

CURRICULUM VITAE

David John SPIEGELHALTER

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DATE OF BIRTH	16.8.53
ADDRESS 1	Statistical Laboratory, Centre for Mathematical Sciences, Wilberforce Road, CAMBRIDGE CB3 0WB. Tel: direct 01223 337945, Fax 01223 330956. e-mail: david@statslab.cam.ac.uk
QUALIFICATIONS	1974 B.A. in Mathematics (University of Oxford). 1975 M.Sc. in Statistics (University of London). 1978 Ph.D. in Mathematical Statistics (University of London). 1978 M.A. (Oxon). 1993 C.Stat. (Chartered Statistician)
EMPLOYMENT	1971 Computer programmer, International Computers Limited. 1976 Part-time research assistant, Brunel University. 1977-78 Visiting Lecturer, Department of Statistics, University of California, Berkeley. 1978-81 Royal College of Physicians Research Assistant, Department of Mathematics, University of Nottingham. 1981-86 Statistician, Medical Research Council Biostatistics Unit, Cambridge. 1986-12 Senior Scientist, Medical Research Council Biostatistics Unit, Cambridge. 1991- Honorary Associate Professor, University of Hong Kong 2006- Honorary Professor of Biostatistics, University of Cambridge 2007- Winton Professor for the Public Understanding of Risk, Uni- versity of Cambridge
SOCIETIES	1975 Fellow of the Royal Statistical Society.
EDITORIAL BOARDS	1983-90 Medical Decision Making. 1985-10 Statistics in Medicine. 1985-90 Biometrika. 1985-90 Theoretical Surgery. 1990-10 Statistics and Computing

SERVICE	1978-1990	Royal College of Physicians of London, Computer Workshop Committee.
	1982-85	Royal Statistical Society Medical Section Committee.
	1984-87	Royal Statistical Society Research Section Committee.
	1984-86	Organizing committee for Third International Workshop on Human Leucocyte Differentiation Antigens.
	1985-87	Organizing Committee for Royal Statistical Society Charter Centenary Conference, Cambridge 1987.
	1988	Academic Committee of 2nd Workshop on AI and Statistics, Florida.
	1989	Joint academic organiser of SERC/RSS Workshop on Expert Systems and Statistics, Edinburgh.
	1989-94	Royal Statistical Society Honours Committee
	1990-92	RSS Working Party on Statisticians in Drug Regulatory Bodies
	1990-93	MMR Subcommittee, CDVIP.
	1992-94	SERC/EPSRC Statistics Panel
	1994-9	MRC Health Services and Public Health Research Board (from 1996, Deputy Chairman)
	1994-6	NHS R&D Programme Commissioning Group in Health Technology
	2003-4	Expert Advisor to Performance Assessment Subcommittee, Commission for Healthcare Improvement
	2005-07	Council, Royal Statistical Society (as Honorary Officer for Meetings and Conferences)
	2006-07	Chair, RSS 2007 Organising Committee
	2006-09	Chair of the Trial Screening Committee of the Flexible Sigmoidoscopy trial.
	2009	Member of the Scientific Advisory Group for Emergencies (SAGE) for Volcanic Ash
	2009-10	Member of the South Central Strategic Health Authority's Independent Review of Paediatric Cardiac Surgery and Clinical Governance at the Oxford Radcliffe Infirmary.
	2010	Member of Royal Society working group that produced Climate change: A Summary of the Science
	2012	Member of the Expert Advisory Group on breast implants that produced Poly Implant Prothese (PIP) breast implants: final report of the Expert Group .

AWARDS and HONOURS	1985	Royal Statistical Society Guy Medal in Bronze.
	1989	American Statistical Association award for Outstanding Application paper (Lauritzen and Spiegelhalter, 1988)
	1994	Royal Statistical Society Guy Medal in Silver.
	1994	Honorary Doctorate, University of Aalborg, Denmark
	2005	Fellow of the Royal Society, London
	2006	Career Achievement Award, Society for Medical Decision Making
	2006	OBE (Officer of the Order of the British Empire)
	2006	Elected Fellow of the Institute of Mathematics and its Applications
	2009	Pinkerton Medal from the Association of Anaesthetists of Great Britain and Ireland
	2010	Honorary Doctorate of Science from the University of Plymouth for services to statistical education
	2010	Weldon Medal from the University of Oxford
	2011	Science Communication Award for Established Researchers from the Society of Biology
	2012	Honorary Fellow: Institute of Risk Management
	EDUCATIONAL	1989-
1989		Tutorials given at Artificial Intelligence meetings in London, Florida, Detroit and Mexico.
1995 -		Short courses on Bayesian Statistics and BUGS given in Australia, Denmark, Germany, Cuba, UK and so on.
2009-10		Royal Statistical Society Schools (Guy) Lecturer
2008-		"Applied Bayesian Statistics" as part of Cambridge University Mathematics Part III
PhD students	1988-91	Jill Kirby (Cambridge) – degree awarded 1992
	1990-93	Nicola Best (Cambridge) – degree awarded 1994
	1991-94	Teresa Smith (Cambridge)– degree awarded 1995
	1991-92	CM Wong (Hong Kong) – degree awarded 1992
	1995-98	Clare Marshall (Cambridge) – degree awarded 1999
	1998-01	Kenneth Rice (Cambridge) – degree awarded 2002
	2005-2008	Hayley Jones (Cambridge) – degree awarded 2009

PhD examiner	1985-	Universities of Nottingham (2), Sydney (Australia), Aalborg (Denmark) (2), Reading, Heriot-Watt, Trinity College Dublin, Imperial College London (2), Hong Kong, Liverpool, Leeds, Bath.
External examiner	1995-98	Medical Statistics MSc, London School of Hygiene and Tropical Medicine.
CONSULTANCY	1988-1996	Consultancy with Medical Statistics Group of Ciba-Geigy, Basel, Switzerland
	1996-11	Consultancy with Novartis, Basel, Switzerland.
	2000-2002	Independent Data Monitoring Committee for Pfizer ASTIN trial.
	2002-09	Consultant for Healthcare Commission.
	2009	Consultant for World Anti-Doping Agency.
	1995-	Consultancy work / courses carried out for Schering, Boehringer, GSK, etc

CURRENT RESEARCH INTERESTS

Bayesian analysis

Risk/uncertainty assessment and communication

Education in probability, statistics and risk

Media coverage of statistics and risk

CITATION AWARDS

Member of *ISI Highly Cited* researchers list

Spiegelhalter et al (2002) has the 3rd highest citations in the Mathematical Sciences in the last 10 years

PUBLICATIONS IN PEER-REVIEWED JOURNALS

References

- [1] D. J. Spiegelhalter. A test for normality against symmetric alternatives. *Biometrika*, 64:415–418, 1977.
- [2] D. J. Spiegelhalter. An omnibus test for normality for small samples. *Biometrika*, 67:493–496, 1980.

- [3] A. F. M. Smith and D. J. Spiegelhalter. Bayes factors and choice criteria for linear models. *Journal of the Royal Statistical Society, Series B*, 42:213–220, 1980.
- [4] D. M. Titterton, G. P. Murray, L. S. Murray, D. J. Spiegelhalter, A. Skene, J. D. F. Habbema, and G. J. Gelpke. Comparison of discrimination techniques applied to a complex data set of head injured patients (with discussion). *Journal of the Royal Statistical Society, Series A*, 144:145–175, 1981.
- [5] A. J. Hedley, S. J. Jones, D. J. Spiegelhalter, P. J. Clements, P. D. Bewsher, J. G. Simpson, and R. D. Wear. Breast cancer in thyroid disease, fact or fallacy? *Lancet*, 1:131–133, 1981.
- [6] D. J. Spiegelhalter D. S. Coggan, M. J. S. Langman. Aspirin, paracetamol and haematemesis and melaena. *Gut*, 23:340–344, 1982.
- [7] D. J. Spiegelhalter. Statistical aids in clinical decision-making. *The Statistician*, 31:19–36, 1982.
- [8] D. J. Spiegelhalter and A. F. M. Smith. Bayes factors for linear and log-linear models with vague prior information. *Journal of the Royal Statistical Society, Series B*, 44:377–387, 1982.
- [9] D. J. Spiegelhalter. Comments on Lindberg’s correction for the effects of observer variation on probabilistic diagnosis. *Methods of Information in Medicine*, 21:114–116, 1982.
- [10] D. J. Spiegelhalter and P. G. I. Stovin. An analysis of repeated biopsies following cardiac transplantation. *Statistics in Medicine*, 2:33–40, 1983.
- [11] L. S. Freedman and D. J. Spiegelhalter. The assessment of subjective opinion and its use in relation to stopping rules for clinical trials. *The Statistician*, 32:153–160, 1983.
- [12] D. J. Spiegelhalter. Diagnosis tests of distributional shape. *Biometrika*, 70:401–409, 1983.
- [13] D. J. Spiegelhalter. Evaluation of clinical decision-aids, with an application to a system for dyspepsia. *Statistics in Medicine*, 2:207–216, 1983.
- [14] M. McGreevy, R. F. Mould, and D. J. Spiegelhalter. Evaluation of medical and managerial priorities in resource allocation: bone marrow transplantation at westminster hospital. *Hospital and Health Services Review*, 79:213–7, 1983.
- [15] M. J. S. Langman, D. Coggan, and D. J. Spiegelhalter. Analgesic intake and the risk of acute upper gastrointestinal bleeding. *The American Journal of Medicine*, 79:79–82, 1983.
- [16] A. Theodossi, D. J. Spiegelhalter, B. Portmann, A. W. F. Eddleston, and R. Williams. The value of clinical, biochemical, ultrasound, and liver biopsy data in assessing patients with liver disease. *Liver*, 3:315–326, 1983.
- [17] W. I. Card, R. W. Lucas, and D. J. Spiegelhalter. The logical description of a disease class as a Boolean function with special reference to the irritable bowel syndrome (IBS). *Clinical Science*, 66:307–15, 1984.
- [18] F. Macartney, J. Douglas, and D. J. Spiegelhalter. Catheterise or not to catheterise? an approach based on decision theory. *Brit. Heart. J.*, 51:330–8, 1984.

- [19] A. Theodossi, D. J. Spiegelhalter, I. G. McFarlane, and R. Williams. Doctors' attitudes to risk in difficult clinical decisions: application of decision analysis in hepatobiliary disease. *British Medical Journal*, 289:213–216, 1984.
- [20] D. J. Spiegelhalter and R. P. Knill-Jones. Statistical and knowledge-based approaches to clinical decision-support systems, with an application in gastroenterology (with discussion). *Journal of the Royal Statistical Society, Series A*, 147:35–77, 1984.
- [21] M. J. S. Langman, T. H. McConnell, D. J. Spiegelhalter, and R. B. McConnell. Changing patterns of coeliac disease frequency: an analysis of coeliac society membership records. *Gut*, 26:175–178, 1985.
- [22] J. K. Bowmaker, G. H. Jacobs, D. J. Spiegelhalter, and J. D. Mollon. Two types of trichromatic squirrel monkey share a pigment in the red-green region. *Vision Research*, 25:1937–1946, 1985.
- [23] D. J. Spiegelhalter. Statistical methodology for evaluating GI symptoms. *Clinics in Gastroenterology*, 14:489–515, 1985.
- [24] P. Maher, C. M. O'Toole, T. G. Wreghitt, D. J. Spiegelhalter, and T. A. H. English. Cytomegalovirus infection in cardiac transplant recipients associated with chronic t cell subset ratio inversion with expansion of a leu 7+t+s-c subset. *Clinical and Experimental Immunology*, 62:515–524, 1985.
- [25] D. J. Spiegelhalter and L. S. Freedman. A predictive approach to selecting the size of a clinical trial, based on subjective clinical opinion. *Statistics in Medicine*, 5:1–13, 1986.
- [26] D. J. Spiegelhalter, L. S. Freedman, and P. R. Blackburn. Monitoring clinical trials: conditional or predictive power? *Controlled Clinical Trials*, 7:8–17, 1986.
- [27] D. J. Spiegelhalter. Probabilistic prediction in patient management and clinical trials. *Statistics in Medicine*, 5:421–434, 1986.
- [28] I. D. Adams, M. Chan, P. C. Clifford, W. M. Cooke, V. Dallos, F. T. de Dombal, M. H. Edwards, D. M. Hancock, D. J. Hewett, N. McIntyre, P. G. Somerville, D. J. Spiegelhalter, J. Wellwood, and D. H. Wilson. Computer-aided diagnosis of acute abdominal pain: a multi-centre study. *British Medical Journal*, 293:800–804, 1986.
- [29] D. J. Spiegelhalter. Computers, expert systems and adverse drug reactions: can causality assessment be automated? *Drug Information Journal*, 20:543–550, 1986.
- [30] D. J. Spiegelhalter. Probabilistic expert systems in medicine. *Statistical Science*, 2:25–30, 1987.
- [31] D. J. Spiegelhalter. Coherent evidence propagation in expert systems. *The Statistician*, 36:201–210, 1987.
- [32] M. E. Wilson, D. J. Spiegelhalter, J. A. Robertson, and P. Lesser. Predicting difficult intubation. *British Journal of Anaesthesia*, 61:211–216, 1988.
- [33] S. Livesey, N. Caine, D. J. Spiegelhalter, T. A. H. English, and J. Wallwork. Cardiac surgery for patients aged 65 years and older: a long-term survival analysis. *British Heart Journal*, 60:480–484, 1988.

- [34] S. L. Lauritzen and D. J. Spiegelhalter. Local computations with probabilities on graphical structures and their application to expert systems (with discussion). *Journal of the Royal Statistical Society, Series B*, 50:157–224, 1988.
- [35] L. S. Freedman and D. J. Spiegelhalter. Comparison of Bayesian with group sequential methods for monitoring clinical trials. *Controlled Clinical Trials*, 10:357–367, 1989.
- [36] D. J. Spiegelhalter. Probabilistic reasoning in expert systems. *American Journal of Mathematical and Management Sciences*, 9:191–210, 1989.
- [37] R. C. G. Franklin, D. J. Spiegelhalter, F. Macartney, and K. Bull. Combining clinical judgments and statistical data in expert systems: over the telephone management decisions for critical congenital heart disease in the first month of life. *International Journal of Clinical Monitoring and Computing*, 6:157–166, 1989.
- [38] D. J. Spiegelhalter and S. L. Lauritzen. Sequential updating of conditional probabilities on directed graphical structures. *Networks*, 20:579–605, 1990.
- [39] D. J. Spiegelhalter and S. L. Lauritzen. Techniques for Bayesian analysis in expert systems. *Annals of Mathematics and Artificial Intelligence*, 2:353–366, 1990.
- [40] J. Wyatt and D. J. Spiegelhalter. Evaluating medical decision-aids: what to test and how? *Medical Informatics*, 15:205–217, 1990.
- [41] M. J. Buxton, M. J. Sculpher, B. A. Ferguson, J. E. Humphreys, J. F. B. Altman, D. J. Spiegelhalter, A. J. Kirby, J. S. Jacob, H. Bacon, S. B. Dudbridge, J. W. Stead, T. G. Feest, H. Cheng, S. L. Franklin, P. Courtney, J. F. Talbot, R. Ahmed, and T. R. Dabbs. Screening for treatable diabetic retinopathy: A comparison of different methods. *Diabetic Medicine*, 8:371–377, 1991.
- [42] M. J. Buxton, M. J. Sculpher, B. A. Ferguson, J. E. Humphreys, J. F. B. Altman, D. J. Spiegelhalter, A. J. Kirby, J. S. Jacob, H. Bacon, S. B. Dudbridge, J. W. Stead, T. G. Feest, H. Cheng, S. L. Franklin, P. Courtney, J. F. Talbot, R. Ahmed, and T. R. Dabbs. A relative cost-effectiveness analysis of different methods of screening for diabetic retinopathy. *Diabetic Medicine*, 8:644–650, 1991.
- [43] R. C. G. Franklin, D. J. Spiegelhalter, R. I. Rossi-Filho, F. Macartney, R. H. Anderson, M. L. Rigby, and J. Deanfield. Double inlet ventricle presenting in infancy i: survival without definitive repair. *J Thoracic Cardiovascular Surgery*, 101:767–776, 1991.
- [44] R. C. G. Franklin, D. J. Spiegelhalter, R. H. Anderson, F. Macartney, R. I. Rossi-Filho, J. M. Douglas, M. L. Rigby, and J. Deanfield. Double inlet ventricle presenting in infancy ii: results of palliative surgery. *J Thoracic Cardiovascular Surgery*, 101:917–923, 1991.
- [45] R. C. G. Franklin, D. J. Spiegelhalter, R. H. Anderson, F. Macartney, R. I. Rossi-Filho, J. M. Douglas, M. L. Rigby, and J. Deanfield. Double inlet ventricle presenting in infancy iii: Outcome and potential for definitive repair. *J Thoracic Cardiovascular Surgery*, 101:924–934, 1991.
- [46] R. C. G. Franklin, D. J. Spiegelhalter, F. Macartney, and K. Bull. Evaluation of a diagnostic algorithm for heart disease in neonates. *British Medical Journal*, 302:935–939, 1991.

- [47] T. A. Hutchinson, A. P. Dawid, D. J. Spiegelhalter, R. G. Cowell, and S. Roden. Computerized aids for probabilistic assessment of drug safety i: a spread-sheet program. *Drug Information Journal*, 25:29–39, 1991.
- [48] T. A. Hutchinson, A. P. Dawid, D. J. Spiegelhalter, R. G. Cowell, and S. Roden. Computerized aids for probabilistic assessment of drug safety ii: an expert system. *Drug Information Journal*, 25:41–48, 1991.
- [49] R. G. Cowell, A. P. Dawid, T. A. Hutchinson, and D. J. Spiegelhalter. A Bayesian expert system for the analysis of an adverse drug reaction. *Artificial Intelligence in Medicine*, 3:257–270, 1991.
- [50] D. J. Spiegelhalter, A. P. Dawid, T. A. Hutchinson, and R. G. Cowell. Probabilistic causality assessment after a suspected adverse drug reaction: a case study in Bayesian network modelling. *Philosophical Transactions of the Royal Society, Series A.*, 337:387–405, 1991.
- [51] L. S. Freedman and D. J. Spiegelhalter. Application of Bayesian statistics to decision-making during a clinical trial. *Statistics in Medicine*, 11:23–36, 1992.
- [52] J. Wellwood, D. J. Spiegelhalter, and S. Johannessen. How does computer-aided diagnosis improve the management of acute abdominal pain? *Annals Royal College Surgeons Eng*, 74:140–146, 1992.
- [53] D. R. Cox, R. Fitzpatrick, A. E. Fletcher, S. M. Gore, D. R. Jones, and D. J. Spiegelhalter. Quality-of-life assessment: can we keep it simple? *Journal of the Royal Statistical Society, Series A*, 155:353–393, 1992.
- [54] A. J. Kirby, D. J. Spiegelhalter, N. E. Day, L. Fenton, K. Swanson, E. M. F. Mann, and E Macgregor. Long-term outcome of women with mild/moderate dyskaryotic smears under a conservative treatment policy. *Lancet*, 339:828–830, 1992.
- [55] M. J. Sculpher, M. J. Buxton, B. A. Ferguson, D. J. Spiegelhalter, and A. J. Kirby. Screening for diabetic retinopathy: a relative cost-effectiveness analysis of alternative modalities and strategies. *Health Economics*, 1:39–51, 1992.
- [56] C. Berzuini, R. Bellazzi, S. Quaglini, and D. J. Spiegelhalter. Bayesian networks for patient monitoring. *Artificial Intelligence in Medicine*, 4:243–260, 1992.
- [57] P. Cooper, A. J. Kirby, D. J. Spiegelhalter, A. L. Whitehead, and A. Patterson. Mildly dyskaryotic cervical smears: a review of policy. *Cytopathology*, 3:331–339, 1992.
- [58] N. G. Best, K. L. Hue, A. K. Trull, K. K. C. Tan, D. J. Spiegelhalter, S. M. Gore, and J. Wallwork. Cyclosporin blood concentrations and the short-term risk of rejection following heart-lung transplantation. *British Journal Clinical Pharmacology*, 34:513–520, 1992.
- [59] N. G. Best, K. K. C. Tan, J A Uttridge, A. K. Trull, D. J. Spiegelhalter, R Anganko, T Gardner, D B Evans, and N V Jamieson. The design and analysis of acceptability studies - assessment of a new oral liquid formulation of cyclosporin. *Journal of Pharmaceutical Medicine*, 2:131–138, 1992.
- [60] D S Celermajer, S Cullen, I. D. Sullivan, D. J. Spiegelhalter, R K H Wyse, and J. E. Deanfield. Outcome in neonates with ebstein’s anomaly. *J American College Cardiology*, 19:1041–1046, 1992.

- [61] D S Celermajer, K E Sorensen, V M Gooch, D. J. Spiegelhalter, O I Miller, I. D. Sullivan, J E Lloyd, and J. E. Deanfield. Non-invasive detection of endothelial dysfunction in children and adults at risk of atherosclerosis. *Lancet*, 340:1111–1115, 1992.
- [62] R. Fitzpatrick, A E Fletcher, S M Gore, D R Jones, D. J. Spiegelhalter, and D R Cox. Quality of life measures in health care: 1. Applications and issues in measurement. *British Medical Journal*, 305:1074–1077, 1992.
- [63] A E Fletcher, S M Gore, D. J. Spiegelhalter, D R Jones, R. Fitzpatrick, and D R Cox. Quality of life measures in health care: 2. Design, analysis and interpretation. *British Medical Journal*, 305:1145–1148, 1992.
- [64] D. J. Spiegelhalter, S M Gore, R. Fitzpatrick, A E Fletcher, D R Jones, and D R Cox. Quality of life measures in health care: 3. Resource allocation. *British Medical Journal*, 305:1205–1209, 1992.
- [65] D. J. Spiegelhalter, L. Aharanson-Daniel, and A. J. Hedley. Who should get the resources? *J Hong Kong Practitioners*, 44:53–57, 1992.
- [66] W. R. Gilks, D. G. Clayton, D. J. Spiegelhalter, N. G. Best, A. J. McNeil, L. D. Sharples, and A. J. Kirby. Modelling complexity: applications of Gibbs sampling in medicine (with discussion). *Journal of the Royal Statistical Society, Series B*, 55:39–102, 1993.
- [67] D. J. Spiegelhalter, L. S. Freedman, and M. K. B. Parmar. Applying Bayesian thinking in drug development and clinical trials. *Statistics in Medicine*, 12:1501–1518, 1993.
- [68] R. C. G. Franklin, D. J. Spiegelhalter, I. D. Sullivan, R. H. Anderson, D. S. Thoele, E.A Shinebourne, and J. E. Deanfield. Tricuspid atresia presenting in infancy: survival and suitability for the fontan operation. *Circulation*, 87:427–439, 1993.
- [69] R. G. Cowell, A. P. Dawid, and D. J. Spiegelhalter. Sequential model criticism in probabilistic expert systems. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 15:209–219, 1993.
- [70] D. J. Spiegelhalter, A. P. Dawid, S L Lauritzen, and R. G. Cowell. Bayesian analysis in expert systems (with discussion). *Statistical Science*, 8:219–283, 1993.
- [71] R. G. Cowell, A. P. Dawid, T A Hutchinson, S Roden, and D. J. Spiegelhalter. Bayesian networks for the analysis of drug safety. *The Statistician*, 43:369–384, 1993.
- [72] A E Fletcher, D J Spiegelhalter, J Staessen, L Thijs, and C Bulpitt. Publication of positive results: implications for other trials in progress. *Lancet*, 342:653–657, 1993.
- [73] T W Higenbottam, D. J. Spiegelhalter, J P Scott, V Fuster, A T Dinh-Xuan, N Caine, and J Wallwork. Prostacyclin (Epoprostenol) and heart-lung transplantation as treatments for severe pulmonary hypertension. *British Heart Journal*, 70:366–370, 1993.
- [74] L W E Van Heurn, C M Wong, D. J. Spiegelhalter, K Sorensen, M R De Leval, J Stark, and M J Elliott. Surgical treatment of aortic coarctation in infants aged < 3 months; 1985–1990; success of extended end-to-end arch aortoplasty. *J Thoracic Cardiovascular Surgery*, 107:74–86, 1994.

- [75] G P Crean, R J Holden, R P Knill-Jones, A D Beattie, W B James, F M Marjoribanks, and D. J. Spiegelhalter. A data-base on dyspepsia. *Gut*, 35:191–202, 1994.
- [76] D S Celermajer, D J Spiegelhalter, M Deanfield, and J E Deanfield. Variability of episodic ST-depression in chronic stable angina: implications for individual and group trials of therapeutic efficacy. *J Amer Coll Cardiology*, 23:66–73, 1994.
- [77] M. K. B. Parmar, D. J. Spiegelhalter, L. S. Freedman, and CHART Steering Committee. The CHART trials: Bayesian design and monitoring in practice. *Statistics in Medicine*, 13:1297–1312, 1994.
- [78] L. S. Freedman, D. J. Spiegelhalter, and M. K. B. Parmar. The what, why and how of Bayesian clinical trials monitoring. *Statistics in Medicine*, 13:1371–1384, 1994.
- [79] W R Gilks, A Thomas, and D. J. Spiegelhalter. A language and program for complex Bayesian modelling. *The Statistician*, 43:169–178, 1994.
- [80] D. J. Spiegelhalter, L S Freedman, and M K B Parmar. Bayesian approaches to randomised trials (with discussion). *Journal of the Royal Statistical Society, Series A*, 157:357–416, 1994.
- [81] A. Theodossi, D. J. Spiegelhalter, J. Jass, J. Firth, M. Dixon, M. Leader, D. Levison, R. Lindley, I. Filipe, A. Price, N. A. Shepherd, S. Thomas, and H. Thompson. Observer variation and discriminatory value of biopsy features in inflammatory bowel disease and dysplasia. *Gut*, 35:961–968, 1994.
- [82] D. J. Spiegelhalter, N. L. Harris, K. Bull, and R. C. G. Franklin. Empirical evaluation of prior beliefs about frequencies: methodology and a case study in congenital heart disease. *Journal American Statistical Association*, 89:435–443, 1994.
- [83] J Grossman, M K B Parmar, D. J. Spiegelhalter, and L S Freedman. Unified hypothesis testing, point estimation and interval estimation for group sequential clinical trials. *Statistics in Medicine*, 13:1815–1826, 1994.
- [84] R Lilford, S Gudmundsson, D James, G Mason, K Neales, M Pearce, C Plazzotta, D J Spiegelhalter, J Thornton, T Todros, and J Walker. Formal measurement of clinical uncertainty: prelude to a trial in perinatal medicine. *British Medical Journal*, 308:111–112, 1994.
- [85] P Presbitero, J Somerville, S Stone, E Aruta, D J Spiegelhalter, and F Rabajoli. Pregnancy in cyanotic congenital heart disease: outcome of mother and fetus. *Circulation*, 89:2673–2676, 1994.
- [86] M R de Leval, K Francois, K Bull, W Brawn, and D J Spiegelhalter. Analysis of a cluster of surgical failures: application to a series of neonatal arterial switch operations. *J Thoracic Cardiovascular Surgery*, 107:914–924, 1994.
- [87] D S Celermajer, K E Sorensen, D J Spiegelhalter, D Georgakopoulos, J Robinson, and J E Deanfield. Aging is associated with endothelial dysfunction in healthy men years before the age-related decline in women. *J Amer Coll Cardiology*, 24:471–476, 1994.
- [88] D L Stoker, D J Spiegelhalter, R Singh, and J M Wellwood. Reduced pain and early return to work after laparoscopic hernia repair - a randomized prospective study. *Lancet*, 343:1243–1245, 1994.

- [89] K Bull, J Somerville, K Ty, and D J Spiegelhalter. Natural history and attrition in complex pulmonary atresia. *J Amer Coll Cardiology*, 25:491–499, 1995.
- [90] K E Sorensen, D S Celermajer, D J Spiegelhalter, D Georgakopoulos, J Robinson, O Thomas, and J E Deanfield. Non-invasive measurement of endothelium-dependent arterial responses in man: accuracy and reproducibility. *British Heart Journal*, 74:247–253, 1995.
- [91] T C Smith, D J Spiegelhalter, and A Thomas. Bayesian graphical modelling applied to random effects meta-analysis. *Statistics in Medicine*, 14:2685–2699, 1995.
- [92] T Smith, J D Charlwood, W Takken, and D J Spiegelhalter. Mapping the densities of malaria vectors in a Tanzanian village. *Acta Tropica*, 59:1–18, 1995.
- [93] N. G. Best, A. K. Trull, K. K. C. Tan, D. J. Spiegelhalter, T. G. Wreghitt, and J. Wallwork. Blood cyclosporin concentrations and cytomegalovirus infection following heart transplantation. *Transplantation*, 7:689–694, 1995.
- [94] N. G. Best, K. K. C. Tan, W R Gilks, and D. J. Spiegelhalter. Estimation of population pharmacokinetics using the gibbs sampler. *Journal Pharmacokinetics and Biopharmaceutics*, 23:407–435, 1995.
- [95] M Chiogna, D J Spiegelhalter, K Bull, and R C G Franklin. An empirical comparison of expert-derived and data-derived classification trees. *Statistics in Medicine*, 15:157–169, 1996.
- [96] H Goldstein and D J Spiegelhalter. Statistical aspects of institutional performance: league tables and their limitations (with discussion). *Journal of the Royal Statistical Society, Series A*, 159:385–444, 1996.
- [97] N G Best, D J Spiegelhalter, A Thomas, and C E G Brayne. Bayesian analysis of realistically complex models. *Journal of the Royal Statistical Society, Series A*, 159:323–342, 1996.
- [98] J Peters, A J Hedley, C M Wong, T H Lam, S G Ong, J Liu, and D J Spiegelhalter. Effects of an ambient air pollution intervention and environmental tobacco smoke on children’s respiratory health in Hong Kong. *International Journal Epidemiology*, 25:821–828, 1996.
- [99] N. G. Best, A. K. Trull, K. K. C. Tan, D. J. Spiegelhalter, N. Cary, and J. Wallwork. Pharmacodynamics of cyclosporin in heart-lung transplant recipients: Part i: Risk factors for heart allograft rejection. *Transplantation*, 62:1429–35, 1996.
- [100] N. G. Best, K. K. C. Tan, A. K. Trull, D. J. Spiegelhalter, S. Stewart, and J. Wallwork. Pharmacodynamics of cyclosporin in heart-lung transplant recipients: Part ii: Risk factors for lung allograft rejection. *Transplantation*, 62:1436–41, 1996.
- [101] K Bull and D J Spiegelhalter. Survival analysis in observational studies. *Statistics in Medicine*, 16:1041–1074, 1997.
- [102] R Hebert, C Brayne, and D J Spiegelhalter. Incidence of functional decline and improvement in a community-dwelling very elderly population. *American Journal of Epidemiology*, 145:935–944, 1997.
- [103] R Hebert, C Brayne, and D J Spiegelhalter. Setting the minimal metrically detectable change on disability rating scales. *Archives of Physical Medicine and Rehabilitation*, 12:1305–1308, 1997.

- [104] L Gibson, D J Spiegelhalter, C Camilleri-Ferrante, and N E Day. Trends in cervical cancer incidence in east anglia from 1971 to 1993. *Journal of Medical Screening*, 4:44–48, 1997.
- [105] D G Clayton, G Dunn, A Pickles, and D J Spiegelhalter. Analysis of longitudinal binary data from multiphase sampling (with discussion). *Journal of the Royal Statistical Society, Series B*, 61:71–102, 1998.
- [106] D J Spiegelhalter. Bayesian graphical modelling: a case-study in monitoring health outcomes. *Applied Statistics*, 47:115–134, 1998.
- [107] E C Marshall and D J Spiegelhalter. Reliability of league tables of in vitro fertilisation clinics: retrospective analysis of live birth rates. *British Medical Journal*, 317:1701–1704, 1998.
- [108] J Wellwood, M J Sculpher, D S Stoker, G J Nicholls, C Geddes, A Whitehead, R Singh, and D J Spiegelhalter. Laparoscopic versus open mesh repair for inguinal hernia: outcome and cost results fom a randomised controlled trial. *British Medical Journal*, 317:103–110, 1998.
- [109] CM Wong, TH Lam, J Peters, AJ Hedley, SG Ong, AYC Tam, J Liu, and D J Spiegelhalter. Comparison between two districts of the effects of an air pollution intervention on bronchial responsiveness in primary school children in Hong Kong. *Journal of Epidemiology and Community Health*, 52:571–578, 1998.
- [110] D J Spiegelhalter. Surgical audit: statistical lessons from Nightingale and Codman. *Journal of the Royal Statistical Society, Series A*, 162:45–58, 1999.
- [111] T C Prevost, D J Spiegelhalter, and S W Duffy. Use of person-years of CIN III exposure as a surrogate outcome measure in cervical cancer screening trials. *Journal of Epidemiology and Biostatistics*, 4:19–29, 1999.
- [112] D.J. Spiegelhalter, J.M. Myles, D.R. Jones, and K.R. Abrams. An introduction to Bayesian methods in health technology assessment. *British Medical Journal*, 319:508–512, 1999.
- [113] R Hebert, C Brayne, and D J Spiegelhalter. Factors associated with functional decline and improvement in a very elderly community-dwelling population. *American Journal of Epidemiology*, 150:501–510, 1999.
- [114] C Brayne, D J Spiegelhalter, C Dufouil, T R Dening, E S Paykel, D W O’Connor, A Ahmed, M A McGee, and F A Huppert. Estimating the true extent of cognitive decline in the old. *J American Geriatric Soc*, 47:1283–8, 1999.
- [115] D J Lunn, A Thomas, N G Best, and D J Spiegelhalter. WinBUGS - a Bayesian modelling framework: concepts, structure and extensibility. *Statistics and Computing*, 10:321–333, 2000.
- [116] M Campbell, R Fitzpatrick, A Haines, A L Kinmonth, P Sandercock, D Spiegelhalter, and P Tyrer. Framework for design and evaluation of complex interventions to improve health. *British Medical Journal*, 321:694–696, 2000.
- [117] D.J. Spiegelhalter, J.M. Myles, D.R. Jones, and K.R. Abrams. Bayesian methods in Health Technology Assessment: a Review. *Health Technology Assessment*, 4 (38), 2000. Available on <http://www.ncchta.org/htapubs.htm>.

- [118] F Hyland, A L Kinmonth, T M Marteau, S Griffin, P Murrell, D Spiegelhalter, C Todd, F Walter, B Berrington, M Bobrow, and J Mackay. Raising concerns about family history of breast cancer in primary care consultations: prospective, population-based study. *British Medical Journal*, 322:27–28, 2001.
- [119] D J Spiegelhalter. Bayesian methods for cluster randomised trials with continuous responses. *Statistics in Medicine*, 20:435–452, 2001.
- [120] M K B Parmar, G O Griffiths, D J Spiegelhalter, R L Souhami, D G Altman, and E van der Scheuren. Monitoring large randomised clinical trials - a new approach using Bayesian methods. *Lancet*, 358:375–381, 2001.
- [121] P Aylin, B Alves, N Best, A Cook, P Elliott, SJW Evans, AE Lawrence, GD Murray, J Pollock, and D Spiegelhalter. Comparison of UK paediatric cardiac surgical performance by analysis of routinely collected data: was Bristol an outlier? *Lancet*, 358:181–187, 2001.
- [122] A Vail, J Hornbuckle, D J Spiegelhalter, and J G Thornton. Prospective application of Bayesian monitoring and analysis in an open randomised clinical trial. *Statistics in Medicine*, 20:3777–3789, 2001.
- [123] J P T Higgins and D J Spiegelhalter. Being sceptical about meta-analysis: a Bayesian perspective on magnesium trials in myocardial infarction. *International Journal of Epidemiology*, 31:96–104, 2002.
- [124] D J Spiegelhalter. An investigation into the relationship between mortality and volume of cases: an example in paediatric cardiac surgery between 1991 to 1995. *British Medical Journal*, 324:261–263, 2002.
- [125] D J Spiegelhalter, N G Best, B P Carlin, and A van der Linde. Bayesian measures of model complexity and fit (with discussion). *Journal of the Royal Statistical Society, Series B*, 64:583–640, 2002.
- [126] D E Warn, S G Thompson, and D J Spiegelhalter. Bayesian random effects meta-analysis of trials with binary outcomes: methods for the absolute risk difference and relative risk scales. *Statistics in Medicine*, 21:1601–1624, 2002.
- [127] D J Spiegelhalter, P Aylin, S J W Evans, G D Murray, and N G Best. Commissioned analysis of surgical performance using routine data: lessons from the Bristol Inquiry (with discussion). *Journal of the Royal Statistical Society, Series A*, 165:191–232, 2002.
- [128] DJ Lunn, NG Best, A Thomas, J Wakefield, and DJ Spiegelhalter. Bayesian analysis of population PK/PD models: general concepts and software. *J Pharmacokinetics Pharmacodynamics*, 29:271–307, 2002.
- [129] D J Spiegelhalter, R Kinsman, O Grigg, and T Treasure. Risk-adjusted sequential probability ratio tests: applications to Bristol, Shipman, and adult cardiac surgery. *International J Quality in Health Care*, 15:7–13, 2003.
- [130] O Grigg, V T Farewell, and D J Spiegelhalter. The use of risk-adjusted CUSUM and RSPRT charts for monitoring in medical contexts. *Statistical Methods in Medical Research*, 12:147–170, 2003.

- [131] D J Spiegelhalter and N G Best. Bayesian methods for evidence synthesis and complex cost-effectiveness models: an example in hip prostheses. *Statistics in Medicine*, 22:3687–3708, 2003.
- [132] E C Marshall and D J Spiegelhalter. Approximate cross-validatory predictive checks in disease-mapping models. *Statistics in Medicine*, 22:1649–1660, 2003.
- [133] DJ Spiegelhalter. Incorporating Bayesian ideas into health-care evaluation. *Statistical Science*, 19:156–174, 2004.
- [134] OJ Arthurs, CME Stephenson, K Rice, VC Lupson, D J Spiegelhalter, S J Boniface, and ET Bullmore. Dopaminergic effects on electrophysiological and functional MRI measures of human cortical stimulus-response power laws. *NeuroImage*, 21:540–6, 2004.
- [135] R Lilford, MA Mohammed, D J Spiegelhalter, and R Thomson. Use and misuse of process and outcome data in managing acute medical care: avoiding institutional stigma. *Lancet*, 363:1147–1154, 2004.
- [136] MR Sydes, DJ Spiegelhalter, DG Altman, AB Babiker, MKB Parmar, and the DAMOCLES Group. Systematic qualitative review of the literature on data monitoring committees in randomised controlled trials. *Clinical Trials*, 1:60–79, 2004.
- [137] MR Sydes, DG Altman, AB Babiker, MKB Parmar, DJ Spiegelhalter, and the DAMOCLES Group. Reported use of data monitoring committees in the main published reports of randomised controlled trials: a cross-sectional study. *Clinical Trials*, 1:48–59, 2004.
- [138] B Keogh, D J Spiegelhalter, A Bailey, J Roxburgh, P Magee, and C Hilton. Towards public disclosure of individual surgeon’s results. *British Medical Journal*, 326:450–4, 2004.
- [139] JG Thornton, J Hornbuckle, A Vail, DJ Spiegelhalter, M Levene, and GRIT study group. Infant wellbeing at 2 years of age in the Growth Restriction Intervention Trial (GRIT): multicentred randomised controlled trial. *Lancet*, 364:483–4, 2004.
- [140] K Williams, T Prevost, S Griffin, W Hardeman, W Hollingworth, D Spiegelhalter, S Sutton, U Ekelund, N Wareham, and AL Kinmonth. The ProActive trial protocol - a randomised controlled trial of the efficacy of a family-based, domiciliary intervention programme to increase physical activity among individuals at high risk of diabetes [ISRCTN 61323766]. *BMC Public Health*, 4:48, 2004.
- [141] D J Spiegelhalter. Monitoring clinical performance: a commentary. *Journal Thoracic Cardiovascular Surgery*, 128:820–2, 2004.
- [142] AM Grant, D Altman, A Babiker, MK Campbell, F Clemens, J Darbyshire, D Elbourne, SK McLeer, M Parmar, S Pocock, DJ Spiegelhalter, M Sydes, A Walker, and S Wallace. A proposed charter for clinical trial data monitoring committees: helping them to do their job well. *Lancet*, 365:711–716, 2005.
- [143] AM Grant, D Altman, A Babiker, MK Campbell, F Clemens, J Darbyshire, D Elbourne, SK McLeer, M Parmar, S Pocock, DJ Spiegelhalter, M Sydes, A Walker, and S Wallace. Issues in data monitoring and interim analysis of trials. *Health Technol Assess*, 9:1–238, 2005.

- [144] D J Spiegelhalter. Funnel plots for comparing institutional performance. *Statistics in Medicine*, 24:1185–1202, 2005.
- [145] R Turner, S Thompson, and D J Spiegelhalter. Prior distributions for the intraclass correlation coefficient based on multiple previous estimates, and their application to cluster randomised trials. *Clinical Trials*, 2:108–118, 2005.
- [146] D J Spiegelhalter. Handling over-dispersion of performance indicators. *Quality Safety Health Care*, 14:347–351, 2005.
- [147] A O’Hagan, C McCabe, R Akehurst, A Brennan, A Briggs, K Claxton, E Fenwick, D Fryback, M Sculpher, D Spiegelhalter, and A Willan. Incorporation of uncertainty in health economic modelling studies. *Pharmacoeconomics*, 23:529–536, 2005.
- [148] D J Spiegelhalter. Problems in assessing rates of infection with methicillin resistant *Staphylococcus Aureus*. *British Medical Journal*, 331:1013–1015, 2005.
- [149] D J Spiegelhalter and E C Marshall. Strategies for inference robustness in focussed modelling. *Journal of Applied Statistics*, 33:217–231, 2006.
- [150] C Glumer, D Farewell, M Yuyun, S Griffin, D Spiegelhalter, A Kinmonth, and N Wareham. A cost-effectiveness model on coronary heart disease of screening and early treatment for Type 2 diabetes. *Diabetologia*, 49:1536–44, 2006.
- [151] K Rice and D J Spiegelhalter. A simple diagnostic plot connecting robust estimation, outliers and false discovery rates. *Journal of Applied Statistics*, 33:1131–1147, 2006.
- [152] JD Pickard, D Spiegelhalter, and M Czosnyka. Health economics and the search for shunt-responsive symptomatic hydrocephalus in the elderly. *J Neurosurgery*, 105:811–3, 2006.
- [153] O J Arthurs, T Donovan, D J Spiegelhalter, J D Pickard, and S J Boniface. Intracortically distributed neurovascular coupling relationships within and between human somatosensory cortices. *Cerebral Cortex*, 17:661–668, 2007. DOI: 10.1093/cercor/bhk014.
- [154] A Gorst-Rasmussen, D J Spiegelhalter, and C Bull. Monitoring the introduction of a surgical intervention with long-term consequences. *Statistics in Medicine*, 26:512–531, 2007. DOI: 10.1002/sim.2548.
- [155] O Grigg and D J Spiegelhalter. A simple risk-adjusted exponentially weighted moving average. *Journal of American Statistical Association*, 102:140–152, 2007. DOI: 10.1198/016214506000001121.
- [156] D Ohlssen, L D Sharples, and D J Spiegelhalter. Flexible random-effects models using Bayesian semi-parametric models: applications in institutional comparisons. *Statistics in Medicine*, 26:2088–2112, 2007. DOI: 10.1002/sim.2666.
- [157] D Ohlssen, L D Sharples, and D J Spiegelhalter. A hierarchical modelling framework for identifying unusual performance in health care providers. *J Roy Statist Soc A*, 170:865–890, 2007. DOI: 10.1111/j.1467-985X.2007.00487.x.
- [158] E C Marshall and D J Spiegelhalter. Simulation-based tests for divergent behaviour in hierarchical models. *Bayesian Analysis*, 2:409–444, 2007. DOI: 10.1214/07-BA218.

- [159] C Weir, A Grieve, and D J Spiegelhalter. Likelihood-based posterior updating for optimal dose allocation in a normal dynamic linear model. *Journal of Biopharmaceutical Statistics*, 17:1033–1050, 2007. DOI: 10.1080/10543400701643947.
- [160] T Ring and D J Spiegelhalter. Risk of intracranial aneurysm bleeding in autosomal-dominant polycystic kidney disease. *Kidney International*, 72:1400–2, 2007. DOI: 10.1038/sj.ki.5002488.
- [161] AT Prevost, D Mason, S Griffin, AL Kinmonth, S Sutton, and D Spiegelhalter. Allowing for correlations between correlations in random-effects meta-analysis of correlation matrices. *Psychological Methods*, 12:434–450, 2007. DOI: 10.1037/1082-989X.12.4.434.
- [162] AL Kinmonth, NJ Wareham, W Hardeman, S Sutton, AT Prevost, T Fanshawe, KM Williams, U Ekelund, D Spiegelhalter, and SJ Griffin. Efficacy of a theory-based behavioural intervention to increase physical activity in an at-risk group in primary care (ProActive UK): a randomised trial. *Lancet*, 371:41–48, 2008. DOI: 10.1016/S0140-6736(08)60070-7.
- [163] HE Jones, DI Ohlssen, and DJ Spiegelhalter. Use of the false discovery rate when comparing multiple health care providers. *J Clin Epidemiol*, 61:232–240, 2008. DOI: 10.1016/j.jclinepi.2007.04.017.
- [164] J Suckling, D Ohlssen, C Andrew, J Johnson, SC Williams, M Graves, CH Chen, D Spiegelhalter, and E Bullmore. Components of variance in a multicentre functional MRI study and implications for calculation of statistical power. *Human Brain Mapping*, 29(10):1111–1122, 2008. DOI: 10.1002/hbm.20451.
- [165] A. M. Presanis, D. De Angelis, D. J. Spiegelhalter, S. Seaman, A. Goubar, and A. E. Ades. Conflicting evidence in a Bayesian synthesis of surveillance data to estimate human immunodeficiency virus prevalence. *J. Royal Statistical Soc. Series A-statistics In Soc.*, 171:915–937, 2008. DOI: 10.1111/j.1467-985X.2008.00543.x.
- [166] J Schulman, D J Spiegelhalter, and G Parry. How to interpret your dot: Decoding the message of clinical performance indicators. *J. Perinatology*, 28(9):588–596, 2008. DOI: 10.1038/jp.2008.67.
- [167] A S Walker, D J Spiegelhalter, D W Crook, D Wyllie, J Morris, and T E A Peto. Fairness of financial penalties to improve control of *Clostridium difficile*. *British Medical Journal*, 337:1385–1387, 2008.
- [168] B Neuenschwander, M Branson, and DJ Spiegelhalter. A note on the power prior. *Stat Med*, 28:3562–3566, Dec 2009.
- [169] D Lunn, D Spiegelhalter, A Thomas, and N Best. The BUGS project: Evolution, critique and future directions. *Stat Med*, 28:3049–3067, Nov 2009.
- [170] M Bardsley, DJ Spiegelhalter, I Blunt, X Chitnis, A Roberts, and S Bharania. Using routine intelligence to target inspection of healthcare providers in england. *Qual Saf Health Care*, 18:189–194, Jun 2009.
- [171] HE Jones and DJ Spiegelhalter. Accounting for regression-to-the-mean in tests for recent changes in institutional performance: analysis and power. *Stat Med*, 28:1645–1667, May 2009.

- [172] D Lunn, N Best, D Spiegelhalter, G Graham, and B Neuenschwander. Combining MCMC with 'sequential' PKPD modelling. *J Pharmacokinet Pharmacodyn*, 36:19–38, Feb 2009.
- [173] JP Higgins, SG Thompson, and DJ Spiegelhalter. A re-evaluation of random-effects meta-analysis. *J R Stat Soc Ser A Stat Soc*, 172:137–159, Jan 2009. PMID: PMC2667312.
- [174] RM Turner, DJ Spiegelhalter, GC Smith, and SG Thompson. Bias modelling in evidence synthesis. *J R Stat Soc Ser A Stat Soc*, 172:21–47, Jan 2009. PMID: PMC2667303.
- [175] OA Grigg, DJ Spiegelhalter, and HE Jones. Local and marginal control charts applied to methicillin resistant staphylococcus aureus bacteraemia reports in uk acute national health service trusts. *J R Stat Soc Ser A Stat Soc*, 172:49–66, 2009.
- [176] B Neuenschwander, G Capkun-Niggli, M Branson, and DJ Spiegelhalter. Summarizing historical information on controls in clinical trials. *Clin Trials*, 7:5–18, Feb 2010. PMID: PMC2917852.
- [177] S Bujkiewicz, HE Jones, MC Lai, NJ Cooper, N Hawkins, H Squires, KR Abrams, DJ Spiegelhalter, and AJ Sutton. Development of a transparent interactive decision interrogator to facilitate the decision-making process in health care. *Value Health*, 14:768–776, Jul 2011. PMID: PMC3161376.
- [178] NJ Cooper, J Peters, MC Lai, P Juni, S Wandel, S Palmer, M Paulden, S Conti, NJ Welton, KR Abrams, S Bujkiewicz, D Spiegelhalter, and AJ Sutton. How valuable are multiple treatment comparison methods in evidence-based health-care evaluation? *Value Health*, 14:371–380, Mar 2011.
- [179] M Rodgers, D Epstein, L Bojke, H Yang, D Craig, T Fonseca, L Myers, I Bruce, R Chalmers, S Bujkiewicz, M Lai, N Cooper, K Abrams, D Spiegelhalter, A Sutton, M Sculpher, and N Woolacott. Etanercept, infliximab and adalimumab for the treatment of psoriatic arthritis: a systematic review and economic evaluation. *Health Technol Assess*, 15:i–329, Feb 2011.
- [180] H Riesch and DJ Spiegelhalter. 'Careless pork costs lives': Risk stories from science to press release to media. *Health Risk Soc*, 13:47–64, 2011.
- [181] G Manzi, DJ Spiegelhalter, RM Turner, J Flowers, and SG Thompson. Modelling bias in combining small area prevalence estimates from multiple surveys. *J R Stat Soc Ser A Stat Soc*, 174:31–50, Jan 2011. PMID: PMC3041928.
- [182] HE Jones and DJ Spiegelhalter. The identification of 'unusual' health-care providers from a hierarchical model. *American Statistician*, 65:154–163, 2011.
- [183] DJ Spiegelhalter and H Riesch. Don't know, can't know: embracing deeper uncertainties when analysing risks. *Philos Transact A Math Phys Eng Sci*, 369:4730–4750, Dec 2011.
- [184] D Spiegelhalter, M Pearson, and I Short. Visualizing uncertainty about the future. *Science*, 333:1393–1400, Sep 2011.
- [185] AT Booth, R Choudhary, and DJ Spiegelhalter. Handling uncertainty in housing stock models. *Building and Environment*, 48:35–47, 2012.

- [186] WJ Sutherland, L Bellingan, JR Bellingham, JJ Blackstock, RM Bloomfield, M Bravo, VM Cadman, DD Cleevly, A Clements, AS Cohen, DR Cope, AA Daemmrich, C Devecchi, LD Anadon, S Denegri, R Doubleday, NR Dusic, RJ Evans, WY Feng, HC Godfray, P Harris, SE Hartley, AJ Hester, J Holmes, A Hughes, M Hulme, C Irwin, RC Jennings, GS Kass, P Littlejohns, TM Marteau, G McKee, EP Millstone, WJ Nuttall, S Owens, MM Parker, S Pearson, J Petts, R Ploszek, AS Pullin, G Reid, KS Richards, JG Robinson, L Shaxson, L Sierra, BG Smith, DJ Spiegelhalter, J Stilgoe, A Stirling, CP Tyler, DE Winickoff, and RL Zimmern. A collaboratively-derived science-policy research agenda. *PLoS One*, 7:e31824, 2012. PMID: PMC3302883.
- [187] T Rakow, RJ Wright, C Bull, and DJ Spiegelhalter. Simple and multistate survival curves: Can people learn to use them? *Med Decis Making*, Jun 2012.
- [188] HE Jones and DJ Spiegelhalter. Improved probabilistic prediction of healthcare performance indicators using bidirectional smoothing models. *Journal of the Royal Statistical Society. Series A: Statistics in Society*, 175:729–747, 2012.
- [189] RM Turner, M Lloyd-Jones, DO Anumba, GC Smith, DJ Spiegelhalter, H Squires, JW Stevens, MJ Sweeting, SJ Urbaniak, R Webster, and SG Thompson. Routine antenatal anti-d prophylaxis in women who are rh(d) negative: meta-analyses adjusted for differences in study design and quality. *PLoS One*, 7:e30711, 2012. PMID: PMC3272015.
- [190] D Spiegelhalter, C Sherlaw-Johnson, M Bardsley, I Blunt, C Wood, and O Grigg. Statistical methods for healthcare regulation: rating, screening and surveillance (with discussion). *Journal of the Royal Statistical Society. Series A: Statistics in Society*, 175:1–25, 2012.

BOOKS

References

- [1] A. J. McMichael, P. C. L. Beverley, S. Cobbold, M. J. Crumpton, W. Gilks, R. M. Gotch, N. Hogg, M. Horton, N. Ling, I. C. M. MacLennan, D. Y. Mason, C. Milstein, D. J. Spiegelhalter, and H. Waldman. *Leucocyte Typing III: White Cell Differentiation Antigens*. Oxford University Press, 1987.
- [2] D Michie, D J Spiegelhalter, and C C Taylor. *Machine Learning, Neural and Statistical Classification*. Ellis Horwood, New York, 1994.
- [3] W R Gilks, S Richardson, and D J Spiegelhalter. *Markov Chain Monte Carlo Methods in Practice*. Chapman and Hall, New York, 1996.
- [4] R. G. Cowell, A. P. Dawid, S L Lauritzen, and D. J. Spiegelhalter. *Bayesian Analysis in Probabilistic Networks*. Springer-Verlag, New York, 1999.
- [5] D J Spiegelhalter, K Abrams, and J P Myles. *Bayesian Approaches to Clinical Trials and Health Care Evaluation*. Wiley, Chichester, 2004.
- [6] D Lunn, C Jackson, N Best, A Thomas, and D J Spiegelhalter. *The BUGS Book: a Practical Introduction to Bayesian Analysis*. Chapman and Hall, New York, 2012.

CHAPTERS, PROCEEDINGS and NON-REFEREED ARTICLES

References

- [1] A. F. M. Smith and D. J. Spiegelhalter. Bayesian approaches to multivariate structure. In V. Barnett, editor, *Interpreting Multivariate Data*, pages 335–348. Wiley, London, 1981.
- [2] D. J. Spiegelhalter and A. F. M. Smith. Decision analysis and clinical decisions. In J. F. Bithell and R. Coppi, editors, *Perspectives in Medical Statistics*, pages 103–131. Academic Press, London, 1981.
- [3] W. I. Card, G. P. Crean, R. P. Knill-Jones, R. W. Lucas, and D. J. Spiegelhalter. The development of a diagnostic decision system. In J. P. Paul et al, editor, *Computing in Medicine*, pages 258–264. MacMillan, London, 1982.
- [4] G. Teasdale, A. M. Skene, D. J. Spiegelhalter, and L. Murray. Age, severity and outcome of severe head injury. In R. G. Grossman and P. L. Gildenberg, editors, *Head Injury: Basic and Clinical Aspects*, pages 213–220. Raven, New York, 1982.
- [5] G. P. Crean, W. I. Card, A. D. Beattie, R. J. Holden, W. B. James, R. P. Knill-Jones, R. W. Lucas, and D. J. Spiegelhalter. Ulcer-like dyspepsia. *Scandinavian Journal of Gastroenterology*, 17 (Supplement 79):9–15, 1982.
- [6] R. P. Knill-Jones, W. I. Card, G. P. Crean, W. B. James, and D. J. Spiegelhalter. The symptoms of gastro-oesophageal reflux and of oesophagitis. *Scandinavian Journal of Gastroenterology*, 19 (Supplement 83):72–76, 1984.
- [7] G. P. Crean and D. J. Spiegelhalter. The symptoms of peptic ulcer. In F. Brooks, editor, *Peptic Ulcer*, pages 1–15. Churchill Livingstone, New York, 1985.
- [8] D. J. Spiegelhalter. Exact Bayesian inference on the parameters of a Cauchy distribution with vague prior information. In J. M. Bernardo, M H Degroot, D V Lindley, and A F M Smith, editors, *Bayesian Statistics 2*, pages 743–750. North Holland, Amsterdam, 1985.
- [9] D. J. Spiegelhalter. Probabilistic reasoning in predictive expert systems. In L. N. Kanal and J. Lemmer, editors, *Uncertainty in Artificial Intelligence*, pages 47–68. North-Holland, Amsterdam, 1986.
- [10] F. Macartney, J. Douglas, and D. J. Spiegelhalter. Cardiac catheterisation and decision theory. In R. Hunter and R. Hall, editors, *Clinical Echocardiography*, pages 84–92. Castle House, Tunbridge Wells, 1986.
- [11] D. J. Spiegelhalter and W. R. Gilks. Statistical analysis. In McMichael et al, editor, *Leucocyte Typing III*, pages 14–24. Oxford University Press, 1987.
- [12] W. R. Gilks S. Cobbold and D. J. Spiegelhalter. Median reactivities of workshop antibodies. In McMichael et al, editor, *Leucocyte Typing III*, pages 955–987. Oxford University Press, 1987.
- [13] D. J. Spiegelhalter, G. P. Crean, R. Holden, and R. P. Knill-Jones. Taking a calculated risk: predictive scoring systems in dyspepsia. *Scandinavian J of Gastroenterology*, 22 (Supplement 128):152–60, 1987.

- [14] F. J. Macartney, D. J. Spiegelhalter, and S. M. L. Rigby. Medical management. In R. H. Anderson et al, editor, *Paediatric Cardiology*, pages 421–442. Churchill Livingstone, Edinburgh, 1987.
- [15] D. J. Spiegelhalter. Synthesis of AI and Bayesian methods in medical expert systems. In B. Phelps, editor, *Interactions in Artificial Intelligence and Statistical Methods*, pages 169–175. Gower Technical Press, Hampshire, 1987.
- [16] J. E. Deanfield and D. J. Spiegelhalter. Variability of myocardial ischemia in chronic stable angina. In Th. V. Arnum and A. Maseri, editors, *Silent Ischemia: Current Concepts and Management*, pages 203–207. Springer-Verlag, New York, 1987.
- [17] D. J. Spiegelhalter and L. S. Freedman. Bayesian approaches to clinical trials. In J. M. Bernardo, M H Degroot, D V Lindley, and A F M Smith, editors, *Bayesian Statistics 3*, pages 453–477. Oxford University Press, 1988.
- [18] S. M. Gore, A. O. Langland, D. J. Spiegelhalter, T. A. H. English, and H. J. Stewart. Treatment decisions in breast cancer. In *Recent Results in Cancer Research*, volume III. Springer-Verlag, Berlin, 1988.
- [19] M. Hakim, D. J. Spiegelhalter, T. A. H. English, N. Caine, and J. Wallwork. Cardiac transplantation with cyclosporin and steroids: medium and long-term results. *Transplantation Proceedings*, 20 (Supplement 3):327–332, 1988.
- [20] D. J. Spiegelhalter. Statistical issues in studies of individual response. *Scandinavian J Gastroenterology*, 23 (Supplement 147):40–45, 1988.
- [21] W. R. Gilks, D. J. Spiegelhalter, and L. D. Hodson LD. Data analysis of the first small cell lung cancer workshop. *Lung Cancer*, 4:1–2;5–1, 1988.
- [22] W. R. Gilks, S. Cobbold, and D. J. Spiegelhalter. *Leucocyte Typing Database 3 (LTDB3)*. Oxford University Press. ISBN 0-19-261821-0 (Computer software), 1988.
- [23] D. J. Spiegelhalter and S. L. Lauritzen. Statistical reasoning and learning in knowledge - bases represented as causal networks. In *Lectures Notes in Medical Informatics, 36*, pages 105–112. Springer-Verlag, Heidelberg, 1988.
- [24] D. J. Spiegelhalter. A unified approach to imprecision and sensitivity of beliefs in expert systems. In L. N. Kanal, J. Lemner, and T. S. Levitt, editors, *Uncertainty in Artificial Intelligence 3*, pages 199–208. North-Holland, Amsterdam, 1989.
- [25] J M Wellwood and D. J. Spiegelhalter. Computers and the diagnosis of acute abdominal pain. *British Journal of Hospital Medicine*, 41:564–567, 1989.
- [26] A. J. McMichael, P. C. L. Beverley, S. Cobbold, M. J. Crumpton, W. Gilks, R. M. Gotch, N. Hogg, M. Horton, N. Ling, I. C. M. MacLennan, D. Y. Mason, C. Milstein, D. J. Spiegelhalter, and H. Waldmann. A compilation of data from the Third International Workshop on Human Leucocyte Antigens. In W R Gilks, editor, *Leucocyte Typing Database IV (Manual for computer software)*, pages 56–58. Oxford University Press, 1990.
- [27] M. E. Wilson and D. J. Spiegelhalter. Proving the unlikely. In B. Bonke, W. Fitch, and K. Millar, editors, *Memory and Awareness in Anesthesia*, pages 76–80. Swets and Zeitlinger, Amsterdam, 1990.

- [28] D. J. Spiegelhalter. Fast algorithms for probabilistic reasoning in influence diagrams, with applications in genetics and expert systems. In R. M. Oliver and J. Q. Smith, editors, *Influence Diagrams, Belief Nets and Decision Analysis*, pages 361–384. Wiley, Chichester, 1990.
- [29] D. J. Spiegelhalter, R. C. G. Franklin, and K. Bull. Assessment, criticism and improvement of imprecise subjective probabilities. In Max Henrion, Ross D. Schachter, L. N. Kanal, and J. F. Lemmer, editors, *Uncertainty in Artificial Intelligence 5*, pages 285–294. Amsterdam, 1990.
- [30] J. Deanfield and D. J. Spiegelhalter. Variability of myocardial ischemia: implications for monitoring strategies. In J. J. Kellerman and E. Braunwald, editors, *Advances in Cardiology*, volume 37, pages 176–186. Karger, Basel, 1990.
- [31] N. L. Harris, D. J. Spiegelhalter, K. Bull, and R. C. G. Franklin. Criticizing conditional probabilities in belief networks. In R. A. Miller, editor, *14th Symposium on Computer Application in Health Care*, pages 805–809, Washington DC, 1990.
- [32] R. Bellazzi, C. Berzuini, S. Quaglini, D. J. Spiegelhalter, and M. Leaning. Cytotoxic chemotherapy monitoring using stochastic simulation on graphical models. In M. Stefanelli, A. Hasman, M. Fieschi, and J. Talmon, editors, *Lecture Notes in Medical Informatics 44*, pages 227–238. Springer-Verlag, Heidelberg, 1991.
- [33] C. Berzuini, D. J. Spiegelhalter, and R. Bellazzi. Bayesian networks applied to therapy monitoring. In B. D. D’Ambrosio, P. Smets, and P. P. Bonnissonne, editors, *Uncertainty in Artificial Intelligence 6*, pages 35–43. Morgan Kaufmann, San Mateo, 1991.
- [34] D. J. Spiegelhalter. Alternative formalisms for the representation of medical knowledge and clinical judgement. In A. J. Hedley and W. C. Por, editors, *Proceedings of First Hong Kong Medical Informatics Conference*, pages 159–169, 1991.
- [35] C. M. Wong, A. J. Hedley, J. Bacon-Shone, F. Branicki, J. Wong, D. J. Leaper, G. P. Poon, M. P. Leung, M. K. Tse, J. Cheang, and D. J. Spiegelhalter. Development of clinical decision-support for the management of acute abdominal pain. In A. J. Hedley and W. C. Por, editors, *Proceedings of First Hong Kong Medical Informatics Conference*, pages 170–191, 1991.
- [36] J. Wyatt and D. J. Spiegelhalter. Field trials of medical decision-aids: potential problems and solutions. In P. Clayton, editor, *15th Symposium on Computer Application in Health Care*, pages 3–7, Washington DC. New York, 1991. McGraw-Hill.
- [37] D. J. Spiegelhalter and R. G. Cowell. Learning in probabilistic expert systems. In J. M. Bernardo, J. O. Berger, A. P. Dawid, and Adrian F. M. Smith, editors, *Bayesian Statistics 4*, pages 447–466. Oxford, UK, 1992.
- [38] A. Thomas, D. J. Spiegelhalter, and W. R. Gilks. BUGS: A program to perform Bayesian inference Using Gibbs Sampling. In J. M. Bernardo, J. O. Berger, A. P. Dawid, and Adrian F. M. Smith, editors, *Bayesian Statistics 4*, pages 837–842, Oxford, UK, 1992.
- [39] J. Wyatt and D. J. Spiegelhalter. The evaluation of medical expert systems. In D. Evans and V. Patel, editors, *Advanced Models of Cognition for Medical Training and Practice, (NATO ASI series F97)*, pages 101–120. Springer-Verlag, Heidelberg, 1992.
- [40] S. L. Lauritzen, B. Thiesson, and D. J. Spiegelhalter. Diagnostic systems created by model selection methods: A case study. In P. Cheeseman and R. W. Oldford, editors, *Selecting*

- Models from Data: AI and Statistics IV*, pages 143–152. Springer-Verlag, New York, 1994. Lecture Notes in Statistics 89.
- [41] A J Kirby and D J Spiegelhalter. Statistical modelling for the precursors of cervical cancer. In N Lange, L Ryan, L Billard, D Brillinger, L Conquest, and J Greenhouse, editors, *Case Studies in Biometry*, pages 359–384. J Wiley and Sons, New York, 1994.
 - [42] D J Spiegelhalter and K Bull. Surgical audit using statistical modelling. In A J Hedley, H L Ming, J Johnston, W C Por, S M McGhee, and R Leung, editors, *Proceedings of Second Hong Kong (Asia-Pacific) Medical Informatics Conference*, pages 71–76, Hong Kong, 1994. Hong Kong Society of Medical Informatics.
 - [43] D J Spiegelhalter. Alternative formalisms for representing clinical knowledge and judgement. In C I Phillips, editor, *Logic in Medicine*, pages 100–115. BMJ Press, London, 1995.
 - [44] D J Spiegelhalter. Bayesian analysis of complex random effects models. In *VVS Conference on Software for Random Coefficient Models*, pages 19–36, Groningen, 1995. proGAMMA.
 - [45] D J Spiegelhalter. Monitoring health outcome targets across districts. In A J Hedley, H L Ming, W C Por, and S M McGhee, editors, *Proceedings of Third Hong Kong (Asia-Pacific) Medical Informatics Conference*, pages 33–36, Hong Kong, 1995. Hong Kong Society of Medical Informatics.
 - [46] D J Spiegelhalter. International databases for comparing surgical mortality. In A J Hedley, H L Ming, W C Por, and S M McGhee, editors, *Proceedings of Third Hong Kong (Asia-Pacific) Medical Informatics Conference*, pages 314–318, Hong Kong, 1995. Hong Kong Society of Medical Informatics.
 - [47] D. J. Spiegelhalter, A Thomas, and N G Best. Computation on Bayesian graphical models. In J. M. Bernardo, J. O. Berger, A. P. Dawid, and Adrian F. M. Smith, editors, *Bayesian Statistics 5*, pages 407–425. Oxford, UK, 1996.
 - [48] T C Smith, D J Spiegelhalter, and M H Parmar. Bayesian meta-analysis for randomized trials using graphical models and BUGS. In D Berry and D Stangl, editors, *Case Studies in Bayesian Biostatistics*, pages 411–428. Marcel Dekker, New York, 1996.
 - [49] W R Gilks, S Richardson, and D J Spiegelhalter. Introducing Markov chain Monte Carlo. In W R Gilks, S Richardson, and D J Spiegelhalter, editors, *Markov Chain Monte Carlo Methods in Practice*, pages 1–20. Chapman and Hall, New York, 1996.
 - [50] D J Spiegelhalter, N G Best, W R Gilks, and H Inskip. Hepatitis: a case study in MCMC methods. In W R Gilks, S Richardson, and D J Spiegelhalter, editors, *Markov Chain Monte Carlo Methods in Practice*, pages 21–44. Chapman and Hall, New York, 1996.
 - [51] N G Best and D J Spiegelhalter. When is a random effect not a random effect? In *Proceedings of Bayesian Section of 1995 American Statistical Association Meeting*, 1996. (to appear).
 - [52] N G Best and D J Spiegelhalter. Modelling complexity using BUGS. In A Forcina, G M Marchetti, R Hatzinger, and G Galmacci, editors, *Statistical Modelling: Proceedings of the 11th International Workshop on Statistical Modelling, Orvieto, Italy*. 1996.

- [53] D L Stoker, D J Spiegelhalter, C Geddes, R Singh, and J M Wellwood. Laparoskopische Hernioplastik: Eine randomisierte Studie mit einer Nachbeobachtungszeit von 3 Jahren. In G Meyer and F W Schildberg, editors, *Endoskopische Hernioplastik*, pages 261–269. J A Barth, Heidelberg, 1997.
- [54] D J Spiegelhalter. The Royal Statistical Society. In P Armitage and T Colton, editors, *Encyclopaedia of Biostatistics*. Wiley, Chichester, 1998.
- [55] D J Spiegelhalter and E C Marshall. Comparing institutional performance using Markov chain Monte Carlo methods. In B Everitt and G Dunn, editors, *Recent Advances in the Statistical Analysis of Medical Data*, pages 229–250. Edward Arnold, London, 1998.
- [56] D J Spiegelhalter, J P Myles, D R Jones, and K R Abrams. An introduction to Bayesian methods in health services research. In N Black, J Brazier, R Fitzpatrick, and B Reeves, editors, *Health Services Research Methods*, pages 150–162. BMJ Books, London, 1998.
- [57] D J Spiegelhalter and A Thomas. Graphical modeling for complex stochastic systems: the BUGS project. *IEEE Intelligent Systems & Their Applications*, 13:14–15, 1998.
- [58] D. J. Spiegelhalter and E C Marshall. Inference robust institutional comparisons: a case study of school examination results. In J. M. Bernardo, J. O. Berger, A. P. Dawid, and Adrian F. M. Smith, editors, *Bayesian Statistics 6*, pages 613–630. Oxford University Press, Oxford, UK, 1999.
- [59] D J Spiegelhalter. How Bayesian models work: a brief introductory guide. In G M Price and L K Shuker, editors, *Probabilistic Approaches to Food Risk Assessment*, pages 21–24. Institute of Environment and Health, Leicester, UK, 2000.
- [60] E C Marshall and D J Spiegelhalter. Institutional Performance. In A H Leyland and H Goldstein, editors, *Multilevel Modelling of Health Statistics*, pages 127–142. Wiley, Chichester, 2001.
- [61] D J Spiegelhalter, J P Myles, D R Jones, and K R Abrams. Bayesian Methods. In A J Stevens, K Abrams, J Brazier, R Fitzpatrick, and R Lilford, editors, *The Advanced Handbook of Methods of Evidence Based Healthcare*, pages 275–294. SAGE, London, 2001.
- [62] C Bishop, D J Spiegelhalter, and J Winn. VIBES: A Variational Inference Engine for Bayesian Networks. In S Becker, S Thrun, and K Obermeyer, editors, *Advances in Neural Information Processing Systems*, volume 15, page 793800. 2002.
- [63] D J Spiegelhalter and N G Best. Shipman’s statistical legacy. *Significance*, 1:10–12, 2004.
- [64] D J Spiegelhalter. The Contagious Disease Acts. *Significance*, 1:88–89, 2004.
- [65] D J Spiegelhalter. Bastardy in the UK. *Significance*, 1:134–135, 2004.
- [66] D J Spiegelhalter. On wasps and club dinners. *Significance*, 1:183–184, 2004.
- [67] J. Copas, D. R. Jones, D. Spiegelhalter, K. Rice, B. Armstrong, S. Senn, J. Carpenter, M. Kenward, B. De Stavola, D. Nitsch, C. R. Muirhead, J. Hodges, N. T. Longford, A. Gelman, D. Draper, P. Gustafson, L. McCandless, and D. B. Rubin. Multiple-bias modelling for analysis of observational data - discussion. *J. Royal Statistical Soc. Series A-statistics In Soc.*, 168:291–306, 2005.

- [68] D. J. Spiegelhalter, D. E. Warn, and S. G. Thompson. Bayesian random effects meta-analysis of trials with binary outcomes: methods for the absolute risk difference and relative risk scales - reply. *Statistics In Medicine*, 24:2743–2743, 2005.
- [69] D J Spiegelhalter. League Tables. In P Armitage and T Colton, editors, *Encyclopaedia of Biostatistics, 2nd Ed*, pages 2478–2751. Wiley, Chichester, 2005.
- [70] D J Spiegelhalter. Public or private health care? *Significance*, 2:38–39, 2005.
- [71] K M Rice and D J Spiegelhalter. Discussion of Efron: ‘Microarrays, empirical Bayes, and the two-Groups problem’. *Statistical Science*, 23:–, 2008. DOI: 10.1214/07-STS236B.
- [72] O A Grigg and D J Spiegelhalter. Clinical surveillance and patient safety. In P C Smith and E Mossialos S Leatherman, editors, *Performance measurement for health system improvement: experiences, challenges and prospects*. Cambridge University Press, Cambridge, 2008.
- [73] D J Spiegelhalter and H Riesch. Risk, middle-class drinking, and bacon sandwiches. *Significance*, 5:30–33, 2008. DOI: 10.1111/j.1740-9713.2008.00277.x.
- [74] D Spiegelhalter. Don’t react, think. *NEW SCI*, 203:20–21, Aug 2009.
- [75] D Spiegelhalter and H Goldstein. Comment: Citation statistics. *Statistical Science*, 24:21–24, 2009.
- [76] D Spiegelhalter and A Barnett. London murders: A predictable pattern? *Significance*, 6:5–8, 2009.
- [77] D Spiegelhalter and Y-L Ng. One match to go! *Significance*, 6:151–153, 2009.
- [78] A George and D Spiegelhalter. One minute with ... david spiegelhalter. *NEW SCI*, 209:33–33, Mar 2011.
- [79] T Miron-Shatz, I Muhlhauser, B Bower, M Diefenbach, B Goldacre, RSW Smith, DJ Spiegelhalter, and O Wegwarth. Barriers to health information and building solutions. In G Gigerenzer and JA Muir Gray, editors, *Better Doctors, Better Patients, Better Decisions: Envisioning Health Care 2020*, pages 191–214, Cambridge MA, 2011. MIT Press.
- [80] D Spiegelhalter. Fear and numbers in fukushima. *Significance*, 8:100–103, 2011.
- [81] DJ Spiegelhalter. Quantifying uncertainty. In L Skinns, M Scott, and T Cox, editors, *Risk (Darwin College Lectures)*, pages 17–33, Cambridge, 2011. Cambridge University Press.