1. **Chronic Respiratory Diseases**
Chronic respiratory diseases (CRD) are chronic diseases of the airways and other structures of the lung. Some of the most common are asthma, chronic obstructive pulmonary disease (COPD), respiratory allergies, occupational lung diseases and pulmonary hypertension.

- Hundreds of millions of people suffer from chronic respiratory diseases worldwide, including:
  - 300 million people with asthma
  - 80 million people with moderate to severe COPD
  - Millions of others with mild COPD, allergic rhinitis, and other chronic respiratory diseases, which are often undiagnosed.

- Chronic respiratory diseases caused over 4 million deaths in 2005, including over 3 million deaths from COPD and 255,000 deaths from asthma.

- Over 80% of chronic respiratory disease deaths occur in low- and lower-middle income countries.

- Important risk factors for chronic respiratory diseases are:
  - Tobacco smoking
  - Indoor air pollution (biomass fuels)
  - Outdoor pollution
  - Allergens
  - Occupational agents

- Chronic respiratory diseases are under-recognized, under-diagnosed, under-treated and insufficiently prevented. In addition, they cause a substantial socioeconomic burden to both individuals and societies.

- Chronic respiratory diseases will increase by 30% in the next 10 years, if urgent action is not taken.
2. **Chronic Obstructive Pulmonary Disease (COPD)**
   - COPD is a disease state characterized by airflow limitation that is not fully reversible. The airflow limitation is usually both progressive and associated with an abnormal inflammatory response of the lungs to noxious particles or gases.
   - The main cause for developing COPD is tobacco smoking. Other risk factors are indoor pollution (biomass fuels used for cooking and heating), outdoor pollution and occupational dusts and chemicals (vapours, irritants and fumes).
   - Symptoms of COPD include cough, sputum production and breathlessness. Breathing becomes difficult, laboured, or uncomfortable. As symptoms interfere with daily activities, walking up a short flight of stairs may become very difficult or impossible.
   - COPD is a commonly under-diagnosed, life threatening lung disease that progressively leads to death.
   - Indirect and direct annual costs, caused by COPD, have been estimated in the USA as 32 billion USD, and in Europe some 60 billion USD.
   - Treatment for COPD is available to alleviate symptoms and improve quality of life, however there is no cure. The first step for those with COPD is to quit smoking and to avoid unhealthy occupational and indoor air exposure.
   - COPD is not just simply a "smoker's cough", but a disease that kills 3 million people worldwide per year.
   - WHO estimates that there are 1.1 billion tobacco users worldwide, increasing to 1.6 billion by 2025. In low- and middle-income countries, tobacco use is increasing at an alarming rate.

3. **Asthma**
   - Asthma is a chronic inflammatory disorder of the airways including an airflow limitation, which is usually reversible. It affects children and adults of all ages. Chronically-inflamed airways are hyperresponsive; they become obstructed and airflow is limited (by bronchoconstriction, mucus plugs and increased inflammation) when airways are exposed to various risk factors.
   - Common risk factors include allergens such as domestic dust mites, animals with fur, cockroaches, pollens and moulds, occupational irritants, tobacco smoke, air pollution. Triggers, which can exacerbate asthma symptoms include allergens, respiratory (viral) infections, cold air, physical activity, chemical irritants and drugs (such as aspirin and beta blockers).
   - Symptoms of asthma include wheezing, coughing, breathlessness and chest tightness. Symptoms can be worse during physical activity or at night, causing inactivity, poor night sleep, day fatigue, school and work absenteeism. Symptoms can have remissions and episodic exacerbations (attacks).
   - Asthma is the most common chronic disease in children; its prevalence and asthma-related hospitalization of very young children are increasing; the diagnosis of asthma in very young children is difficult and not standardized. The failure of diagnosing and treating a child with asthma substantially increases the chances of asthma continuing through adulthood.
   - Asthma is under-diagnosed and under-treated, creating a substantial burden to individuals and families and possibly restricting the individual's entire life.
   - An estimated 300 million people suffer from asthma; 255,000 people died from asthma in 2005.
• The total annual costs of asthma in Europe are approximately 21 billion USD.
• The anti-inflammatory treatment of asthma minimizes chronic inflammation and many people must take medications every day to control symptoms, improve lung function, and prevent attacks. Medications may also be required to relieve acute symptoms, such as wheezing, chest tightness, and cough.
• With proper diagnosis and treatment children and adults can have an entirely normal life.

4. What is GARD?
• The Global Alliance against Chronic Respiratory Diseases (GARD) is a voluntary alliance of 41 national and international organizations, institutions and agencies (see appendix 1) who work towards a common vision: to improve lung health, worldwide.
• The vision of GARD is: "A world where all people can breathe freely: Free Breath for all!"
• The key objective for GARD is to initiate a comprehensive approach to fight chronic respiratory diseases.
• Because most of the chronic respiratory diseases are under-diagnosed, under-treated and the access to essential medications in many countries is poor, a global effort to improve the diagnosis and the medical care is urgently needed.
• GARD’s objectives include:
  o Developing a standard way of obtaining data on risk factors and disease burden of chronic respiratory diseases. This will help to define strategies and raise chronic respiratory diseases on the global and local health agendas, as a public health priority.
  o Encouraging countries to implement health promotion and chronic disease prevention policies, to reduce the burden of chronic respiratory diseases as well as other chronic diseases.
  o Making recommendations for providing simple and affordable strategies for the diagnosis and management of chronic respiratory diseases in all countries.
  o Adapting and tailoring all recommendations according to each country's health priorities, health care system, diversity of chronic respiratory diseases, availability of health care personnel, facilities for diagnosis and availability/affordability of medications.
• Additionally, GARD will improve coordination between existing governmental and nongovernmental programs, to avoid duplication of efforts and wasting of resources. It will also help participant organizations to work synergistically in order to truly achieve "free breath for all".
• GARD is part of the overall WHO chronic disease prevention and control framework of the Department of Chronic Diseases and Health Promotion:
  o The strategic objectives of the department are to advocate for health promotion and chronic disease prevention and control; promote health, especially for poor and disadvantaged populations; slow and reverse the adverse trends in the common chronic disease risk factors and prevent premature deaths and avoidable disability, due to major chronic diseases.
  o These strategic objectives are based on guiding principles of comprehensive and integrated public health action; intersectional
5. **Next steps of GARD**

- To propose a stepwise and integrated approach of prevention, diagnosis and control of preventable chronic respiratory diseases and respiratory allergies.
- To increase awareness of chronic respiratory diseases, to reduce their burden and to foster country-specific initiatives, according to local needs.
- To give priority on the needs of low and middle income countries.
- To assure the availability of low cost, affordable medications and appropriate technology for the diagnosis and monitoring of chronic respiratory diseases.
- To provide appropriate training for health care personnel.
- To provide education and information about chronic respiratory diseases to patients, their caregivers and families.

For further information: [www.who.int/respiratory/gard/en](http://www.who.int/respiratory/gard/en)

Appendix 1: Organizations supporting GARD