

Access to essential respiratory medications remains elusive in LMICs



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Over 90% of the morbidity and mortality related to chronic obstructive pulmonary disease (COPD) and asthma occurs in low-income and middle-income countries (LMICs) due to well documented factors including decreased access to screening, trained health professionals, and therapies for disease management.¹ Inhaler therapy (eg, aerosolised medications by inhalation, nebulisation, or propellant) is the mainstay of treatment for COPD and asthma. Adherence to maintenance medications for COPD and asthma results in improved lung function and quality of life, as well as decreased hospitalisation and mortality.^{2,3} WHO have included short-acting beta-agonists, long-acting muscarinic antagonists, and inhaled corticosteroids on the essential medications list, with a target goal of achieving 80% availability of these medications in public and private facilities.⁴ However, despite these efforts, accessibility, and affordability of medications for COPD and asthma remains scarce.

Marie Stolbrink and colleagues⁵ did a comprehensive systematic literature review pertaining to the availability, cost, and affordability of WHO essential medications for asthma and COPD in LMICs, including non-traditional databases from 2010–22. The authors identified 4742 studies and included 29 studies across 60 LMICs in the final analysis. Consistent with previous data, the availability of medications was scarce, with only six countries meeting availability targets. Short-acting beta-agonists were more commonly available, whereas the availability of long-acting muscarinic antagonists ranged from 2–13%. Furthermore, in countries where medication was available, it was largely unaffordable, with inhaled corticosteroids accounting for up to a week's wages. There have been few studies to date that have assessed access to inhaler-based therapy across settings, and Stolbrink and colleagues' study highlights the scarcity of data pertaining to the availability of respiratory medications in LMICs over the past decade.

There are limitations to many of the primary surveys concerning medication availability in LMICs. Although the authors adjusted calculations for the median price ratio to develop standardised metrics across settings,

the studies were done over a 10-year period in which availability and market pricing could have changed. A study by Babar and colleagues⁶ in 2013 comprised 52 of 60 LMIC sites included in the study. Sampling at each site consisted of assessments of four facilities (two private pharmacies, one national procurement centre, and one public hospital). There exists substantial heterogeneity in medication and availability within LMICs, and the few surveys done probably overestimate access to medications, particularly in rural areas.⁷ There is clearly a need for more data on medication availability, and more importantly, initiatives to improve the availability and affordability of respiratory medications across LMICs.

Barriers to the affordability and accessibility of asthma and COPD treatments in LMICs have been assessed in previous studies. One important barrier is the decreased availability of inhaled medications in public facilities compared with private ones.⁸ In a survey by Bissell and colleagues,⁹ many LMICs had country-specific essential medications lists that did not include recommended asthma medications. Moreover, they showed that the same medications might be left off the National Reimbursement List,⁹ a separate list used with the essential medications list to facilitate free or subsidised cost of medications to lower income populations. Finally, existing knowledge gaps among patients, physicians, and health-care professionals on current guideline directed diagnosis and treatment of asthma and COPD might also influence medication availability across LMICs.¹⁰

There are several potential interventions to increase availability and affordability of medications. Subsidies and public health plans can lower costs to consumers.¹¹ In many settings, mark up of medications results in a higher median price ratio and downstream costs. Countries should refrain from taxing essential medications. Furthermore, pooled procurement and common inspections at port of entry can reduce the administrative burden and lower costs of medications for consumers. As the Stolbrink and colleagues mention, previous efforts to improve access to quality-assured medications have been limited by a scarcity of political

commitment and the fact that prescribers in LMICs do not commonly prescribe maintenance inhalers due to the absence of medication availability.⁷

The availability and affordability of medications for respiratory disease is partly a function of the way these medications are delivered. Meter dosed inhalers comprise the bulk of outpatient medications for treatment of COPD and asthma. These devices are among the most complex in the pharmaceutical industry, requiring the administration of fixed doses over the lifespan of inhalers. Furthermore, proper use of inhalers requires education and the use of spacer devices. Ensuring universal access to respiratory medications might require novel approaches to medication delivery for chronic respiratory disease. The authors correctly assert that there is an urgent need to address access and affordability given the substantial treatment gap.

We declare no competing interests.

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