



## What is an Allergist?

The allergist is a physician who has a broad range of highly specialized clinical and diagnostic skills.

The allergist has a strong knowledge base covering the disease manifestations for every allergic, immunologic and overlapping disease, the cellular basis of immune and allergic reactions, and the conditions that may mimic or overlap with allergic disease

# What diseases do allergists treat?

Rhino-conjunctivitis; Sinusitis; Otitis;  
Asthma; Cough; Bronchitis; Hypersensitivity pneumonitis;  
Alveolitis;  
Atopic dermatitis/eczema; Contact dermatitis;  
Urticaria and angioedema;  
Drug allergy; Food allergy; Latex Allergy;  
Insect Allergy and Stinging-insect hypersensitivity  
Gastrointestinal reactions resulting from allergy;  
Anaphylactic shock; Immunodeficiencies  
Occupational allergic diseases

# Trained Allergists in Asia

- Philippines:  
1 trained allergist per 66,000 people
- Thailand:  
1 trained allergist per 1 million people
- Mongolia:  
1 trained allergist per 2,250,000 people
- Malaysia:  
1 trained allergist per 25 million people

- **Everyone in the world is exposed to risk factors for CRD**
  - **3 billion: urban areas (outdoor air pollution)**
  - **1 billion: slum areas**
  - **2 billion: biomass fuel combustion**
  - **1 billion: tobacco smoke**
  - **500 milion: inhaled occupational agents**
  - **Everyone: allergens**
- **Over 1 billion people suffer from CRD and allergies**
- **4 million die prematurely each year**

<b>Asthma</b>	<b>300 million</b>
<b>Allergic rhinitis</b>	<b>400 million</b>
<b>COPD</b>	<b>210 million</b>
<b>Sleep apnea syndrome</b>	<b>100 million</b>
<b>Other CRD</b>	<b>&gt; 50 million</b>
<b>TOTAL</b>	<b>&gt; 1 billion</b>

*WHO official number*

# **Global Alliance against Chronic Respiratory Diseases**

- voluntary alliance of national and international organizations, institutions, and agencies committed to the common goal to improve global respiratory health**
- GARD is part of the WHO action plan against chronic diseases**
- Because most of CRDs are under-diagnosed, under-treated and there is little access to essential medications in many countries, a global effort is needed**

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ACAAI (M. Blaiss, USA)  
AIMAR (C. Donner, ITA)  
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Allergy Research Foundation  
Asthma Society of Canada  
Belgian Thoracic Society  
Czech Initiative for Asthma  
Chest Research Foundation, India  
Education for Health, United Kingdom  
Egyptian Society of Allergy and Immunology  
Egyptian Society of Allergy, Asthma and Immunology  
Egyptian Society of Chest Diseases and Tuberculosis  
International Federation of Oto-Rhino-Laryngological Societies  
International Rhinologic Society  
Japanese Society of Allergology  
Libra Project  
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Pulmonary Hypertension Association  
Public Health Agency of Canada  
Pan African Thoracic Society  
Société Allergique d'Asthmologie, d'Allergologie et d'Immunologie Clinique  
Société Libanaise d'Allergie et d'Immunologie  
Tunisian Society of Thoracic Medicine  
Union of the Bulgarian Medical Societies  
University of Montpellier  
Yugoslav Association for Asthma and COPD  
Wyeth Foundation

70

More than  
1.5 million  
Health Professionals

together to work  
towards a world where all  
people breathe freely

45

**Vision:** A world where all people breathe freely

**Mission:** To reduce the global CRD burden

**Objectives:** To initiate a comprehensive approach by

- Developing standard methods to obtain data on CRD burden and risk factors
- Encouraging countries to develop prevention
- Making simple recommendations for CRD management

**Added value:**

- Coordination of existing tools and new tools in a network (WHO)
- Links with governments

**Specific focus:** developing countries, deprived populations



**The cost of inaction  
is clear and unacceptable**

**We work for and with the  
patients for**



**A world where  
all people  
breathe freely**















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# Current and future trends in allergy prevalence and treatment



**Michael A. Kaliner**  
**President**  
**World Allergy Organization**



Allergy; the most frequent reason  
patients seek medical care

Size of the global allergy burden  
32 countries provided estimates;  
1.3 billion population

22% prevalence of allergic diseases  
only 15,500 trained allergists!

Highest trained allergist provision Germany  
1:16,000 population

Lowest trained allergist provision Malaysia  
1:25 million population

*Allergy Practice Worldwide. WAO Specialty and Training  
Council Report; ACII-JWAO, 2006; 18: 4-10*

# Prevalence of common allergic diseases

Allergic rhinitis – 17%

Allergic asthma – 11%

Atopic eczema – 7 %

*Allergy Prevalence Survey by World Allergy Organization.  
Compalati et al, ACII-JWAO, 2007; 19; 82-90*

# Prevalence of common allergic diseases

Anaphylaxis – 1%

*Neugut, Arch Int Med, 2001 ; Simons JACI, 2002*

Stinging insect allergy – 2-3.5%

Food allergy – 3-5%

Drug allergy – 1-14%

*WAO Allergy Prevalence Survey ACII, 2007*

Sinusitis – 14.7% in USA

*WAO GLORIA Program, 2007*

# Factors affecting allergy prevalence

## Global Warming

As temperatures increase, plant and insects migrate into temperate latitudes and higher elevations;

Allergy seasons of pollinating plants and trees increase;

Increased humidity increases growth of allergenic mites and molds

# Factors affecting allergy prevalence

## Global Warming

Desert regions expand, reducing farm land - humans migrate from rural to urban areas;

Rural to urban migration leads to increase in asthma and allergies *Steinman et al, 2003;*

Cross-reactivity of new environmental allergens can result in new IgE sensitizations and thus more complex allergic symptoms

# Factors affecting allergy prevalence

## Environment

Reduction in pollution decreases infective respiratory diseases but paradoxically increases allergy-related respiratory diseases

Hygiene hypothesis - cleaner, healthier, less infection-prone lifestyle switches immune responses in favor of allergic response

# Factors affecting allergy prevalence

## Social

Decreased breast-feeding by working mothers – babies meet foreign food proteins before gut immune system has matured

Increased reliance on processed foods increases exposure to allergenic proteins and preservatives

Genetically modified foods may introduce an allergen protein into a previously 'safe' food

# Medical care for allergy patients

In many countries there are no trained allergists

In some developed countries, allergy has been downgraded from specialty status

All physicians who see patients with allergic diseases need appropriate training to recognize allergy, and the ability to refer patients to an allergy specialist

# How is WAO addressing the shortage of trained physicians?

Requirements for Physician Training in Allergy;  
WAO Position Statement

*ACII-JWAO, 2006, 18; 92-97*

What is an Allergist? WAO Position Statement  
*(for publication, 2008)*

Summer Schools offer practical training in allergy diagnosis and administration of therapy

# New therapy directions

What do we need?

Treatment guidelines for local adaptation;  
Focus on inhaled steroids as the most cost-effective therapy for asthma;

Topical rather than systemic therapies;

Move to sub-lingual immunotherapy which is safe and easy to administer;

Wider availability of auto-injectable epinephrine for patients at risk of anaphylaxis;

Therapies that modulate the immune response



## Summary

Allergic diseases are increasing and becoming more complex while health care provision is decreasing;  
World Allergy Organization is defining the scope of the problem and proposing practical responses