



# IMPROVING LUNG CANCER CARE IN INDONESIA

## Advancing Equity Across a Fragmented Health Landscape

### EXECUTIVE SUMMARY

**Indonesia** faces a rising lung cancer burden, now among the leading causes of cancer mortality—particularly in men—driven by high tobacco use and delayed diagnosis. The country has introduced elements of national cancer planning and improved access to essential therapies in urban centers. However, access to biomarker testing, screening, and consistent treatment remains highly uneven, especially across rural provinces and island communities.

With limited national registries and a shortage of specialized oncology services, Indonesia remains at **Maturity Level 2 – Emerging**. To reduce lung cancer mortality, the country must scale early detection efforts, improve molecular testing capacity, and close access gaps between Java and peripheral regions.

### CURRENT SITUATION

Indonesia operates a **decentralized public health system**, with cancer services managed across central and provincial governments. Cancer care is integrated into the **National Health Insurance (JKN)**, but infrastructure and provider expertise vary dramatically across regions. Most advanced diagnostics and therapies are concentrated in Jakarta, Surabaya, or Bandung, while many eastern provinces lack basic oncology capacity.

**Indonesia is currently at Maturity Level 2 – Emerging.** The system provides foundational cancer care in urban hubs, but lacks widespread biomarker testing, systematic screening, and standardized lung cancer treatment protocols. Regional inequities, logistical barriers, and gaps in workforce training hinder consistent delivery.

### INTRODUCTION

Lung cancer is one of Indonesia's top causes of cancer-related death, especially among men over 50. Smoking prevalence exceeds 60% among adult males, and exposure to biomass fuels in rural areas further exacerbates risk. While first-line chemotherapy and some targeted therapies are available under the **Jaminan Kesehatan Nasional (JKN)** universal health coverage scheme, **diagnosis is often delayed, and biomarker testing (EGFR, ALK, PD-L1)** is only available in select urban hospitals like Dharmais Cancer Hospital or RSCM Jakarta.

Lack of public awareness, weak referral systems, and geographical barriers worsen outcomes. There is **no national low-dose CT (LDCT) screening program, and survivorship or palliative care services are limited or informal** in most districts. Indonesia has started to implement a national cancer control framework, but specific attention to lung cancer is urgently required.





# LUNG CANCER IN INDONESIA

## Key Issues and Policy Recommendations

Pillar	Fact	Barrier	Policy Recommendations
Infrastructure	Urban hospitals like Dharmas Cancer Center offer advanced diagnostics...	...but peripheral hospitals lack CT scans, biopsy, and pathology capabilities.	Establish regional diagnostic hubs with telemedicine links to national cancer centers.
Access to Treatment	Some EGFR TKIs are reimbursed under JKN...	...but access to second-line therapies and immunotherapy is limited by cost and approval delays.	Expand JKN formulary to cover second-/third-line targeted treatments and immunotherapy.
Research & Innovation	Limited clinical trials and lung cancer research activity....	...due to fragmented registries and underfunded institutions.	Invest in a national lung cancer registry and support academic-public partnerships.
Awareness & Education	Tobacco control laws exist, and public campaigns are increasing...	...but lung cancer symptom awareness is low in rural areas.	Launch targeted community campaigns on early symptoms and risks using primary health networks.
Survival Rates	Most patients present with stage III/IV disease...	...and national survival statistics are not tracked systematically.	Integrate stage-at-diagnosis and treatment outcome tracking into MoH cancer data systems.
Early Detection & Palliative Care	No LDCT screening programs are in place...	...and palliative services are informal and inconsistently funded.	Pilot LDCT programs in high-risk populations and fund district-level palliative training.
Biomarker	EGFR testing is available in a few public hospitals...	...but turnaround times are long and other mutations (ALK, PD-L1, MET) are rarely tested.	Fund comprehensive biomarker panels and ensure standardized turnaround targets.
Clinical Guidelines	Indonesia has adopted general oncology protocols...	...but lung cancer guidelines are not consistently followed across all provinces.	Update and disseminate national NSCLC guidelines with mandatory CME training for physicians.
Reimbursement	First-line TKIs are covered by JKN....	...but access to advanced treatments and timely approvals is limited.	Streamline HTA processes and create equity audits for treatment access by province.
Screening	High-risk population remains unscreened...	...with no national LDCT or structured risk assessment pathway.	Develop LDCT pilot programs linked to tobacco cessation clinics and high-risk referrals.



## CONCLUSION

Indonesia has taken steps toward more equitable cancer care, but lung cancer remains under-addressed. Patients face long delays, insufficient access to precision medicine, and unequal services based on geography. To progress from Emerging to Intermediate maturity, Indonesia must decentralize access to diagnostics and modern therapies, while building screening and referral capacity through its primary health system.

### KEY POLICY MESSAGES

- 1** Lung cancer care is concentrated in urban hubs, leaving rural and remote populations underserved.
- 2** Biomarker testing remains limited and fragmented, slowing personalized treatment pathways.
- 3** LDCT screening, palliative care, and survivorship services are underdeveloped.
- 4** Financial coverage under JKN is improving but does not include all modern therapies.

## CALL TO ACTION

- **Pilot LDCT screening** in high-risk smokers aged 55–74 through MoH and primary care integration.
- **Expand EGFR, ALK, PD-L1 testing access** with regional diagnostic centers and public funding.
- **Ensure full reimbursement of second- and third-line therapies** across all regions via JKN enhancement.
- **Train general practitioners and puskesmas staff** in early detection, symptom referral, and guideline adherence.
- **Establish a national lung cancer registry** capturing stage, mutation status, treatment, and outcomes.