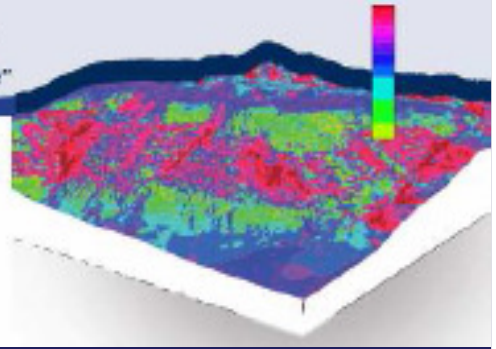
SHARE International Conference "Mountains: energy, water and food for life. The SHARE project: understanding the impacts of climate change"

Milan, May 2009



# *Improving global lung health: the role of the Global Alliance against chronic Respiratory Diseases (GARD)*


## *Giovanni Viegi, M.D.*

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. Scientific Responsible, Pulmonary Environmental Epidemiology Unit, CNR Institute of Clinical Physiology, Pisa, Italy
. Professor of "Health Effects of Pollution", School of Environmental Sciences, University of Pisa, Italy
. 2006-07 Past-President, European Respiratory Society (ERS)
. 2007-09 Member of Planning Group, Global Alliance against chronir Respiratory Diseases (GARD)

# Preventing CHRONIC DISEASES a vital investment

World Health Organization

PUBLIC HEALTH AGENCY of CANADA
AGENCE DE SANTÉ PUBLIQUE du CANADA

**To be included among the Millennium Development Goals**

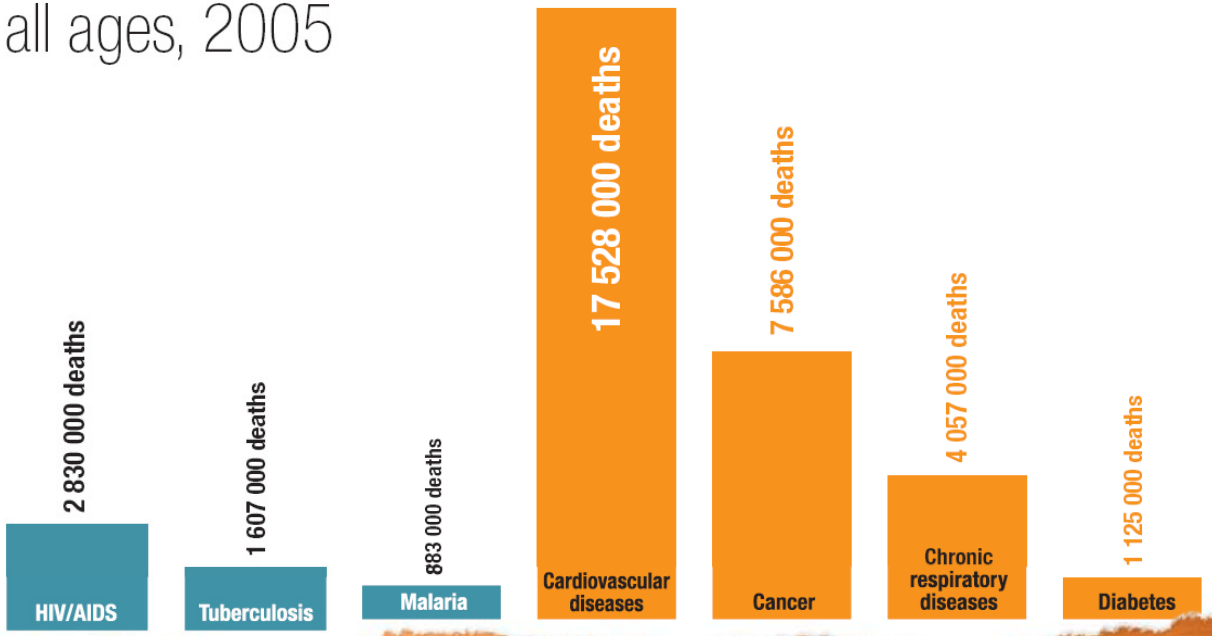
Chronic diseases include heart disease, stroke, cancer, chronic respiratory diseases and diabetes. Visual impairment and blindness, hearing impairment and deafness, oral diseases and genetic disorders are other chronic conditions that account for a substantial portion of the global burden of disease.

From a projected total of 58 million deaths from all causes in 2005,[1] it is estimated that chronic diseases will account for 35 million, which is double the number of deaths from all infectious diseases (including HIV/AIDS, tuberculosis and malaria), maternal and perinatal conditions, and nutritional deficiencies combined.

[1] The data presented in this overview were estimated by WHO using standard methods to maximize cross-country comparability. They are not necessarily the official statistics of Member States.

# 35 000 000 people will die from chronic diseases in 2005

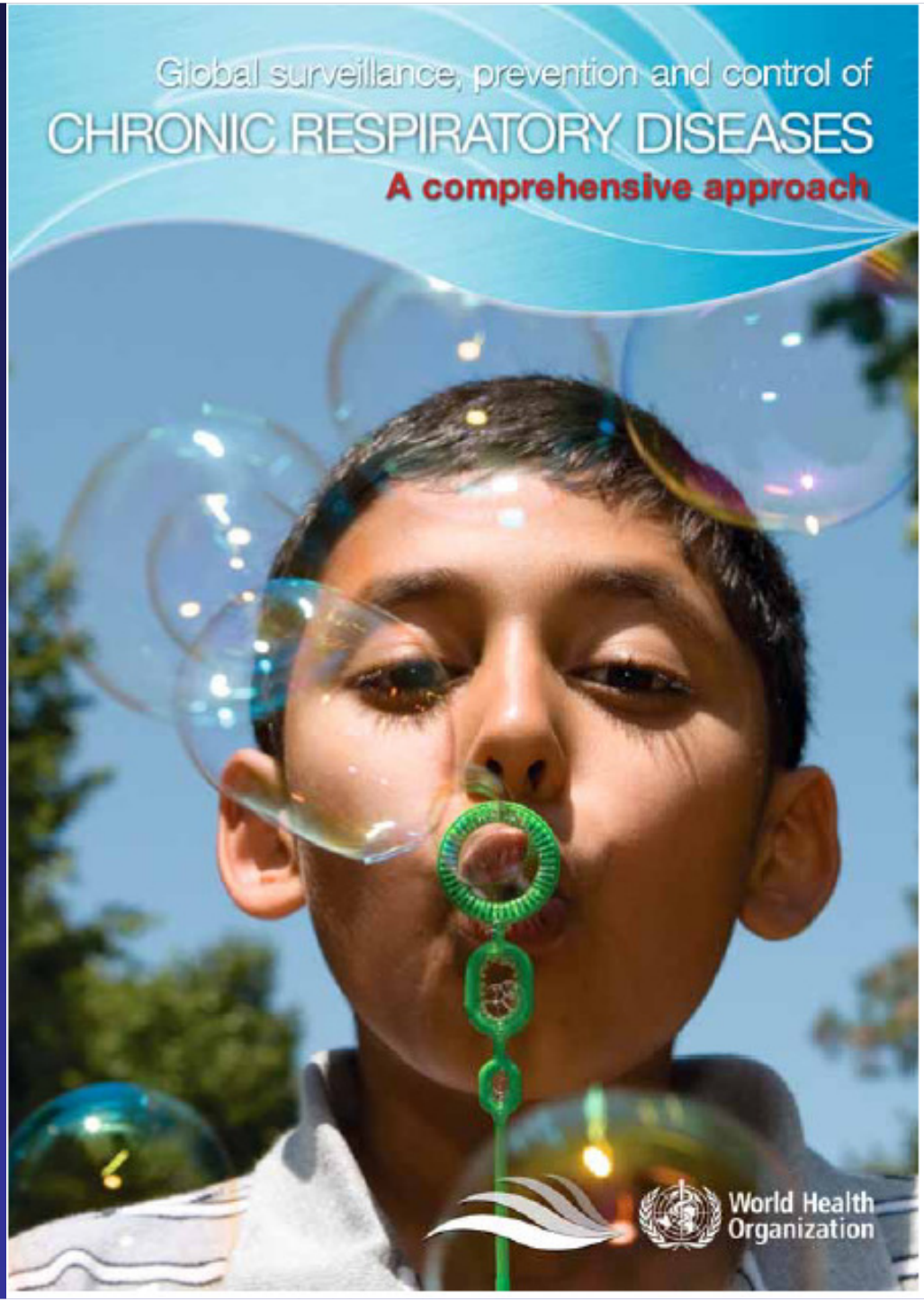
## Projected global deaths by cause, all ages, 2005




# 60% of all deaths are due to chronic diseases




WHO 2005


Global surveillance, prevention and control of
CHRONIC RESPIRATORY DISEASES
A comprehensive approach
World Health Organization

GARD

2007

# OVERVIEW

## 1. The Burden of Chronic Diseases

**KEY MESSAGES**

- 80% of chronic disease deaths occur in low and middle income countries.
- The threat is growing – the number of people, families and communities afflicted is increasing.
- This growing threat is an under-appreciated cause of poverty and retards the economic development of many countries.
- The chronic disease threat can be overcome using existing knowledge.
- The solutions are effective – and highly cost effective.
- Comprehensive and integrated action at country level, led by governments, is the means to achieve success.

**Figure 1 Projected global deaths and disability–adjusted life years (DALYs) in 2005**

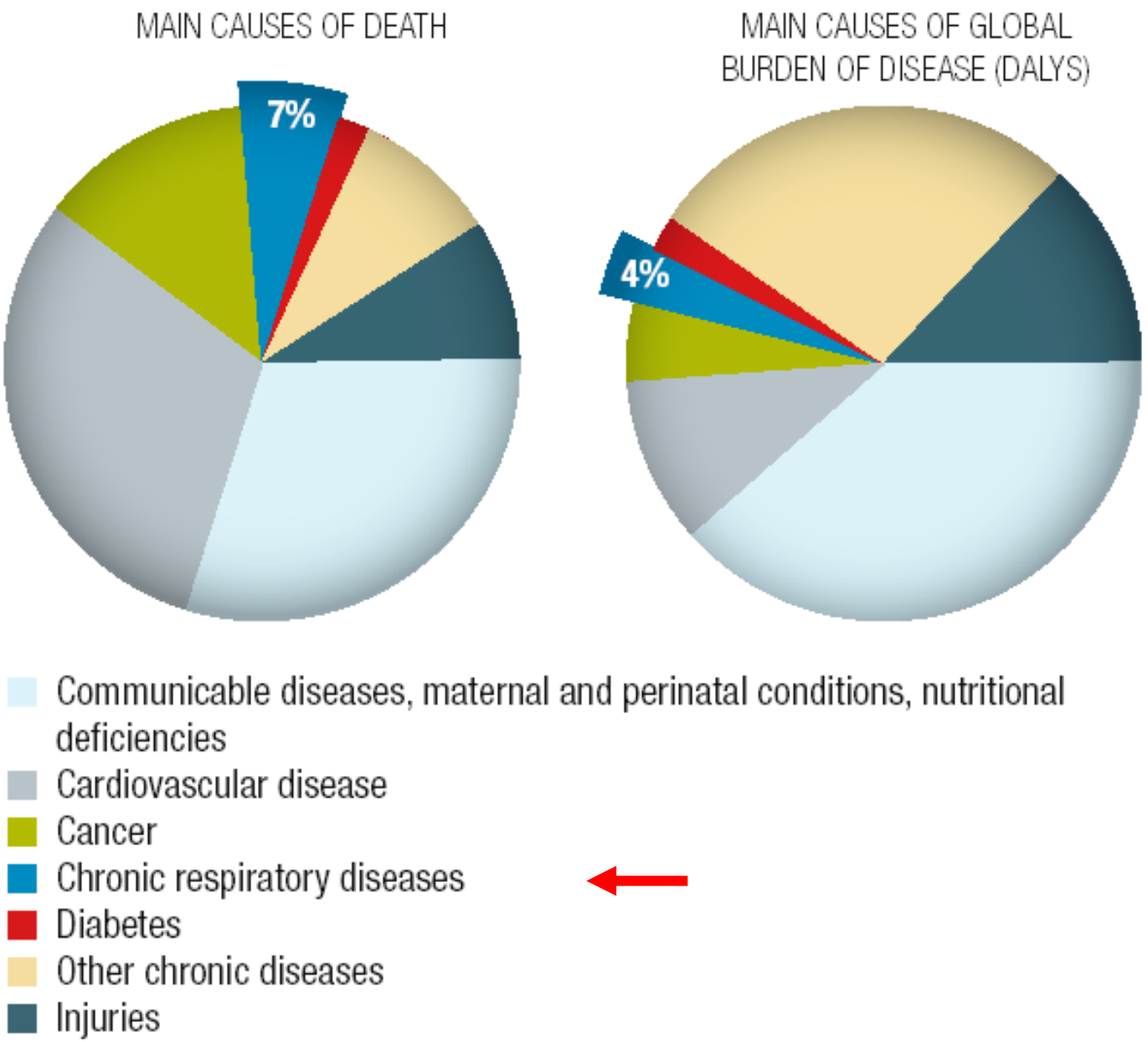


**Table 11 Changes in rankings for 15 leading causes of DALYs, 2002 and 2030**

| Category | Disease or injury | 2002 Rank | 2030 Ranks | Change in Ranks |
|---|---|---|---|---|
| **Within top 15** | Perinatal conditions | 1 | 5 | -4 |
| | Lower respiratory infections | 2 | 8 | -6 |
| | HIV/AIDS | 3 | 1 | +2 |
| | Unipolar depressive disorders | 4 | 2 | +2 |
| | Diarrhoeal diseases | 5 | 12 | -7 |
| | Ischaemic heart disease | 6 | 3 | +3 |
| | Cerebrovascular disease | 7 | 6 | +1 |
| | Road traffic accidents | 8 | 4 | +4 |
| | Malaria | 9 | 15 | -6 |
| | Tuberculosis | 10 | 25 | -15 |
| | COPD | 11 | 7 | +4 |
| | Congenital anomalies | 12 | 20 | -8 |
| | Hearing loss, adult onset | 13 | 9 | +4 |
| | Cataracts | 14 | 10 | +4 |
| | Violence | 15 | 13 | +2 |
| **Outside top 15** | Self-inflicted injuries | 17 | 14 | +3 |
| | Diabetes mellitus | 20 | 11 | +9 |

# 2. Preventable Chronic Respiratory Diseases: A Major Global Health Problem

KEY MESSAGES

- Chronic respiratory diseases are chronic diseases of the airways and the other structures of the lungs. Major preventable chronic respiratory diseases include asthma and respiratory allergies, chronic obstructive pulmonary disease (COPD), occupational lung diseases, sleep apnea syndrome and pulmonary hypertension.
- Hundreds of millions of people of all ages (from infancy to old age) suffer from preventable chronic respiratory diseases and respiratory allergies in all countries of the world.
- More than 500 million of these people live in low and middle income countries or deprived populations.
- Chronic respiratory diseases account for four million deaths annually.

# 2. Preventable Chronic Respiratory Diseases: A Major Global Health Problem

- Measured in DALYs, in 2005 the burden of chronic respiratory diseases was projected to account for 4% of the global burden and 8.3% of the burden of chronic diseases.
- Preventable chronic respiratory diseases are increasing in prevalence, particularly among children and elderly people.
- The burden of preventable chronic respiratory diseases has major adverse effects on the quality of life and disability of affected individuals.
- Many risk factors for preventable chronic respiratory diseases have been identified and efficient preventive measures established.
- Effective management plans have been shown to reduce the morbidity and mortality caused by chronic respiratory diseases.
- Prevention and management plans concerning chronic respiratory diseases are fragmented and need to be coordinated.

# Barriers that increase the burden of chronic respiratory diseases

**Insufficient priority**
**Insufficient prevention**

**Inadequate control**

# 3. A Mechanism for Action: The Global Alliance Against Chronic Respiratory Diseases (GARD)

**KEY MESSAGES**

- The Global Alliance against Chronic Respiratory Diseases (GARD) brings together national and international organizations, institutions and agencies to combat chronic respiratory diseases.
- GARD's goal is to reduce the global burden of chronic respiratory diseases.
- GARD's emphasis is on the needs of low- and middle-income countries.

# WHO calls for a global and coordinated effort to fight chronic respiratory diseases and allergies


GARD

# Italian GARD Members

- CNR Institute of Neurobiology and Molecular Medicine (INMM)
- Interdisciplinary Association for Research in Lung Diseases (AIMAR)
- Italian Society for Respiratory Medicine (SIMeR)
- Italian Association of Hospital Pneumologists (AIPO)
- LIBRA Project
- Department of Prevention – Italian Ministry of Health
- More recently: SIAIC, SIMRI, EV-K2 CNR

| Name of Organization | Year esta-blished | Journal and Website address | Mission |
|---|---|---|---|
| EV-K2-CNR Committee (**EV-K2-CNR Committee**) | 1989 | www.evk2cnr.org | To promote sustainable mountain development and to safeguard high altitude environments by implementing management-oriented research to the benefit of local populations and decision makers, while building local capacity to understand and apply this type of specialized scientific knowledge. |

General Meeting Report
Istanbul, Turkey, 30-31 May 2008

| Category (Int.Org./NGO/etc.) | Interest sections or assemblies | Number of members/partners and representation by WHO Region |
|---|---|---|
| Independent, nonprofit association; with UNEP (observer status) and ECOSOC (roster status) accreditation for NGOs. | Relevant interest sections: High Altitude Medicine and Physiology, Hypoxia, COPD, Indoor Air Pollution.<br><br>Institutional scientific assemblies which meet periodically include Ev-K2-CNR External Research Unit Management Committee; Ev-K2-CNR Executive Committee; Ev-K2-CNR Scientific Council; Ev-K2-CNR / Nepal Academy of Science and Technology Bilateral Technical Committee, High Altitude Medicine and Physiology Research Sector | 17 institutional members, 43 international staff/consultants working in offices and on the field in Italy, Nepal, Pakistan, Uganda and Kuwait. 180 national and international collaborating or affiliated scientific institutions, of which about 20 are dedicated exclusively to medical/physiology research.<br><br>EURO, AFRO, EMRO, SEARO |

**Table 4 Estimates of the prevalence of preventable chronic respiratory diseases**

| Chronic respiratory disease | Year of estimation | Prevalence | Reference |
|---|---|---|---|
| Asthma | 2004 | 300 million | *15* |
| Chronic obstructive pulmonary disease | 2000 | 210 million | *30–32* |
| Allergic rhinitis | 1996–2006 | 400 million | *33–37* |
| Other respiratory diseases | 2006 | >50 million | *38–44* |
| Sleep apnea syndrome | 1986–2002 | >100 million | *45–48* |

# Asthma Prevalence in the world

*Allergy 2004: 59: 469–478*



**Review article**

The global burden of asthma: executive summary of the GINA Dissemination Committee Report

**Matthew Masoli, Denise Fabian, Shaun Holt, Richard Beasley for the Global Initiative for Asthma (GINA) Program**

| | | | | | |
|---|---|---|---|---|---|
| Scotland | 18.4 | Ivory Coast | 7.8 | Italy | 4.5 |
| Jersey | 17.6 | Colombia | 7.4 | Oman | 4.5 |
| Guernsey | 17.5 | Turkey | 7.4 | Pakistan | 4.3 |
| Wales | 16.8 | Lebanon | 7.2 | Tunisia | 4.3 |
| Isle of Man | 16.7 | Kenya | 7.0 | Cape Verde | 4.2 |
| England | 15.3 | Germany | 6.9 | Latvia | 4.2 |
| New Zealand | 15.1 | France | 6.8 | Poland | 4.1 |
| Australia | 14.7 | Norway | 6.8 | Algeria | 3.9 |
| Republic of Ireland | 14.6 | Japan | 6.7 | South Korea | 3.9 |
| Canada | 14.1 | Sweden | 6.5 | Bangladesh | 3.8 |
| Peru | 13.0 | Thailand | 6.5 | Morocco | 3.8 |
| Trinidad & Tobago | 12.6 | Hong Kong | 6.2 | Occupied Territory of Palestine | 3.6 |
| Costa Rica | 11.9 | Philippines | 6.2 | Mexico | 3.3 |
| Brazil | 11.4 | United Arab Emirates | 6.2 | Ethiopia | 3.1 |
| United States of America | 10.9 | Belgium | 6.0 | Denmark | 3.0 |
| Fiji | 10.5 | Austria | 5.8 | India | 3.0 |
| Paraguay | 9.7 | Spain | 5.7 | Taiwan | 2.6 |
| Uruguay | 9.5 | Saudi Arabia | 5.6 | Cyprus | 2.4 |
| Israel | 9.0 | Argentina | 5.5 | Switzerland | 2.3 |
| Barbados | 8.9 | Iran | 5.5 | Russia | 2.2 |
| Panama | 8.8 | Estonia | 5.4 | China | 2.1 |
| Kuwait | 8.5 | Nigeria | 5.4 | Greece | 1.9 |
| Ukraine | 8.3 | Chile | 5.1 | Georgia | 1.8 |
| Ecuador | 8.2 | Singapore | 4.9 | Nepal | 1.5 |
| South Africa | 8.1 | Malaysia | 4.8 | Romania | 1.5 |
| Czech Republic | 8.0 | Portugal | 4.8 | Albania | 1.3 |
| Finland | 8.0 | Uzbekistan | 4.6 | Indonesia | 1.1 |
| Malta | 8.0 | FYR Macedonia | 4.5 | Macau | 0.7 |

# Asthma Prevalence in Italy

**Epidemiological surveys of Po Delta and Pisa**

*Chest* 2004;126;1093-1101

## The Proportional Venn Diagram of Obstructive Lung Disease in the Italian General Population*

*Giovanni Viegi, MD; Gabriella Matteelli, MD; Anna Angino, BS; Antonio Scognamiglio, MD; Sandra Baldacci, BSc; Joan B. Soriano, MD, PhD; and Laura Carrozzi, MD*

**Table 2—*Prevalence Rates of CB, Emphysema, and Asthma in the Two Italian General Population Samples***

| Disease | Po River Delta, % (n = 2,463) | Pisa, % (n = 1,890) | p Value* |
|---|---|---|---|
| OLD | 6.9 | 10.9 | 0.000 |
| → Asthma only | 4.54 | 5.82 | |
| → Asthma + CB | 0.28 | 0.21 | |
| → Asthma + emphysema | 0.20 | 0.26 | |
| CB only | 0.89 | 1.22 | |
| CB + emphysema | 0.12 | 0.85 | |
| Emphysema only | 0.61 | 2.28 | |
| → CB + emphysema + asthma | 0.24 | 0.21 | |

*By $\chi^2$ test.

**Rural zone: 5.26%**

**Urban zone: 6.50%**

# COPD Prevalence in the World

Global burden of COPD: systematic review and meta-analysis Eur Respir J 2006; 28: 523–532

R.J. Halbert*,#, J.L. Natoli*,¶, A. Gano*, E. Badamgarav*, A.S. Buist+ and D.M. Mannino§

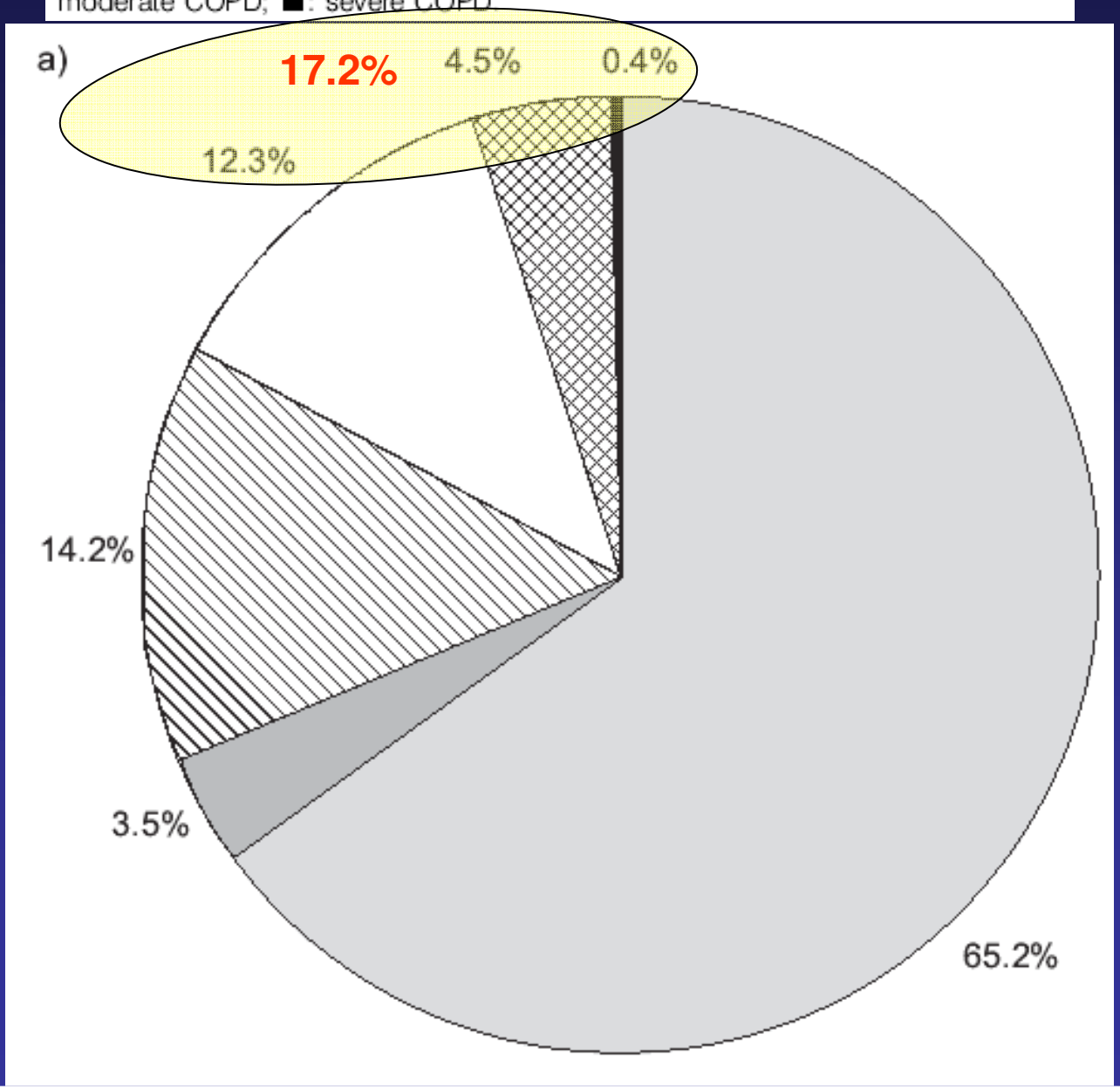
**TABLE 4** Nonduplicated pooled prevalence estimates for chronic obstructive pulmonary disease by category

| | Estimates | Cases | Total population | Prevalence % | Pooled prevalence % | p-value# |
|---|---|---|---|---|---|---|
| **WHO region** | | | | | | |
| Africa | 0 | 0 | 0 | | | 0.7768 |
| Americas | 3¶ | 2666 | 27599 | 4.5 (3.2–14.0) | 4.6 (2.8–7.6) | |
| Eastern Mediterranean | 0 | 0 | 0 | | | |
| Europe | 28 | 104773 | 4015455 | 8.3 (2.1–26.4) | 7.4 (5.9–9.3) | |
| South-East Asia | 2+ | 747 | 6044 | 12.5 (7.1–17.9) | 11.4 (4.4–26.4) | |
| Western Pacific | 4§ | 3075 | 74548 | 10.6 (3.0–18.2) | 9.0 (3.0–24.1) | |

**COPD defined by : Spirometry or Patient-reported Diagnosis or Physicians diagnosis or Physical/radiography**

**MALES**

**FIGURE 1.** Prevalence of chronic obstructive pulmonary disease (COPD) severity by gender in the Po Delta survey, in a) males (n=1,214) and b) females (n=1,250). ▒: absence; ▨: pre-risk 0; ▧: at risk of COPD; □: mild COPD; ▩: moderate COPD; ■: severe COPD.




(Viegi's part)

Part I of II

Zielinski et al, ERJ 2006

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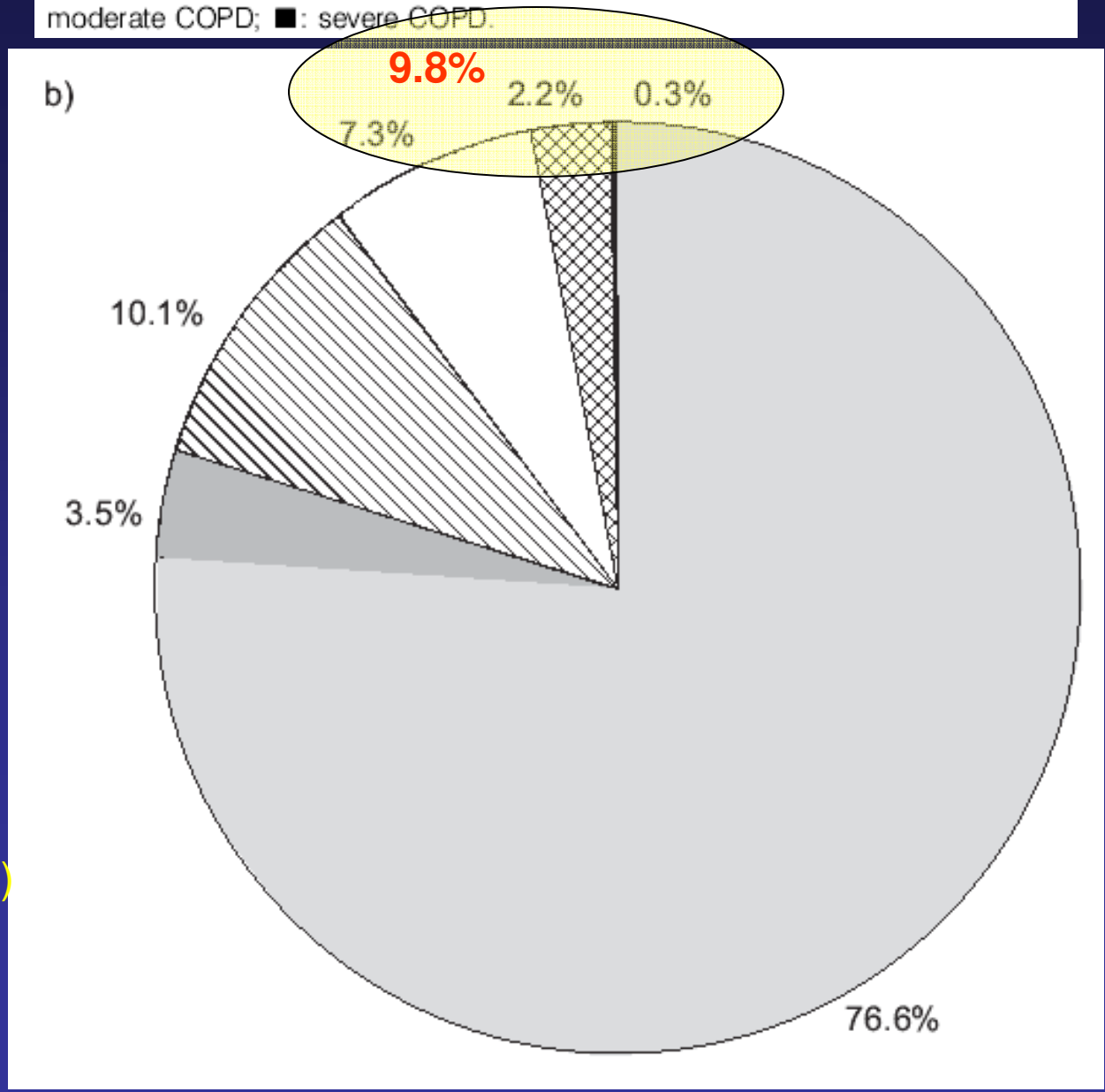



**FEMALES**

(Viegi's part)

Part II of II

Zielinski et al, ERJ 2006

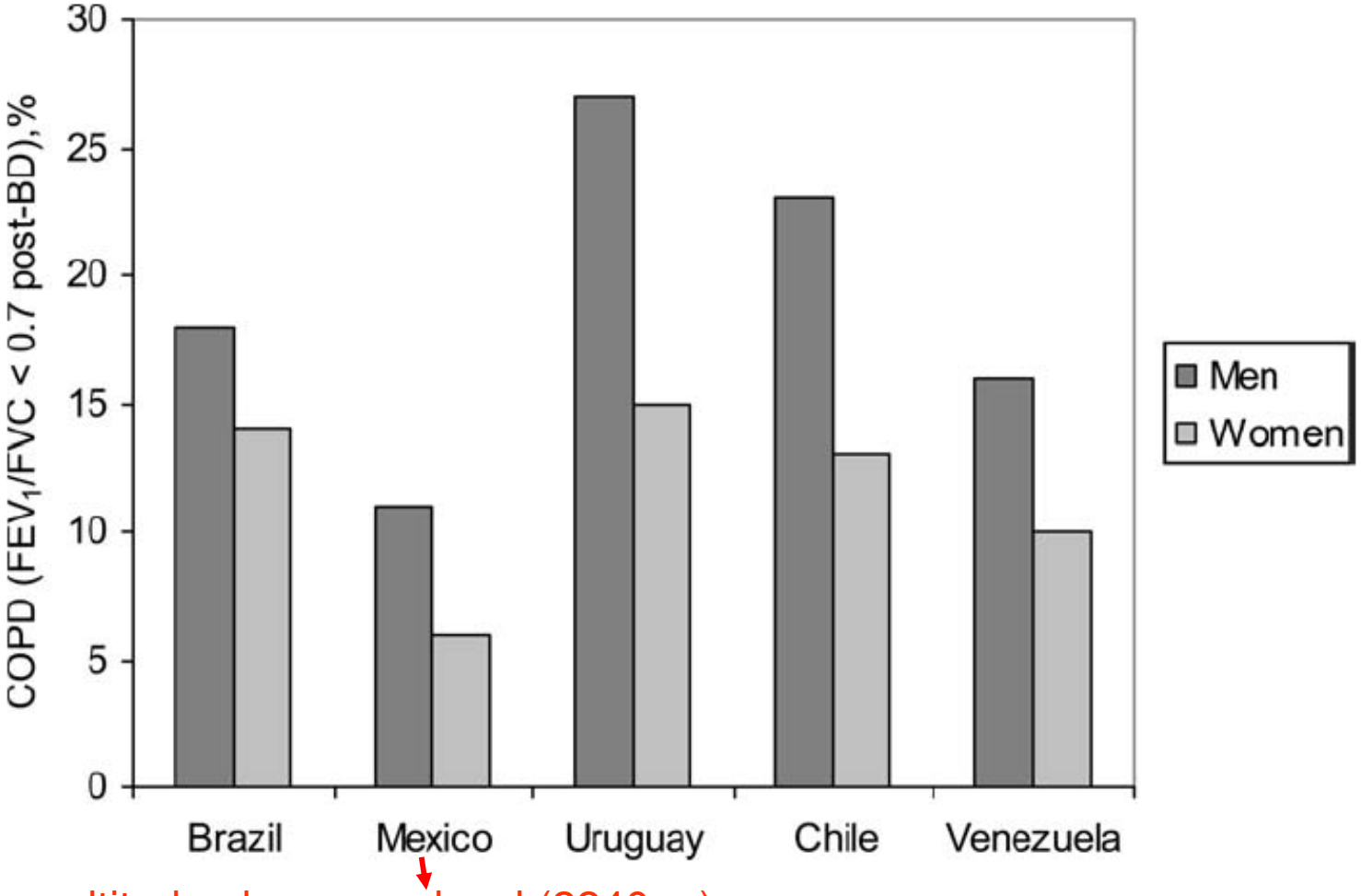



**Figure 1** Prevalence of COPD in five Latin American cities by sex—the PLATINO study. COPD = chronic obstructive pulmonary disease; $FEV_1$ = forced expiratory volume in 1 second; FVC = forced vital capacity; BD = bronchodilator.

Menezes, IJTLD 2008

# 8. Pulmonary Hypertension

**KEY MESSAGES**

- Pulmonary hypertension may be primary, or a consequence of various conditions, such as chronic obstructive pulmonary disease, pulmonary fibrosis, sickle cell disease and schistosomiasis.
- It is often associated with a poor prognosis.
- Interventions to control risk factors and treat pulmonary hypertension may reduce the burden of the disease.

**Pulmonary hypertension, cor pulmonale, thrombosis: Marc Humbert**
Pulmonary hypertension is **defined by a mean pulmonary artery pressure above 25 mm Hg.**
If untreated, this condition has a poor prognosis. Idiopathic pulmonary arterial hypertension (IPAH) is very rare, arterial pulmonary hypertension (APH) is rare but pulmonary hypertension (PH) is very common affecting probably millions of patients around the world. The major risk factors of PH are COPD, ***altitude***, schistosomiasis and sickle cell disease. Patients with TB, HIV, liver cirrhosis, auto-immune diseases, congenital heart diseases and sarcoidosis are also at risk. Obesity is an associated risk factor.

**Prevention and Control of Chronic Respiratory Diseases at Country Level**

**Towards a Global Alliance against Chronic Respiratory Diseases (GARD)**

**based on the WHO Meeting on Prevention and Control of Chronic Respiratory Diseases**

**Geneva, Switzerland, 17-19 June 2004**

# The Heart and Pulmonary Circulation at High Altitudes

## Healthy Highlanders and Chronic Mountain Sickness

Dante Penaloza, MD; Javier Arias-Stella, MD, FRCP

(*Circulation*. 2007;115:1132-1146.)

**TABLE 1. Respiratory and Hematologic Parameters in SL Residents and HA Natives**

| | Lima (150 m; $P_B$=753 mm Hg) | Morococha (4540 m; $P_B$=445 mm Hg) |
|---|---|---|
| $Paco_2$, mm Hg | 40 | 29 |
| $Pao_2$, mm Hg | 90 | 50 |
| $Sao_2$, % | 97 | 79 |
| Hb, g/dL | 15 | 20 |
| Hct, % | 45 | 60 |

Values are average of several studies. $P_B$ indicates barometric pressure; $Paco_2$, partial pressure of arterial carbon dioxide; $Pao_2$, partial pressure of arterial oxygen; $Sao_2$, arterial oxygen saturation; Hb, hemoglobin concentration; and Hct, hematocrit. Data derived from Hurtado.[38]

SL= sea level
HA= high altitude

Penaloza, Circulation 2007

Penaloza, Circulation 2007

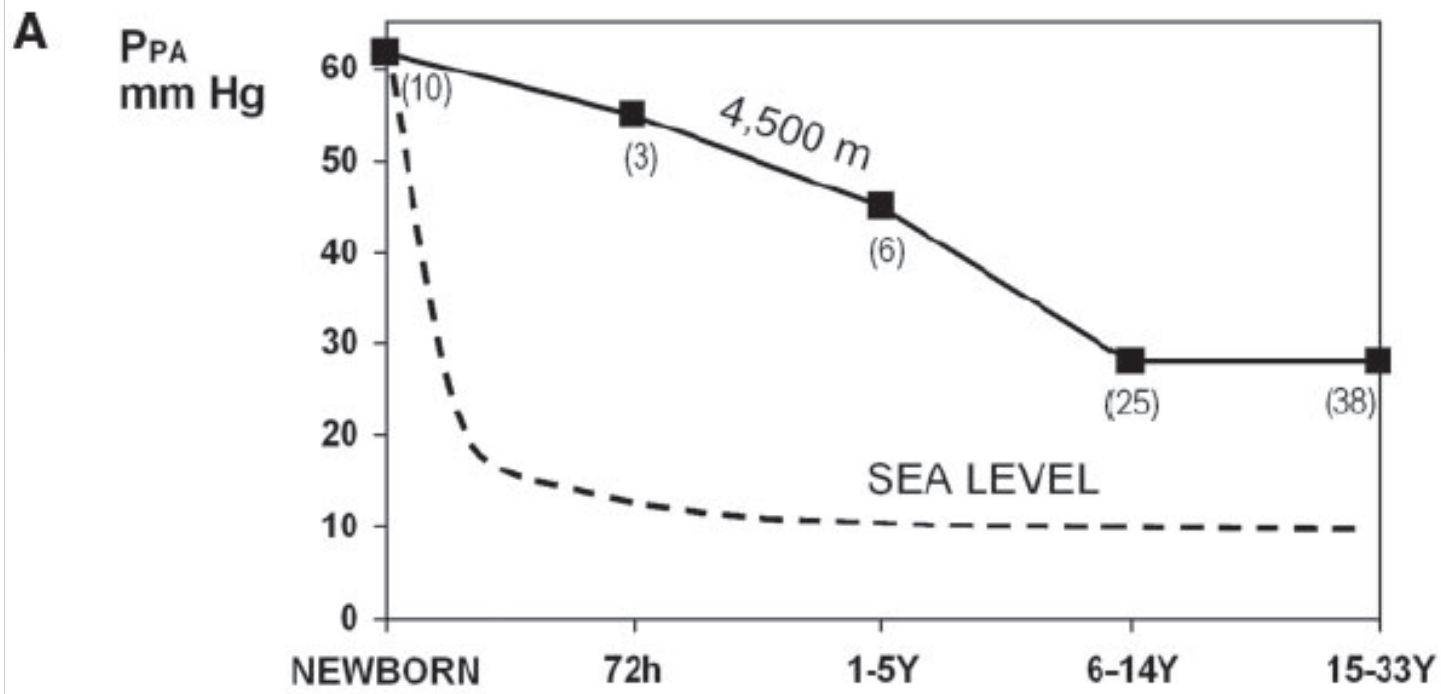



**Figure 2.** A, Relation of PPA to age in HA natives (4500 m) in comparison to data described at SL. PPA of ≈60 mm Hg is similar in SL newborns and HA newborns (4540 m). Postnatal changes diverge. PH slowly declines and remains until the adult age in people born at HA, in contrast to the fast decline of PPA described in subjects born at SL. Numbers in parentheses indicate number of cases. B, Schematic representation of remodeling at the distal pulmonary arterial branches. There is prompt vascular remodeling in infants born at SL by contrast with a delayed process in infants born at HA. Data derived from Penaloza et al,[6] Sime et al,[7] Penaloza et al,[8] Gamboa and Maticorena,[9] Arias-Stella and Saldaña,[13] Arias-Stella and Castillo,[14] Penaloza et al,[15] and Arias-Stella[16].

Penaloza, Circulation 2007

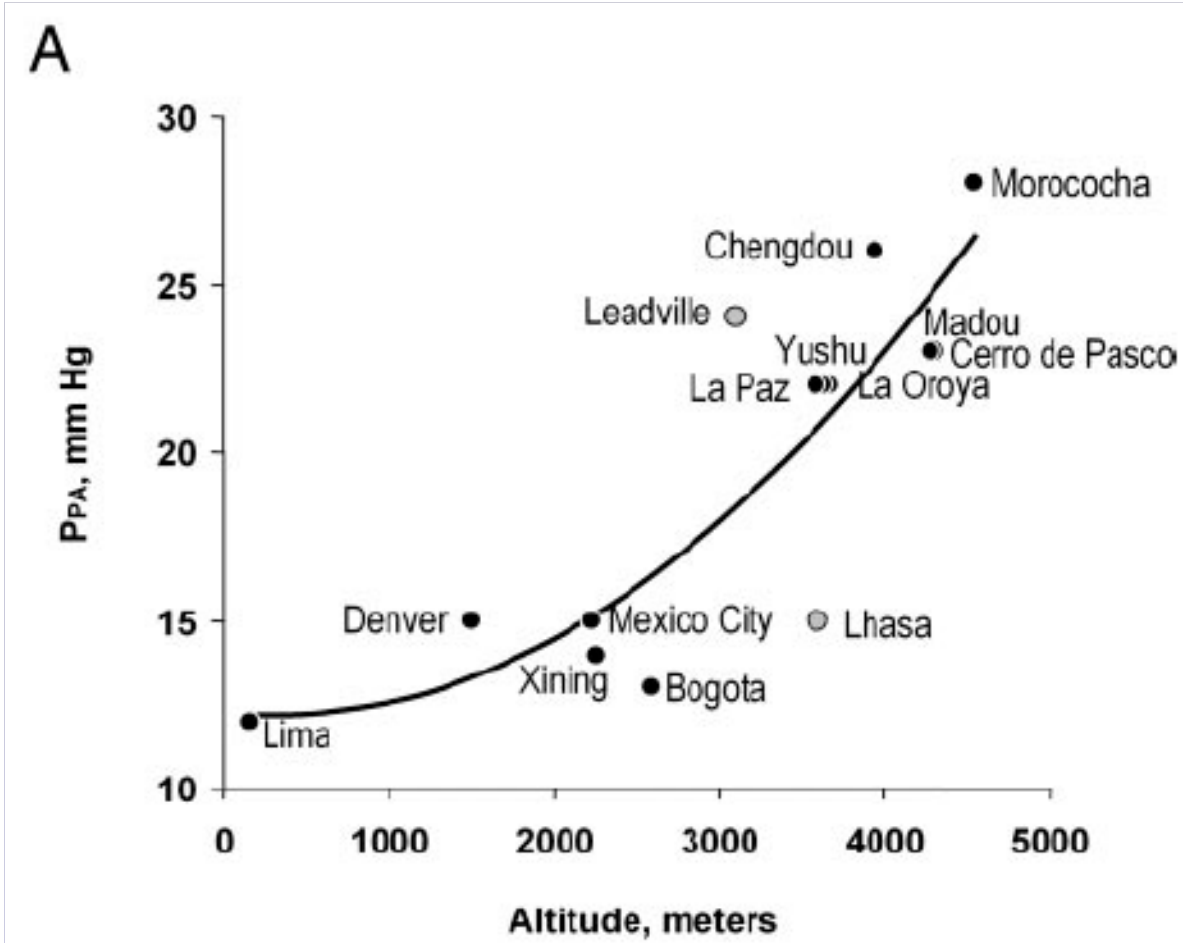
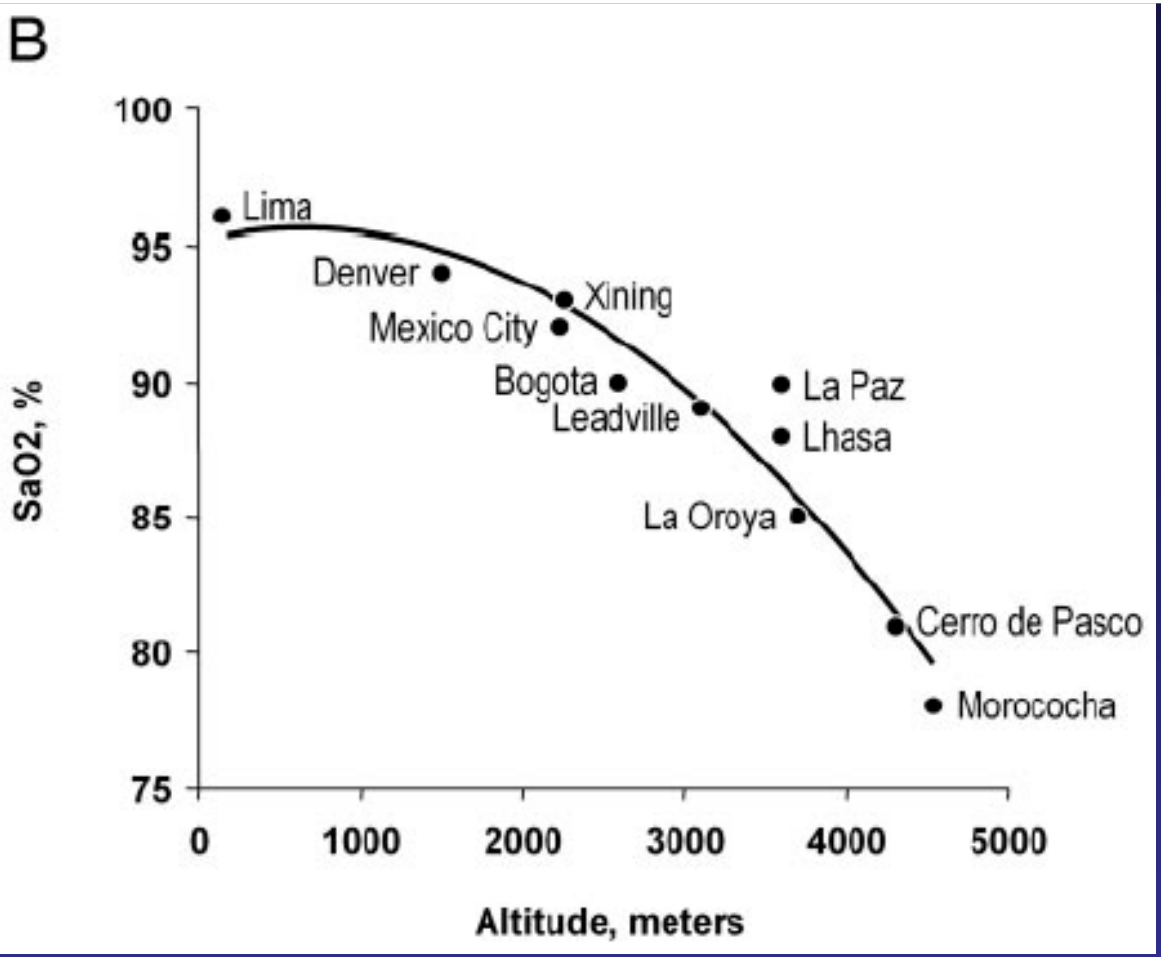



**Figure 4.** A, Level of altitude as related to PPA. There is a direct relationship represented by a parabolic line so that above 3000 m moderate increments in altitude correlate to great increases in PPA. There are 2 exceptions to this correlation (○). PPA in Leadville, Colo (3100 m), is greater than expected for this altitude. PPA in Lhasa, Tibet (3600 m), is lower than expected for this altitude. B, Level of altitude as related to $Sao_2$. There is an inverse relationship between these 2 variables. Notice that Leadville and Lhasa follow the general tendency, different from what occurs with PPA. See Table 3 for PPA and $Sao_2$ values at various altitudes.

Penaloza, Circulation 2007

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*Abstract*—More than 140 million people worldwide live >2500 m above sea level. Of them, 80 million live in Asia, and 35 million live in the Andean mountains. This latter region has its major population density living above 3500 m. The primary objective of the present study is to review the physiology, pathology, pathogenesis, and clinical features of the heart and pulmonary circulation in healthy highlanders and patients with chronic mountain sickness. A systematic review of worldwide literature was undertaken, beginning with the pioneering work done in the Andes several decades ago. Original articles were analyzed in most cases and English abstracts or translations of articles written in Chinese were reviewed. Pulmonary hypertension in healthy highlanders is related to a delayed postnatal remodeling of the distal pulmonary arterial branches. The magnitude of pulmonary hypertension increases with the altitude level and the degree of exercise. There is reversal of pulmonary hypertension after prolonged residence at sea level. Chronic mountain sickness develops when the capacity for altitude adaptation is lost. These patients have moderate to severe pulmonary hypertension with accentuated hypoxemia and exaggerated polycythemia. The clinical picture of chronic mountain sickness differs from subacute mountain sickness and resembles other chronic altitude diseases described in China and Kyrgyzstan. The heart and pulmonary circulation in healthy highlanders have distinct features in comparison with residents at sea level. Chronic mountain sickness is a public health problem in the Andean mountains and other mountainous regions around the world. Therefore, dissemination of preventive and therapeutic measures is essential. (***Circulation*. 2007;115:1132-1146.**)

Penaloza, Circulation 2007

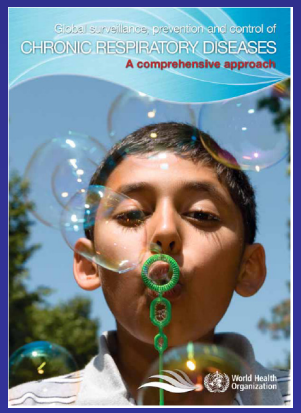
# Pulmonary hypertension
# Dr Marc Humbert

In countries where there is an increased risk for pulmonary hypertension (**altitude**, schistosomiasis, sickle cell disease…) GARD proposes to launch a program in order to improve:

✓ Pulmonary hypertension detection

✓ Diagnosis of pulmonary hypertension

✓ Management: basic therapy (exercise limitation, diuretics, oxygen, anticoagulants) and evaluation of novel therapeutic strategies (with a focus on oral drugs)



# RISK FACTORS FOR CHRONIC RESPIRATORY DISEASES

# 9. Causes and Consequences of Chronic Respiratory Diseases

KEY MESSAGES

- Many risk factors for chronic respiratory diseases have been identified and can be prevented.
- Major risk factors include:

  tobacco smoke
  second hand tobacco smoke
  other indoor air pollutants
  outdoor air pollutants
  allergens
  occupational agents.

- Possible risk factors include:

  diet and nutrition
  post infectious chronic respiratory diseases.

## Table 14 Risk factors for chronic respiratory diseases among those of chronic diseases

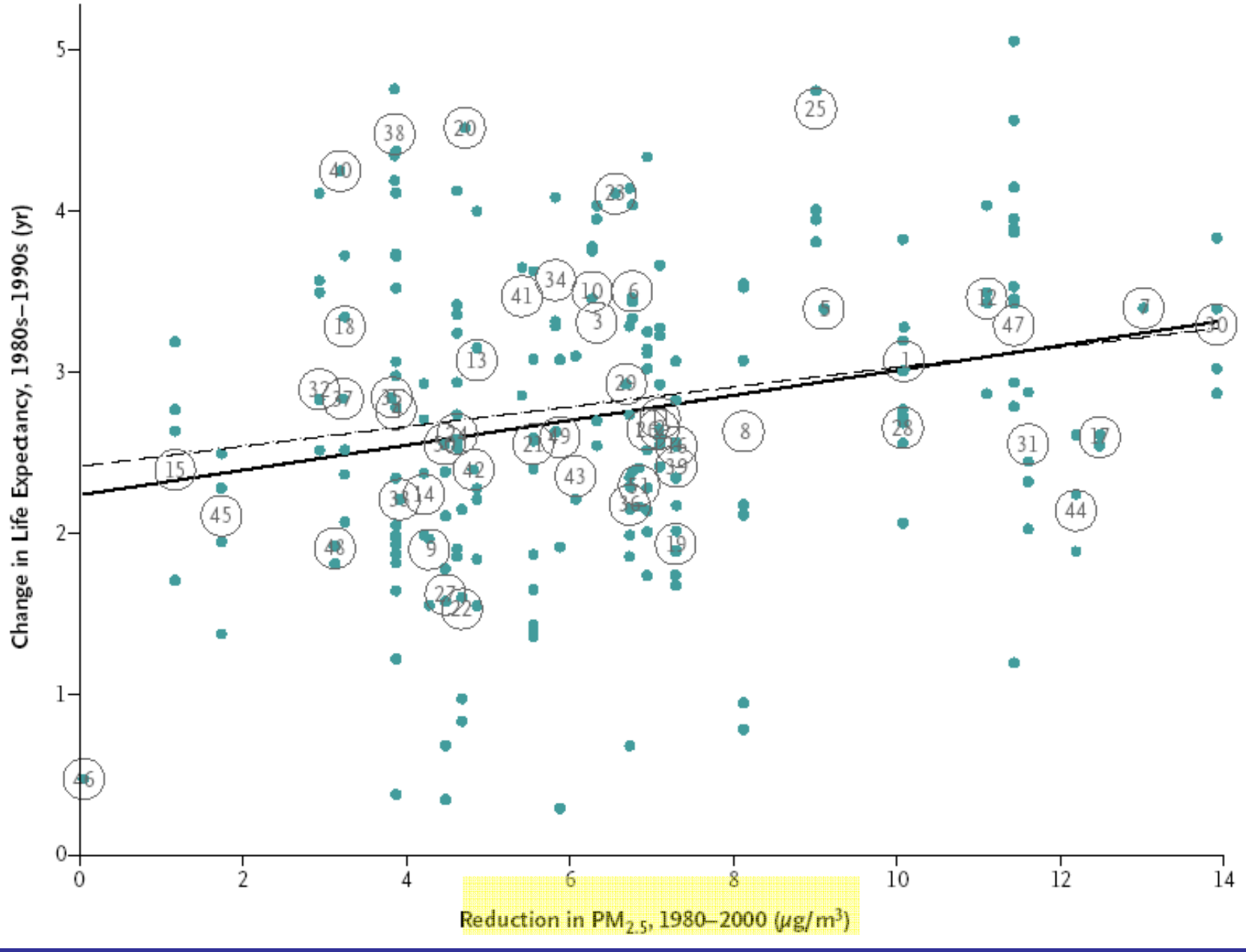
| Each year: |
| --- |
| ■ 7.1 million people die as a result of raised blood pressure |
| ■ 4.9 million people die as a result of tobacco use |
| ■ 4.4 million people die as a result of raised cholesterol levels |
| ■ 2.7 million people die as a result of low fruit and vegetable consumption |
| ■ 2.6 million people die as a result of being overweight or obese |
| ■ 1.9 million people die as a result of physical inactivity |
| ■ 1.6 million people die as a result of being exposed to solid fuels.[a] |
| [a] Includes acute respiratory infections and chronic respiratory diseases. |

SPECIAL ARTICLE

# Fine-Particulate Air Pollution and Life Expectancy in the United States

C. Arden Pope III, Ph.D., Majid Ezzati, Ph.D., and Douglas W. Dockery, Sc.D.

N Engl J Med 2009;360:376-86.




Pope, NEJM 2009

## RESULTS

A decrease of 10 $\mu$g per cubic meter in the concentration of fine particulate matter was associated with an estimated increase in mean (±SE) life expectancy of 0.61±0.20 year (P=0.004). The estimated effect of reduced exposure to pollution on life expectancy was not highly sensitive to adjustment for changes in socioeconomic, demographic, or proxy variables for the prevalence of smoking or to the restriction of observations to relatively large counties. Reductions in air pollution accounted for as much as 15% of the overall increase in life expectancy in the study areas.

## CONCLUSIONS

A reduction in exposure to ambient fine-particulate air pollution contributed to significant and measurable improvements in life expectancy in the United States.

Pope, NEJM 2009

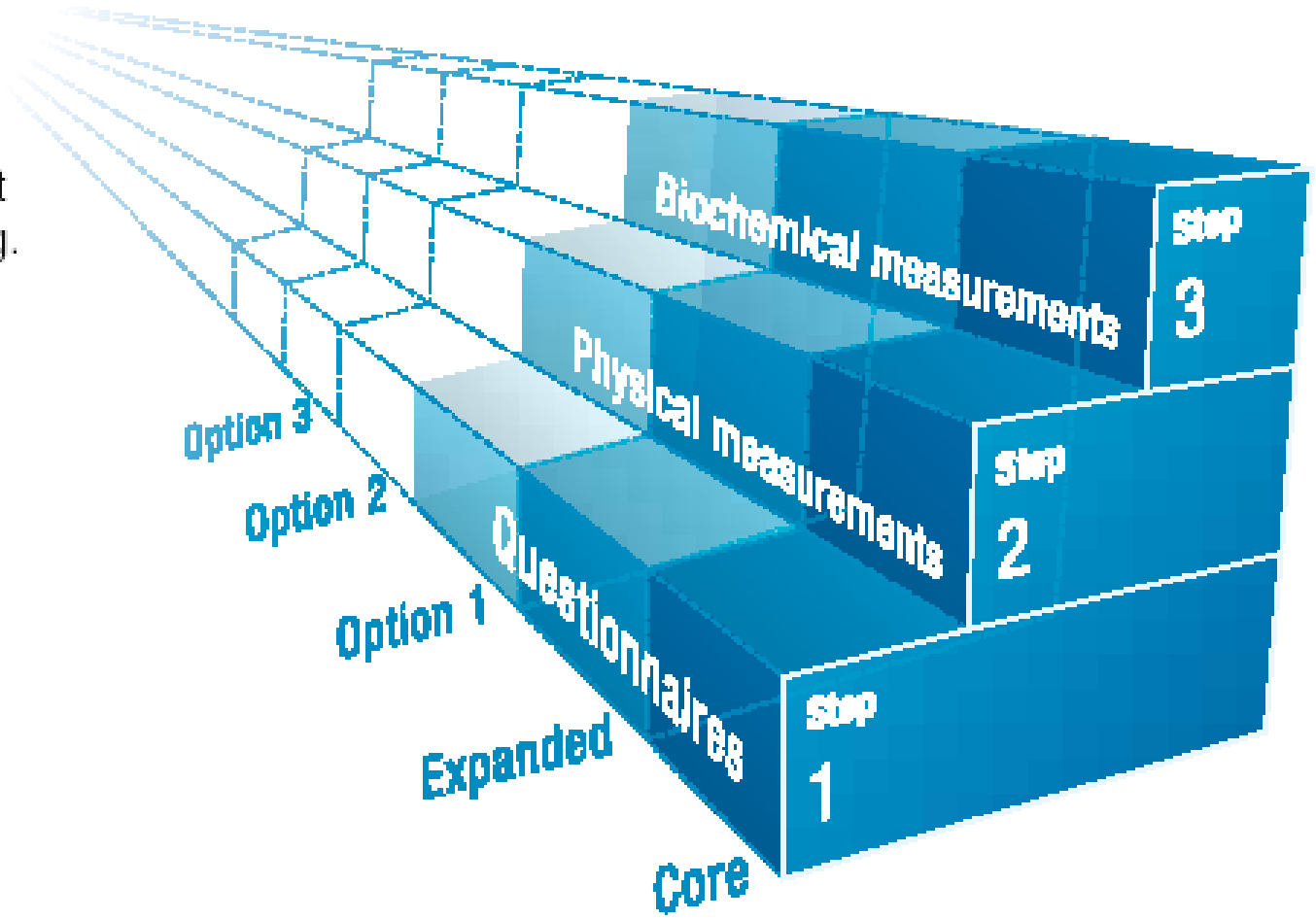
# STEPWISE FRAMEWORK FOR ACTION

GARD

**Figure 21 Stepwise framework**


| Policy implementation steps | Population–wide interventions: National level | Population–wide interventions: Sub-national level | Interventions for individuals |
|---|---|---|---|
| Implementation step 1 **Core** | Interventions that are feasible to implement with existing resources in the short term | | |
| Implementation step 2 **Expanded** | Interventions that are feasible to implement with a realistic projected increase in or reallocation of resources in the medium term | | |
| Implementation step 3 **Desirable** | Evidence-based interventions beyond the reach of existing resources | | |

**Figure 22 GARD proposal for the stepwise approach to surveillance of chronic respiratory diseases**



# 19. Advocate for Action

## KEY MESSAGES

- Although the cost of inaction is clear and unacceptable, preventable chronic respiratory diseases and their risk factors receive insufficient attention from the health-care community, government officials, the media, patients and their families.
- Chronic respiratory diseases need to be higher up the health agenda of key policy-makers.
- All stakeholders should be involved in increasing awareness of chronic respiratory diseases.
- An important part of advocacy is to disseminate information, the ultimate goal of which is to provide evidence that the burden of chronic respiratory diseases can be reduced.

# 20. Implement Prevention and Health Promotion

## KEY MESSAGES

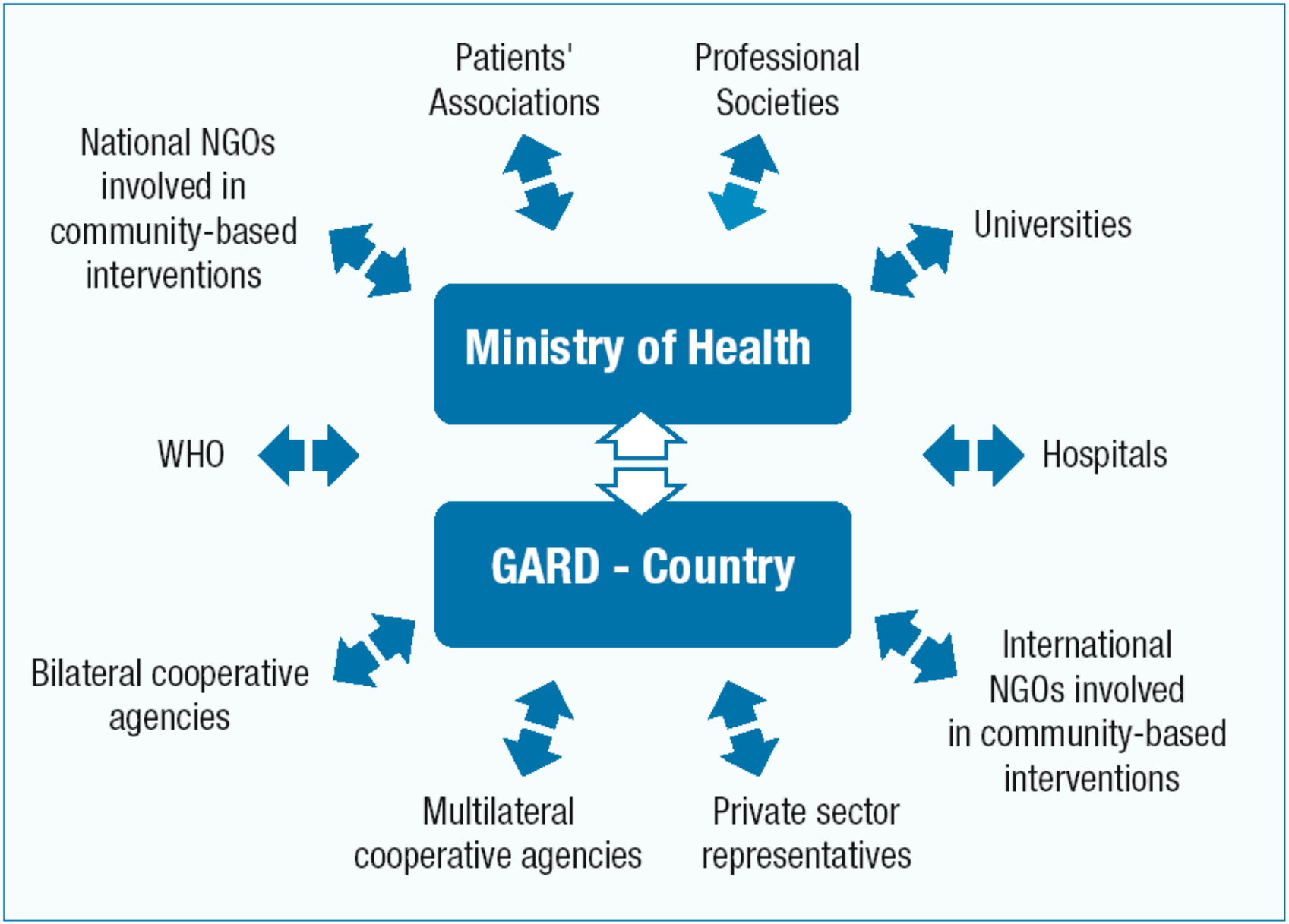
- Everyone has the right to live and work in an environment where the air is clean.
- Environmental exposure to an unhealthy environment can cause severe and debilitating COPD, asthma, cardiovascular disease and cancer.
- Complete elimination of the risk factor is the only way to remove the risk, be it cigarette smoke, indoor or outdoor air pollution, allergens or occupational exposure.

# 24. Identify Policy Implementation Steps

KEY MESSAGES

- GARD activities need to be implemented at national or regional levels.
- National or regional implementation plans needs to be tailored to the health priorities, health-care systems and resources of the country or region.
- Implementation plans should involve all stakeholders.
- Realistic implementation steps should be proposed.

**Figure 25 GARD at country level**



# 2008 Istanbul GARD Annual General Meeting

- Italy was chosen as country hosting the GARD Annual General Meeting (12-13 June 2009).
- GARD Italy meeting will be on June 11th.

# Main reasons for Italy's choice:

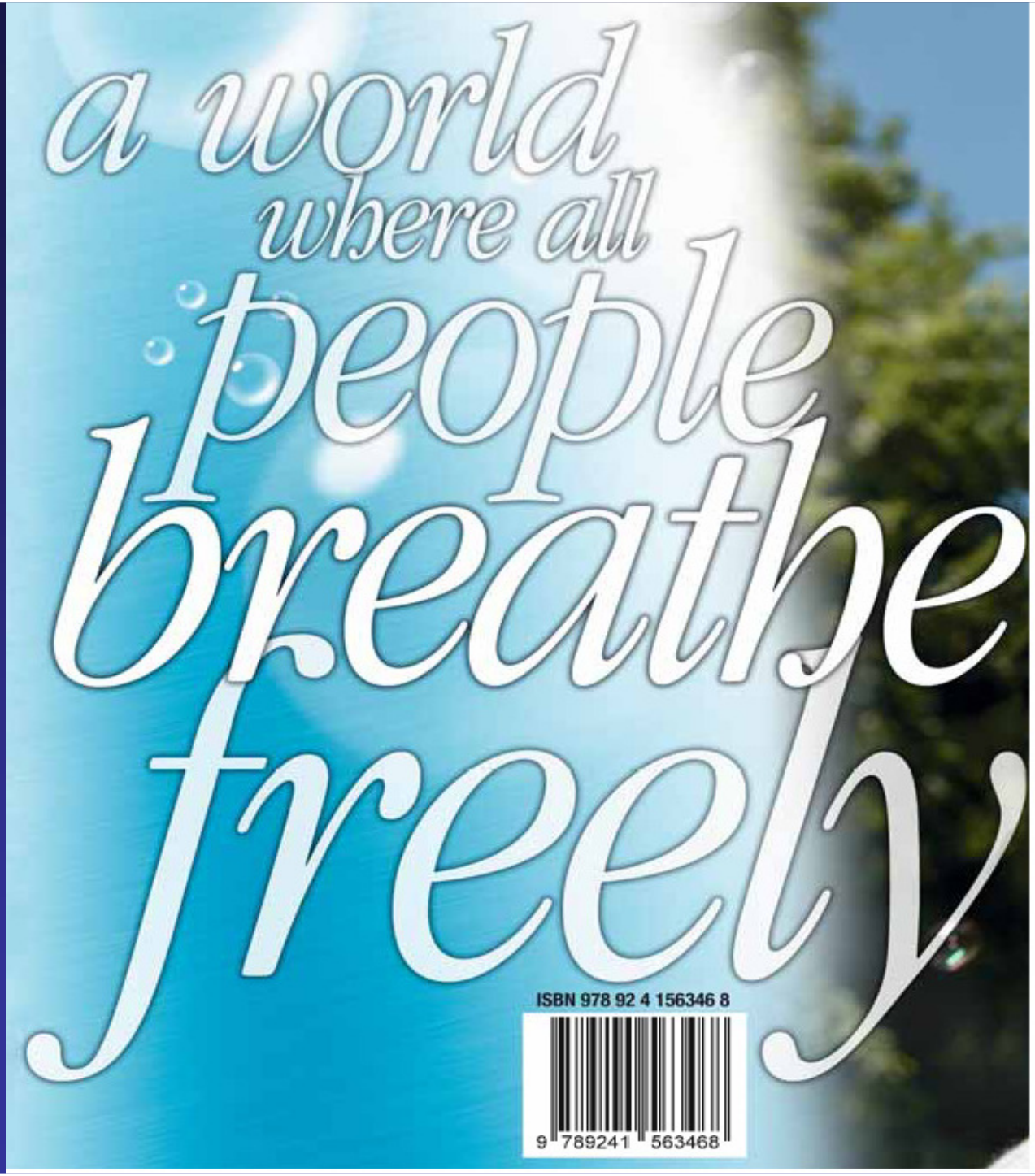
1. The Italian Government's engagement in supporting GARD since its foundation, along with respiratory diseases inclusion within the health policy priorities;

2. The willingness of respiratory scientific societies AIPO, SIMeR, FIMPST to dedicate the **2009** as **the Year of the Breath** (Anno del Respiro, AdR). The AdR has been considered a model for other countries in order to increase respiratory diseases awareness.

AIPO
SIMeR
FIMPST

AIPO
SIMeR
FIMPST

GARD's MOTTO


a world where all people breathe freely
ISBN 978 92 4 156346 8
9 789241 563468

The Forum of International Respiratory Societies (FIRS) has dedicated
2010
as the Year of the Lung

Thus, the biennium 2009-2010 will be favourable also for the dissemination of research activities involving lung health, including SHARE.

**"Many thanks for the invitation and for the attention"**

**Giovanni Viegi**

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