## Key messages and partnerships to raise awareness and improve outcomes for people with asthma and COPD in low- and middle-income countries



- E. D. Bateman<sup>2,3</sup>
- L. Boulet2,4
- M. Cohen5,6,7
- A. El Sony<sup>8,9</sup>
- D. M. G. Halpin<sup>10,11</sup>
- E. M. Khoo<sup>12,13</sup>
- G. B. Marks<sup>8,14</sup>
- R. Masekela<sup>8,15,16,17</sup>
- B. Mikkelsen<sup>1</sup>
- K. J. Mortimer<sup>2,8,10,15,18</sup>
- J. Chakaya Muhwa<sup>8,19</sup>
- I. Nunes Da Cunha<sup>20</sup>
- A. Šajnić<sup>21,22</sup>
- S. Salvi<sup>10,23</sup>
- S. Slama<sup>1</sup>
- T. Winders<sup>24</sup>
- A. Yorgancioglu<sup>2,26</sup>
- H. J. Zar<sup>5,16,27</sup>
- 1 Noncommunicable Diseases Department, World Health Organization, Geneva, Switzerland;
- 2 Global Initiative for Asthma (GINA), Fontana, WI, USA;
- 3 University of Cape Town Lung Institute, Cape Town, South Africa;
- 4 Laval University, Quebec City, QC, Canada;

- 5 Forum of International Respiratory Societies, Lausanne, Switzerland.;
- 6 Asociacion Latinoamericana de Torax, Montevideo, Uruguay;
- 7 Hospital Centro Medico, Guatemala City, Guatemala;
- 8 International Union Against Tuberculosis and Lung Disease, Paris, France;
- 9 Epidemiological Laboratory (Epi-Lab) for Public Health, Research and Development, Khartoum, Sudan;
- 10 Global Initiative for Obstructive Lung Disease (GOLD), Fontana, WI, USA;
- 11 University of Exeter Medical School, Exeter,
- 12 International Primary Care Respiratory Group (IPCRG), Edinburgh, UK;
- 13 Department of Primary Care Medicine, University of Malaya, Kuala Lumpur, Malaysia;
- 14 University of New South Wales, Sydney, NSW,
- 15 Global Asthma Network (GAN), Auckland, New Zealand;
- 16 Pan African Thoracic Society, Congella, South Africa;
- 17 Department of Paediatrics and Child Health, University of KwaZulu Natal, Durban, South Africa;
- 18 Aintree University Hospital, Liverpool, UK;
- 19 Kenyatta University, Nairobi, Kenya;
- 20 International Pharmaceutical Federation, The Hague, Netherlands;
- 21 International Coalition of Respiratory Nurses;
- 22 University Hospital Centre Zagreb, Croatia;
- 23 Pulmocare Research and Education Foundation, Pune, India;
- 24 Global Allergy and Airways Patient Platform, Vienna, Austria;
- 25 Global Alliance Against Chronic Respiratory Diseases;
- 26 Celal Bayar University, Manisa, Turkey;
- 27 SA Medical Research Council Unit on Child and Adolescent Health, University of Cape Town, Cape Town, South Africa

Correspondence to: Sarah Rylance, Noncommunicable Diseases Department, WHO, Geneva,

Switzerland. E-mail: <a href="mailto:rylances@who.int">rylances@who.int</a>

A recent article in the Journal described a meeting held by the Union to discuss how to improve access to affordable quality-assured inhaled medicines in lowand middle-income countries (LMICs).1 Building on this, in June 2022 the WHO convened a stakeholder meeting to develop key messages to improve outcomes for people living with chronic respiratory diseases. The participants had affiliations to wellestablished global respiratory organisations and networks, and included academics, clinicians, nurses, pharmacists and people living with chronic respiratory diseases. For decades, efforts have been made to raise the profile of chronic respiratory diseases and improve access to effective inhaled medicines for asthma and chronic obstructive pulmonary disease (COPD). An example is the Asthma Drug Facility, run by the Union between 2007 and 2013.2 Through the United Nations 2030 Agenda for Sustainable Development, Member States have committed to reduce deaths from asthma and COPD and ensure access to essential medicines.3 Target 3.4 is for a one-third reduction in premature mortality from non-communicable diseases by 2030, and Target 3.8 calls for universal health coverage, with access to quality essential healthcare services, medicines and vaccines. Nevertheless, access to effective care for asthma and COPD remains unavailable for millions of people living with these conditions. Availability of inhaled medicines in public primary healthcare facilities in LMICs is poor, with only onethird of countries reporting that steroid inhalers are available, and twothirds reporting access to lifesaving bronchodilators. 4 There is an urgent need to address this unacceptable situation and prevent unnecessary suffering and death.

At the WHO meeting in June, the stakeholder groups were asked the following questions: 1) What are the most important messages to share with target audiences for maximum impact? 2) How can stakeholders use their strengths to achieve this (see Table 1)? Asthma and COPD require different approaches, and the messages must also differ. COPD is the third leading cause of global deaths and we must prioritise disease prevention by reducing risk factors such as tobacco smoke, indoor and outdoor

air pollution, early life respiratory infections and poor maternal and childhood nutrition.5 Although there is presently no cure for COPD, effective treatment, including smoking cessation, improves symptoms and reduces the risk of exacerbations and hospitalisation.6 Asthma affects children, adolescents and adults and is less amenable to primary prevention, but it can be effectively treated. For asthma, a timely diagnosis and appropriate inhaled corticosteroids can reduce symptoms, improve daily life, reduce healthcare use and associated costs, and stop preventable deaths.

There is often low awareness of asthma and COPD among communities in LMICs. People frequently tolerate chronic respiratory symptoms, attributing them to increasing age or decreasing fitness. This means that many people live with breathlessness or chronic cough, adapting their lifestyle accordingly without seeking diagnosis or treatment. The key message here is "breathing should be easy". If it is not, an appropriate diagnosis and long-term treatment can reduce symptoms and improve daily life. People living with chronic symptoms should be empowered to ask for this and healthcare providers must be confident to deliver this. Stigma is common in communities and impacts negatively on healthcare seeking behaviour and use of medication. People living with asthma or COPD and their families should be encouraged to play a powerful role as community advocates to raise awareness, challenge misconceptions and explain the benefits of treatment. Diagnosis is not a portent of doom – it can be the key to a better life. Harmful environmental exposures are common in LMICs and the situation is becoming worse with rapidly expanding urbanisation, deteriorating air quality and increased tobacco use. A reduction in these risk factors will prevent new cases of COPD and asthma, prevent worsening of existing disease and prevent other non-communicable diseases such as heart disease and lung cancer. The WHO has developed public health tools to support countries in this endeavour. The WHO Framework Convention on Tobacco Control and "best buy" interventions recommend public health interventions (relating to tobacco taxation, packaging, advertising, media campaigns and legislation) to

reduce exposure to tobacco smoke.7,8 Updated air quality guidelines were released in 2021, providing quantitative health-based recommendations for air quality management for several key air pollutants.9

Although prevention of future disease is important, there is an urgent need to manage the huge burden of existing disease. Fortunately, there are existing effective inhaled treatments (including bronchodilators and inhaled corticosteroids) on the WHO Essential Medicines List.10 These are proven to reduce symptoms and exacerbations in COPD and decrease asthma exacerbations and deaths. Access to these lifesaving medicines is a human right, well founded in international law. Yet in 2019, almost half a million people died due to asthma, the majority in LMICs.5 We cannot tolerate this inequity. We must seize the opportunity for real impact and aim for global equity with access to appropriate asthma and COPD diagnosis and care, wherever people live. To deliver these critical messages, we need to draw on the diverse and complementary strengths of a variety of interprofessional global partners (Table 2). Together, we must fight for people living with asthma and COPD and leave no one behind. We encourage interested parties to join our global community through the Global Alliance against Chronic Respiratory Diseases.

## References

- 1 Stolbrink M, et al. Improving access to affordable qualityassured inhaled medicines in low- and middle-income countries. Int J. Tuberc Lung Dis 2022;26:1023–1032.
- 2 Chiang C-Y, et al. The Asthma Drug Facility and the future management of asthma. Int J Tuberc Lung Dis 2022;26:388–391.
- 3 UN General Assemby. Transforming our world: the 2030 Agenda for Sustainable Development. A/RES/70/1. New York, NY, USA: UN, 2015.
- 4 World Health Organization. Assessing national capacity for the prevention and control of noncommunicable diseases: report of the 2019 global survey. Geneva, Switzerland: WHO, 2020. 5 World Health Organization. Global health estimates, 2019. Geneva, Switzerland: WHO, 2019.
- 6 Global Initiative for Chronic Obstructive Lung Disease. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease (2022 report). Fontana, WI, USA: GOLD, 2022.

  7 World Health Organization. WHO Framework Convention on Tobacco Control. Geneva, Switzerland:

WHO, 2003.

- 8 World Health Organization. Tackling NCDs: "best buys" and other recommended interventions for the prevention and control of noncommunicable diseases. Geneva, Switzerland: WHO, 2017.
- 9 World Health Organization.WHOglobal air quality guidelines: particulate matter (PM2.5 and PM10), ozone, nitrogen dioxide, sulfur dioxide and carbon monoxide. Geneva, Switzerland: WHO, 2021.

10 World Health Organization. World Health Organization Model List of Essential Medicines - 22nd List,

2021. Geneva, Switzerland: WHO, 2021.

- 1. Breathing should be easy
- 2. Today's polluted air creates breathing problems for life
  - Asthma and COPD are different diseases and demand a different approach: For asthma this is focused on treatment of disease For COPD this is focused on prevention of disease
- 3. Early diagnosis of asthma and COPD, and access to effective treatment, prevents prolonged suffering
- 4. Inequities in the provision of life-changing care for asthma and COPD must no longer be tolerated

Box 1: Key messages to raise awareness and improve outcomes for people with asthma and COPD in low- and middle-income countries

Table 1: Global partners working together with WHO to address the needs of people with asthma and COPD in LMICs

Organization/network	Strengths/areas of interest
Forum of International Respiratory Societies (FIRS) https://firsnet.org/	Comprises all the major regional respiratory societies: wide reach with huge membership and expertise. World advocacy days, annually for each of the major respiratory diseases. Produces Global Impact of Respiratory Disease publication. Established World Lung Day.
Global Allergy and Airways Patient Platform (GAAPP) https://gaapp.org/	70 patient advocacy groups from across the globe. Driving awareness through world advocacy days. Evidence based education materials for patients in multiple languages. Raising funding and political will for national action plans.
Global Alliance Against Chronic Respiratory Diseases (GARD) https://gard-breathefreely.org/	Alliance of national and international organizations convened by WHO since 2006. Some GARD countries have engaged successfully with Ministries of Health and projects have been adopted into national policy (e.g. Italy, Kyrgyzstan, Portugal, Turkey). Forum for advocacy and networking.
Global Asthma Network (GAN) http://globalasthmanetwork.org/	Network of clinicians from 137 countries interested in asthma and research. Experience in describing burden of disease and access to treatment. Focus on LMIC. Production of Global Asthma Report – 4 <sup>th</sup> edition due end 2022.
Global Asthma Initiative (GINA) https://ginasthma.org/	Review of asthma-related scientific evidence in order to regularly update clinical strategy documents. Global recommendations for asthma management in children and adults Dissemination and implementation committee. Network of GINA Advocates/GINA Assembly. Annual World Asthma Day.
Global Initiative for Chronic Obstructive Lung Disease (GOLD) https://goldcopd.org/ International Coalition of	Review of COPD-related scientific evidence in order to regularly update clinical strategy documents. Network of GOLD National Leaders/GOLD Assembly. Annual World COPD Day.  Developing an international curriculum for respiratory nurses.
Respiratory Nurses (ICRN)	beveloping an international earnealant for respiratory harses.

International Primary Care	Research and education to improve prevention, diagnosis and
Respiratory Group (IPCRG)	care of respiratory diseases in primary care globally. Asthma
https://www.ipcrg.org/	Right Care and COPD Right Care to achieve large scale
	improvement including asthma diagnosis and spirometry.
International Union Against TB	Working on chronic lung diseases, particularly asthma since early
and Lung Diseases (the Union)	1990s. Works closely with governments and public health
https://theunion.org/	sectors, focusing on LMIC. Interest in trials, exploring models of
	care in LMIC.
International Pharmaceutical	FIP will launch two publications in 2022: 1. "Chronic respiratory
Federation (FIP)	diseases: A handbook for pharmacists". 2. "Knowledge and skills
https://www.fip.org/	reference guide for professional development in chronic
	respiratory diseases: A companion to the FIP chronic respiratory
	diseases handbook for pharmacists".