

The Unmet Global Health Need of Severe and Complex Allergies: Meeting the Challenge

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THE GLOBAL PUBLIC HEALTH CONCERN OF ALLERGIC DISEASES AND ASTHMA

Allergies affect up to 30 to 40% of the population worldwide, and the severity and complexity of allergic diseases, including asthma, continue to increase. This escalation in the prevalence of allergies is especially seen in children and young adults, and they bear the greatest burden of these trends. Globally, 300 million people suffer from asthma, and approximately 200 to 250 million people suffer from food allergies.¹ One tenth of the population suffers from drug allergies, and 400 million suffers from rhinitis.¹ Moreover, allergic diseases often commonly occur together in the same individual. With the increase in multiple allergies in a single patient and the increase in food allergies, anaphylaxis, and severe asthma, the impact of severe and complex allergies is considerable. Because of this, an integrated approach to diagnosis and treatment of allergies is required.

This dramatic increase in the prevalence of allergies² is observed as societies become more affluent and urbanized, outdoor and indoor pollution increase, and life style and dietary habits change. Other contributing factors are climate change and reduced biodiversity. This indicates the need for better environmental control measures. Furthermore, the economic costs of allergies and asthma are high both in terms of direct and indirect costs.¹

Despite the high prevalence of allergy in the population, expert or specialist allergy treatment is very difficult to access in many countries, and there is a lack of appropriate training not only at the undergraduate level but also at the postgraduate level. The *WAO White Book on Allergy* from the World Allergy Organization (WAO)¹ summarizes the burden of allergic diseases worldwide: risk factors, impact on the quality of life of patients, morbidity, mortality, socioeconomic consequences, recommended treatment strategies, future therapies, and the cost-benefit analyses of care.

THE IMPORTANCE OF COLLABORATION TO ADDRESS THE PROBLEM GLOBALLY

Despite this increase in the burden of allergic diseases, efforts targeting allergic diseases are still very fragmented. Integration of efforts targeting allergic diseases is important in addressing the problem. WAO is greatly concerned about the increasing global burden of allergic diseases and has therefore put forward a set of recommendations, the "Declaration of Recommendations," in the *WAO White Book on Allergy*.

The recommendations are for governments and health care policy makers, namely, to address the following needs:

1. Global epidemiological studies to assess the true burden of allergic diseases;
2. Implementation of appropriate environmental control measures and development of adequate preventative measures;
3. Increase in the availability and affordability of drugs;
4. Increase in the capacity building among those treating allergies;
5. Increase in the clinical expertise among general practitioners;
6. Increase in public awareness of the impact of allergic diseases and development of innovative preventative strategies.

In the light of this ever-increasing threat of allergic diseases, global partnerships of multidisciplinary teams involving clinicians, academia, patient representatives, and industry, should work toward a common goal of reducing the burden of allergic diseases. This work should involve developing cost-effective, innovative, preventative strategies and a more integrated, holistic approach to treatment, thereby preventing premature and unwanted deaths and improving the quality of life of patients. To further address its concerns about the impact of allergic disease and asthma on public health as laid out in the *WAO White Book on Allergy*, WAO has initiated a global allergy action plan via dialogue with governments, policy makers, and relevant global organizations. WAO is participating, for example, in the newly formed International Collaborative on Asthma, Allergy and Immunology (iCAALL) consisting of WAO, European Academy of Allergy and Clinical Immunology, American Academy of Allergy Asthma and Immunology, and American College of Allergy Asthma and Immunology. This collaboration aims to develop communication tools for specialists, general practitioners, and other health care professionals and also provide information to reach the general public, patients, and policy makers globally to achieve a greater global awareness about allergic diseases and asthma and better delivery of health services to the suffering patients.

WAO'S COMMITMENT TO GLOBAL HEALTH

WAO has just celebrated 60 years as an organization (1951–2011) with a long list of accomplishments for its member

societies and for the field of allergy. As an organization, WAO has expanded to a federation of 89 allergy, asthma, and clinical immunology societies, created strong outreach and education programs, hosted international scientific conferences around the world that have brought together the best minds in allergy/immunology, and developed numerous position statements and publications with representation from its member societies with expertise from around the world.³⁻⁶

Through this work, WAO has helped to define what it is to be an allergist and identified the specialized training, education, and services that are needed to diagnose allergic diseases and care for patients who suffer from them. WAO has provided outreach and support in areas of the world where these resources are greatly needed, toward the goal of ensuring that care for patients with allergic diseases can be available anywhere in the world. After a wealth of achievements over the past 60 years, yet a great deal of work still needs to be done to reach that goal.

During the next 2 years, WAO will focus on severe and complex allergies as an unmet global health problem, promoting education, research, and advocacy on this theme and reach out to its member societies and other organizations to help accomplish strategic goals via an integrated approach to the practice and study of allergy/immunology with an emphasis on early diagnosis and prevention strategies. The key elements to drive this strategy will be increased collaboration, communication, globalization, harmonization, and integration. WAO will also organize its interim conference, the WAO International Scientific Conference (WISC 2012) on this theme in Hyderabad, India, December 6–9, 2012, with a highly scientific, clinically relevant, and practical program.

Over the past 60 years, WAO has demonstrated an admirable record achieved by the best minds coming together to do the critical work. Thus, it is time to innovate and strive for excellence. Recent advances in our understanding of the adaptive immune system have increased the complexities of our understanding of allergies. Large studies on genes and epigenetic phenomena involving diverse multiethnic populations could contribute to the better understanding of the pathophysiological mechanisms especially in the more severe forms of disease. The importance of early life environmental influences on the etiology of asthma and allergies (especially measurable associations between early life circumstances such as maternal and childhood nutrition) indicates early life

opportunities for interventions targeted toward the prevention and treatment of allergies and asthma.

WAO will contribute to such research efforts via a network of knowledge centers. The organization has already begun to increase the involvement of young people and will work to ensure the future of allergy by empowering its junior members. Several new initiatives are being planned to carry out the mission of WAO, and the Executive Committee and Board of Directors look forward to working together with all WAO member societies. Several of the 62 societies that responded to the survey for the *WAO White Book on Allergy* have highlighted unmet needs in their countries. WAO will establish a regular channel of communication and dialogue with all stakeholders on the most important issues that can make an impact in addressing the unmet global public health need of severe and complex allergies working toward improved patient care, better health care delivery, prevention, and improvement of the patient's quality of life.

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- WAO White Book on Allergy: www.worldallergy.org/UserFiles/file/WAO-White-Book-on-Allergy.pdf
- Board of Directors 2012-2013: www.worldallergy.org/wao_societies/board.php
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