



**RETINA**  
australia

## **EPIDEMIOLOGY (POPULATION STUDIES)**

### **What is epidemiology?**

Put simply, epidemiology is the study of how often diseases occur in different groups of people and why. It is often referred to as population research. To help understand why certain people suffer from a condition whereas others are unaffected, it can be useful to analyse data on large numbers of people within a geographical area – be it a country, state or other area.

Researchers look for correlations to find factors that might indicate the causes of illness. In vision research, epidemiological information is used to plan and evaluate strategies firstly to prevent illness and furthermore to guide the management of already-diagnosed patients. In the past, large population studies have been used to prove the dangers of smoking, exposure to asbestos and effect of diet on heart disease.

Globally, one of the most interesting population-based studies currently underway is for age-related macular degeneration (AMD). The Age-Related Eye Disease Study commenced in 2008 and follow up is still continuing.

On the positive side there was modest evidence to suggest that antioxidants like vitamin C or zinc may help prevent or slow the development of AMD. However, researchers do not rule out possible toxic effects of using artificial supplements. Currently there is much interest in how modifying your lifestyle may prevent blindness.

Another example of a population study, this time in Australia, is the Blue Mountains Eye Study which commenced in 1992 and studied the effect of diet on the development of cataracts in a group of almost three thousand people. The study found that diet can influence the development of cataracts.