

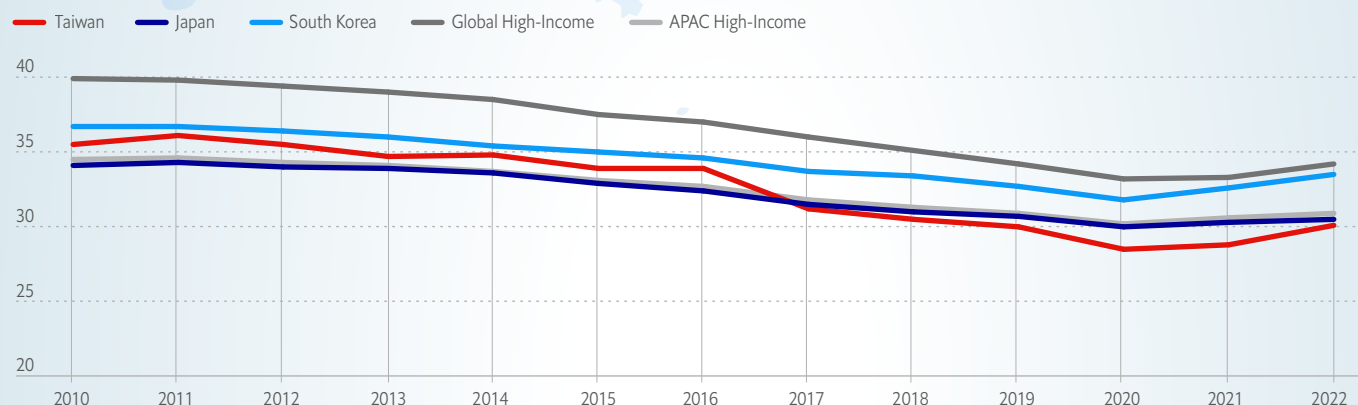
Lung cancer in Taiwan: policy response to improving lung cancer care

Lung cancer, in addition to being the leading cause of cancer-related deaths, became the most common invasive cancer in Taiwan in 2021, surpassing colon cancer.¹



While age-standardised incidence rates (ASIR) for lung cancer are on a decline in high-income countries worldwide, including the high-income countries in the Asia-Pacific (APAC) and East Asia, Taiwan's ASIR rates show a fluctuating trend during the 2010-2022 period, with a surge in cases of lung cancer, particularly among women and individuals who have never smoked.

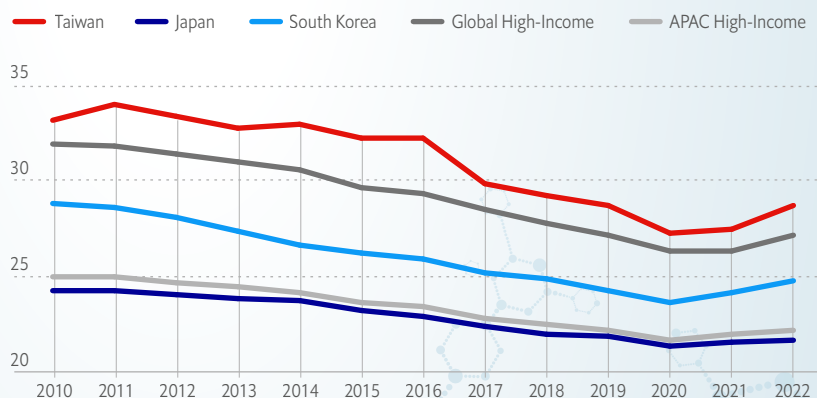
Lung cancer incidence rate per 100,000 (2010-2022)



Source: Institute for Health Metrics Evaluation. Used with permission. All rights reserved.² All figures are age-standardised

Taiwan has the highest age-standardised death rates (ADSR) for lung cancer, exceeding not only the global average of high-income countries but also the ADSR in high-income countries in the Asia-Pacific (APAC) region and East Asia, making lung cancer a crucial public health concern.

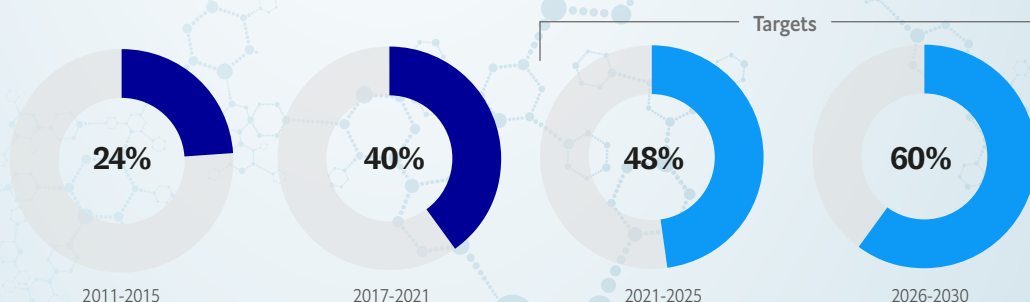
Lung cancer death rates per 100,000 population



Source: Institute for Health Metrics Evaluation. Used with permission. All rights reserved.² All figures are age-standardised

Slight improvements seen in health outcomes, but more needs to be done

The overall 5-year survival rates in Taiwan have improved from 24% in 2011-2015 to 40.1% in 2017-2021. But more needs to be done to achieve targets of 48% in 2021-2025 to 60% in 2026-2030

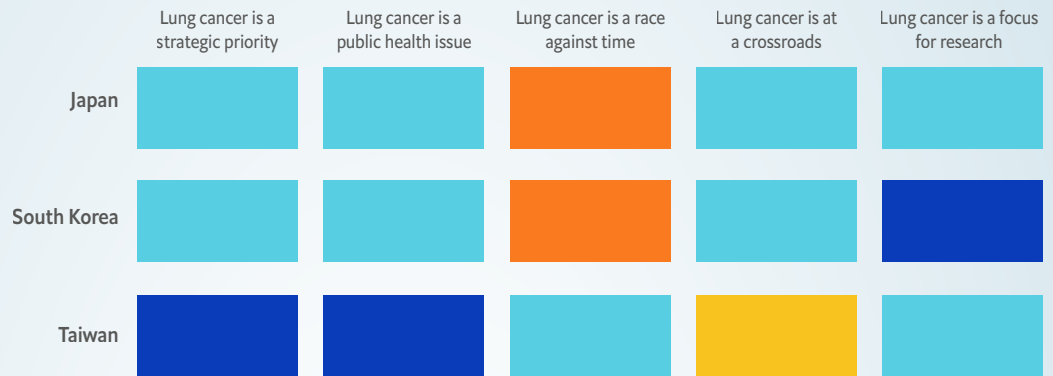


Source: Taiwan Cancer Registry Centre³ and The National Lung Cancer Control Plan-Phase 1⁴

How prepared is Taiwan?

Success against lung cancer requires a wide range of policies or guidelines that impact prevention, early detection, treatment, and patient support throughout the patient journey.

Economist Impact created a framework to assess these policies and guidelines across five key domains influencing lung cancer care in Japan, South Korea and Taiwan.



Taiwan performs strongly in most domains, scoring 'high' in the strategic priority and public health domains, 'moderately high' in the race against time and research domains and 'moderate' in cancer at a crossroad domain. Taiwan needs to focus on the following areas to manage lung cancer better:



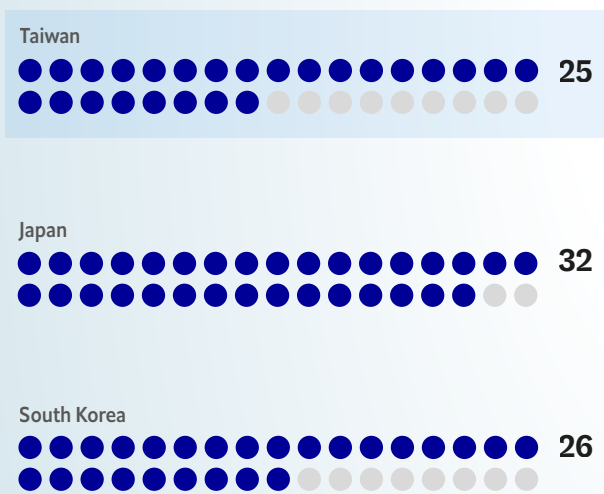
Time intervals from diagnosis to treatment of lung cancer should be reduced



The access to and reimbursement for key innovative medicines for lung cancer treatment must be improved

Access to drugs

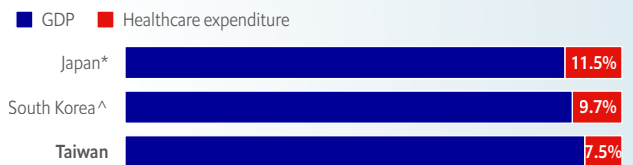
National score (0-34)



Investment in healthcare and research to manage the rising incidence of lung cancer should be a priority.

Taiwan's health expenditure

In 2022, Taiwan's healthcare expenditure accounted for **7.5% of its GDP**, marking the lowest percentage among high-income East Asian nations.⁵



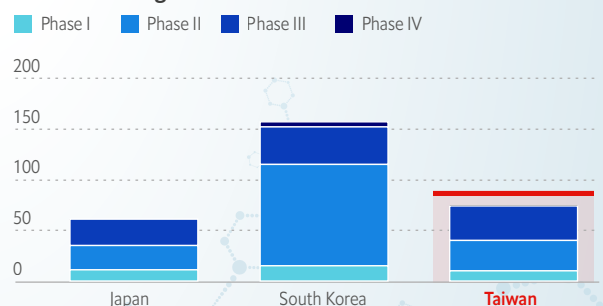
*Estimated value. ^ Provisional value

Source: National Health Expenditure, Ministry of Health and Welfare⁵ and OECD Data Explorer⁶

Taiwan's R&D investment

Taiwan allocated 3.79% of its GDP to research and development (R&D) expenditures* in 2021.⁷ Furthermore, from 2014-23, Taiwan reported a lower number of lung cancer clinical trials by phase, in comparison to South Korea.⁸

Number of lung cancer clinical trials, 2014-23



Source: World Health Organization, International Clinical Registry Platform.⁸

*According to World Bank the gross domestic expenditures on research and development (R&D), expressed as a percent of GDP, include both capital and current expenditures in the four main sectors: Business enterprise, Government, Higher education and Private non-profit. R&D covers basic research, applied research, and experimental development. Available at: <https://databank.worldbank.org/metadataloglossary/jobs/series/GB.XPD.RSDV.GD.ZS>

“By receiving approved drugs as early as possible to treat the advanced-stage disease, we might be able to improve 5-year survival from 10% to 30% in Stage IV disease. However, if you can diagnose lung cancer patients in Stage I disease, more than 80% of them can survive more than 5 years. So we should do both.”

Pan-Chyr Yang

Chair Professor, Department of Internal Medicine, National Taiwan University Hospital, National Taiwan University

Taiwan's effective strategies...

1

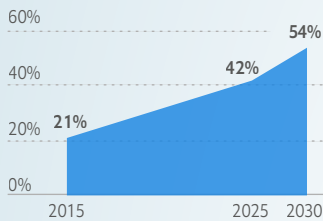
Strategic Priority on Lung Cancer



The National Lung Cancer Control Plan developed in 2022 demonstrates Taiwan's commitment to making lung cancer a strategic priority.⁴



The National LDCT screening programme launched in 2022. Taiwan aims to increase the rate of early-stage lung cancer detection.⁴



2

Focus on Key Risk Factors



Taiwan banned e-cigarettes entirely in March 2023 through an amendment to the Tobacco Hazards Prevention Act.⁹



Strong air pollution control measures have decreased the annual average concentration of PM2.5 from 16.2 µg/m³ in 2016 to 12.4 µg/m³ in 2022, surpassing the national target of 15 µg/m³.¹⁰



Leading research focusing on the rise of lung cancer in females and efforts to expand screening eligibility for individuals with a family history of lung cancer, not just smokers

3

Positive steps towards approval and financing of innovative cancer treatment

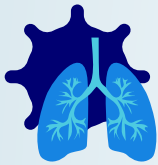


The Center for Health Policy and Technology Assessment, launched in December 2023, is a significant milestone that brings Taiwan a step closer to establishing its own independent Health Technology Assessment (HTA) organisation.¹¹



The government is planning to establish a Cancer Drug Fund to help patients access innovative treatments.¹² However, the timelines for when this will be initiated have not yet been publicly released.

The way ahead...



Early detection and education are key to improved outcomes

Taiwan is enhancing lung cancer outcomes by promoting early detection and screening, including green channel services and screening prompts in medical facilities, which aim to provide convenient and accessible screening services, and support these measures. NGOs and media are crucial in raising awareness, but there's a call for **increased education on lung cancer risk factors and encouragement for screenings**. Experts suggest aiming for a screening rate above 50% to improve early detection.



Prevent tomorrow but treat today

Drugs on the reimbursement list are fully covered (with non-significant co-payment by the patients). In contrast, those not on the reimbursement list must be paid out-of-pocket and, therefore, may not be financially accessible for many patients. In addition, even some drugs that are on the reimbursement list, such as certain first-line immunotherapies for Stage IV (non-oncogene addicted/wild-type) lung cancer, have strict reimbursement eligibility criteria that deviate from international guidelines, potentially restricting patient access. Solutions include **increasing the government budget for NHI and healthcare spending, establishing a cancer drug fund for better drug accessibility, and exploring additional mechanisms like co-payment and commercial insurance** to bridge financing gaps and improve treatment inequity.



Stronger patient voices in drug approval and reimbursement decision

In 2016, Taiwan initiated a shared decision-making project involving the Ministry of Health and Welfare, patient groups, and healthcare institutions, aiming to give patients a say in lung cancer drug policies through the the National Health Insurance Committee (NHIC) and Pharmaceutical Benefits and Reimbursement Scheme (PBRS).¹³ Despite these efforts, patient representation remains minimal, with only a fraction of committee members being patient representatives who lack voting rights. This highlights **the need for greater patient involvement in these committees to ensure their needs and perspectives are adequately considered** in decision-making processes.

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- ² Institute for Health Metrics Evaluation. Used with permission. All rights reserved.
- ³ Taiwan Cancer Registry Centre. Available at https://twcr.tw/?page_id=1804
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To find out more, download our report **Breathing in a new era: A comparative analysis of lung cancer policies in Taiwan, South Korea and Japan**