



**LUNG CANCER
POLICY NETWORK**

Advancing implementation of lung cancer screening in Asia Pacific

Summary recommendations from a
collaborative workshop

**Lung Cancer Policy Network and
Asia Pacific Coalition Against Lung Cancer**

December 2024

The Lung Cancer Policy Network is a global network of multidisciplinary experts from across the lung cancer community, which includes clinicians, researchers, patient organisations and industry partners. The Network is funded by AstraZeneca, Bristol Myers Squibb Foundation, Guardant Health, Intuitive, Johnson & Johnson, MSD and Siemens Healthineers. Secretariat is provided by [The Health Policy Partnership](#), an independent health research and policy consultancy. All Network outputs are non-promotional, evidence based and shaped by the members, who provide their time for free.

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About

Asia Pacific Coalition Against Lung Cancer

The Asia Pacific Coalition Against Lung Cancer (APCLC) was formed in 2023 with a vision to empower people to overcome the burden of lung cancer by addressing the region's specific needs and challenges. APCLC represents a distinguished group of lung cancer experts who, in their respective countries, are driving forward advances in the understanding and treatment of lung cancer.

Lung Cancer Policy Network

The Lung Cancer Policy Network, established in 2021, is a global network of multidisciplinary experts from the lung cancer and oncology community. Network members include clinicians, researchers, patient organisations and representatives, and industry partners; together, the Network strives to make lung cancer a global policy priority.

Background

The burden of lung cancer is disproportionately concentrated in Asia, where 60% of new cases and 62% of related deaths occur.¹ As a result, there is a pressing need for enhanced efforts to prevent lung cancer and detect it earlier. Screening can reduce mortality by up to 25%; it shifts diagnosis to an earlier stage, where lung cancer is more treatable.²⁻⁵

Globally, we are at a critical juncture for lung cancer screening, with several countries having established large-scale screening programmes. Others have made formal commitments to introduce such programmes, or are engaged in screening implementation research.⁶ As screening initiatives gain momentum, there is a valuable opportunity to learn from the experiences of other countries, and use this knowledge to develop new programmes.

Much of the evidence about the benefits of lung cancer screening has come from research conducted on populations in Europe and North America, such as with the Dutch-Belgian Lung Cancer Screening trial (NELSON), National Lung Screening Trial (NLST) and the UK Lung Cancer Screening Trial (UKLS). However, the Asia-Pacific region faces a unique set of challenges in lung cancer epidemiology and risk factors, as well as varied health systems – all operating within a range of economic and social contexts. For example, more people who have never smoked and more women living in the region have lung cancer than the same demographics in Europe and North America. These factors need to be considered when planning for and implementing screening programmes.¹ There is an effort to generate more data for lung cancer screening in the region through initiatives such as the Taiwan Lung Cancer Screening for Never Smoker Trial (TALENT).

Introduction

The Lung Cancer Policy Network and the Asia Pacific Coalition Against Lung Cancer (APCLC) are working together to advance screening implementation in the Asia-Pacific region. A collaborative workshop was held in October 2024 as part of the Asia Conference on Lung Cancer, bringing together delegates to discuss shared priorities for, and challenges to, implementing screening programmes in the region.

The workshop followed a webinar, which showcased screening activities in the region and featured case studies from Australia, India, Singapore and South Korea. A summary of the webinar discussions is available [here](#).



Registrants for the pre-workshop webinar were asked: 'What are the key challenges you face in implementing a screening programme for lung cancer in your location?' Respondents were given nine options to choose from and were able to select multiple options; these responses guided the discussion topics at the workshop. The following report outlines the answers from respondents in 24 countries.

| What are the key challenges you face in implementing a screening programme for lung cancer in your location? | Votes |
|--|-------|
| Lung cancer is stigmatised | 22 |
| Negative perception of lung cancer outcomes | 18 |
| Low awareness of screening and its benefits | 57 |
| Lung cancer is not a policy priority | 42 |
| Lack of eligibility criteria for screening | 20 |
| No financial investment in lung cancer screening | 42 |
| Lack of physical infrastructure | 28 |
| Limited workforce capacity | 34 |
| Lack of confidence in lung cancer screening among the population | 17 |
| Limited data on lung cancer (e.g. incidence, mortality, impact etc.) | 12 |

The discussion topics for the workshop were:

- Building awareness of screening and its benefits
- Making lung cancer a policy priority
- Gaining financial investment for lung cancer screening
- Optimising workforce capacity for screening.

Throughout this collaborative workshop, the Lung Cancer Policy Network's [implementation framework](#) was utilised as a tool to discuss how to facilitate and optimise the implementation of lung cancer screening.

Hosts

Event moderators

- **Kwun Fong**, Centre Director and Founder, ACRF Centre for Lung Cancer Early Detection; Thoracic Physician and Head of Pulmonary Malignancy Services, Prince Charles Hospital; Professor, Faculty of Medicine, University of Queensland; Director, The Prince Charles Hospital and University of Queensland Thoracic Research Centre, Australia
- **Hidehito Horinouchi**, Assistant Chief, Department of Thoracic Oncology; Chief, Office for Patient Flow Management; Chief, Office for Professional Education Management, National Cancer Center Hospital, Tokyo
- **Yeon Wook Kim**, Assistant Professor, Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Seoul National University Bundang Hospital
- **Gillianne Lai**, Consultant, Division of Medical Oncology, National Cancer Centre Singapore
- **Sewanti Limaye**, Director, Medical & Precision Oncology; Director, Clinical and Translational Oncology Research, Sir HN Reliance Foundation Hospital and Research Centre, Mumbai
- **Herbert Loong**, Specialist in Medical Oncology and Clinical Associate Professor, Department of Clinical Oncology; Deputy Medical Director, Phase 1 Clinical Trial Centre, The Chinese University of Hong Kong, Hong Kong
- **Helena Wilcox**, Associate Director of Research and Policy and Programme Lead, Lung Cancer Policy Network, The Health Policy Partnership



APCLC Secretariat

- **Ng Hwee Fang**, Senior Manager, Clinical Trials and Epidemiological Sciences, National Cancer Centre Singapore
- **Pankaj Kumar Panda**, Senior Research Officer, Clinical Trials and Epidemiological Sciences, National Cancer Centre Singapore
- **Daniel Tan Shao Weng**, Senior Consultant and Head of Division of Medical Oncology, Division of Clinical Trials and Epidemiological Sciences; Principal Investigator, Cancer Therapeutics Research Laboratory, National Cancer Centre Singapore; Associate Professor, Duke-NUS Medical School, Singapore

Network Secretariat

- **Oriana Carswell**, Researcher, The Health Policy Partnership
- **Eleanor Wheeler**, Director of Oncology, The Health Policy Partnership

Building awareness of screening and its benefits

Targeted low-dose computed tomography (LDCT) screening is a proven and safe method for reducing lung cancer mortality. Increasing awareness of the screening and its benefits among various stakeholders – including healthcare professionals, the general public and decision-makers – can help garner support for implementing such programmes. Gaining this support will allow advocates for lung cancer screening to present a unified position to policymakers.

Moderated by Herbert Loong

‘Early detection resulting in stage shift leads to reduced costs for advanced disease and palliative care. We need to ensure that stakeholders are aware of the benefits of lung cancer screening – both to the individual and to the community at large.’

Herbert Loong

- Despite epidemiological data (e.g. in Taiwan), there is a pervasive misconception that lung cancer is only a concern and a risk for people who have previously smoked or who currently smoke.
 - Among policymakers there is a perception that smoking cessation/smoking reduction and tobacco control policies will be adequate to lower the rates of lung cancer.



- Another gap in knowledge is the importance of early detection in shifting diagnosis to an earlier stage, which in turn leads to reduced costs for advanced disease and palliative care.
 - Involving a broad coalition of stakeholders – e.g. payers, regulators and the public – in messaging on early detection is vital to generate policy change.
 - Building on other cancer screening activities could help close the knowledge gap by showing comparison and effectiveness for screening.
- The unified message and voice for people with lung cancer, or at risk of lung cancer, could be strengthened to help with advocacy efforts. To this end, local/regional champions could be identified and connected across the region.
 - Involving policymakers in advocacy efforts will help assess gaps in information or understanding, and generate collaboration and buy-in.
- Facilitating shared learning between the pilots and programmes that are already underway in the region (e.g. in Taiwan, Japan, South Korea) can help catalyse action to raise awareness, and generate data and practical knowledge – even if it starts at a more localised level.

Making lung cancer a policy priority

For screening to be effectively implemented, it must be prioritised in policy. Incorporating lung cancer into national cancer control plans can highlight an awareness of the importance of tackling the prevalence and impact of the disease. Policymakers play a key role in deciding whether to implement screening programmes for lung cancer, making their approval crucial.

Moderated by Yeon Wook Kim

‘Collaboration is the key to achieving progress. Raising public awareness and support, alongside a unified voice from experts dedicated to lung cancer care, is crucial for convincing governments and policymakers to prioritise evidence-based lung cancer care, including screening.’

Yeon Wook Kim

- Working with governments and policymakers is essential to conducting large-scale, government-funded studies and accumulating evidence on the benefits of lung cancer screening.



- We must unite the relevant professional societies (e.g. oncology/pulmonology/radiology/preventive medicine) to form a strong, collective voice. This will facilitate effectively advocating the benefits of screening, persuading governments with the available evidence, and promoting awareness and understanding that screening can reduce deaths from lung cancer.
- There are still unmet needs for groups typically perceived as low-risk, especially people who have never smoked; this population is currently not included in most of the world's guidelines and screening programmes. More effort is required to encourage policymakers and ministries of health to address these knowledge gaps and accumulate Asia-specific evidence on lung cancer screening.
- It is essential to understand each country's infrastructure and facilities to ensure lung cancer screening can function in practice. For example, the number and accessibility of CT scanners and the number of radiologists varies. It is important to determine whether governments have sufficient budget to provide LDCT scans for free or at a reduced cost to ensure everyone who needs screening can access it.
- The success of policies and screening programmes for lung cancer depends on support from the public. It is crucial to invest in raising awareness and addressing the stigma of the disease. Public awareness and support can help drive prioritisation of lung cancer in policy.

Gaining financial investment

Screening programmes have multiple components, each of which carries costs that must be appropriately resourced over time. An important part of planning is identifying and addressing potential financial barriers to screening.

Moderated by Gillianne Lai and Kwun Fong

'Lung cancer screening that is effective and population-based requires health system commitment and financial investment. However, in the future, AI may reduce costs in the digital era.'

Kwun Fong

'Investing in lung cancer screening not only improves earlier detection but also reduces the socioeconomic burden of the disease.'

Gillianne Lai



- Commitment to invest in and sustain a screening programme for lung cancer in the region is often driven, at least in the initial phases, by government funding. Support from charities and NGOs could also be leveraged, particularly in low-income countries.
 - In the set-up phase, public–private partnerships could also be used to drive investment and commitment.
- Using existing infrastructure to trial and deliver an LDCT programme could help alleviate cost concerns.
- To drive commitment to implementation, local data on the effectiveness (through clinical trials) and cost-effectiveness of screening programmes will likely be needed.
 - Large-scale analyses will require time and funding, so interim endpoints – such as through in-silico modelling – could help pave the way for further funding commitments.
 - As with other locations, the real cost-effectiveness of a large-scale programme will be highly influenced by uptake rates; increasing engagement with screening could facilitate better resource utilisation.
- The costs of delivering LDCT scans varies considerably in the region.
 - Technology could be harnessed to drive down the costs of screening. AI can aid high-risk identification and make screening more personalised and cost-effective. Using AI to deliver a higher throughput of first reads of scans can support radiologists' capacity. Research into potential applications of predictive biomarkers to augment screening.
 - However, the societal support for AI should be explored, and potential challenges regarding data privacy and data-sharing should be addressed or mitigated during the planning process. The scope and scale of this would likely need to be investigated at the national level.

Optimising workforce capacity

The implementation of a screening programme for lung cancer requires sufficient workforce capacity to perform and interpret LDCT scans. Those developing a screening programme must determine whether additional staff members and training are required to ensure its effective and efficient delivery.

Moderated by Hidehito Horinouchi



'In many places where LDCT screening has not been implemented, it is difficult to imagine securing an appropriate workforce. To promote screening, it is also necessary to make proposals regarding methods for securing the workforce, tailored to the circumstances of the target countries and regions.'

Hidehito Horinouchi

- Appropriate workforce capacity is necessary for all aspects of lung cancer care and should be carefully considered during the planning of a screening programme.
- It is important to address perceived capacity gaps and concerns during consultation and planning.
 - Where screening capacity for other conditions is lacking, there is a perception of limited capacity for an LDCT programme. This is heightened where capacity issues for other aspects of lung cancer care (e.g. diagnosis and treatment) exist, particularly for middle-income countries.
 - In Japan, the healthcare workforce is generally skilled in using X-ray to detect lung cancer, but there is a need to improve awareness of and skills in LDCT screening.
- Where screening programmes exist, there is an urgent need to improve access to diagnosis and treatment, and to consider early detection as part of the overarching care pathway for lung cancer.

Summary recommendations

'Lung cancer screening needs to be driven forward with communities. We have to be breath aware, lung aware and screen aware.'

Sewanti Limaye

Through discussions of shared challenges and opportunities, delegates explored actionable solutions, leading to the following overarching recommendations for policymakers and those involved in the development and delivery of screening:

- **Improve awareness of lung cancer – and the importance of earlier detection – among policymakers, decision-makers and the public.**

- Foster collaboration and shared learning across multi-stakeholder groups, bringing together policymakers, advocates and data from existing pilots and programmes to support policymakers in prioritising lung cancer.
- Initiate local research on the effectiveness and cost-effectiveness of screening to inform decision-making.
- Take a systems approach to large-scale screening implementation, using available data and lessons, to ensure that gaps in capacity are identified and addressed.

Workshop participants

The workshop was attended by over 40 participants from at least 10 countries, including Armenia, Hong Kong, India, Japan, Malaysia, Philippines, Singapore, South Korea, Taiwan and Thailand.





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