# Increasing Access to Inhaled Medicines for COPD and Asthma

## POLICY BRIEF

**With 5 years left to achieve the Sustainable Development Goals (SDGs) and the 4th High-level Meeting of the United Nations (UN) General Assembly on the Prevention and Control of Noncommunicable Diseases (NCDs) and the Promotion of Mental Health and Well-being in September 2025, *now is the time* to advance access to quality, affordable, and effective inhalers for all COPD and asthma patients.**

> ***My disease has been controlled with inhaled medications for the last two years.****
>
> Aydın, Türkiye, 52 years old

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Forum of International Respiratory Societies
United for Lung Health

# 1 The burden of COPD and asthma is massive and rising

**Chronic obstructive pulmonary disease (COPD) and asthma cause a massive and rising burden of death and disability, placing enormous demands on households and healthcare systems.**

652 million children and adults are living with COPD and asthma, reducing quality of life and increasing health and economic costs.

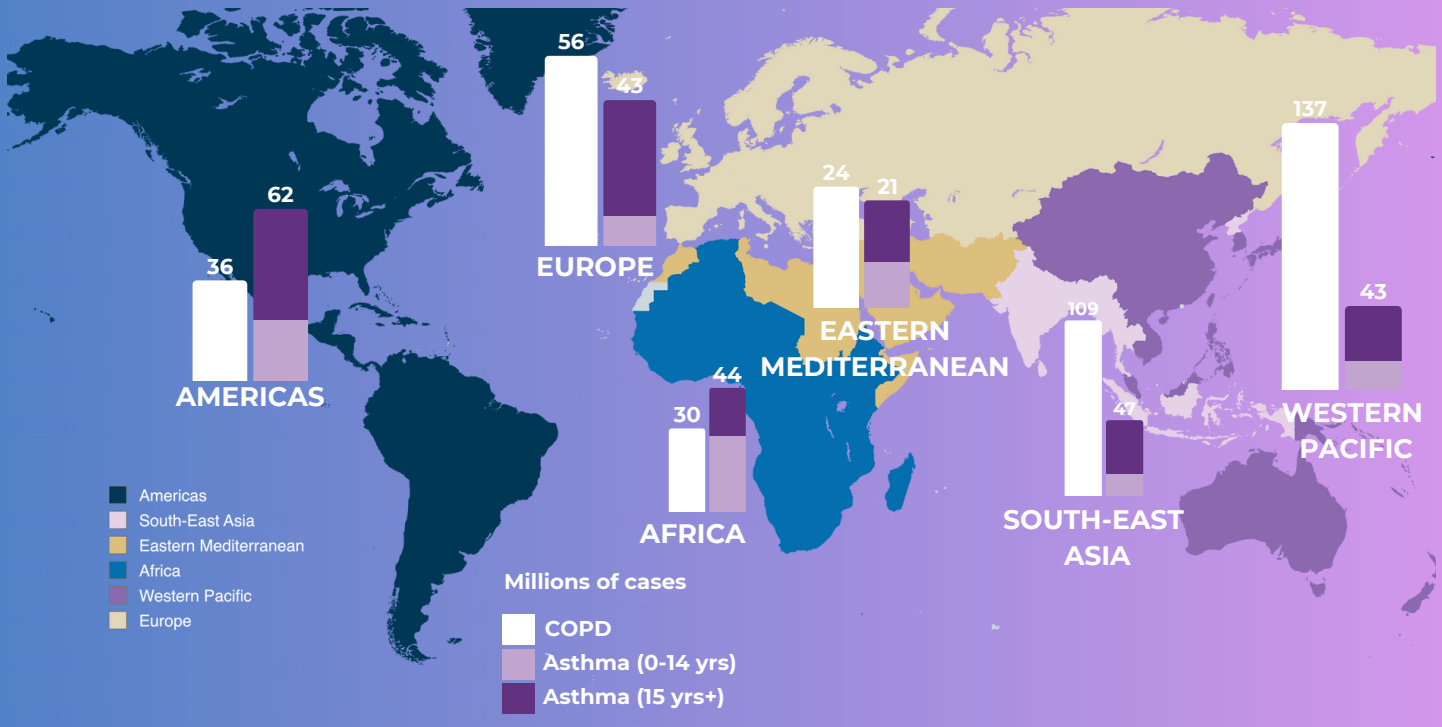
- COPD affects 392 million people, while asthma affects 260 million people.(1)
- While COPD affects adults, asthma affects all ages, including a large population of 96 million children under 15.

Most people with COPD live in the Western Pacific (35%) and South-East Asia (28%) regions, while the Americas is home to the largest number people living with asthma.

COPD and asthma place enormous health and economic costs on patients, carers, and healthcare systems.

- Systematic reviews of COPD (2) and asthma (3) costs have found that outpatient visits and medicines are the largest components of healthcare costs.
- For people with asthma, emergency room visits and hospital admissions are common.(4) As COPD worsens, patients spend more on hospital stays and palliative care, home oxygen therapy, and physician home visits.
- Economic costs include lost school days for children and lost work days for adult patients as well as carers. One study found that 33% of adolescents missed at least one school day in the previous month because of asthma.(5)

## 652 million people live with COPD and asthma




Sources: Adeloye D, et al. *The Lancet* Respiratory Medicine 2022 and Global Burden of Disease, 2021

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COPD and asthma caused 3.7 million and 436,000 deaths respectively in 2021. Only heart disease and COVID-19 caused more deaths. *Most COPD and asthma deaths are preventable or treatable.*

- While 75% of COPD deaths are among people aged over 70, 50% of asthma deaths are among people under 70, including 8,200 deaths among children under 15.
- COPD deaths concentrate in the Western Pacific (38%) and South-East Asia (36%) regions, while 60% of asthma deaths are in South-East Asia. *It is important to note that 47% of child asthma deaths are in Africa.*
- More than 8 in every 10 COPD and asthma deaths occur in an LMIC. Asthma deaths are more concentrated in LMICs than COPD deaths - 96% versus 86%.
- 20 countries account for more than 80% of all COPD and asthma deaths. 13 LMICs dominate the COPD list while 19 LMICs are on the asthma list.
    - Six African countries are on the high-burden asthma country list

COPD and asthma deaths have risen by 29% and 12% respectively since 2000.

- Risk factors driving COPD deaths include smoking, outdoor air pollution, and occupational exposures to particulate matter, gases, and fumes.
- Increases in high body-mass index (BMI) are driving increases in asthma deaths.

Since 2000, COPD deaths have risen most sharply in South-East Asia (92%), the Americas (48%), and Africa (44%), while asthma deaths have risen in South-East Asia (36%) and Africa (15%), but have declined in other regions.

- Among the 20 high-burden countries, COPD deaths rose by more than 60% in Türkiye, India, Nepal, Philippines, Mexico, and Indonesia, while asthma deaths rose by more than 20% in India, Nepal, Democratic Republic of Congo, Philippines, and Morocco between 2000 and 2021.

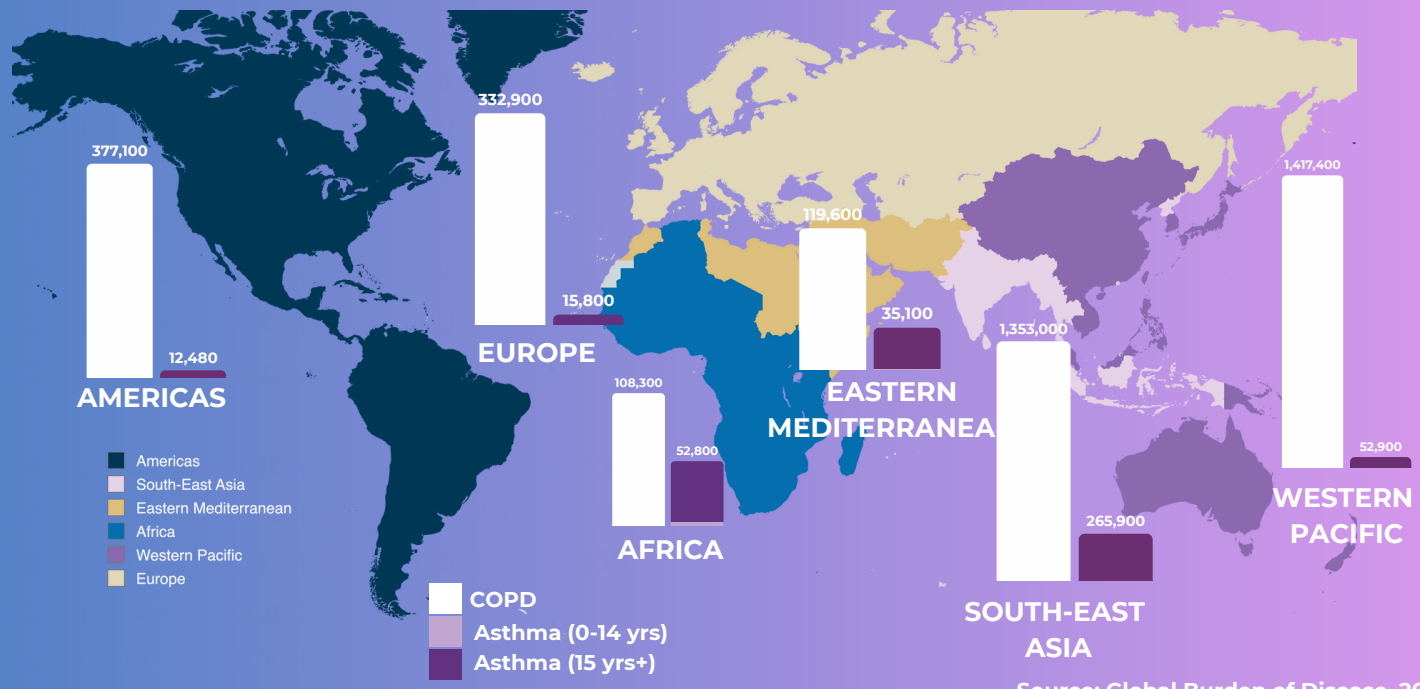
COPD is a leading cause of Disability Adjusted Life Years (DALYs) - a measure of both death and disability - while asthma is the second leading cause of Years Lived with Disability (YLD) among children under five.

- COPD and asthma cause 100 million DALYs, 80 million from COPD and 20 million from asthma.

Without specific actions, this burden of death and disability will continue to rise with population growth and longer lifespans.

- COPD deaths are forecast to double to 7.4 million and DALYS to increase by 46% by 2050.(6) The cumulative economic burden from COPD alone will approach US$40 trillion by 2050, including US$24 trillion in medical expenses and US$15 trillion due to work disruptions.(7)

## COPD and asthma kill 4.1 million people




Source: Global Burden of Disease, 2021

# 2 Wide gaps in access to inhalers exist in most regions

**Wide gaps in access to recommended inhalers persist in most LMICs, driven by high costs and many other factors.**

Inhalers contain medicines, including bronchodilators and corticosteroids, that deliver medication directly to the lungs. Inhalers reduce flare-ups which can be distressing, disruptive, and life-threatening and enable people with COPD or asthma to lead normal lives and engage in education, work, and sport.

- Global COPD and asthma guidelines recommend specific inhalers depending on disease severity, including appropriate inhaled bronchodilators and corticosteroids, and combinations of these, for optimal disease management.
- WHO has described inhaled medicines for COPD and asthma as “best-buys” and other recommended interventions.(8)
- Studies have documented important benefits from combination therapies, including reductions in underlying airway inflammation and exacerbations, (9) and a reduced risk of death from asthma.(10)

The cost-effectiveness of increased access to inhalers is well documented.

- After Brazil introduced free asthma inhalers, household costs fell from 29% of income to 2% and the hospitalization rate fell from 90 per 100,000 to 60 per 100,000 people.(11)

However, there are wide gaps in access to recommended inhalers in LMICs which is contributing to the heavy burden of COPD and asthma death and disability.

The largest study of the availability and affordability of inhalers for COPD and asthma across LMICs found that health facility access was well below the Global NCD Action Plan target of at least 80%.(12)

- Long-acting inhaled bronchodilators for COPD were available and affordable in just 7% of pharmacies and 4% of healthcare facilities.

> ***Pedro used to suffer asthma attacks once a month, but with his new inhaler he has been well for the last year.****
>
> **Adriana, Mexico, mother**

- Combination long-acting inhaled bronchodilators and corticosteroids for COPD and asthma were available and affordable in just 11% of pharmacies and 5% of healthcare facilities.
- Inhaled corticosteroids for asthma were available and affordable in just 30% of pharmacies and 36% of healthcare facilities.

“Spacers” - tube-shaped devices that make it easier to take asthma medicine (especially for children) are also widely unavailable across LMICs.(13)

Where inhalers are available, they are often old formulations and/or unaffordable, costing more than a week’s wages for a month’s supply.

When recommended inhalers are unaffordable, patients rely on episodic, acute care and/or less effective and potentially harmful treatments.

- A study of asthma treatment found widespread use of inappropriate oral medicines with increased risk of adverse effects.(14)

The WHO NCD Country Capacity Survey highlighted the wide equity gap in access to inhalers with 93% of high-income countries and 26% of low-income countries reporting general availability.

In addition to high prices, other barriers to accessing inhalers include:

- Lack of national data on local COPD and asthma burden, inhaler demand, and the cost-benefit of meeting demand.
- Failure to include inhalers on national medicines lists, in treatment guidelines, and on Universal Health Coverage (UHC) reimbursement lists.
    - A recent study found that just 22% of LMICs had national COPD guidelines, including only one Sub-Saharan African country - South Africa (15), and only 30% of LMICs have essential medicines to treat COPD and asthma, according the UN (16)
- Limited support for product registration, procurement, and distribution of inhalers to all levels of the health system.
- Missed and misdiagnosis of COPD and asthma driven by a lack of clinician awareness, inappropriate prescription practices, and lack of diagnostic tools (e.g., spirometers, peak flow meters)
    - Children with asthma are often misdiagnosed with pneumonia and prescribed antibiotics (17)
- Primary care clinicians unable to prescribe inhaled medicines.
- Misperceptions by patients, use of harmful medicines, and poor patient adherence to treatment regimens - including improper inhaler technique.(18)

> ***As a middle-class family, we experience financial strain when we purchase expensive asthma medications.****
>
> **Usha, India, 40 years old**

The absence of well-resourced COPD and asthma patient advocacy groups in LMICs is further hampering progress.

Two other issues require attention.

- First, the urgent need to update WHO COPD and asthma treatment guidelines to reflect the latest recommendations of the **Global Initiative for Chronic Obstructive Lung Disease** (GOLD) and the **Global Initiative for Asthma** (GINA), including:
    - WHO Package of Essential NCD (PEN) Interventions for Primary Health Care
    - WHO Pocketbook of Hospital Care for Children
- Second, access to inhaled medicines in LMICs is under threat by new European regulations to phase out the most commonly used inhaler which contains fluorinated gas propellants that have global warming potential.(19)
    - These inhalers are currently the only feasible option available to most people with asthma in LMICs, especially children. Although ameliorative measures are envisaged by regulators, unless the process is carefully monitored, interruption of supply could result in increased death and disability, especially in LMICs (20)
    - It is vital that supplies of current inhalers remain available until inhaled medications with low global warming potential become available in sufficient quantities for all patients in LMICs.

# 3 Momentum for action on access to inhalers is building

**Since the Political Declaration from the 1st UN High-level Meeting on the Prevention and Control of NCDs in 2011, momentum has been building to increase access to COPD and asthma inhalers.**

**2011**
Political Declaration from 1st UN High-level NCD Meeting

**2013**
WHO Global Action Plan for NCDs

**2014**
2nd UN High-level NCD Meeting

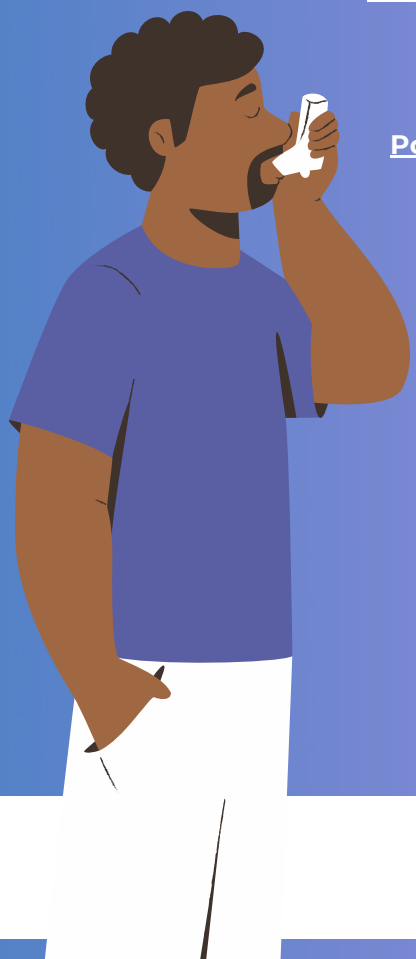
**2015**
Sustainable Development Goals (SDGs) SDG 3.4 and SDG 3.8

**2018**
3rd UN High-level NCD Meeting

**2019**
Political Declaration from 1st UN High-level UHC Meeting

**2020**
NCD Countdown 2030

**2022**
Appendix 3 of Global NCD Action Plan



**2023**
Political Declaration from 3rd UN High-level NCD Meeting

**2024**
Global Health 2050

**2025**
4th UN High-level NCD and Mental Health Meeting

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# Why we need action on inhalers

**Now is the time to accelerate the momentum to secure access to quality, affordable, and effective inhalers for all.**

The probability of a 30 year old dying from one of the four major NCDs (cardiovascular diseases, cancer, diabetes, and chronic respiratory diseases) before they turn 70 has barely changed in the last decade, falling from 19% in 2013 to 18% in 2021.(21)

- As a result, the world is not on track to achieve the NCD Action Plan target of a 25% reduction in the probability of dying between 2013 and 2025, and the SDG 3.4 target of a one third reduction between 2015 and 2030.
- Only 19 out of 194 countries are on track to meet SDG target 3.4 to reduce NCD mortality by one third by 2030.(22)

## *What does action on inhaled medicines look like?*

**There are several actions that need to happen to transform access to inhaled medicines for all, including:**

- *inclusion of the latest evidence-based inhalers on the WHO COPD and asthma management and PEN guidelines...*
- *alignment of national COPD and asthma treatment guidelines, essential medicine lists, and other relevant health policies with best practices for children and adults...*
- *addition of inhalers to the WHO Prequalification Programme, and facilitation of product registration and regulatory harmonisation across LMICs...*
- *stronger partnerships with pharmaceutical companies to increase access to inhalers, including by technology transfer, voluntary licensing agreements, and other proven strategies...*
- *inhaler price reductions from bulk purchasing, pooled procurement, tiered/differential pricing, promoting generic and biosimilar alternatives, and other proven strategies...*
- *out-of-pocket cost reductions by including inhalers in UHC packages and on national reimbursement lists...*
- *training for healthcare providers, especially in primary care, to diagnose and manage COPD and asthma with inhalers...*
- *campaigns to increase community awareness of COPD and asthma and destigmatise use of inhalers...*
- *Increased research to generate up to date local data on the burden of COPD and asthma, inhaler availability, cost, affordability, demand, and cost-benefit...*
- *smoothing the transition to environmentally safer inhalers without compromising patient access, especially for children...*

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# Join us!

**Join us to secure access to quality, affordable, and effective inhalers for all!**

Following the recommendation of a group of experts, (23), the **Forum of International Respiratory Societies** (FIRS) - which includes the world's leading international professional respiratory societies - is supporting a campaign to improve the availability of quality, affordable, and effective inhalers for COPD and asthma in low-resource, high-burden settings.

The campaign is engaging governments, UN and global health agencies, industry, donors, patient advocacy and civil society organizations, and media to support the actions required to transform access to inhaled medicines.

Investing greater resources to meet the urgent need for inhaled medicines now will accelerate achievement of both Global NCD Action Plan and the SDGs.

## Members of FIRS include:

- **American College Chest Physicians**
- **American Thoracic Society**
- **Asian Pacific Society of Respirology**
- **Asociación Latino Americana De Tórax**
- **European Respiratory Society**
- **International Union Against Tuberculosis and Lung Disease (The Union)**
- **Global Initiative for Asthma**
- **Global Initiative for Chronic Obstructive Lung Disease**
- **Pan African Thoracic Society**

> ***My two children are suffering from asthma and the doctors told me to buy them inhalers, which I cannot afford to buy.****
>
> **Pancy, Uganda, mother**

## *Contact*

This policy brief was developed by the FIRS Working Group on Increasing Access to Affordable Inhaled Medicines for COPD and Asthma.

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*We acknowledge the leadership and support of the late Eric Bateman, FERS, FRCS, MBChB, MD, Professor of Medicine, Head of the Division of Pulmonology, Department of Medicine, University of Cape Town (UCT), and Founder, UCT Lung Institute, South Africa in the conception and development of this initiative. We honor his memory.*

United for Lung Health

Forum of International Respiratory Societies

# Resources

**Patient quotes from Mortimer K, et al. Living with Asthma in Low- and Middle-Income Countries in the Six WHO Regions. New England Journal of Medicine Evidence, 2024, and Stolbrink, et al. Improving access to affordable quality-assured inhaled medicines in low- and middle-income countries, The International Journal of Tuberculosis and Lung Disease, 2022.*

***Endnotes***


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*(9) Bateman ED, et al. As-Needed Budesonide-Formoterol versus Maintenance Budesonide in Mild Asthma, New England Journal of Medicine, 2018; Beasley R, et al. Controlled Trial of Budesonide-Formoterol as Needed for Mild Asthma, New England Journal of Medicine, 2019; and O'Byrne PM, et al. Inhaled Combined Budesonide-Formoterol as Needed in Mild Asthma, New England Journal of Medicine, 2018; Oba Y, et al. Dual combination therapy versus long-acting bronchodilators alone for chronic obstructive pulmonary disease (COPD): a systematic review and network meta-analysis. Cochrane Database of Systematic Reviews, 2018.*

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*(13) Mortimer K, et al. Asthma management in low- and middle-income countries: case for change. European Respiratory Journal, 2022.*

*(14) García-Marcos L, et al. Asthma management and control in children, adolescents, and adults in 25 countries: a Global Asthma Network Phase I cross-sectional study. Lancet Global Health, 2023.*

*(15) Tabyshova A, et al. Gaps in COPD Guidelines of Low- and Middle-Income Countries: A Systematic Scoping Review. Chest, 2021.*

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*(17) Nantanda R, et al. Asthma and pneumonia among children less than five years with acute respiratory symptoms in Mulago Hospital, Uganda: evidence of under-diagnosis of asthma. PLoS One, 2013.*

*(18) Simba J, et al. Knowledge and perceptions on childhood asthma among care-takers of children with asthma at a National Referral Hospital in Western Kenya: a descriptive study. African Health Sciences, 2018; Jumbe Marsden E, et al. Knowledge and perceptions of asthma in Zambia: a cross-sectional survey. BMC Pulmonary Medicine, 2016.*

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*(23) Stolbrink, et al, Improving access to affordable quality-assured inhaled medicines in low- and middle-income countries, The International Journal of Tuberculosis and Lung Disease, 2022.*


**Key documents**

- ***WHO Global NCD Action Plan***
- ***NCD Countdown 2030***
- ***GOLD 2025 COPD Guidelines***
- ***GINA 2024 Asthma Guidelines***
- ***Policy Brief on Access to Medicines and Medical Devices for NCDs***
- ***Global Asthma Report***
- ***WHO NCD Country Capacity Surveys***