EDITORIAL

The challenge of delivering effective care for asthma

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Asthma is a common chronic disease that affects people of all ages, causing substantial disability and some deaths. Although it was previously thought to be a disease of affluent people in affluent countries, recent evidence suggests that this is not the case; asthma has a global distribution.¹ In low- and middle-income countries, an estimated 15.1 million people aged under 60 years have moderate to severe disability attributable to asthma.² Asthma is a major global health problem.

Fortunately, there is effective therapy available. Inhaled corticosteroids reduce symptoms, prevent disease exacerbations, reduce the need for rescue medication, reduce disability and prevent hospitalisations and deaths due to asthma.³⁻⁵ These benefits can be achieved with a low risk of harm, especially if low doses are used.⁶ Under the right conditions asthma can be well controlled with pharmacotherapy.

However, as illustrated by the article by Kan et al. in this issue of *Public Health Action*,⁷ having effective therapy is not sufficient to achieve good outcomes: the therapy must be delivered to those who need it. In this study, conducted in Anhui Province, China, in 2008, only a minority of patients with persistent asthma continued to take their treatment and returned for follow-up.

There are two key elements to translating effective therapy for asthma into improved health outcomes in the community. First, we must find the people who will benefit from this therapy, and then we must actually deliver the drug to those who will benefit from it.

Identifying people with asthma is challenging in all settings. Symptoms of asthma are non-specific, and may be confused with respiratory infections, including tuberculosis. However, some features of the clinical history of asthma are very characteristic. In particular, the recurrent and persistent nature of the symptoms and the identification of multiple triggers for symptoms are both relatively specific to asthma. Airflow obstruction that is reversible with bronchodilators is a physiological hallmark of asthma. Assessment of lung function, either peak expiratory flow rate or spirometric function, has been widely recommended to detect and confirm the presence of asthma. However, there are many pitfalls: it has proved very difficult to implement lung function testing in primary care, even in industrialised country settings, and it is not sensitive for the diagnosis of asthma. Clearly, we need better

tests that are reliable, valid and feasible to implement in a wide range of settings.

Therapy with inhaled corticosteroids needs to be regular, long-term and appropriately delivered to the lower respiratory tract to achieve the benefits described above. Unfortunately, there are many barriers to achieving this. As described by Kan et al., the cost of the medications is one of the major barriers to long-term use. Furthermore, the absence of any immediate relief of symptoms after taking inhaled corticosteroids, in contrast to the effect of short-acting or rapid-onset bronchodilators, means that patients are often unconvinced of the benefit of continuing to take their medication. This adds to problems of poor adherence. Finally, even if patients do continue to take their medication, there are often problems with inhaler technique; failure to use the correct inhaler technique means that the drug is not delivered to its target site, the lower respiratory tract. Overcoming these barriers to effective therapy for asthma requires attention to the affordability of medications, the availability of appropriate inhaler devices and the education of providers and patients.

Asthma is a major challenge for primary health care systems. An ideal system will correctly identify patients with asthma and deliver effective therapy to control the disease, entirely within primary care settings. Major health gains are possible. However, innovative approaches, designed to overcome barriers to the implementation of effective care, are required to achieve this goal.

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