in Stage II, and 76% in Stage III.[9]

Advanced Disease (Stages IIIB, IIIC, IV)

Approximately **70%** of patients present with locally-advanced or metastatic NSCLC.[6] For locally advanced, which means the cancer has spread into the tissues around the lungs, an estimated 35% of patients survive for five years or longer.[10] For metastatic, which means the cancer has spread to distant parts of the body, around 7% of patients live for five years or longer.[10]

The Role of Biomarkers in NSCLC

NSCLC cases are often associated with point mutations and biomarkers.

Approximately **50%** of cases are associated with EGFR, KRAS, ALK, MET or ROS-1.*[11]

Impact

A point mutation is a single base change within the gene.[15] The change is small **but can have a significant impact on the body** as they can serve as indicators of various types of cancer and many promote tumour growth.[11,16]

Testing

Biomarker testing is critical to learning more about each patient's tumour type and can be used to help determine treatment options. Based on the test results, patients may be matched with targeted therapies aimed at specific biomarkers present in their genetic profile.[17]

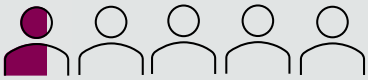
Epidermal Growth Factor Receptor (EGFR) mutations

The prevalence of biomarkers varies between ethnic populations.[11-14]

The proportion of NSCLC patients with an EGFR mutation is much higher in Asia than in the US and Europe:[12-14]

Asia: **30-40%** of patients

US and Europe: **10-15%** of patients



What is EGFR?

EGFR is a protein that **helps cells to grow**. Mutated forms of the EGFR gene and protein have been found in some types of cancer, including NSCLC. These changes may cause cancer cells to grow uncontrollably and spread in the body.[18]

*Epidermal Growth Factor Receptor (EGFR), Kirsten rat sarcoma (KRAS), Anaplastic lymphoma kinase (ALK), mesenchymal epithelial transition factor (MET), c-ros oncogene 1 (ROS1)

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Lung Cancer in Asia by Numbers

China

- Leading cause of cancer-related deaths, **killing over 714,000 people** in 2020[19]
- Most commonly diagnosed cancer in China, with **815,000 new cases** diagnosed in 2020[19]
- China accounts for **more than a third** of the world's new lung cancer cases[1,19]
- Prevalence in urban areas is significantly greater than in rural areas - 445,000 new cases diagnosed in urbanised areas compared to 288,300 new cases in rural parts of the country[20]

India

- Fourth most common cause of cancer-related deaths, **killing over 66,000 people** in 2020[21]
- Fourth most commonly diagnosed cancer in India, with **72,000 new cases** diagnosed in 2020[21]
- **Diagnoses were nearly three times** as high among men as among women in 2020[21]

Indonesia

- Leading cause of cancer-related deaths, **killing nearly 31,000 people** in 2020[22]
- Third most commonly diagnosed cancer, with **more than 34,000 cases diagnosed** in 2020[22]

Japan

- Leading cause of cancer-related deaths, **killing more than 82,000 people** in 2020[23]
- Most commonly diagnosed cancer, with **138,532 new cases diagnosed** in 2020[23]
- Responsible for 14% of cancer deaths in women and 24% of cancer deaths in men in 2019[24]

Malaysia

- Most common cause of cancer-related deaths, **killing over 4,500 people** in 2020[25]
- Second most commonly diagnosed cancer, with **more than 5,000 new cases diagnosed** in 2020[25]

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Lung Cancer in Asia by Numbers

Philippines

- Leading cause of cancer-related deaths, **killing over 17,000 people** in 2020[26]
- Lung cancer accounted for more than 19.9% of cancer-related diagnoses in men and 6.7% in women in 2020[26]
- Over **19,000 new cases** were diagnosed in 2020, accounting for **12.5%** of all cancers[26]

Singapore

- Leading cause of cancer-related deaths, **killing over 2,600 people** in 2020[27]
- Second most commonly diagnosed cancer in Singapore after breast cancer, with more than **2,900 new cases diagnosed** in 2020[27]

South Korea

- Leading cause of cancer-related deaths, **killing more than 20,500 people** in 2020[28]
- Second most diagnosed cancer in South Korea, after stomach; **28,600 new cases diagnosed** in 2020[28]
- Rates of lung cancer are only slightly lower in urbanised areas, compared to more rural parts of the country[29]
- Prevalence is expected to continue to rise for the next 10-20 years[29]

Thailand

- Second leading cause of cancer-related deaths, **killing more than 20,000 people** in 2020[30]
- Second most commonly diagnosed cancer in Thailand, with **nearly 24,000 cases diagnosed** in 2020[30]
- The number of men diagnosed with the disease is nearly double that of women[30]

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