

Index

Numbers in italics indicate *tables* or *figures*

- absolute risk reduction 39, 46, 117
- adverse events 45–6, 117
- aetiology and risk factor studies 10, 13, 90–101
 - appraisal and selection 93–5, 97
 - causality 99
 - design 91
 - heterogeneity assessment 98–9
 - literature searches for 91–3, 113
 - presentation of results 95–6
 - questions addressed in reviews 90–1
 - synthesis of results 96–9
- allocation concealment 56
- ‘AND’ in literature searches 17, 18, 19
- applicability 4, 45–7, 80–2, 117
- appraisal of studies 3, 10, 27–31
 - standardization
 - blinding 10, 29
 - features to assess 27–8
 - reviewers 28–9
 - structured appraisals 28
 - use 29–31
 - see also* checklists; *specific study types*
- bias 117
- blinding 10, 58, 118
 - of outcome measures 56–7
 - of study appraisals 29
- Bradford Hill criteria 99, 102, 118
- Bradford’s law of scattering 17
- case-control studies 79, 91, 93, 118
- case series 12, 118
- causality 99, 102, 118
- CCTR (Cochrane Controlled Trials Registry) 22, 54, 111–12
- censuses 68
- CENTRAL 54–5
- checklists 28
 - aetiology and risk factor studies 97
 - diagnostic tests 81
 - interventions 57, 58
- clinical trials registries 25–6, 54–5
- Cochrane collaboration 20–1, 54, 111, 118
 - protocols 16
 - reviews 16, 109
- Cochrane Controlled Trials Registry (CCTR) 22, 54, 111–12
- Cochrane Database of Systematic Reviews 54, 109
- Cochrane Handbook* 26, 55, 63–4
- Cochrane Methods Working Group on Screening and Diagnostic Tests 78
- Cochran Q (Cochran χ^2) 38–9
- cohort studies 10, 12, 68, 91, 103
- Comprehensive Meta-analysis program 116
- concurrent controls 12, 119
- condition registries 68
- confidence intervals 96, 119
- confounding 56, 79, 94, 104, 119
- cost-effectiveness analysis, interventions 62–3

- cross-sectional studies 10, 11, 68, 75, 119
- cumulative meta-analyses 30, 115, 119
- Database of Abstracts and Reviews (DARE)
 - 16, 75, 109
- databases
 - CENTRAL 54–5
 - Cochrane Controlled Trials Registry 22, 54, 111–12
 - Cochrane Database of Systematic Reviews 54, 109
 - Database of Abstracts and Reviews (DARE) 16, 75, 109
 - MEDLINE 16, 21, 69, 109, 112
 - PubMed 17, 77, 112–13
 - searches *see* literature searches
 - unpublished studies 23
- data extraction from studies 32–3
- degrees of freedom (df) 38–9, 119
- diagnostic test studies 10, 11, 74–89
 - appraisal and selection
 - applicability 80–2
 - features to assess 78–9
 - quality 79–80, 81, 82
 - design 75
 - heterogeneity assessment 87
 - literature searches for 75–8, 113
 - presentation of results 83–5
 - questions addressed in reviews 74–5
 - software for meta-analysis 116
 - synthesis of results 85–7
- disease registries 68
- disease spectra 82
- double-blind studies *see* blinding
- duplicate publications 26
- EasyMA program 115
- economic evaluation of interventions 62–3
- effect modification 37–41, 120
- epidemiological studies 91
- expert contacts 23–4, 77
- file drawer number (Rosenthal) 43–4
- finding relevant studies *see* literature searches
- fixed effects model 36–7, 72
- forest plots 32, 59–60, 115
- frequency and rate studies 10, 11, 67–73
 - appraisal and selection 70–1
 - design 68
 - heterogeneity assessment 73
 - literature searches for 68–70
 - presentation of results 71–2
 - questions addressed in reviews 67–8
 - synthesis of results 72–3
- funnel plots 41–2, 43
- gold standards 11, 69, 75, 80, 120
- graphical presentation of results 32–3, 59–60, 71–2, 83–5, 96
- grey literature 16, 26
- handsearches 20–1, 77
- hazard ratios 35, 39, 121
- heterogeneity 121
 - assessment 37–8
 - individual patient data 40–1
 - measures 38–40
 - MetaAnalyst program 115
 - see also specific study types*
- historical controls 12, 121
- homogeneity assumption 98
- inception cohorts 104
- incidence 67–8, 121
- interaction *see* effect modification
- International Agency for Research on Cancer
 - Directory of Ongoing Research in Cancer Prevention 92–3
- interrupted time series 12, 121
- intervention studies 10–11, 12–13, 53–66, 121–2
 - appraisal and selection 55–9
 - design 53–4
 - economic evaluation 62–3
 - heterogeneity assessment 62
 - interpretation of reviews 45–7

- literature searches for 54–5, 113
- presentation of results 57, 59–60
- questions addressed in reviews 53–4
- software for meta-analysis 114–16
- synthesis of results 60–2
- L'Abbe plots 60–1
- literature searches 3, 16–26, 109–13
 - duplicate publications 26
 - publication bias *see* publication bias
 - published primary studies 16–17
 - handsearches 20–1, 77
 - languages 22
 - methodological filters 21–2, 69, 92, 112–13
 - randomized trials 111–12
 - snowballing 20
 - synonym use 18–20
 - Venn diagrams 17–18
- search refinement 47–8
- systematic reviews 16, 109, 111
- unpublished primary studies
 - databases 23
 - expert contacts 23–4*see also* databases; *specific study types*
- measurement bias 56–7, 80, 95, 105
- Medical Subject Headings (MeSH) 19–20, 69, 76–7
- MEDLINE 16, 21, 69, 109, 112
- meta-analyses 31, 40–1, 45–7, 122
 - software 114–16
- MetaAnalyst program 115
- meta-regression 31, 122
- MetaTest program 84, 116
- MetaView program 115
- MetAxis program 116
- methodological filters 21–2, 69, 92, 112–13
- misclassification bias 56–7, 80, 95, 105
- multiple risk factor studies *see* prognosis and risk studies
- natural histories 103
- negative studies 24–5, 41–2
- number needed to harm (NNH)/treat (NNT) 35, 46, 122
- observational studies 91, 96, 98, 122
- odds ratios 34, 39, 60, 87, 115, 122
- ‘OR’ in literature searches 17, 18, 19
- outcomes
 - assessment of study 56, 70, 79–80, 94–5, 105
 - measures 34–5, 70, 79–80, 94–5
 - blinding 56–7
 - continuous outcomes 62
 - discrete events 60–1
 - prediction *see* prognosis and risk studies
- patient data, individual 40–1
- patient populations 82, 102, 105
- patient’s expected event rate (PEER) 46–7, 123
- performance characteristics of diagnostic tests 74, 80, 82
- phenomena, questions 9, 10, 14
- PICO (question structure) 14
- point estimates 96
- positive studies 24–5
- post-test studies 13
- prediction of outcomes *see* prognosis and risk studies
- presentation of study results 4, 32–3
 - see also* *specific study types*
- pretest–post-test studies 13, 123
- prevalence 67–8, 123
- prognosis and risk studies 10, 13, 102–6, 123
 - appraisal and selection 104–5
 - design 103
 - heterogeneity assessment 106
 - literature searches for 103–4, 113
 - presentation of results 105–6
 - questions addressed in reviews 102–3
 - synthesis of results 106
 - see also* aetiology and risk factor studies

- pseudorandomized controlled trials 12
- publication bias 24–6, 77–8, 123
 - correction 42
 - detection 41–2
 - Rosenthal’s file drawer number 43–4
- PubMed 17, 77, 112–13
- qualitative research 10, 14
- quality assessment of studies *see* appraisal of studies
- quality of life 47, 123
- quality scores 30, 31
- questions addressed in reviews
 - applicability of results 45–7
 - breaking into components 17–18
 - formulation 3, 14–15
 - types 9–14
 - see also specific study types*
- random effects model 36–7, 73
- random error 35, 124
- randomization 10, 29, 56, 124
- randomized controlled trials 10, 11, 12, 53, 104
- rate studies *see* frequency and rate studies
- receiver–operator curves (ROC) 84–5
 - summary receiver–operator (SROC) curves 85–7, 116
- reference standards *see* gold standards
- registered studies 25–6
- relative risk 34, 39, 60, 115, 124
- relative risk reduction 46, 124
- research studies *see* studies
- resource utilization 63
- results of studies
 - presentation 4, 32–3
 - synthesis 4, 33–7
 - see also specific study types*
- reviewers 28–9
- RevMan software 114–15
- risk differences 34, 60, 115, 124
- risk factor studies *see* aetiology and risk factor studies; prognosis and risk studies
- risk ratio *see* relative risk
- ROC *see* receiver–operator curves
- Rosenthal’s file drawer number 43–4
- sampling bias 94, 95
- SCHARP (Survival Curve and Hazard Ratio Program) 115–16
- Science Citation Index 20
- selection bias 56, 58, 70, 79, 104
- sensitivity/specificity plots 83–7, 116
- snowballing 20
- software for meta-analysis 114–16
- SROC (summary receiver–operator curves) 85–7
- STATA software 114
- statistical tests for publication bias 42
- studies
 - designs 9–13
 - heterogeneity 37–41
 - languages 22
 - presentation of results 4, 32–3
 - selection for analysis 27–9
 - synthesis of results 4, 33–7
 - see also* aetiology and risk factor studies; appraisal of studies; diagnostic test studies; frequency and rate studies; intervention studies; literature searches; prognosis and risk studies
- subgroup analysis 40–1
- summary estimates 32–3, 35, 36–7, 60
- summary receiver–operator curves (SROC) curves 85–7, 116
- Survival Curve and Hazard Ratio Program (SCHARP) 115–16
- synonyms 18–19
- synthesis of study results 4, 33–7
 - see also specific study types*
- systematic reviews 125
 - advantages/disadvantages 1–2
 - Cochrane Database of Systematic Reviews 54, 109
 - hours to compile 4–5
 - interpretation 45–7

- literature searches for 16, 109, 111
- method summarized 2
- tabular summaries of results 59, 71, 83, 95–6, 105
- treatment effect modification 37–41
- treatment paradox 79
- variation between studies *see* heterogeneity
- Venn diagrams 17–18
- wildcard symbols 19