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COMMENTARY

# Improving Care for People with Chronic Respiratory Diseases: Taking a Policy Lens

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## ABSTRACT

Chronic respiratory diseases (CRDs) affect almost 470 million people worldwide, and this number is growing. CRDs take a significant toll on the capacity of health systems and economies, and their effect on people's lives can be devastating. Despite high rates of prevalence and mortality, CRDs are underprioritised by policymakers and governments. Tackling these conditions will require a holistic, multisectoral approach, including government-led strategies for prevention, diagnosis, management and investment in research. In this article, we provide a clear rationale for prioritising CRDs to advance population health. Proactive steps in countries of all income levels must be taken promptly to limit the growing prevalence and impact of CRDs both now and in the future.

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**Key Summary Points**

Chronic respiratory diseases (CRDs) are a collection of lung conditions that affect almost 470 million people worldwide and cause over 4 million deaths annually.

These conditions receive less research funding than other non-communicable diseases—approximately 75% less than heart disease and 60% less than diabetes—and are widely underprioritised in health policies and health system resourcing.

CRDs can have a devastating effect on people's lives, and they take a huge toll on economies and health systems—with chronic obstructive pulmonary disease (COPD) alone predicted to cost $4.3 trillion globally between 2020 and 2050.

To address the growing prevalence of CRDs, governments must focus on prevention, diagnosis, disease management and research, and promote multisectoral collaboration that can have a lasting impact.

Governments must develop national integrated respiratory strategies and commit to tackling CRDs on multiple fronts to improve millions of people's health and quality of life.

## INTRODUCTION

Chronic respiratory diseases (CRDs) are a heterogeneous group of lung conditions that include asthma, chronic obstructive pulmonary disease (COPD), interstitial and occupational lung diseases, pulmonary hypertension and bronchiectasis (Table 1) [1, 2]. In 2021, they affected almost 470 million people worldwide and caused almost 4.5 million deaths [3]. Their prevalence is increasing [3], affecting people in high-, middle- and low-income countries—yet they receive less public attention and research funding than other non-communicable diseases (NCDs) [4–6]. In 2022 in the USA, for example, over $1 billion was spent on diabetes research; in comparison, only $424 million for COPD and

**Table 1** An overview of some of the most common chronic respiratory diseases and their respective prevalence and mortality rates

**Asthma:** caused by inflammation and narrowing of the small airways in the lungs [13], resulting in over 436,000 deaths and affecting over 260 million people globally in 2021 [3]

**Chronic obstructive pulmonary disease (COPD):** caused by lung damage often due to smoking and air pollution [14], resulting in 3.7 million deaths and affecting over 213 million people globally in 2021 [3]

**Interstitial lung disease (ILD):** an umbrella term of a group of diseases that causes fibrosis of the lungs which creates stiffness [15], resulting in over 188,000 deaths and affecting 4.3 million people globally in 2021 [3]

**Pneumoconiosis:** a type of ILD that results from breathing in dust particles that damage the lungs [16], resulting in over 18,000 deaths and affecting almost 400,000 people globally in 2021 [3]

**Pulmonary hypertension:** a pathological remodelling of the arteries in the lungs due to increased blood pressure [17], resulting in over 22,000 deaths and affecting almost 200,000 people globally in 2021 [3]

**Bronchiectasis:** characterised by the permanent enlargement of the airways [18], affecting an average of approximately 680 people per 100,000 with a mortality rate of 16–24% [18, 19]

asthma combined [5]. This lack of prioritisation is reflected in the health policy sphere; despite growing momentum to address the increasing toll of NCDs [7], CRDs remain conspicuously absent from national and international health strategies [8]. This is especially concerning given the impact of climate change on lung health; wildfires, longer and more intense warm seasons, and greater allergen exposure can induce flare-ups (or exacerbations), increase hospitalisations and lead to premature death for those with CRDs [9–12].

Epidemiology and presentations differ across the various CRDs. However, they all significantly affect people's quality of life. The limitations brought on by symptoms can cause many people to experience poor mental health, social and physical isolation, and loneliness [20, 21]. The chronic nature of CRDs and the cumulative effect of repeated flare-ups can lead to the long-term deterioration of lung function, affecting all aspects of people's lives and compromising their independence. Having asthma, for example, has been shown to reduce children's school attendance and adults' workplace productivity [22–24]. And according to UK data, almost 40% of people with COPD are unable to work as much as they used to, and one in three people have to give up their job entirely [25]. Flare-ups are also a major cause of hospital admissions [26]. In the USA, for example, COPD alone caused more than 335,000 emergency hospital admissions in 2020 [27], and regional data suggest that more than 20% of people die within 1 year of being hospitalised with a flare-up [28–30]. CRDs also result in huge expenditures and pressure on health and care systems, and economies. In 2019, for example, the economic cost of CRDs in the UK was £80 billion. Without effective investment, COPD alone is predicted to cost $4.3 trillion globally between 2020 and 2050 [31, 32].

And yet much of this burden is preventable through a combination of risk-reduction interventions, earlier diagnosis and universal access to high-quality care that reflects international recommendations such as those from the Global Initiative for Chronic Obstructive Lung Disease (GOLD) or the Global Initiative for Asthma (GINA). The Global Alliance against Chronic Respiratory Diseases (GARD) has a vision of 'a world in which all people breathe freely'—and with targeted action and sufficient political will, this dream could be made reality [1]. Central to this vision is the call from the International Respiratory Coalition (IRC)—a multistakeholder alliance set up to promote lung health and improve respiratory care—for national governments to develop comprehensive respiratory strategies to address barriers to prevention, access, health equity and research [33]. These strategies would require governments to set out ambitious CRD-focused policy goals that can be monitored and evaluated to help drive tangible, lasting change for people, health systems and economies.

This article is based on previously conducted studies and does not contain any new studies with human participants or animals performed by any of the authors.

## TACKLING CRDS: UNDERSTANDING THE BARRIERS

### Continued Exposure to Tobacco Smoke and Poor Air Quality, and the Rise of e-Cigarettes

The most widely recognised risk factors common to all CRDs are smoking, exposure to indoor and outdoor air pollution (including wildfire smoke exposure), living in areas of socio-economic deprivation, work-related exposure (such as to asbestos or silica), and age [1, 34–36]. The signatures of 182 countries to the World Health Organization's (WHO's) Framework Convention on Tobacco Control (FCTC) treaty represents one of the great successes of global health policy [37]. However, despite a WHO goal to decrease tobacco use by 30% by 2025—a goal that 76% of parties are on track to achieve or make great strides in [38]—tobacco still kills more than 8 million people globally each year [39]. Furthermore, up to 26% of countries that signed the FCTC treaty have still not implemented tobacco-control strategies; gaps are particularly prevalent in low- and middle-income countries where tobacco is often cheap and easily accessed, and where CRDs are highly prevalent [40]. Low- and middle-income countries account for over 80%

of the world's 1.1 billion tobacco users [41], yet only 18% of low-income countries provide financial support to smoking cessation programmes, compared with 72% of middle-income and 89% of high-income countries [42]. Even in high-income countries such as those within the WHO European Region, there appears to be uneven implementation of tobacco-control policies—such as smoke-free public spaces and bans on the advertisement and promotion of tobacco products [43]—with suggested reasons for this including potential pressure from the tobacco lobby to delay the deployment of these measures [44]. And although rates of smoking are declining in most countries [45], many have seen an increase in the number of smokers, and an increase in the use of nicotine products among women, adolescents and other subgroups [46–48]. The impact of second-hand smoking also should not be understated: research has shown that over 60% of adolescents are regularly exposed to second-hand smoke, which can increase the risk of ischaemic heart disease, stroke, type 2 diabetes and lung cancer [49, 50]. Additionally, since 2020, nearly 75% of countries have seen the introduction of new nicotine delivery systems, such as e-cigarettes [37], which expose users to lung-damaging substances and those around them to other dangerous chemicals through second-hand vapour [51]. Countries such as Australia have experienced lobbying from international tobacco and vaping companies aiming to position e-cigarettes as less harmful alternatives to cigarettes and promote them to young adults [52]. However, there is evidence that people who use e-cigarettes are more likely to use tobacco products in the future [53].

Outdoor and indoor air pollution are also considerable risk factors for CRDs. Of the 117 countries that monitor air quality, only 17% of cities in high-income countries met WHO Air Quality Guidelines for $PM_{2.5}$ or $PM_{10}$, and less than 1% of cities in low- and middle-income met these standards [54]. In 2018—5 years after a 9-year-old girl from London died after experiencing repeated asthma attacks caused by poor air quality—air pollution was recognised as an independent cause of death for the first time anywhere is the world [55, 56]. Recent data suggest that air pollution was responsible for 8.1 million deaths globally in 2021, becoming the second leading risk factor for death in all age groups, including children under five [57]. Indoor air pollution is also a concern, especially for people living in low- and middle-income countries, where up to 23% of all COPD-related deaths are associated with household air pollution created by the burning of solid fuels for cooking and heating [58]. As women and children tend to spend more time in the home, they experience the highest levels of exposure and bear the greatest health burden [58]. Additionally, the cumulative effects climate change—particularly extreme heat events and a global increase in wildfires—on top of an ageing global population (as CRD risk rises with age) [36], will result in more adverse respiratory outcomes and may increase the prevalence of CRDs [9–12, 59].

### Lack of Timely and Appropriate Diagnosis and Ineffective Long-Term Support

Underdiagnosis is a key issue for CRDs; it is estimated that between 65% and 80% of people with COPD remain undiagnosed [60]. In many instances, individuals are misdiagnosed. For example, COPD is often wrongly diagnosed as asthma [61], so people are offered inappropriate care [62]. By the time an individual receives a correct diagnosis, they often have moderate to severe lung function impairment, with an increased risk of pneumonia, hospitalisation and early death [63]. The reasons behind this are complex, and may include lack of awareness or understanding of the conditions and their clinical manifestations. Delays in diagnosis may also be caused by a lack of appropriate diagnostic equipment, particularly in rural or deprived areas [64, 65]. Best-practice guidelines recommend peak flow tests and spirometry to diagnose CRDs across various care settings [36, 66]. However, there is limited use of spirometry worldwide. WHO data suggest that clinicians have access to spirometers in only 32% of countries—most of which are high-income European countries [67]. Even where spirometers are accessible, their use in GP practices is low [68], and primary care physicians may not have the training required to use them or to interpret

findings, contributing to spirometry's underutilisation [69, 70].

A key factor in the inadequate management of CRDs is a lack of continuity of care; often, CRDs are not managed effectively as a chronic condition. Studies have found that 35% of people with asthma were readmitted within 90 days of emergency department discharge, and almost 40% of people with COPD were readmitted or died within the same time period [71, 72]. Effective follow-up care is often not put in place [73–75]; only around 25% of people with COPD who have a history of flare-ups receive a sufficient level of ongoing management [76]. Pulmonary rehabilitation is also widely underused, despite being a recognised feature of high-quality follow-up care. Data from France reveal that less than 9% of people with COPD receive pulmonary rehabilitation following hospitalisation [77].

### Prevailing Health Inequalities Lead to Disparities in Risk, Access and Outcomes for CRDs

The prevalence of and outcomes for CRDs are closely intertwined with wider social inequalities. People with CRDs who live in areas of deprivation have a higher risk of hospitalisation, emergency admission and death [78, 79]. Data from England suggest that CRDs are a major contributor to the life-expectancy gap between communities living in the least deprived and most deprived areas [80]. Underserved populations often have reduced access to the vital medicines and specialist services they need to help manage their conditions [81]; a US study showed that African Americans with asthma were less likely to have access to a respiratory specialist than White people [82]. In 2023, 8% of adults on low incomes in the UK reported not collecting prescriptions or other medicines because they were unaffordable [83]. Vulnerability to risk factors also follows a social gradient, with smoking rates and exposure to air pollution higher among traditionally underserved communities [34]. These stark inequalities within countries are often reflected on a global scale, with low- and middle-income countries having the highest (age-standardised) death rates from CRDs [35], with 90% of premature CRD deaths occurring in these regions [84]. The medicines required to treat CRDs—as defined by the WHO's List of Essential Medicines [85]—and the devices required to support their use, such as inhalers and spacers, also remain largely unavailable or unaffordable in low- and middle-income countries [84, 86, 87]. The lack of universal healthcare and locally relevant guidelines [88] in many low- and middle-income countries may further contribute to poorer outcomes for people with CRDs.

Language barriers and low levels of health literacy can also affect people's access to healthcare. Health literacy means people understand that they have a condition that requires treatment and management, and seek the care and support they require. People with CRDs and low levels of health literacy may lack access to health information and services; they may also have difficulty processing and understanding health information, appraising the quality of the information they receive, and applying it to make healthcare-related decisions [89]. Language barriers can also affect people's ability to access healthcare, and may result in miscommunication between patient and healthcare professionals, and hence reduced quality of care and patient safety [90]. Studies in the USA have also demonstrated an association between low English-language proficiency and low health literacy, which is associated with poorer health, an increased use of medical services and higher mortality [91, 92]. Providing health information to people in multiple languages may improve access to respiratory care and help tackle health inequalities [93].

## PUTTING FEASIBLE SOLUTIONS INTO PRACTICE

Tackling CRDs requires a multipronged approach encompassing preventive measures as well as system-level change. Coordinated action in four major areas is required to drive a significant reduction in CRD rates (Fig. 1).

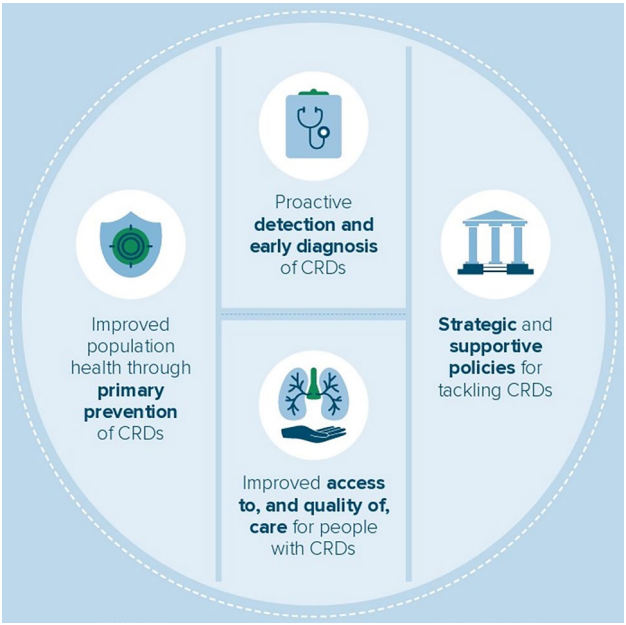


**Fig. 1** A coordinated approach in four areas is essential for effective action on CRDs. This image has been taken from the 'Lung Health for Life: improving care for people with chronic respiratory diseases' report, authored by The Health Policy Partnership. Permission for the use of this figure has been granted by The Health Policy Partnership

## Improved Population Health Through Primary Prevention of CRDs

### *Addressing and Preventing Smoking Uptake*

Because smoking is a key risk factor for CRDs, fully implementing anti-tobacco policies to reduce rates of smoking and support people to stop is the first port of call in preventative approaches [1]. Similarly, as the popularity of e-cigarettes grows, policies to curb their use are becoming increasingly important. Several countries have launched ambitious initiatives to address smoking and tackle the rise in vaping: Australia has classified nicotine vapes as therapeutic goods that can only be purchased through pharmacies, and has markedly reduced the number of flavours available [94]. China has implemented a nationwide ban on the sale of flavoured e-cigarettes, with the goal of reducing use among young people [95]. Mexico recently strengthened its ban on the import and export of new nicotine and non-nicotine e-cigarettes, and on tobacco product advertising; and Canada has introduced legislation that requires manufacturers to print health warnings directly onto individual cigarettes [37]. To help support those already engaged in smoking to quit, available therapies that can help to manage the addiction—such as nicotinic receptor agonists, selective dopamine and noradrenaline reuptake inhibitors, and nicotine replacement therapy—have demonstrated consistent effectiveness in supporting short- and long-term smoking cessation [96].

### *Strategies for Managing Rising Levels of Air Pollution*

Efforts to reduce levels of harmful pollutants in the air have a direct effect on lung health and require collaboration among different sectors. Such efforts include adopting cleaner technologies in transportation; careful urban planning; the establishment of ventilation corridors to augment air circulation; modifying sources of power generation; prohibiting open burning; and improving access to cheap, pragmatic

household energy solutions, such as externally flued stoves [97, 98]. All of these could play a key role in improving overall air quality and significantly decrease the rate of CRDs. In the USA and China, there is evidence that targeted action on air pollution has resulted in improvements in childhood lung function and a 2-year increase in life expectancy [99, 100]. In Bologna, Italy, interventions to improve traffic flow have been shown to significantly reduce vehicle emissions [101].

### *Promoting Vaccination Uptake in Childhood*

Taking steps to improve lung function during childhood can also help prevent the development of CRDs in later life. This starts with good nutrition, and avoiding harmful air pollution in utero and during childhood [2, 102, 103]. Furthermore, if governments are to take a public health approach to CRDs, the importance of preventing early-life lower respiratory infections and vaccinating against childhood infections cannot be overstated. Respiratory infections in early life, particularly respiratory syncytial virus (RSV) and rhinovirus, have been shown to increase the risk of developing asthma and COPD [104], and can impair lung function in later childhood and sometimes adulthood [105]. Immunisation programmes for RSV in early life have recently been recommended by the Centers for Disease Control and Prevention in the USA, and the Joint Committee of Vaccination and Immunisation in the UK [106, 107]; future validation and assessment of these programmes may support the implementation of similar initiatives.

## Proactive Detection and Early Diagnosis of CRDs

### *Utilisation of Screening Programmes and Wider Health Checks to Expedite Diagnosis*

Given issues of underdiagnosis, proactive testing for the presence of CRDs is needed—particularly in primary care, where most people present with symptoms. One approach includes testing for CRDs in screening programmes for lung cancer that target high-risk populations [108]. Because the risk factors for lung cancer and CRDs are similar, integrating testing for COPD and potentially other CRDs for high-risk individuals into lung health check-ups and existing screening programmes may expedite diagnosis; this is already taking place internationally [108–110]. Another approach is to include lung function assessments in the general health checks that are often conducted in primary care; this is being done in France [111]. The normalisation of such tests is crucial in addressing the shame and stigma that can be associated with CRDs, and may encourage more people to seek care for their symptoms [112]. Instituting proactive case-finding by reviewing established electronic health records to analyse family history and exposure to risk factors can also prevent late-stage presentation by identifying those who may require assessment and intervention [113]. However, it is important to note that the availability of comprehensive electronic health record systems varies [114]; therefore, this approach may be out of scope for some countries.

### *Providing Greater Accessibility to Diagnostic Tools*

Ensuring that people with CRDs have timely access to effective diagnostic tools is essential. Several initiatives have been set up to expand access to spirometry and appropriate diagnostics, even in low-income settings. In Brazil, the use of a telespirometry system allows testing to take place locally and the results to be sent to specialists for interpretation [115]; while the Pan African Thoracic Society has developed a programme to provide free training and certification for spirometry testing [116]. Where pulmonary function testing is limited, symptom-based diagnostics [117] and self-screening tools—such as the questionnaire developed by the COPD Foundation [118]—can be used to support the diagnosis of people with a suspected respiratory condition.

Diagnostic testing for CRDs is also evolving. Advances in novel diagnostic tools have resulted in the development of forced oscillation techniques such as impulse oscillation systems [119,

120]. Research suggests that these tools may be better than spirometry as a predictor of asthma control, and more sensitive to identifying early COPD [119]. Portable oscillometry devices are also in development, and may enable advanced point-of-care testing in regular clinical practice [121].

## Improved Access to, and Quality of, Care for People with CRDs

### *Optimisation of Primary-Care-Led CRD Management*

Ensuring sufficient capacity for the management of CRDs in primary and community settings is crucial to support improvements in care. Primary care-led management of CRDs is internationally recommended [36, 66], and effective collaboration among primary care, community care and specialists is central to this, as it offers the potential to reduce hospital admissions and readmissions [122–126]. Integrated disease management programmes are an exemplar of collaborative working; models focusing on COPD have resulted in improved quality of life and medication adherence, as well as reductions in flare-up frequency and hospitalisations [124–127]. These integrated teams can include multidisciplinary healthcare professionals such as consultants, physiotherapists, specialist nurses, lung function technicians and pharmacists who work together in hospitals and communities [128]. The utilisation of community health workers to deliver primary care, support underserved communities and provide educational outreach is also essential to this approach, and may help address inequalities in access to care [129].

### *Improving Access to Specialist Care*

Broadening access to respiratory clinical expertise should also be prioritised. Innovative models of care—such as the hub-and-spoke model, which connects specialists with healthcare professionals in primary and community settings—can help expand access to respiratory care [130, 131], especially where there is limited clinical capacity. The use of telemedicine has increased significantly since the COVID-19 pandemic, and research has demonstrated its effectiveness as an alternative form of care for a variety of conditions when face-to-face delivery is unattainable, for instance as a result of funding, resourcing or location [132]. The implementation of digital models that support the remote delivery of care—such as community virtual wards, apps that deliver pulmonary rehabilitation, or AI facilitating access to specialist treatment in rural communities—has also been shown to improve symptom management, patient-reported outcomes and the capacity of service providers [75, 133, 134]. With worsening time and resource limitations on health services, the application of novel models is key to maintaining effective respiratory care. However, researching and implementing more adaptable and affordable models is required to support this kind of transformation in low- and middle-income countries.

### *Provision of Ongoing Monitoring to Improve Long-Term Disease Management*

Alongside improvements in access, ongoing management and follow-up care for CRDs are essential to reducing the strain they place on people, health systems and society. This should include comprehensive discharge protocols for emergency departments and hospitals; follow-up and routine medical reviews for ongoing monitoring; and pulmonary rehabilitation for people living with COPD. Together these can reduce the risk of flare-ups, prevent loss of lung function, enhance quality of life and prevent hospital readmissions for people with CRDs [135, 136]. Promoting the uptake of guideline-recommended vaccinations for influenza, COVID-19, pneumococcus, pertussis and herpes zoster can also help people with CRDs avoid flare-ups and hospitalisation [66, 137, 138]. Making sure people receive the most effective medicines is also vital—especially in low- and middle-income countries, where risk factors have a disproportionate impact on

respiratory health and access to medicine is the most limited [87, 98].

### *Elevating Health Literacy and Self-management*

Education to enhance health literacy and help people to self-manage their condition outside of clinical settings is also important. Research suggests that self-management encourages greater adherence to treatment [139], and providing action plans and education about high-risk exposures can help prevent exacerbations and hospitalisations, and improve quality of life [140–143]. Engagement with clinical support—such as Certified Respiratory Educators—has also been shown to improve health outcomes and reduce the number of emergency hospitalisations for COPD [36, 144]. Tools that support CRD self-management include questionnaires that assess impact on quality of life [145], mobile apps that record symptoms and monitor lung function, and smart inhaler add-ons that assess technique and track usage [146].

### Strategic and Supportive Policies for Tackling CRDs

In addition to the above, the integration of CRDs into national and local policy priorities is urgently needed for tangible action on prevention and management. As reflected in the draft decision for the 78th World Health Assembly to prioritise integrated approaches to lung health, these national policies must utilise 'multisectoral collaboration, multidisciplinary collaboration and [incorporate] whole-of-government and whole-of-society approaches, ensuring engagement from all relevant sectors including health, environment, labour, education, and finance' [147]. This holistic approach is vital to ensuring that the impacts of and on CRDs from across society can be fully understood and effectively addressed. The international unification of respiratory and primary care physicians would be a crucial first step towards advancing this agenda and providing clear leadership in the call for increased focus and prioritisation for CRDs.

For CRD policy strategies to be effectively implemented, they must be based on a foundation of robust evidence. Because the accuracy of data on CRDs varies [148], improving national-level epidemiological data will be a cornerstone on which to build an understanding of how risk factors affect populations and how effective interventions are, both of which are central to influencing policy change. Establishing national disease registries may help address this. Climate change, for example, is having an effect on how risk factors influence the development of CRDs; more research is needed to understand how it will affect lung health [149]. It is also vital to increase investment for research that evaluates the effectiveness of public health strategies for CRDs [150] and the impact of alternative tobacco products such as e-cigarettes [151, 152]. Once the data and evidence are established, national and international guidelines must be updated to reflect research findings and provide the best care for everyone living with CRDs.

## CONCLUSION: A CALL TO ACTION FOR GOVERNMENTS

With the prevalence and impact of CRDs increasing significantly over the past 3 decades [35]—and with the threats imposed by climate change likely to exacerbate things further—complacency is not an option. The United Nations' Sustainable Development Goals include a target to reduce premature mortality from NCDs by 2030 [153]. CRDs are the third most common cause of death from NCDs [3] and a major cause of morbidity and disability. However, without concerted action, countries will fail to meet their goal to curb the impact of NCDs [154]. But if governments heed the IRC's call to develop comprehensive respiratory strategies, they can begin to tackle the burden these conditions place on people around the world. An all-inclusive approach is not only necessary but urgently needed if we are to improve the lives of millions of people living with CRDs. This will invariably require a holistic, multisectoral approach to addressing the current and

**Table 2** A series of key recommendations for actions to be taken by international governments to address the current and future impact of CRDs and improve prevention and care for people living with these conditions

| |
|---|
| Refocus the approach to primary prevention and population health by: |
| Strengthening vaccination programmes to protect against respiratory infections throughout the life course |
| Adopting clean-air policies to reduce indoor and outdoor pollution and protect lung health |
| Bolstering programmes that prevent the uptake of smoking and support people to quit tobacco and e-cigarette use. |
| Expand proactive detection and early diagnosis by: |
| Integrating lung health checks into lung cancer screening programmes to help detect CRDs |
| Integrating lung health checks into general health checks targeting high-risk populations |
| Proactively identifying people at risk of CRDs in primary care using electronic health records and data analytic tools |
| Increasing the availability of effective diagnostic tools such as spirometry, and providing training for healthcare professionals to use them. |
| Improve access to high-quality care by: |
| Investing in primary and community respiratory care capacity to enable people with CRDs to have faster access to diagnosis, treatment and support |
| Broadening and streamlining access to specialist respiratory care by investing in innovative models of care |
| Ensuring timely access to care for all people with CRDs, as recommended by the Global Initiative for Asthma (GINA) and Global Initiative for Chronic Obstructive Lung disease (GOLD) |
| Supporting people living with CRDs to improve their health literacy and engage in their care through appropriate training and use of digital tools |
| Strengthening follow-up care and rehabilitation programmes to prevent hospital readmissions. |
| Build strategic and comprehensive policies for CRDs by: |
| Developing national and international integrated lung health strategies to effectively tackle the burden of CRDs |
| Investing in research to better understand risk factors for CRDs and how they may be evolving |
| Ensuring local and national clinical practice guidelines are updated in line with the latest respiratory research and expert recommendations |
| Improving international data collection on CRDs to reveal what drives hospitalisations and mortality, and to create registries to track outcomes and direct changes in practice. |

future impact of CRDs, in which governments commit to several key actions (Table 2).

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