Increasing Access to Inhaled Medicines for COPD and Asthma across Africa

With 5 years left to achieve the Sustainable Development Goals and the 4th High-level Meeting of the United Nations General Assembly on the Prevention and Control of Noncommunicable Diseases 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 patients across Africa.

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The burden of COPD and asthma across Africa is rising

Chronic obstructive pulmonary disease (COPD) and asthma cause a massive and rising burden of death and disability across Africa, placing enormous demands on households and healthcare systems. Most of this burden is preventable and treatable, including with inhaled medicines.

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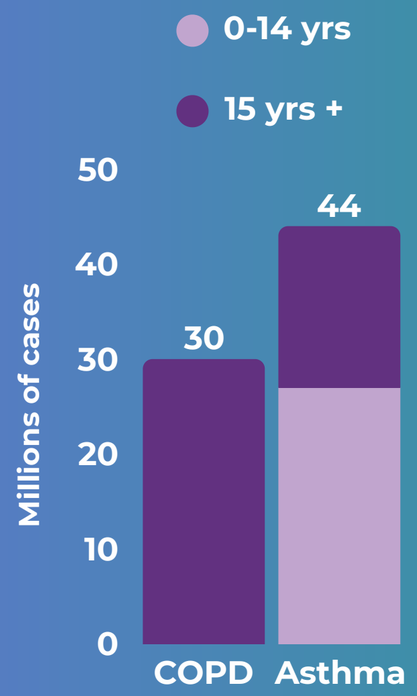
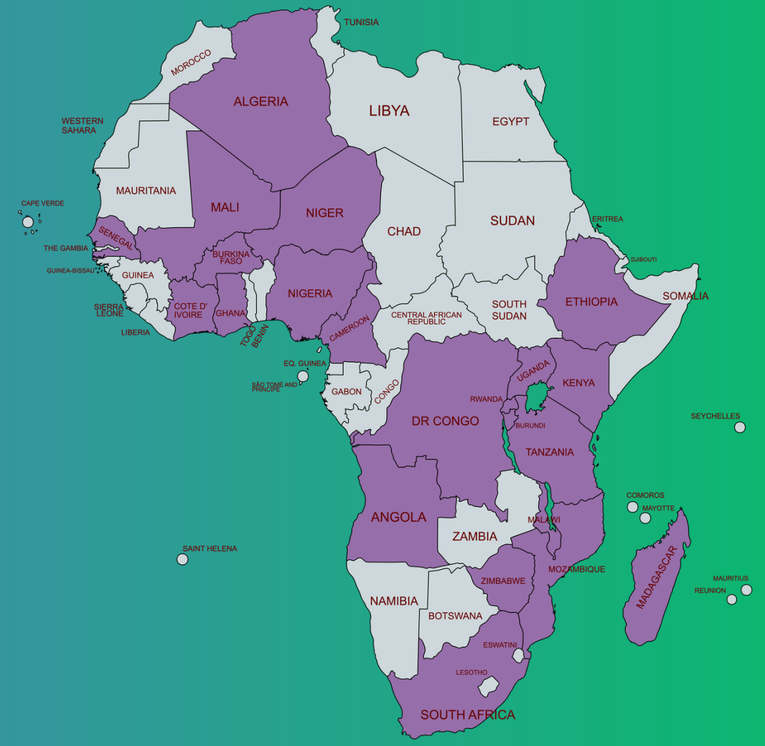
74 million Africans live with COPD or asthma

- 74 million in 2021.
  - 44 million asthma
  - 30 million COPD
- 60% of Africans living with asthma are children under 15. Asthma is the leading cause of Years Lived with Disability (YLD) for African children under 15.
- 75% of Africans living with COPD are aged 15-70 years.
- 90% of Africans with COPD and asthma live in 24 countries (see map).

COPD and asthma prevalence in Africa



24 high-burden countries



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

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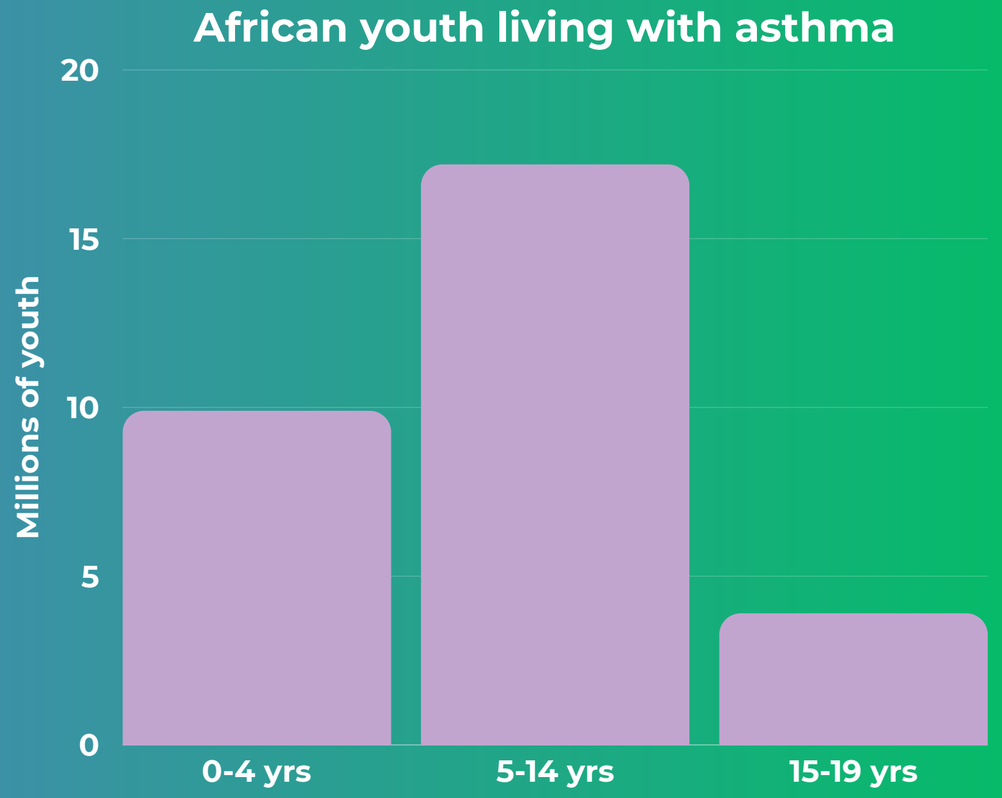
31 million African children and teens live with asthma

- **Global Burden of Disease, 2021**
  - 31 million Africans under 20 live with asthma
    - 9.9 million under 5 years
    - 17.2 million 5-14 years
    - 3.9 million 15-19 years (see figure)

- **ACACIA study, 2024**
  - 12% of 12-14 year olds in Ghana, Malawi, Nigeria, South Africa, Uganda, and Zimbabwe with asthma symptoms
  - Only 20% of symptomatic children with asthma diagnosis
  - Two-thirds with diagnosed asthma NOT using inhaled medicines

- **International Study of Asthma and Allergies in Childhood (ISAAC), Phase III study, 2002-2003**
  - 9-20% of 13-14 year olds in 14 African urban centers reported asthma symptoms



Source: Global Burden of Disease, 2021

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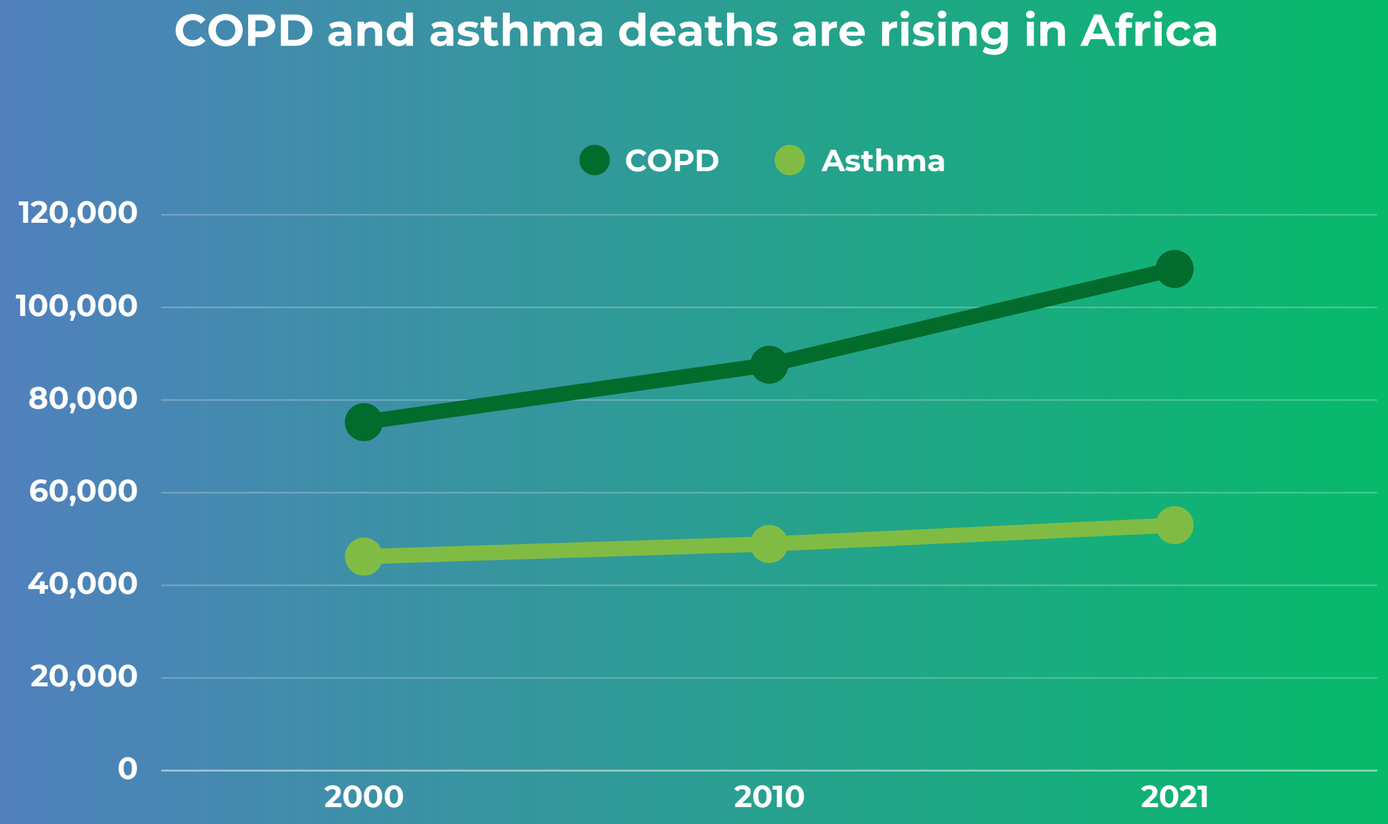
COPD and asthma deaths are rising in Africa

Across Africa, COPD deaths rose by 44% and asthma deaths by 15% between 2000 and 2021.

- COPD deaths more than doubled in five countries (Kenya, Algeria, Mali, Ghana, and Senegal), while asthma deaths rose by more than 50% in Kenya, Mali, and Senegal.
- Major risk factors driving COPD deaths include smoking, outdoor air pollution, and occupational exposures to particulate matter, gases, and fumes.
- Major risk factors driving asthma deaths include high body-mass index (BMI).
- COPD deaths across Africa are forecast to more than double from 117,000 in 2025 to 246,000 in 2050.



Source: Global Burden of Disease, 2021

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COPD and asthma impose a massive burden on Africa

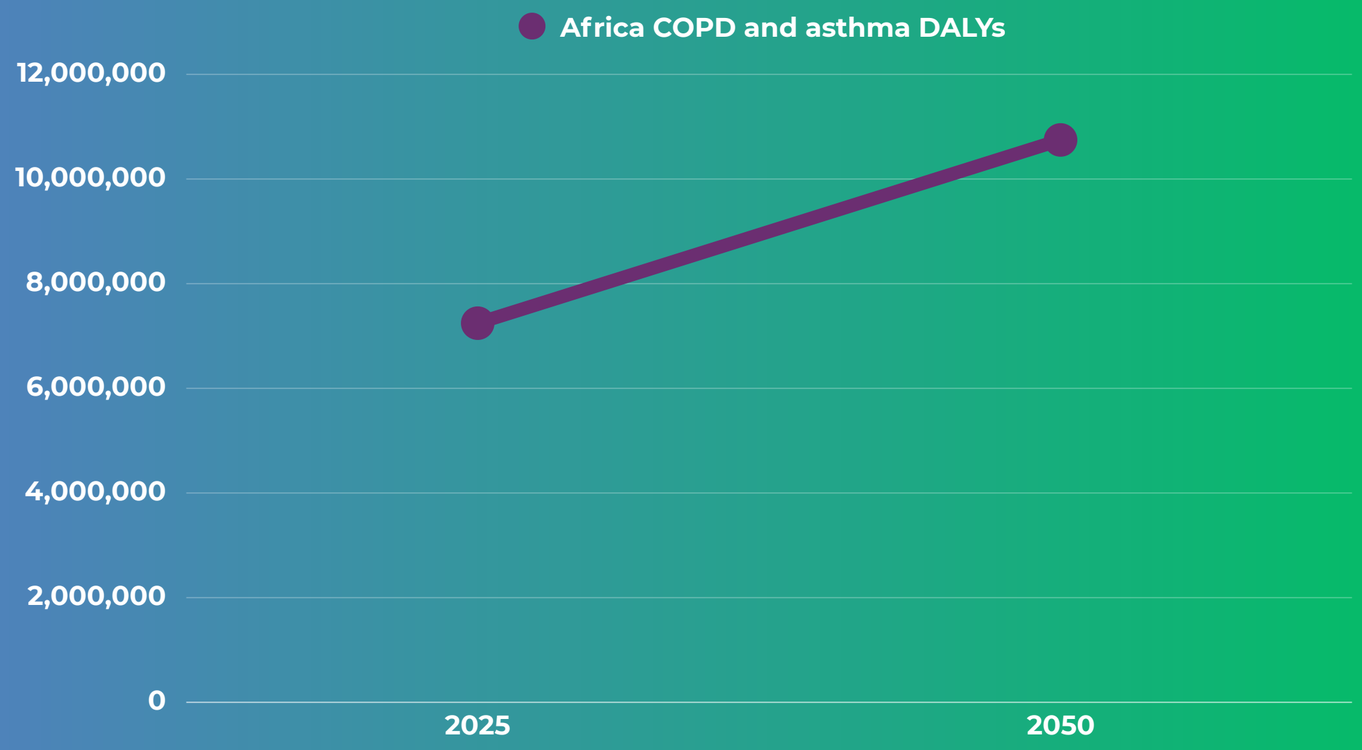
In addition to the tragic loss of life, COPD and asthma pose significant costs to Africa, including:

- Healthcare costs, especially hospitalization and medicines, born by governments and patients.
- Educational costs, including lost school days, especially for children with asthma.
- Economic costs, including lost work days, productivity, and wages.

These costs will continue to rise with population growth and longer lifespans.

- COPD and asthma Disability-adjusted Life Years (DALYs) - a measure of years of life lost to premature death and years of life lost to disability - are forecast to rise by 50% in the next 25 years across Africa.

COPD and asthma burden forecast to rise



Source: Global Burden of Disease Foresight Visualization, 2025

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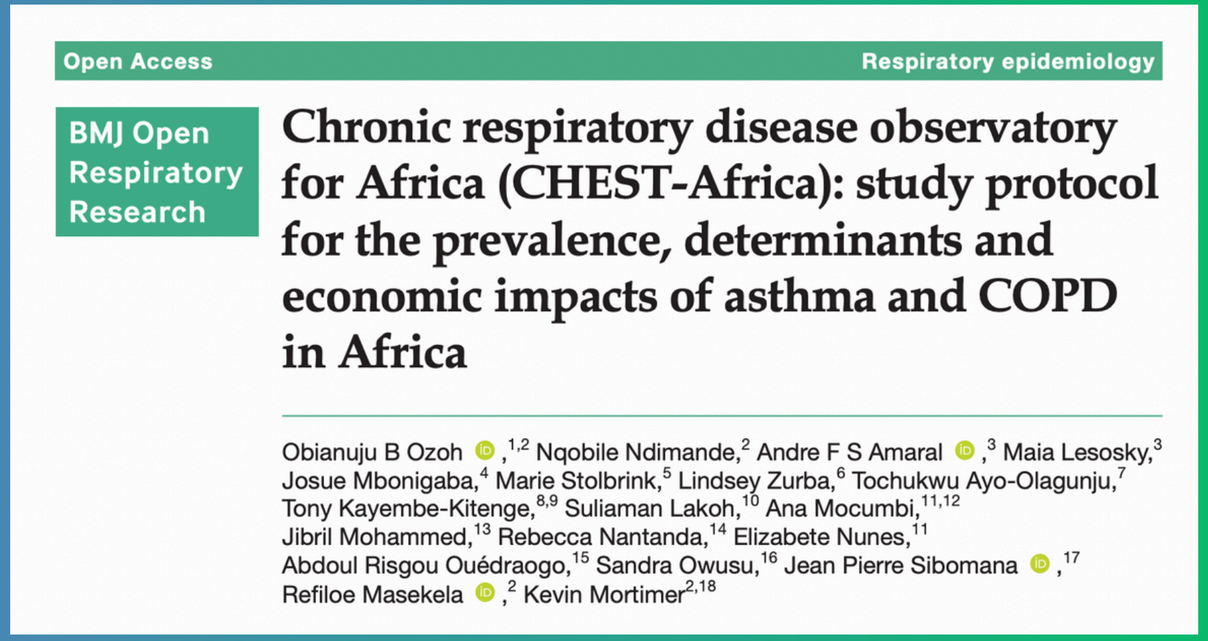
COPD and asthma impose a massive burden on Africa

Few studies have estimated health and economic costs of COPD and asthma in Africa:

- COPD US$58 billion economic loss in Sub-Saharan Africa 2020-2050. (Chen S, et al. Lancet Global Health, 2023).
- Asthma treatment annual cost US$10.35 per patient in Nigeria - medications accounting for 56%. Annual cost per clinic visit US$27 - catastrophic for 18% of households (Ughasoro, MD, et al. Pediatric Respiratory Review, 2021).
- CHEST study of 4,000 children and teens underway on asthma prevalence and costs in Ghana, Nigeria, Democratic Republic of Congo, and Uganda; and COPD prevalence and costs in up to 3,000 adults across Nigeria, Burkina Faso, Mozambique, Rwanda, and Sierra Leone.



Open Access Respiratory epidemiology

BMJ Open Respiratory Research

Chronic respiratory disease observatory for Africa (CHEST-Africa): study protocol for the prevalence, determinants and economic impacts of asthma and COPD in Africa

Obianuju B Ozoh ,[1,2] Nqobile Ndimande,[2] Andre F S Amaral ,[3] Maia Lesosky,[3] Josue Mbonigaba,[4] Marie Stolbrink,[5] Lindsey Zurba,[6] Tochukwu Ayo-Olagunju,[7] Tony Kayembe-Kitenge,[8,9] Suliaman Lakoh,[10] Ana Mocumbi,[11,12] Jibril Mohammed,[13] Rebecca Nantanda,[14] Elizabete Nunes,[11] Abdoul Risgou Ouédraogo,[15] Sandra Owusu,[16] Jean Pierre Sibomana ,[17] Refiloe Masekela ,[2] Kevin Mortimer[2,18]

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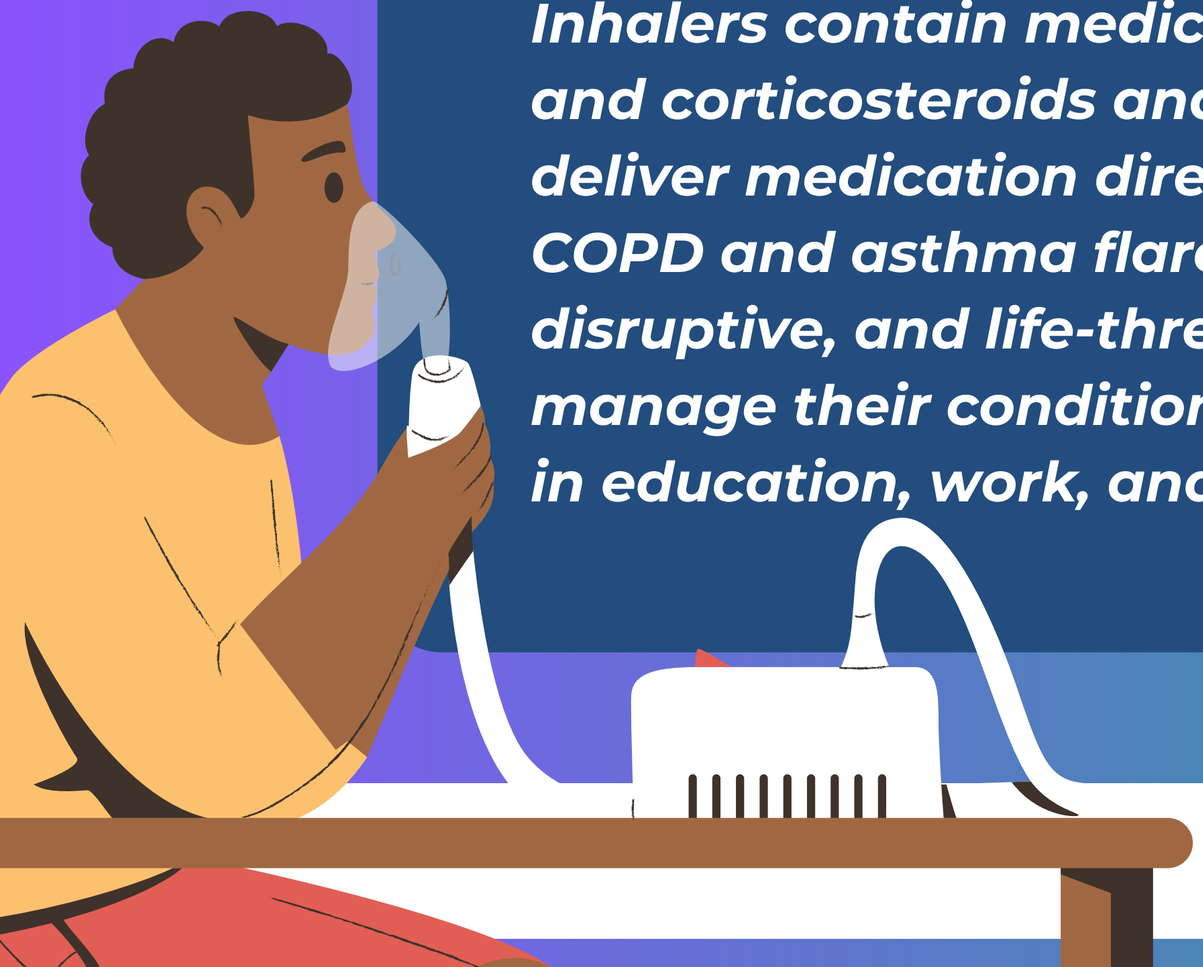
Inhalers are proven to reduce disease severity and death



Inhalers contain medicines - including bronchodilators and corticosteroids and combinations of these - that deliver medication directly to the lungs. By preventing COPD and asthma flare-ups, which can be distressing, disruptive, and life-threaten, inhalers enable people to manage their condition, lead normal lives, and engage in education, work, and sport.

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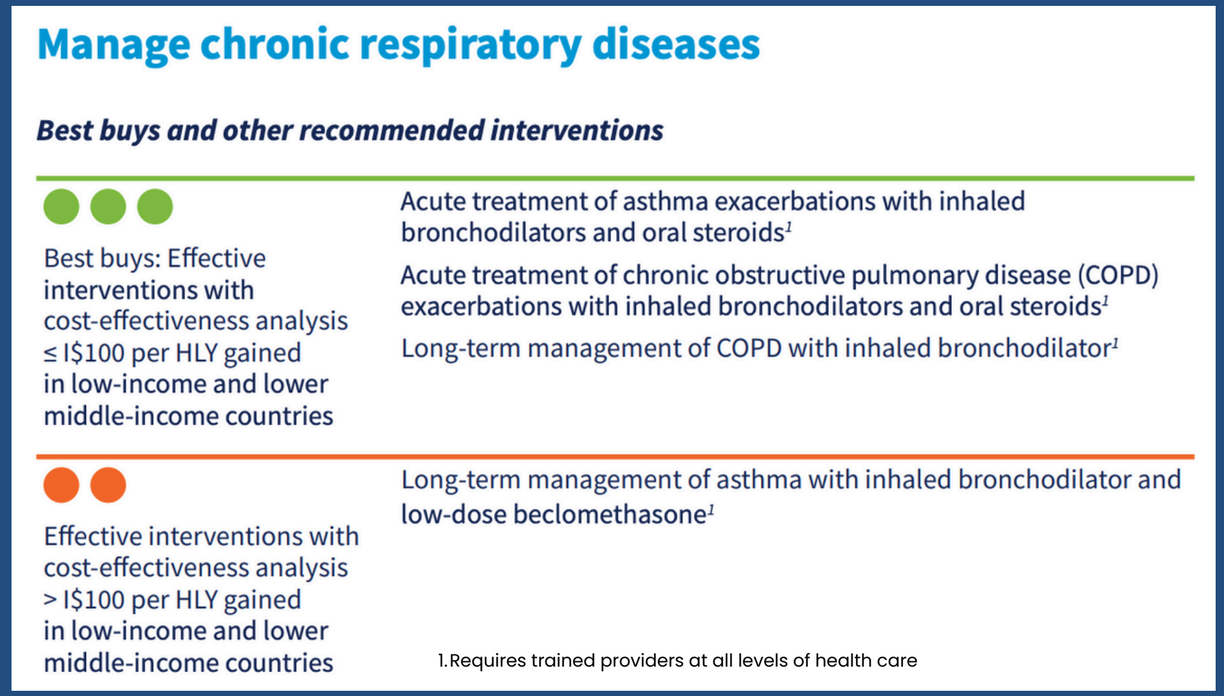
Inhalers are a “best-buy” for COPD and asthma management

From:

Tackling NCDs: Best buys and other recommended interventions for the prevention and control of noncommunicable diseases.

WHO, 2024



Manage chronic respiratory diseases

Best buys and other recommended interventions

●●● Best buys: Effective interventions with cost-effectiveness analysis ≤ I$100 per HLY gained in low-income and lower middle-income countries	Acute treatment of asthma exacerbations with inhaled bronchodilators and oral steroids[1] Acute treatment of chronic obstructive pulmonary disease (COPD) exacerbations with inhaled bronchodilators and oral steroids[1] Long-term management of COPD with inhaled bronchodilator[1]
●● Effective interventions with cost-effectiveness analysis > I$100 per HLY gained in low-income and lower middle-income countries	Long-term management of asthma with inhaled bronchodilator and low-dose beclomethasone[1]

1. Requires trained providers at all levels of health care

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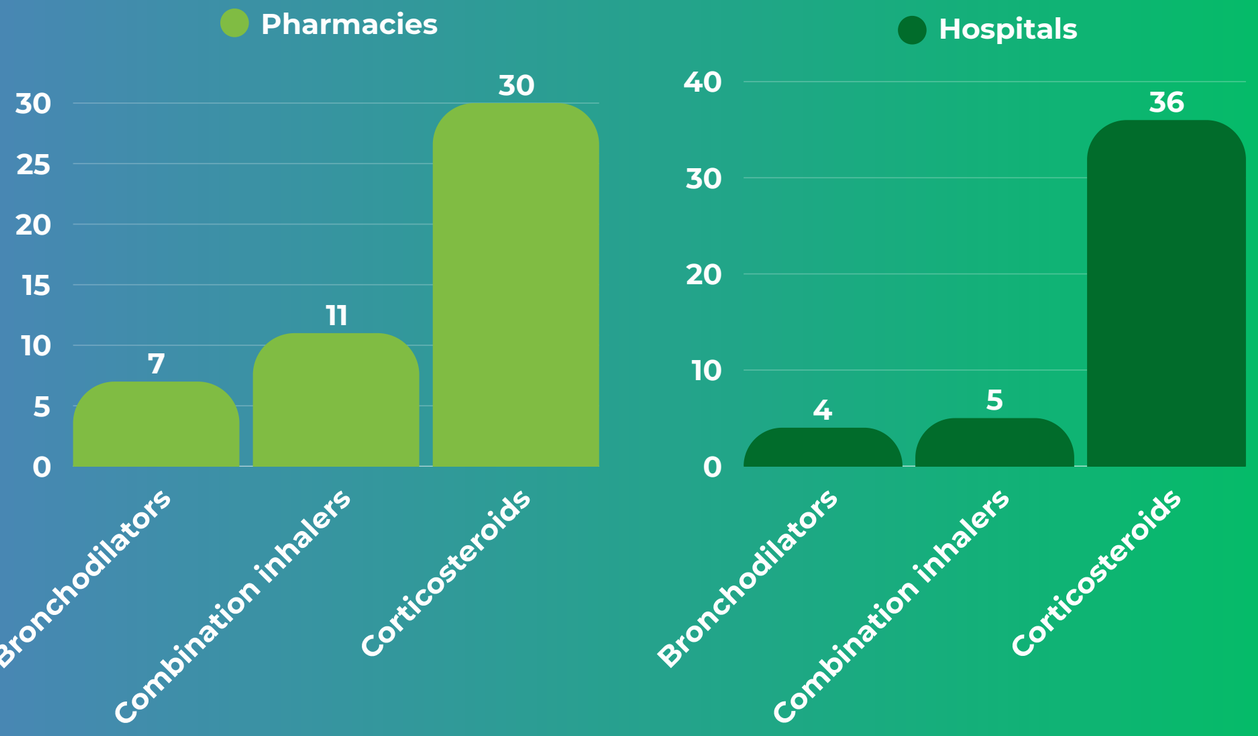
Affordable inhalers are hard to find in Africa

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

- Long-acting inhaled bronchodilators for COPD are available and affordable in 7% of pharmacies and 4% of hospitals.
- Combination long-acting inhaled bronchodilators and corticosteroids for COPD and asthma are available and affordable in 11% of pharmacies and 5% of hospitals.
- Inhaled corticosteroids for asthma are available and affordable in 30% of pharmacies and 36% of hospitals.

Well below the 80% Global NCD Action Plan target.

% LMIC health facilities with COPD and asthma inhalers



Source: Stolbrink, et al, 2024

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Inhalers often cost more than a week’s wages

Studies have found that inhalers can cost more than a week’s wages for a month’s supply in many LMICs.

- Corticosteroid inhalers were much more expensive than bronchodilators, especially in African countries.

When affordable inhalers are unavailable, patients often rely on less effective and potentially harmful treatments.

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

High cost of inhaled medicines in LMICs

Source: Stolbrink, et al, 2022

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The cost-effectiveness of affordable inhalers is well documented

After Brazil introduced free inhaled medicines for asthma care, household costs fell from 29% of income to 2% and the hospitalisation rate fell from 90 per 100,000 to 60 per 100,000 people.

Source: Comaru T, et al, Free asthma medications reduces hospital admissions in Brazil, Respiratory Medicine, 2016.

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Cost is not the only barrier to inhaler access

Weak data	• National COPD and asthma disease burden unknown • Cost-benefit analysis of inhaled medicines unavailable • Demand forecasts for inhaled medicines non-existent
Missing policies	• Global guidelines out of date (Note: WHO is currently in the process of updating both COPD and Asthma Diagnosis and Treatment Guidelines and the Package of Essential Noncommunicable Disease (PEN) Interventions for primary health care) • Inhaled medicines not on national medicines lists, health policies/plans, treatment guidelines, and/or drug reimbursement lists • Primary care workers unable to prescribe inhalers
Poor diagnosis	• Lack of diagnostic tools (e.g., spirometry) • High rates of missed and misdiagnosis (e.g., asthma misdiagnosed as pneumonia/lower respiratory infection)
Low supply	• Inhalers not registered • Inhalers not procured adequately • Inhalers not distributed widely (e.g., do not reach primary health care or rural areas) • Lack of government/industry collaboration (e.g., public-private partnerships, local manufacturing via technology transfer, voluntary licensing, etc.)
Limited awareness	• Clinicians not trained to prescribe inhaled medicines • Patients not aware of inhaled medicines or how to use them; stigma associated with their use • Lack of resourced patient advocacy groups, especially in LMICs

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Momentum for action on access to inhalers is building

2011
1st UN High-level NCD Meeting

2013
WHO Global Action Plan for NCDs

2014
2nd UN High-level NCD Meeting

2015
Sustainable Development Goals 3.4 and 3.8

2018
3rd UN High-level NCD Meeting

2019
1st UN High-level UHC Meeting

2020
NCD Countdown 2030

2022
Updated Appendix 3 of Global NCD Action Plan

2023
2nd UN High-level UHC Meeting

2024
Global Health 2050

2025
4th UN High-level NCD Meeting

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

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4th High-level UN Meeting on NCDs and Mental Health and Well-being

Ensuring the inclusion of access to inhaled medicines in the Political Declaration at the UN General Assembly High-level Meeting on NCDs and the Promotion of Mental Health and Well-being, September 2025

Proposed language:

We, Heads of State and Government and representatives of States and Governments, assembled at the United Nations…

Acknowledge the wide gaps in access to quality and effective inhaled medicines for children and adults with COPD or asthma that are affordable to patients in low- and middle-income countries (LMICs), despite the high burden of these chronic lung diseases.(1)

We therefore commit to scale up our efforts and further implement the following actions:

Increase access to quality and effective inhaled medicines for the management of COPD and asthma that are affordable to patients, taking special measures to reduce the wide gaps in access to appropriate inhaled bronchodilators, corticosteroids, and combinations of these in LMICs. These measures will accelerate both the achievement of Sustainable Development Goals 3.4 and 3.8, as well as the target of 80% availability of affordable essential medicines to treat major NCDs, in the public and private sectors.

(1) Stolbrink M, Ozoh OB, Halpin DMG, Chronic Respiratory Diseases Medicines Survey Investigators Collaboration, et al. Availability, cost and affordability of essential medicines for chronic respiratory diseases in low-income and middle-income countries: a cross-sectional study. Thorax, 2024

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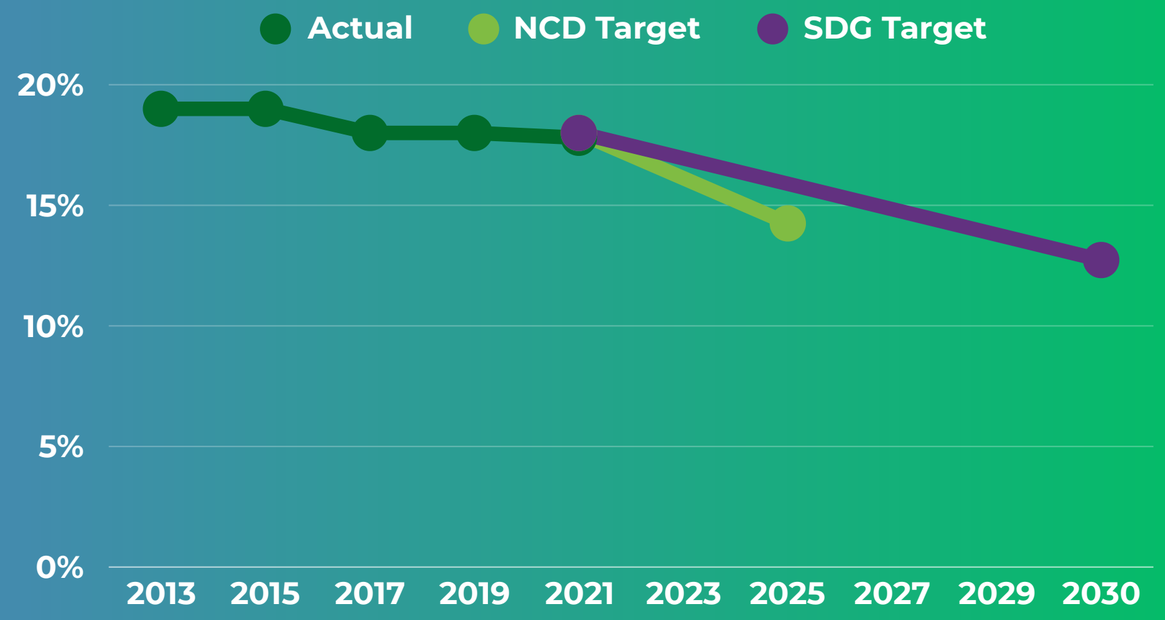
Why we need action on inhalers now

Accelerated action is urgently needed to increase access to COPD and asthma inhalers:

- 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 (19%-18%), despite two global goals.
    - Global NCD Action Plan target of 25% reduction in probability of dying between 30 and 70 from cardiovascular disease, cancer, diabetes, or chronic respiratory disease, between 2013 and 2025
    - SDG 3.4 target of one third reduction in probability of same between 2015 and 2030
- Only 19 out of 194 countries are on track to meet SDG target 3.4 - none are in Africa.

No progress reducing probability of premature deaths from NCDs



Source: WHO, 2024

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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 in the WHO 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 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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What is FIRS doing?

The **Forum of International Respiratory Societies** (FIRS) - 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 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.

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**

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United for Lung Health

Join us!

This initiative is led by the **FIRS Working Group on Increasing Access to Affordable Inhaled Medicines for COPD and Asthma**.

Please contact the following members for more information:

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Professor Guy Marks, **gmarks@theunion.org**
Professor Heather Zar, **heather.zar@uct.ac.za**

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.

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