

# Respiratory Disease

# Nature of the problem

- Refers to diseases that affect the respiratory system which include the lungs, airways, nose and throat.
- Eg. Asthma, chronic obstructive pulmonary disease (COPD), hay fever, chronic bronchitis and chronic sinusitis
- **COPD** is a progressive disease where the lung tissue becomes damaged and the air passages become narrow, obstructing oxygen intake, leading to shortness of breath. This is often due to inhaling irritant gases and particles, eg. tobacco smoke.
- **Asthma** is a chronic disease of the respiratory system or airways affecting a person's ability to carry air in and out of the lungs. The inside walls of the airways become narrow, making it hard to breathe because:
  - The muscle walls of the airway contract
  - The inside lining of the airway becomes inflamed and mucus is produced
- This inflammation makes the airways sensitive making it difficult to breathe. The airways get narrower and less air flows to the lungs causing wheezing, coughing, tightening of the chest and shortening of breath. As these symptoms worsen, an asthma attack can occur.

# Extent of the problem

- Around 6 million Australians across all age groups have a long-term respiratory illness
- The prevalence of some conditions is decreasing and this can be largely attributed to a decline in smoking, particularly in males
- COPD is more common among older people
- Mortality rate for COPD is decreasing, more males die than females

## **Asthma**

- Females tend to have a slightly higher asthma rate than males
- The highest prevalence occurs in the 5-9 age group
- The prevalence of asthma is high in Australia
- Asthma rates are higher in the female indigenous population

## **Mortality rates** from asthma in Australia are characterised by:

- Comparatively low death rates compared to other diseases
- Deaths from asthma occur in all age groups
- The risk of dying from asthma increases with age
- Death rate is decreased significantly

# Risk factors / protective behaviours

## **Risk factors -**

- It is not known what causes asthma.
- However if you have a family history of asthma you are more likely to develop it (non-modifiable).
- Air pollution is another non-modifiable factor
- Modifiable- Exercise, tobacco smoke, cold and flu

## **Protective factors –**

- As people with asthma can experience different symptoms consulting a doctor to develop a specific prevention and management plan is important.
- Using a preventive inhaler
- Asthma cannot be cured, but it can be effectively managed

# *The sociocultural, socioeconomic and environmental determinants*

Sociocultural determinants	<ul style="list-style-type: none"><li>• Indigenous Australians are more at risk due to higher rates of smoking.</li><li>• People with a family history of allergies are more prone to developing asthma.</li></ul>
Socioeconomic determinants	<ul style="list-style-type: none"><li>• People with less income are more likely to smoke and have less money to spend on treatment.</li><li>• People who are repeatedly exposed to hazardous chemicals at work are more at risk.</li></ul>
Environmental determinant	People living in rural and remote areas have less access to emergency services. This has led to a higher death rate from asthma in these areas, compared to urban areas.

# Groups at risk

- Children and young people
- People with asthma
- Elderly people
- People who smoke

# Recent articles

- <http://www.medscape.com/viewarticle/863310>
- <http://lungdiseasenews.com/2016/05/16/astrazeneca-to-highlight-the-breadth-of-its-respiratory-medicines-at-american-thoracic-society-2016-international-conference/>