

The **Nuffield Department of Population Health** offers Population Health courses to medical students both in their pre-clinical and clinical years. Our aim is to arm students with an understanding of the basis for the following topic areas.

- the population health approach (sociology, social determinants of health)
- the methods we use (epidemiology, statistics, health economics, guideline and policy making)
- public health knowledge and skills for clinical practice (health promotion, screening and health protection)

### Preclinical courses

#### First year

##### Medical sociology

Delivered as lectures in the Medical Teaching Centre lecture theatres.

- Definitions of health and illness
- Social class, gender and health
- Changing patterns of disease and the role of medicine
- Health related quality of life and patient recorded outcomes
- Ethnicity and health
- Ageing and health
- Illness behaviour and the effects of illness on patients
- Health policy

##### Medical statistics

Delivered as a combination of workshops and mini lectures for approximately 20 students (same workshop taught twice one after another with different students attending; also in the Medical Teaching Centre).

- Descriptive statistics
- The Normal distribution
- Statistical inference
- Two-sample analyses
- Dichotomous data
- Relating two variables



#### Medical Ethics and Law teaching in years 4, 5 and 6

This is offered as a thread course delivered to all clinical students by the Ethox Centre within NDPH as a series of seminars. Topics include the following.

- medical negligence
- confidentiality
- consent
- end of life care and decision making
- ethics in clinical genetics and genomics
- medical research ethics
- reproductive ethics
- psychiatry (treatment without consent)
- peer learning in ethics and law
- ethics and infectious diseases

In addition, four-week Special Study Modules in Medical Ethics are offered to 4<sup>th</sup> and 6<sup>th</sup> year students who wish to explore a particular issue in medical ethics further.

#### Second year

##### Medical statistics

Delivered as a combination of workshops and mini lectures for approximately 20 students (Medical Teaching Centre).

- *Statistics for research*  
Overview of clinical and epidemiological research: clinical vs. statistical significance, iterative loop of research, fundamental equation of error. Topics preparatory to critical appraisal: types of observational study; intervention studies including randomized and cross-over trials; introduction to meta-analysis.
- *Graphical methods for clinical and biological data*  
Graphical methods for clinical and biological data including histograms and scatterplots, survival curves, forest plots etc.
- *2x2 tables*  
Odds ratios and relative risks and their CIs and interpretation.
- *Other situations*  
Lognormal distribution, Poisson distribution, use of t-tables for smaller samples
- *Nonparametric statistics*  
Summary measures for non-normal data, introduction to nonparametric hypothesis tests.

