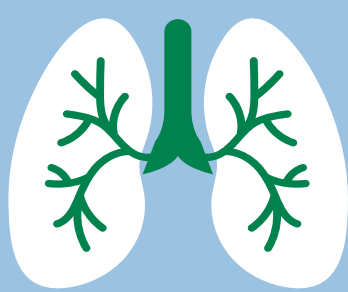


HELPING ASIA BREATHE BETTER

Chronic respiratory diseases need to be addressed now

In December 2024, 12 respiratory disease experts* from Indonesia, Malaysia, the Philippines, Singapore, Taiwan and Vietnam participated in a roundtable discussion on the key challenges and opportunities for driving policy change to improve the lives of people living with chronic respiratory diseases (CRDs).

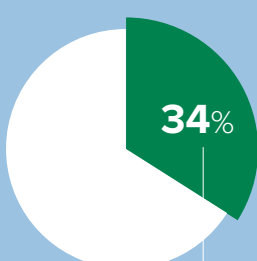


Chronic respiratory diseases

CRDs are a group of lung conditions including **chronic obstructive pulmonary disease (COPD), asthma, occupational lung diseases and pulmonary hypertension.**¹

Premature deaths due to air pollution

Between 1980 and 2020, **Asia had the largest number of premature deaths attributed to particulate matter¹ pollution globally, of which approximately 34% were due to respiratory conditions.**²



Premature deaths attributed to particulate matter pollution linked to respiratory conditions

Risk factors

The most widely recognised risk factors for CRDs include **smoking, exposure to indoor and outdoor air pollution, living in areas of high deprivation, and work-related exposures.**¹

Mortality rate

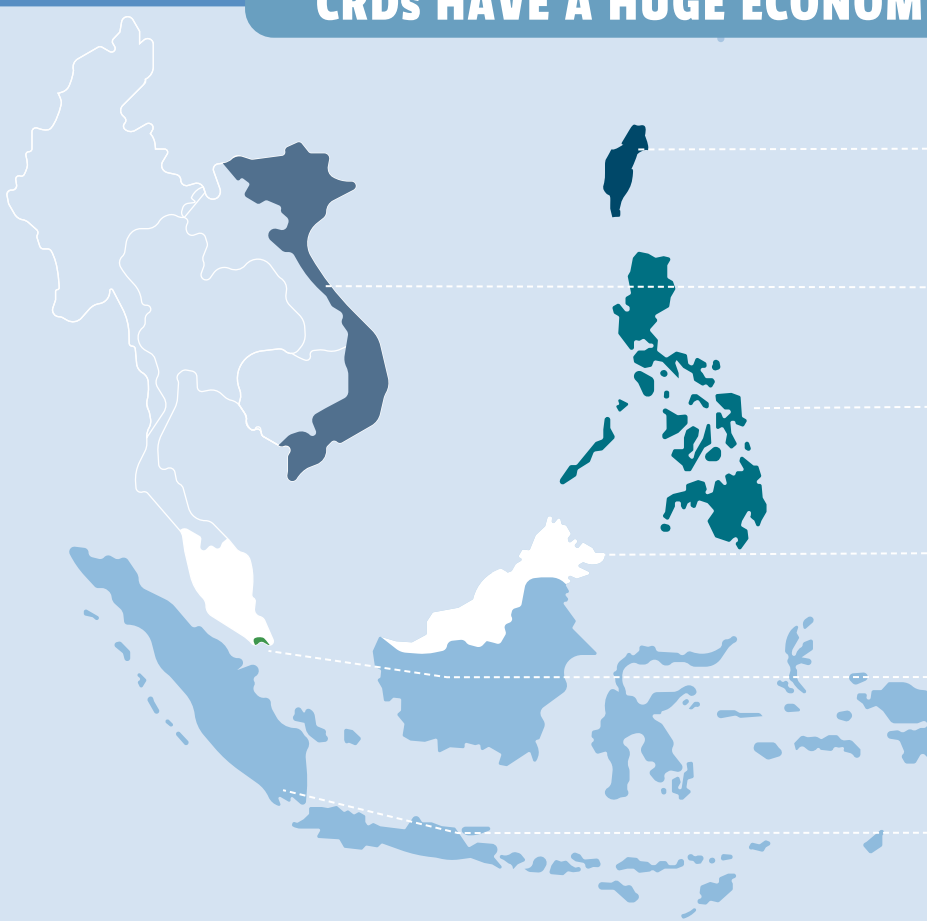
Together, **Southeast Asia, East Asia and Oceania have the second highest mortality rate and years of life lost due to CRDs worldwide.**³

Prevalence

In 2021, **CRDs affected over 65 million people** across Indonesia, Malaysia, the Philippines, Singapore, Taiwan and Vietnam.⁴

† Relating to PM2.5

CRDs HAVE A HUGE ECONOMIC IMPACT



Taiwan

Every year, asthma costs Taiwan **NTD \$686 million**, or more than **NTD \$223,000** per person with asthma.⁵

Vietnam

Asthma is estimated to have cost Vietnam **over VND 422 billion** in 2019.⁶

The Philippines

COPD is projected to cost the Philippine economy **over PHP P1.5 trillion** from 2020 to 2025.⁷

Malaysia

COPD is estimated to cost Malaysia **MYR 2.8 billion annually.**⁸

Singapore

In 2020, asthma cost the economy in Singapore **over SGD \$2 billion**, with 79% of this cost arising from lost productivity.^{9†}

Indonesia

COPD is expected to have cost Indonesia **over IDR 1,499 trillion** from 2020 to 2025.⁷

† Statistic derived from modelled data

IMPROVING CRD PREVENTION AND CARE

will facilitate resilient and sustainable health systems that can withstand future challenges



Mitigate the impact of climate change on health

- Climate change is increasing global temperatures, creating extreme weather events and prolonging allergen seasons, which can **reduce lung function and exacerbate CRDs.** It is also predicted to **increase levels of harmful pollutants**, such as ozone.^{10,11}
- Asia produces the highest amount of black soot globally.¹² **Ambient particulate matter is the leading risk factor for CRDs** in Southeast and East Asia.³



Reduce health inequalities

- Household air pollution disproportionately affects women and children living in low- and middle-income countries,**¹³ which make up two thirds of countries in South and East Asia.¹⁴
- Household air pollution due to the burning of solid biomass fuel is **associated with an increased risk of developing COPD.**¹⁵
- Lung function testing is a challenge in the Asia-Pacific region.** This is possibly due to **resource constraints or ineffective training.**¹⁶



Strengthen resilience of health systems

- There are **high rates of flare-ups (exacerbations) among people living with COPD or asthma in Asia,** with many hospitalisations resulting in death.^{17,20}
- In Asia, **hospitalisation accounts for the largest direct cost for COPD healthcare.**²¹

WHAT ARE THE CURRENT CHALLENGES?

Limited policy recognition of the current and future effects of climate change on CRDs

Underdiagnosis and late diagnosis of CRDs, and limited use of guideline-recommended spirometry

Overuse of reliever medications, leading to inadequate disease control and high rates of preventable flare-ups in people with COPD or asthma

Limited access to effective medicines for CRD management

Lack of care continuity and inconsistent guideline implementation for long-term disease management

PRIORITY ACTIONS

Generate more evidence on the impact of climate change and pollution on people living with CRDs in Asia.

Build policy advocacy leveraging these data.

Develop public awareness campaigns to increase knowledge of the symptoms of different CRDs.

Invest in training and resources for primary care physicians to improve CRD diagnosis, including funding and training on the appropriate use of spirometry.

Instigate referral pathways from primary to secondary respiratory care to ensure every person receives effective care early on in their disease trajectory.

Implement professional training, backed by financial incentives, to encourage the use of preventer inhalers and reduce reliance on reliever (short-acting beta-2 agonist) medications.

Develop targeted protocols to enable prescribing of essential medicines for all CRDs across all healthcare settings.

Implement clear discharge protocols from tertiary/secondary care to ensure people receive robust monitoring and regular medication reviews following a flare-up.

Ensure care adheres to guidelines to improve patient outcomes and reduce the carbon footprint of CRD management.

CASE STUDIES

Singapore

In Singapore over the past three decades, asthma mortality has decreased ninefold, and disability-adjusted life years have decreased by 50%.^{4,22} These improvements have been attributed to public educational efforts, a zero-tolerance stance towards asthma deaths, and national subsidies for asthma medications, as well as promoting use of preventer over reliever inhalers, integrating care between primary and specialist services, and providing more asthma nurses and care coordinators.²³

Vietnam

The Healthy Lung Program is a comprehensive approach to addressing the challenges of managing COPD and asthma in Vietnam. The programme includes infrastructure development, training of healthcare professionals, and community-oriented activities. Data have demonstrated significant improvements in the number of people with asthma or COPD who are managed at grassroots healthcare levels, as well as reductions in healthcare costs and improvements in patient awareness.²⁴⁻²⁶

* Roundtable participants

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