GLOSSARY

Case control¹: an observational study that begins with patients (cases) who have the health problem, and control participants who do not have the health problem and then looks backward to identify possible causal factors (eg, comparing patients with and without lung cancer for past exposure to tobacco).

Cohort: a group of people with a common characteristic or set of characteristics is followed up for a specified period of time to determine the incidence of some outcome; there is no comparison group.

Cohort analytic study: at least 2 groups of people (cohorts) are assembled who do not have the condition of interest; one group is exposed to a particular factor or set of factors (a potential causative agent for a particular disease or an intervention) and then all groups are followed up for a specified period of time to compare the incidence of the outcome of interest.

Confidence interval (CI): quantifies the uncertainty in measurement; usually reported as 95% CI, which is the range of values within which we can be 95% sure that the true value for the whole population lies.

Confounder²: a variable that affects the observed relation between 2 other variables (eg, alcohol is related to lung cancer, but does not cause the disease; instead, both alcohol and lung cancer are related to smoking, and it is the smoking that causes lung cancer).

Constant comparison³: a procedure used in qualitative research wherein newly collected data are compared in an ongoing fashion with data obtained earlier, to refine theoretically relevant categories.

Cross-sectional study¹: an observational study that examines a characteristic (or set of characteristics) and a health outcome in a sample of people at 1 point in time.

Data saturation (saturation, redundancy)³: process of collecting data in a qualitative research study to the point where no new themes are generated.

Double blind: occurs in an experimental study in which neither the patient nor the study staff (responsible for patient care and data collection) is aware of the group to which the patient has been assigned.

Effectiveness: extent to which an intervention does more good than harm for participants who receive the intervention *under usual conditions*. It answers the question *does it work*?

Efficacy: extent to which an intervention does more good than harm for participants who receive the intervention *under optimal conditions* (eg, complete compliance with treatment). It answers the question *can it work*?

Fixed effects model⁴: gives a summary estimate of the magnitude of effect in meta-analysis. It takes into account withinstudy variation but not between-study variation and hence is usually not used if there is significant heterogeneity.

Grounded theory³: an approach to collecting and analysing qualitative data with the aim of developing theories grounded in real world observations.

Heterogeneity⁴: the degree to which the effect estimates of individual studies in a meta-analysis differ significantly.

Intention to treat analysis (ITT): all patients are analysed in the groups to which they were randomised, even if they fail to complete the intervention or receive the wrong intervention. Multivariate analysis¹: analysis involving multiple independent or dependent variables.

Number needed to treat (NNT): number of patients who need to be treated in order to prevent 1 additional negative event; calculated as 1/absolute risk reduction (rounded to the next whole number), accompanied by 95% confidence interval.

Odds ratio (**OR**): describes the odds of a patient in the experimental group having an event divided by the odds of a patient in the control group having the event *or* the odds that a patient was exposed to a given risk factor divided by the odds that a control patient was exposed to the risk factor.

Phenomenology³: an approach to inquiry that emphasises the complexity of human experience and the need to understand that experience holistically as it is actually lived.

Quasi-randomised study: participants are not randomly allocated to groups, but some other form of allocation is used (eg, day of the week, month of birth).

Random effects model⁴: gives a summary estimate of the magnitude of effect in meta-analysis. It takes into account both within-study and between-study variance and gives a wider confidence interval to the estimate than a fixed effects model if there is significant between-study variation.

Randomised controlled trial (randomised clinical trial, randomised trial) (RCT): study in which individuals are randomly allocated to receive alternative preventive, therapeutic, or diagnostic interventions and then followed up to determine the effect of the interventions (one of the alternatives might be no intervention).

Relative risk (RR): risk of adverse effects with a treatment relative to risks for those who do not receive treatment.

Relative risk reduction (RRR): the proportional reduction in outcome rates between control and experimental participants; reported as a percentage (%).

Sensitivity⁵: a measure of a diagnostic test's ability to correctly detect a disorder when it is present in a sample of people.

Specificity⁵: a measure of a diagnostic test's ability to correctly identify the absence of a disorder in a sample of people who do not have the disorder.

Stratified randomisation⁴: used in trials to ensure that equal numbers of participants with a particular characteristic (eg age) are allocated to each comparison group.

Triangulation³: use of multiple methods or perspectives to collect and interpret data about some phenomenon, to converge on an accurate representation of reality.

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- Polit DE, Hungler BP. Nursing research: principles and methods. Philadelphia: Lippincott, 1995.
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- 4 Mulrow CD, Oxman AD, editors. Cochrane Collaboration handbook (updated September 1997). In: *Cochrane Library*. Oxford: Update Software, 1997: issue 4.
- 5 Sackett DL, Haynes RB, Guyatt GH et al. Clinical epidemiology: a basic science for clinical medicine. Second edition. Boston: Little, Brown and Company, 1991.