action plan 146-7 action research 47-8, 131 action theory 42 aetiology 63 Agency for Healthcare Quality Research (AHQR) 103, 115–16, 152 allied health professions 10, 104, 124-5 appendices 102 appraisal, critical criteria 77-8 economic evaluation studies 83-6 expert opinion 86-8 guidelines 113-14 purpose, meaningfulness 89 randomised controlled trials (RCTs) 76, 77-8 systematic reviews 74-5 validity criteria 80, 81, 83 see also tools Appraisal of Guidelines Research and Evaluation (AGREE) 113 appropriateness defined 20, 28, 29, 64 evidence sources 49 interventions 92 model 18, 20, 36, 96-7, 111, 154 recommendations 102 sources 86-7 study method 78-9 see also validity Aristotle 47 article retrieval 70 see also database searching assessment clinical question source 63 criteria 61-2, 80 database 66 research quality 61-2 standards 81 system 96-7, 175, 176 tool, effectiveness 151 validity 86 audit, clinical cycle 142 feedback process 129, 130, 138, 147 goals 140 key stages 141-8

methodology 149 planning 141-2, 146 process, described 141 re-auditing 147 report writing 148-9 research links 151 strategies 148 tools 149-51 Audit-maker 150 Australasian Cochrane Centre 7 Australian Centre for Evidence-based Clinical Practice 150 Austrom database 66 balance 30-1, 40 barriers to change 104, 115, 119, 120-2 behaviour changing 129, 147 best available evidence 6, 8, 32, 64, 86 bias 48-9, 75-7, 80, 81 blinding 75, 76, 78 Bolam test 160-2 Boolean operators 67 budget preparation 135 care standards best practice 6, 9, 142-3, 144 dissemination 107, 144 establishment 140 legal matters 156, 158, 159-60 negligence 160-2 quality 113, 139, 159 see also guidelines case control studies 79-80, 182 category defined 96 CDSS (clinical decision support system) 128 Centre for Evidence-Based Medicine, Oxford, UK 108 change barriers 104, 115, 119, 120-2 emotional cycle 123-4 implementation 125-6, 130 management 118-19, 122-3, 127-31 models 130-2 monitoring and evaluation questions 126-7 planning 125

resistance to 122-3, 124-5 strategy development tools 127-31 checklists 88-9, 102, 113, 175, 177-82 see also forms; questions citation management 68 clinical decision support system (CDSS) 128 clinical decision-making see decision-making clinicians 30 Cochrane Collaboration 5-6, 96, 175 Cochrane Database of Systematic Reviews 54, 65 cohort studies 78-9, 181 communication 126, 148, 165-6 confounding factors identification 80 congruity 81-2 consensus vs. evidence 105 consumers decision-making involvement 139 evidence 30-1, 34-5 guideline development involvement 112-13 information requirements 34 participation 163-4 roles 10-11 systematic reviews 23 see also patients cost effectiveness 6, 84-6, 158, 161 creative adoption 133 criteria checklist, research paper weaknesses 88-9 critical appraisal 77-8 exclusion 92, 102 inclusion 59-60, 83, 92, 102, 174 outcome 144 process 144, 145 qualitative data synthesis 95 quality assessment 61-2 quantitative 143-4 structure 144-5, 147 validity 80, 81, 83 critical appraisal see appraisal, critical criticisms 11-14 culture 45, 92, 131 Cumulative Index to Nursing & Allied Health (CINAHL) database 65 Current Contents index 65 data

analysis 43, 92–5 collection issues 134 methods 43, 82, 91

questions 54, 63-4, 126-7, 174 tools 62, 89-92, 145, 175-6, 183-6 see also literature, searching continuous 94, 184 dichotomous 93, 184 evaluation 145 presentation 94-5 sources 145 synthesis 62, 95-6, 176 see also evidence; knowledge Database of Abstracts of Reviews of Effects (DARE) 54, 65-6 database searching 54, 65-9, 115-16, 174--5 see also information technology decision-making decision support system (DSS) 128-9 evidence-based 4-5, 17 information sources 31 knowledge requirements 28 resource allocation 156-7 toolkits change evaluation 149 change implementation 130 clinical guidelines development 105 evidence translation 30 research evidence quality 89 research evidence types 49 search strategy 64 demands 3 developing countries, health care development 7-8 diagnosis 63 diagnostic analysis 138-9 dialectic transaction 41-2 diffusion of innovation model 129, 131-2 dissemination 107, 144 dissertation abstracts 66-7 dissonance 125 dropout 78, 79, 80 DSS (decision support system) 128-9 education 127-8, 139, 147, 162 effectiveness assessment tool 151 cost- 6, 158 defined 20-1, 28, 29-30, 139 evidence sources 50 improvement 8, 138 increase desire 6 interventions 4-5, 92 model 18, 20, 36, 96-7, 111, 154 outcomes 8, 140 randomised controlled trials (RCTs) 30

reviews 93 strategies implementation 151 Einstein, Albert 16, 36 Embase database 66 ethical issues 134 ethnography 45, 49 evaluation 83-6, 133-5 see also audit, clinical evidence applicability levels 108, 109, 112 generation 18-21, 36-51 hierarchy tables 108, 110 legal definition 31-2 qualitative 81-3 quality 88, 89, 107-8 transfer into practice 119-20, 125-6, 130-1, 149-50 types 49 utilisation 25, 118-36, 137-52 see also data; findings; knowledge evidence-based medicine (EBM) defined 1,5 evidence-based practice centres Australasian Cochrane Centre 7 Australian Centre for Evidence-based Clinical Practice 150 Centre for Evidence-Based Medicine, Oxford, UK 108, 109 establishment 6-7, 10 National Health Service (NHS) Centre for Reviews and Dissemination (NHS CRD) 7, 137, 138, 175 see also Joanna Briggs Institute (JBI) exclusion criteria 92, 102 experience 33 experts 23, 32, 33, 86-8, 134 FAME (Feasibility Appropriateness Meaningfulness Effectiveness) model 18, 20, 36, 96-7, 111, 154 feasibility defined 19, 28 evidence sources 19, 28, 49 interventions 92 model 18, 20, 36, 96-7, 111, 154 practice implementation 64, 73 Feasibility Appropriateness Meaningfulness Effectiveness (FAME) model 18, 20, 36, 96-7, 111, 154 feedback process 129, 130, 138, 147 feminist research 48-9 findings 22, 64-9, 95, 149 see also data; evidence fixed effect model 94

forms 56, 90, 177-86 see also checklists; information, sheets Foucalt's definition of discourse 87 funding bodies, clinical audit involvement 141 Getting Research Into Practice (GRIP) 151 GIN (Guidelines International Network) 103, 115 goals, clinical audit 140 government, clinical audit involvement graphs 94–5, 102 GRIP (Getting Research Into Practice) 151 guidelines allied-health-specific 104 appraisal presentation 114 basis 101 clinical defined 103 critical appraisal checklists and tools 113-14, 177-82 development consumer involvement 112-13 defining best practice 143 evidence use promotion 9 sources 149 strategies 6, 100-1, 105-7 tools 115-16 establishment framework 140 implementation 118-36 improved compliance 165 medicine-specific 104 nursing-specific 104 paradigms 38-42 revision requirement 107 role 114-15, 161 see also care standards Guidelines International Network (GIN) 103, 115 Habarmas, Jurgen 46-7 health, improvement, global 17, 19 hermeneutics 47 High Technology Assessment Database 66 inclusion criteria 59-60, 83, 92, 102, 174 indicators 143-4 information access 148 collection 91 decision-making sources 31 management 96-7, 157, 175, 176 requirements, consumers 34 sheets 102, 113, 175, 177-82

systems 128 see also data; evidence; knowledge information technology 164-6 see also database searching initiatives 10, 101, 152 innovation 129, 131-2 interests, human 46-7 International Guideline Library 115 internet 67 interventions cost-benefit analysis 84 defined 90, 91 evaluation 92 identification 37 smoking cessation 27, 87, 100, 173-6 types 174 Joanna Briggs Institute (JBI) effectiveness improvement role 8 establishment, Australia 7 evidence hierarchy adoption 108, 110 guidelines development 103 model 18, 27, 96-7, 154, 166-7 nursing practice evidence need 17 online libraries 115-16 outcomes effectiveness improvement 8 review protocol 55, 56 journal searching 68 see also database searching; literature, searching King, Witney, Jnr. 118 knowledge generation 39 interests 46-7 management 156 practical defined 46 requirements, decision-making 28 transfer 24 translation 133 see also data; evidence; experts; opinion knowledge and human interests 46 knowledge retention from postoperative patient information 58, 59-60 legal definition of evidence 31-2 legal implications 158, 159-61 legal regulation 156 librarian help 67, 68–9 Lincoln, Abraham 154 literature data synthesis 62 evaluation 57

quality 102 reviews 6, 22, 101 searching 65, 67–70 see also database searching selection 59, 60 managers 141, 156-7 marketing 127, 130 mean difference 94 meaningfulness critical appraisal purpose 89 data 93 defined 20, 28, 29 evidence sources 50 evidence types 49 model 18, 20, 36, 96-7, 111, 154 understanding the experience 64 within defined cultural or geographical context 73 Medline database 66 mental health 10 meta-analysis 12, 21-2, 93, 94 see also quantitative methods meta-synthesis 23, 95 see also qualitative methods methodology approaches 31, 81-2 clinical audit 149 data collection 43, 82, 91 meta-analysis 12, 21-2, 93, 94 meta-synthesis 23, 95 phenomenology 45 research 31, 43, 47, 81-2 reviews 23, 32, 52, 54-5 statistical analysis 22-3, 78 study method appropriateness 78-9 see also qualitative methods; quantitative methods models behaviour, social influence 129 for change 130-2 construction 166-7 evidence for practice 27-35 FAME 18, 20, 36, 96-7, 111, 154 fixed effect 94 mathematical 94 PACES 150-1 PDSA 131 random effects 94 reviews 96-7, 175, 176 SUMARI 96-7, 175, 176 transtheoretical 132 Monash Institute of Health Services Research 7 mud map, research approaches 37-8

National Guidelines Clearing House 115 National Health and Medical Research Council (NHMRC) 116, 120 National Health Service (NHS) 163-4 National Health Service (NHS) Centre for Reviews and Dissemination (NHS CRD) 7, 137, 138, 175 National Institute for Clinical Studies 152 National Institute for Health and Clinical Excellence (NICE) 103, 152 National Institutes of Health 6, 100 negligence 160-2 NHMRC (National Health and Medical Research Council) 116, 120 nurses, clinical audit involvement 140-1 objectives 149 odds ratio 93 opinion 23, 32, 75, 86-8, 129 optimism 123 organisational context 156-7 organisations 103, 104 orientation, cultural and theoretical, researchers 82 outcomes assessment criteria 80 continuous data 94, 184 cost-benefit analysis 84 criteria 144, 145 effectiveness improvement 8 improvement 3, 165 measure blinding 78, 79 cost 85 form 184 quality life years (QALY) 84 reporting 90 types 174 Oxford Centre for Evidence-Based Medicine, evidence levels 109 PACES (Practical Application of Clinical Evidence System) 150-1 paradigm 38-42, 43, 46, 47 participant representation 83 participant types 174 patients clinical effectiveness focus 140 demands 3 follow-up 78, 79 hospitalised, smoking cessation strategies 173-6 involvement 148 see also consumers; smoking cessation

see also consumers; smoking cessation PDSA (plan-do-study-act) model 131 Pearson, A. alternative approaches 30-1 document text examination processes 86-7 evidence evaluation 111 pluralistic approach 32, 34-5 qualitative data synthesis 95 validity criteria 81-3 pessimism 123 phenomenology 44--5, 50 philosophers 31-2, 39, 46 philosophy 44-5, 81 plan-do-study-act (PDSA) model 131 planning action plan 146-7 change 125 clinical audit 141-2, 146 practice improvement 149 urban 162-3 policy 158, 162-3 positivism 38-41, 43, 46 Practical Application of Clinical Evidence System (PACES) 150-1 practice best 6, 9, 142-3, 144 development 3 grounded in theory 13, 16 identification 37 implementation feasibility 64, 73 improvement, planned 149 information sheets 102, 113, 175, 177-82 recommendations 105, 106, 107-12 theory, embedded in 41 praxis 47 presentation 94-5, 106-7, 114 prevention 64 process criteria 144, 145 professionals, health 3-4, 32-3, 140-1 prognosis 63 programme evaluation 134 proposal development 54 PsycINFO database 65 qualitative methods best available evidence base 30-1 consumer information research 34 data extraction 90-2 data synthesis criteria 95-6 qualitative/quantitative debate 40, 42 - 3research evidence assessment, standards 81 research review methods, evolving 32

results synthesis 23

systematic reviews inclusion 35

quality analysis 138–9 assessment, research 61-2, 103, 115-16 assurance 134 care 113, 139, 159 continuous monitoring and improvement 165 quality life years (QALY) 84 reporting 80, 83 studies 89 see also audit, clinical; care standards quantitative methods criteria 143-4 data extraction 89-90 positivist paradigm 39-40 quantitative/qualitative debate 40, 42 - 3results synthesis 22 systematic review example 54-5 systematic reviews inclusion 35 see also randomised controlled trials (RCTs) quasi-experimental studies 44, 77-8 questions 63-4, 126-7, 174 see also checklists random effects model 94 randomised controlled trials (RCTs) critical appraisal 76, 77-8 effectiveness 4, 30 evidence-based practice reliance on 12 guidelines development basis 105 limitation 16-17, 32, 35 systematic review 5-6 validity 75-6 see also quantitative methods rationalism, economic 161 re-auditing 147 realism, hopeful 123 reality defined 44-5 recommendations, grading 105, 106, 107-12 references 102 reminders 128, 130 report writing 100, 102, 148-9 reporting quality 80, 83 research approaches 37-8, 44-9 defined 37 experimental 43-4 feminist 48-9 paper weaknesses checklist 88-9 process rigour 74-5, 86, 113-14 quality assessment 61-2 quasi-experimental 44

review methods 32 theoretical underpinnings 91 utilisation 157 weighed with internal sources 34 see also methodology; qualitative methods; quantitative methods; randomised controlled trials (RCTs); systematic reviews research and development (R&D) strategies development 6-7, 101 researchers orientations 82-3 resistance to change 122-3, 124-5 resource allocation, decision-making 156 - 7Review Manager (RevMan) 96, 176 reviews see systematic reviews reviews, systematic administrators other disciplines 134 critical appraisal 74-5 databases 54, 65-6 defined 101 effectiveness 93 guidelines 101, 104 literature 6, 22, 101 management 96, 176 methods 23, 32, 52, 54-5 models 96-7, 175, 176 objectives 58, 102 peer 149 protocol 52, 54, 55-63, 102, 173-6 questions 54, 174 reports 100, 101, 102 study selection 69-70 synthesis 21, 52-71 theory 52 title 56 see also randomised controlled trials (RCTs) RevMan (Review Manager) 96, 176 rigour 74-5, 86, 113-14 risk 93-4 Russell, Bertrand 27 Schutz, Alfred 41 Schweitzer, Albert 99 Science Citation Index 66 Scottish Intercollegiate Guidelines Network (SIGN) 103, 115 search strategy 60-1, 174-5 self-consciousness 47 self-improvement 64 self-knowledge 46-7 sensitivity analysis 85-6 SIGN (Scottish Intercollegiate Guidelines Network) 103, 115

Silagy, Chris 7 situation analysis 126-7 smoking cessation acupuncture effectiveness 37, 41, 51, 54 advice provision establishment 146-7 appropriate review question 54, 55 cultural influence 53, 79 evidence requirements 33, 35 feasibility evidence 28 guidelines 138 interventions and strategies 27, 87, 100, 173 - 6knowledge translation 133 literature identification 73 quantitative review 54-5 randomised controlled trials (RCTs) 77 review protocol development 57 unsuccessful 2, 4 social influence model of behaviour 129 sources alternative to research 33-4 clinical questions 63-4 data 145 decision-making information 31 effectiveness evidence 50 evidence generation link 20-1 guidelines development 149 identification 87 meaningfulness 50 valid forms 23 stakeholders 113, 140-1 see also consumers standardised differences in mean 94 standards 23, 81 see also care standards statistical analysis 22-3, 78 see also meta-analysis strategies audit 148 change management 127-31 development, research and development (R&D) 6-7, 101 guidelines development 6, 100-1, 105 - 7implementation effectiveness 151 search 60-1, 64-5, 174 smoking cessation 27, 87, 100, 173-6 structure criteria 144-5, 147 studies description 102 interpretive 81–3 method appropriateness 78 results form 184 selection 52, 69-70 types 174

SUMARI (System for Unified Management of the Assessment and Review of Information) 96-7, 175, 176 symbolic interactionist theory 45 synthesis data 62, 95--6, 176 defined 96 economic analysis 23 evaluations 23 explained 21-4 findings 22 systematic review 21, 52-71 see also meta-synthesis system changing 147 System for Unified Management of the Assessment and Review of Information (SUMARI) 96-7, 175, 176teamwork 148 textual pooling 176 theoretical premises 81 theory action 42 critical 46, 47 diffusion theory of innovation 129 embedded in practice 41 evidence synthesis element 21 grounded 16, 45, 49 practice gap 133 practice grounded in 13 quantitative 39 symbolic interactionist 45 systematic review element 52 therapy 64 thesauri 67 three-point level, evidence scale 108 time, dedicated 148 time frame 134 tools audit 149-51 change strategy development 127-31 checklists 88-9, 102, 113, 175, 177-82 data collection/extraction 62, 89-92, 145, 175-6, 183-6 effectiveness assessment 151 guideline development 113-14, 115 - 16systematic review 53, 96-7 see also audit, clinical; decision-making, toolkits; models topic choosing 142-3 tradition, health care role 33 training 148

transfer, evidence into practice 24, 119–20, 125–6, 130–1, 149–50 transtheoretical model 132 truncation 67

validity assessment 86 cohort studies 181 criteria 80, 81, 83, 88 defined 74-5 establishment 87 FAME model 111

weighted mean difference 94 wild card 67 world wide web 67 writing 47, 102, 148–9