# EPIDEMIOLOGY

# ASSIGNMENT 2

# VICTORIA PRESTON

## WHAT IS EPIDEMIOLOGY?

Many definitions of epidemiology exist. Most are along the line of the following, which is commonly used.

Epidemiology is the study of the distribution and determinants of disease in human populations (Barker and Rose 1984)
Epidemiology is the study of distribution and causes of disease and injuries in human population.
The way this information is collaborated is through Standardised mortality rates (SMR).

The SMR makes a comparison between Mortality in a designated group and a standard population (normally England and Wales). The SMR involves calculating the number of deaths which we would expect within a certain district i.e. Middlesbrough, Stockton and Langbaurgh. The observed number of deaths is then divided by the expected number to calculate the SMR. A SMR of less than 100 indicated mortality better than the reference population, while a SMR of over 100 indicates a worse mortality.

## WHAT IS A MORTALITY RATE?

A mortality rate is the number of deaths that occur in a particular population in a specified period of time (www.elissetche.org)

Information about the number and causes of deaths is available for the UK from the 19th century onwards. The registration of a death is compulsory and a doctor is required to certify the death. Death registration data is collected and analysed and the death statistics are published annually.

The information recorded on death certificates is:

- Date and place of death
- Name of deceased
- Sae of deceased
- Place of birth
- Date of birth
- Occupation
- Usual address (edited by S. Pike and D. Forster 1997)

## WHAT IS A MORBIDITY RATE?

Morbidity statistics are concerned with the amount and types of illness that occur in the community. Most routinely collected morbidity data, suffer from serious shortcomings. The data is very largely concerned with the activity of various services rather than monitoring their effectiveness or the results of their activities.

The main routinely available morbidity statistics are:

- Statutory notifications of infectious diseases
- Notification of episodes of sexually transmitted diseases

- Notification of prescribed and other industrial disease and accidents
- Notification of congenital malformations
- Registration of handicapped persons
- Cancer registration. (edited by S. Pike and D. Forster 1997)

As the list indicates the data is limited so is highly dependant on accurate identification and notification by medical practitioners.

The statistics are all collected through these two methods, mortality rates and morbidity rates. Death certificates and of the health practitioners, the identification and notification of disease. These reports are then published annually for all to see.

These statistics are of a high significance to health professionals. With the statistics you can find out through looking at them any rising figures, therefore a rising problem that is then needed to tackle. It also gives the health professional information such as the age group and gender of the higher figure so they know that that particular group needs targeting and then can give appropriate help and care for that main area of concern.

Take the suicide rate in Middlesbrough. In 1993-1994 there were 102 cases in which men died and 62 in which were female. In 1999-2001 the male rate had decreased to 119 but the female rose to 95. With this in mind I decided that I would identify and tackle the female suicide rate.

Looking at the statistics, in 1993/1994 62 women committed suicide, 1997 it was 137, 1998/2000 was 156 and in 1999/2001 eventually dropped to 95.

Although there was an eventual drop, the initial rise nearly trebled so I feel this is a significant trend to investigate.

The main causes of this issue I feel are:

- Rape
- Infertility
- Debt
- Social issues
- Depression
- Religion/beliefs
- Loss of loved one
- Termination of pregnancy
- Illness
- Nervous breakdown

I would promote health and the methods I would use would be early intervention- advice the person to see their GP etc, awareness and looking for significant

signs, i.e. self harming and recognition of volunteer groups like the Samaritans.
Taboo subjects would also be addressed in females by campaigns for PMT, OCD, and PND. Weekly walk in sessions would be available of all subjects affected with the appropriate person there for support, like councillors; fertility specialists and financial guidance if in debt.

To evaluate that the service has been effective I would check the attendance of the weekly walk in sessions, ask health professionals if awareness has improved, by more of an increase of people seeking medical help, statistical checks of the mortality rate, asking the person in question about how they feel etc and also checking that persons appearance etc, if they start to improve on how they look by wearing makeup and generally making an effort in the way they look.

# BIPLIOGRAPHY

Barker and Rose 1984 HEALTH PROMOTION. DISCIPLINES, DIVERSITY AND DEVELOPMENTS. Second edition edited By R. Bunton and G macdonald. Published By Routledge, London 1992.

Edited by S. Pike and D Forster 1997 HEALTH PROMOTION FOR ALL . Published by Longman Singapore Publishers limited.

WEBSITES

http://www.elissetche.org/dico/M.htm