

References

Chapter 4

- 1 Bergman U, Elmes P, Halse M, Halvorsen T, Hood H, Lunde PK, et al. The measurement of drug consumption. Drugs for diabetes in Northern Ireland, Norway and Sweden. *European Journal of Clinical Pharmacology*. 1975;**8**(2):83–9.
- 2 Nordic Council of Medicine. *Nordic Statistics on Medicines 1975–1977, Parts I, II. Statistical Reports of the Nordic Countries, Nos 35, 36*. Helsinki and Oslo, Nordic Council of Medicine, 1979.
- 3 WHO Collaborating Centre for Drug Statistics Methodology. *Guidelines for ATC Classification and DDD Assignment, 2015*. Oslo, World Health Organization, 2014.
- 4 Ferrer P, Ballarin E, Sabate M, Laporte JR, Schoonen M, Rottenkolber M, et al. Sources of European drug consumption data at a country level. *International Journal of Public Health*. 2014;**59**(5):877–87.
- 5 Sabate M, Ferrer P, Ballarin E, Rottenkolber M, Amelio J, Schmiedl S, et al. Inpatient drug utilization in Europe: nationwide data sources and a review of publications on a selected group of medicines (PROTECT project). *Basic Clinical Pharmacology and Toxicology*. 2015;**116**(3):201–11.
- 6 IMS Health website: www.imshealth.com.
- 7 Leopold C, Zhang F, Mantel-Teeuwisse AK, Vogler S, Valkova S, Ross-Degnan D, et al. Impact of pharmaceutical policy interventions on utilization of antipsychotic medicines in Finland and Portugal in times of economic recession: interrupted time series analyses. *International Journal for Equity in Health*. 2014;**13**:53.
- 8 O'Neill P, Sussex J. *International Comparison of Medicines Usage: Quantitative Analysis*. London, Office of Health Economics, 2014.
- 9 Van Boeckel TP, Gandra S, Ashok A, Caudron Q, Grenfell BT, Levin SA, et al. Global antibiotic consumption 2000 to 2010: an analysis of national pharmaceutical sales data. *Lancet Infectious Diseases*. 2014;**14**(8):742–50.
- 10 Wettermark B, Persson ME, Wilking N, Kalin M, Korkmaz S, Hjemdahl P, et al. Forecasting drug utilization and expenditure in a metropolitan health region. *BMC Health Services Research*. 2010;**10**:128.
- 11 Bergman U, Boman G, Wiholm BE. Epidemiology of adverse drug reactions to phenformin and metformin. *British Medical Journal*. 1978;**2**(6135):464–6.
- 12 Telfair T, Mohan AK, Shahani S, Klinecicz S, Atsma WJ, Thomas A, et al. Estimating post-marketing exposure to pharmaceutical products using ex-factory distribution data. *Pharmacoepidemiology and Drug Safety*. 2006;**15**(10):749–53.
- 13 von Euler M, Keshani S, Baatz K, Wettermark B. Utilization of triptans in Sweden; analyses of over the counter and prescription sales. *Pharmacoepidemiology and Drug Safety*. 2014;**23**(12):1288–93.
- 14 Modarai F, Mack K, Hicks P, Benoit S, Park S, Jones C, et al. Relationship of opioid prescription sales and overdoses, North Carolina. *Drug and Alcohol Dependence*. 2013;**132**(1–2):81–6.
- 15 Bramness JG, Walby FA, Tverdal A. The sales of antidepressants and suicide rates in Norway and its counties 1980–2004. *Journal of Affective Disorders*. 2007;**102**(1–3):1–9.
- 16 Goossens H, Ferech M, Vander Stichele R, Elseviers M. Outpatient antibiotic use in Europe and association with resistance: a cross-national database study. *Lancet*. 2005;**365**(9459):579–87.
- 17 The American Health Information Management Association website: www.ahima.org.
- 18 Coorevits P, Sundgren M, Klein GO, Bahr A, Claerhout B, Daniel C, et al. Electronic health records: new opportunities for clinical research. *Journal of Internal Medicine*. 2013;**274**(6):547–60.

- 19 Friedberg MW, Chen PG, Busum KRV, Aunon F, Pham C, Caloyer J, et al. *Factors Affecting Physician Professional Satisfaction and their Implications for Patient Care, Health Systems, and Health Policy*. Santa Monica, CA, RAND Corporation, 2013.
- 20 DesRoches CM, Campbell EG, Rao SR, Donelan K, Ferris TG, Jha A, et al. Electronic health records in ambulatory care – a national survey of physicians. *New England Journal of Medicine*. 2008;**359**(1):50–60.
- 21 Blumenthal D. Stimulating the adoption of health information technology. *New England Journal of Medicine*. 2009;**360**(15):1477–9.
- 22 Simborg DW, Detmer DE, Berner ES. The wave has finally broken: now what? *Journal of the American Medical Informatics Association*. 2013;**20**(e1):e21–5.
- 23 Blaya JA, Fraser HS, Holt B. E-health technologies show promise in developing countries. *Health Affairs (Project Hope)*. 2010;**29**(2):244–51.
- 24 Cooke CE, Xing S, Lee HY, Belletti DA. You wrote the prescription, but will it get filled? *Journal of Family Practice*. 2011;**60**(6):321–7.
- 25 Zweigert RT, Binns HJ, Tanz RR. Unfilled prescriptions in pediatric primary care. *Pediatrics*. 2012;**130**(4):620–6.
- 26 Rusanov A, Weiskopf NG, Wang S, Weng C. Hidden in plain sight: bias towards sick patients when sampling patients with sufficient electronic health record data for research. *BMC Medical Informatics and Decision Making*. 2014;**14**:51.
- 27 Individdata om rekvisitionsläkemedel: uppföljning, dokumentation och informatik. *Nationella läkemedelsstrategin, område 6.4, slutrapport*. Stockholm, Sveriges Kommuner och Landsting, 2015.
- 28 Holbrook A, Grootendorst P, Willison D, Goldsmith C, Sebaldt R, Keshavjee K. Can current electronic systems meet drug safety and effectiveness requirements? *AMIA Annual Symposium Proceedings/AMIA Symposium AMIA Symposium*. 2005:335–9.
- 29 Jick H, Jick SS, Derby LE. Validation of information recorded on general practitioner based computerised data resource in the United Kingdom. *British Medical Journal (Clinical Research Edition)*. 1991;**302**(6779):766–8.
- 30 Johnson N, Mant D, Jones L, Randall T. Use of computerised general practice data for population surveillance: comparative study of influenza data. *British Medical Journal (Clinical Research Edition)*. 1991;**302**(6779):763–5.
- 31 Hall GC, Luscombe DK, Walker SR. Post-marketing surveillance using a computerised general practice data base. *Pharmaceutical Medicine*. 1988;**2**(4):345–51.
- 32 Williams T, van Staa T, Puri S, Eaton S. Recent advances in the utility and use of the General Practice Research Database as an example of a UK Primary Care Data resource. *Therapeutic Advances in Drug Safety*. 2012;**3**(2):89–99.
- 33 Lewis JD, Schinnar R, Bilker WB, Wang X, Strom BL. Validation studies of the health improvement network (THIN) database for pharmacoepidemiology research. *Pharmacoepidemiology and Drug Safety*. 2007;**16**(4):393–401.
- 34 Hippisley-Cox J, Stables D, Pringle M. QRESEARCH: a new general practice database for research. *Informatics in Primary Care*. 2004;**12**(1):49–50.
- 35 Vlug AE, van der Lei J, Mosseveld BM, van Wijk MA, van der Linden PD, Sturkenboom MC, et al. Postmarketing surveillance based on electronic patient records: the IPCI project. *Methods of Information in Medicine*. 1999;**38**(4–5):339–44.
- 36 Hjerpe P, Merlo J, Ohlsson H, Bengtsson Bostrom K, Lindblad U. Validity of registration of ICD codes and prescriptions in a research database in Swedish primary care: a cross-sectional study in Skaraborg primary care database. *BMC Medical Informatics and Decision Making*. 2010;**10**:23.
- 37 Tu K, Mitiku TF, Ivers NM, Guo H, Lu H, Jaakkimainen L, et al. Evaluation of Electronic Medical Record Administrative data Linked Database (EMRALD). *American Journal of Managed Care*. 2014;**20**(1):e15–21.
- 38 Sultana J, Italiano D, Spina E, Cricelli C, Lapi F, Pecchioli S, et al. Changes in the prescribing pattern of antidepressant drugs in elderly patients: an Italian, nationwide, population-based study. *European Journal of Clinical Pharmacology*. 2014;**70**(4):469–78.
- 39 Baiardi P, Ceci A, Felisi M, Cantarutti L, Giroto S, Sturkenboom M, et al. In-label and off-label use of respiratory drugs in the Italian paediatric population. *Acta Paediatrica*. 2010;**99**(4):544–9.
- 40 Erviti J, Alonso A, Oliva B, Gorricho J, Lopez A, Timoner J, et al. Oral bisphosphonates are associated with increased risk of subtrochanteric and diaphyseal fractures in elderly women: a nested case-control study. *British Medical Journal Open*. 2013;**3**(1).

- 41 Pace WD, Cifuentes M, Valuck RJ, Staton EW, Brandt EC, West DR. An electronic practice-based network for observational comparative effectiveness research. *Annals of Internal Medicine*. 2009;**151**(5):338–40.
- 42 Gill JM, Klinkman MS, Chen YX. Antidepressant medication use for primary care patients with and without medical comorbidities: a national electronic health record (EHR) network study. *Journal of the American Board of Family Medicine*. 2010;**23**(4):499–508.
- 43 Smith MW, Joseph GJ. Pharmacy data in the VA health care system. *Medical Care Research and Review*. 2003;**60**(3 Suppl.):92S–123S.
- 44 Higginson IJ, Gao W. Opioid prescribing for cancer pain during the last 3 months of life: associated factors and 9-year trends in a nationwide United Kingdom cohort study. *Journal of Clinical Oncology*. 2012;**30**(35):4373–9.
- 45 Wijlaars LP, Nazareth I, Petersen I. Trends in depression and antidepressant prescribing in children and adolescents: a cohort study in The Health Improvement Network (THIN). *PLoS ONE*. 2012;**7**(3):e33181.
- 46 Verhamme KM, Afonso A, Romio S, Stricker BC, Brusselle GG, Sturkenboom MC. Use of tiotropium Respimat Soft Mist Inhaler versus HandiHaler and mortality in patients with COPD. *European Respiratory Journal*. 2013;**42**(3):606–15.
- 47 Larsen MD, Cars T, Hallas J. A MiniReview of the use of hospital-based databases in observational inpatient studies of drugs. *Basic Clin Pharmacol Toxicol*. 2013;**112**(1):13–18.
- 48 Cars T, Wettermark B, Malmstrom RE, Ekeving G, Vikstrom B, Bergman U, et al. Extraction of electronic health record data in a hospital setting: comparison of automatic and semi-automatic methods using anti-TNF therapy as model. *Basic Clinical Pharmacology & Toxicology*. 2013;**112**(6):392–400.
- 49 Yoon D, Park I, Schuemie MJ, Park MY, Kim JH, Park RW. A quantitative method for assessment of prescribing patterns using electronic health records. *PLoS ONE*. 2013;**8**(10):e75214.
- 50 Ng WY, Cheung CM, Mathur R, Chan CM, Yeo IY, Wong E, et al. Trends in age-related macular degeneration management in Singapore. *Optometry and Vision Science*. 2014;**91**(8):872–7.
- 51 Yang H, Chaudhari P, Zhou ZY, Wu EQ, Patel C, Horn DL. Budget impact analysis of liposomal amphotericin B and amphotericin B lipid complex in the treatment of invasive fungal infections in the United States. *Applied Health Economics and Health Policy*. 2014;**12**(1):85–93.
- 52 Lasky T, Ernst FR, Greenspan J, Wang S, Gonzalez L. Estimating pediatric inpatient medication use in the United States. *Pharmacoepidemiology and Drug Safety*. 2011;**20**(1):76–82.
- 53 Kavcic M, Fisher BT, Seif AE, Li Y, Huang YS, Walker D, et al. Leveraging administrative data to monitor rituximab use in 2875 patients at 42 freestanding children's hospitals across the United States. *Journal of Pediatrics*. 2013;**162**(6):1252–8, 8 e1.
- 54 Miller LA, Burudpakdee C, Zagar A, Bhosle M, Reaney M, Schabert VF, et al. Exenatide BID and liraglutide QD treatment patterns among type 2 diabetes patients in Germany. *Journal of Medical Economics*. 2012;**15**(4):746–57.
- 55 Lee WC, Smith E, Chubb B, Wolden ML. Frequency of blood glucose testing among insulin-treated diabetes mellitus patients in the United Kingdom. *Journal of Medical Economics*. 2014;**17**(3):167–75.
- 56 Wettermark B, Hammar N, Fored CM, Leimanis A, Otterblad Olausson P, Bergman U, et al. The new Swedish Prescribed Drug Register – opportunities for pharmacoepidemiological research and experience from the first six months. *Pharmacoepidemiology and Drug Safety*. 2007;**16**(7):726–35.
- 57 Reutfors J, Brandt L, Stephansson O, Kieler H, Andersen M, Boden R. Antipsychotic prescription filling in patients with schizophrenia or schizoaffective disorder. *Journal of Clinical Psychopharmacology*. 2013;**33**(6):759–65.
- 58 IMS Hospital Treatment Insights website: www.imshealth.com.
- 59 Loikas D, Wettermark B, von Euler M, Bergman U, Schenck-Gustafsson K. Differences in drug utilisation between men and women: a cross-sectional analysis of all dispensed drugs in Sweden. *British Medical Journal Open*. 2013;**3**(5).
- 60 Pottgard A, Bjerregaard BK, Larsen MD, Larsen KS, Hallas J, Knop FK, et al. Use of exenatide and liraglutide in Denmark: a drug utilization study. *European Journal of Clinical Pharmacology*. 2014;**70**(2):205–14.
- 61 Ruiter R, Visser LE, van Herk-Sukel MP, Geelhoed-Duijvestijn PH, de Bie S, Straus SM, et

- al. Prescribing of rosiglitazone and pioglitazone following safety signals: analysis of trends in dispensing patterns in the Netherlands from 1998 to 2008. *Drug Safety*. 2012;**35**(6):471–80.
- 62 Horsburgh S, Norris P, Becket G, Arroll B, Crampton P, Cumming J, et al. Allopurinol use in a New Zealand population: prevalence and adherence. *Rheumatology International*. 2014;**34**(7):963–70.
- 63 Seiter A. *A Practical Approach to Pharmaceutical Policy*. Washington, DC, The World Bank, 2010 .
- 64 Williams D, Feely J. Pharmacoepidemiology – an Irish perspective. *Pharmacoepidemiology and Drug Safety*. 2001;**10**(7):641–5.
- 65 Hux JE, Kopp A, Mamdani MM. Turning 65 in Ontario: the impact of public drug benefit coverage on hospitalizations for acute and chronic disease. *Healthcare Policy = Politiques de sante*. 2006;**1**(3): 87–98.
- 66 Laki J, Monok G, Palosi M, Gajdacs JZ. Economical aspect of biological therapy in inflammatory conditions in Hungary. *Expert Opinion on Biological Therapy*. 2013;**13**(3):327–37.
- 67 Holmes HM, Luo R, Kuo YF, Baillargeon J, Goodwin JS. Association of potentially inappropriate medication use with patient and prescriber characteristics in Medicare Part D. *Pharmacoepidemiology and Drug Safety*. 2013;**22**(7):728–34.
- 68 Schneeweiss S, Avorn J. A review of uses of health care utilization databases for epidemiologic research on therapeutics. *Journal of Clinical Epidemiology*. 2005;**58**(4):323–37.
- 69 Crystal S, Akincigil A, Bilder S, Walkup JT. Studying prescription drug use and outcomes with medicaid claims data: strengths, limitations, and strategies. *Medical Care*. 2007;**45**(10 Suppl. 2):S58–65.
- 70 Kimura T, Matsushita Y, Yang YH, Choi NK, Park BJ. Pharmacovigilance systems and databases in Korea, Japan, and Taiwan. *Pharmacoepidemiology and Drug Safety*. 2011;**20**(12):1237–45.
- 71 Smets HL, De Haes JF, De Swaef A, Jorens PG, Verpooten GA. Exposure of the elderly to potential nephrotoxic drug combinations in Belgium. *Pharmacoepidemiology and Drug Safety*. 2008;**17**(10):1014–19.
- 72 Lass J, Irs A, Pisarev H, Leinemann T, Lutsar I. Off label use of prescription medicines in children in outpatient setting in Estonia is common. *Pharmacoepidemiology and Drug Safety*. 2011;**20**(5):474–81.
- 73 Alessi-Severini S, Biscontri RG, Collins DM, Sareen J, Enns MW. Ten years of antipsychotic prescribing to children: a Canadian population-based study. *Canadian Journal of Psychiatry/Revue canadienne de psychiatrie*. 2012;**57**(1):52–8.
- 74 Kim JY, Kim HJ, Jung SY, Kim KI, Song HJ, Lee JY, et al. Utilization of evidence-based treatment in elderly patients with chronic heart failure: using Korean Health Insurance claims database. *BMC Cardiovascular Disorders*. 2012;**12**:60.
- 75 Zhang Y, Steinman MA, Kaplan CM. Geographic variation in outpatient antibiotic prescribing among older adults. *Archives of Internal Medicine*. 2012;**172**(19):1465–71.
- 76 Zilkens RR, Duke J, Horner B, Semmens JB, Bruce DG. Australian population trends and disparities in cholinesterase inhibitor use, 2003 to 2010. *Alzheimer's & Dementia*. 2014;**10**(3):310–18.
- 77 Cheng CL, Kao Yang YH, Liu CC, Lee PI. A retrospective study on the usage of cough and cold medications in viral respiratory tract infections in Taiwanese children. *Pharmacoepidemiology and Drug Safety*. 2014;**23**(1):36–42.
- 78 Chancellor MB, Migliaccio-Walle K, Bramley TJ, Chaudhari SL, Corbell C, Globe D. Long-term patterns of use and treatment failure with anticholinergic agents for overactive bladder. *Clinical Therapeutics*. 2013;**35**(11):1744–51.
- 79 Law MR, Lu CY, Soumerai SB, Graves AJ, LeCates RF, Zhang F, et al. Impact of two Medicaid prior-authorization policies on antihypertensive use and costs among Michigan and Indiana residents dually enrolled in Medicaid and Medicare: results of a longitudinal, population-based study. *Clinical Therapeutics*. 2010;**32**(4):729–41; disc. 16.
- 80 Gliklich R, Dreyer N, Leavy M, eds. *Registries for Evaluating Patient Outcomes: A User's Guide*, 3rd edn. Prepared by the Outcome DEcIDE Center (Outcome Sciences, Inc., a Quintiles company) under Contract No. 290 2005 00351 TO7. AHRQ Publication No. 13(14)-EHC111. Rockville, MD, Agency for Healthcare Research and Quality, 2014.
- 81 Andersen O. From the Gothenburg cohort to the Swedish multiple sclerosis registry. *Acta Neurologica Scandinavica Supplementum*. 2012;**195**:13–19.
- 82 Silman A, Symmons D, Scott DG, Griffiths I. British Society for Rheumatology Biologics Register. *Annals of the Rheumatic Diseases*. 2003;**62**(Suppl. 2):ii28–9.

- 83 Emilsson L, Lindahl B, Koster M, Lambe M, Ludvigsson JF. Review of 103 Swedish healthcare quality registries. *Journal of Internal Medicine*. 2015;**277**(1):94–136.
- 84 Huisman MV, Lip GY, Diener HC, Dubner SJ, Halperin JL, Ma CS, et al. Design and rationale of Global Registry on Long-Term Oral Antithrombotic Treatment in Patients with Atrial Fibrillation: a global registry program on long-term oral antithrombotic treatment in patients with atrial fibrillation. *American Heart Journal*. 2014;**167**(3):329–34.
- 85 Travers K, Sallum RH, Burns MD, Barr CE, Beattie MS, Pashos CL, et al. Characteristics and temporal trends in patient registries: focus on the life sciences industry, 1981–2012. *Pharmacoepidemiology and Drug Safety*. 2015;**24**(4):389–98.
- 86 Garattini L, Casadei G. Risk sharing agreements: what lessons from Italy? *International Journal of Technology Assessment in Health Care*. 2011;**27**(2):169–72.
- 87 Neovius M, Arkema EV, Olsson H, Eriksson JK, Kristensen LE, Simard JF, et al. Drug survival on TNF inhibitors in patients with rheumatoid arthritis comparison of adalimumab, etanercept and infliximab. *Annals of the Rheumatic Diseases*. 2015;**74**(2):354–60.
- 88 Arkema EV, Neovius M, Joelsson JK, Simard JF, van Vollenhoven RF. Is there a sex bias in prescribing anti-tumour necrosis factor medications to patients with rheumatoid arthritis? A nation-wide cross-sectional study. *Annals of the Rheumatic Diseases*. 2012;**71**(7):1203–6.
- 89 Southwood TR, Foster HE, Davidson JE, Hyrich KL, Cotter CB, Wedderburn LR, et al. Duration of etanercept treatment and reasons for discontinuation in a cohort of juvenile idiopathic arthritis patients. *Rheumatology (Oxford, England)*. 2011;**50**(1):189–95.
- 90 Strangfeld A, Hyrich K, Askling J, Arkema E, Davies R, Listing J, et al. Detection and evaluation of a drug safety signal concerning pancreatic cancer: lessons from a joint approach of three European biologics registers. *Rheumatology (Oxford, England)*. 2011;**50**(1):146–51.
- 91 Kalincik T, Spelman T, Trojano M, Duquette P, Izquierdo G, Grammond P, et al. Persistence on therapy and propensity matched outcome comparison of two subcutaneous interferon beta 1a dosages for multiple sclerosis. *PLoS ONE*. 2013;**8**(5):e63480.
- 92 Raaschou P, Simard JF, Holmqvist M, Askling J. Rheumatoid arthritis, anti-tumour necrosis factor therapy, and risk of malignant melanoma: nationwide population based prospective cohort study from Sweden. *British Medical Journal (Clinical Research Edition)*. 2013;**346**:f1939.
- 93 Cannon GW, DuVall SL, Haroldsen CL, Caplan L, Curtis JR, Michaud K, et al. Persistence and dose escalation of tumor necrosis factor inhibitors in US veterans with rheumatoid arthritis. *Journal of Rheumatology*. 2014;**41**(10):1935–43.
- 94 Boo S, Froelicher ES. Secondary analysis of national survey datasets. *Japan Journal of Nursing Science*. 2013;**10**(1):130–5.
- 95 Kirking DM, Lee JA, Ellis JJ, Briesacher B, McKercher PL. Patient-reported underuse of prescription medications: a comparison of nine surveys. *Medical Care Research and Review*. 2006;**63**(4):427–46.
- 96 Kennedy J, Tuleu I, Mackay K. Unfilled prescriptions of medicare beneficiaries: prevalence, reasons, and types of medicines prescribed. *Journal of Managed Care Pharmacy*. 2008;**14**(6):553–60.
- 97 The National Health and Nutrition Examination Survey. Centers for Disease Control and Prevention, National Center for Health Statistics. Available from: <http://www.cdc.gov/nchs/nhanes.htm> (last accessed 18 November 2015).
- 98 Plantinga L, Grubbs V, Sarkar U, Hsu CY, Hedgeman E, Robinson B, et al. Nonsteroidal anti-inflammatory drug use among persons with chronic kidney disease in the United States. *Annals of Family Medicine*. 2011;**9**(5):423–30.
- 99 Sprague BL, Trentham-Dietz A, Cronin KA. A sustained decline in postmenopausal hormone use: results from the National Health and Nutrition Examination Survey, 1999–2010. *Obstetrics and Gynecology*. 2012;**120**(3):595–603.
- 100 Mojtabei R, Olfson M. National trends in long-term use of antidepressant medications: results from the US National Health and Nutrition Examination Survey. *Journal of Clinical Psychiatry*. 2014;**75**(2):169–77.
- 101 Grijalva CG, Nuorti JP, Griffin MR. Antibiotic prescription rates for acute respiratory tract infections in US ambulatory settings. *Journal of the American Medical Association*. 2009;**302**(7):758–66.
- 102 Balkrishnan R, Bhosle MJ, Camacho F, Fleischer AB, Feldman SR. Prescribing patterns for topical retinoids: analyses of 15 years of data from the

- national ambulatory medical care survey. *Journal of Dermatological Treatment*. 2010;**21**(3):193–200.
- 103** Copp HL, Shapiro DJ, Hersh AL. National ambulatory antibiotic prescribing patterns for pediatric urinary tract infection, 1998–2007. *Pediatrics*. 2011;**127**(6):1027–33.
- 104** Tay KY, Ewald MB, Bourgeois FT. Use of QT-prolonging medications in US emergency departments, 1995–2009. *Pharmacoepidemiology and Drug Safety*. 2014;**23**(1):9–17.
- 105** Eurostat. European Health Interview Survey. Available from: <http://ec.europa.eu/eurostat/web/microdata/european-health-interview-survey> (last accessed 18 November 2015).
- 106** Kopp M, Fleischhacker WW, Sturz K, Ruedl G, Kumnig M, Rumpold G. Poor health behaviour and reduced quality of life of people treated with psychotropic drugs. *Human Psychopharmacology*. 2011;**26**(2):161–7.
- 107** Carrasco-Garrido P, de Andres AL, Barrera VH, Jimenez-Trujillo I, Fernandez-de-Las-Penas C, Palacios-Cena D, et al. Predictive factors of self-medicated analgesic use in Spanish adults: a cross-sectional national study. *BMC Pharmacology & Toxicology*. 2014;**15**:36.
- 108** Wirtz VJ, Russo G, Kageyama-Escobar M de L. Access to medicines by ambulatory health service users in Mexico: an analysis of the national health surveys 1994 to 2006. *Salud publica de Mexico*. 2010;**52**(1):30–8.
- 109** Armstrong AR, Thiebaut SP, Brown LJ, Nepal B. Australian adults use complementary and alternative medicine in the treatment of chronic illness: a national study. *Australian and New Zealand Journal of Public Health*. 2011;**35**(4):384–90.
- 110** Dunn HL. Record linkage. *American Journal of Public Health and the Nation's Health*. 1946;**36**(12):1412–16.
- 111** Howe GR. Use of computerized record linkage in cohort studies. *Epidemiologic Reviews*. 1998;**20**(1):112–21.
- 112** Jutte DP, Roos LL, Brownell MD. Administrative record linkage as a tool for public health research. *Annual Review of Public Health*. 2011;**32**:91–108.
- 113** Herk-Sukel MP, Lemmens VE, Poll-Franse LV, Herings RM, Coebergh JW. Record linkage for pharmacoepidemiological studies in cancer patients. *Pharmacoepidemiology and Drug Safety*. 2012;**21**(1):94–103.
- 114** Wettermark B, Zoega H, Furu K, Korhonen M, Hallas J, Norgaard M, et al. The Nordic prescription databases as a resource for pharmacoepidemiological research – a literature review. *Pharmacoepidemiology and Drug Safety*. 2013;**22**(7):691–9.
- 115** Furu K, Wettermark B, Andersen M, Martikainen JE, Almarsdottir AB, Sorensen HT. The Nordic countries as a cohort for pharmacoepidemiological research. *Basic Clinical Pharmacology & Toxicology*. 2010;**106**(2):86–94.
- 116** Boyd JH, Randall SM, Ferrante AM, Bauer JK, Brown AP, Semmens JB. Technical challenges of providing record linkage services for research. *BMC Medical Informatics and Decision Making*. 2014;**14**:23.
- 117** Rognehaugh R. *The Health Information Technology Dictionary*. Gaithersburg, MD, Aspen, 1999.
- 118** The National Academies Collection: reports funded by National Institutes of Health. In: Nass SJ, Levit LA, Gostin LO, eds. *Beyond the HIPAA Privacy Rule: Enhancing Privacy, Improving Health Through Research*. Washington, DC, National Academies Press, National Academy of Sciences, 2009.
- 119** Turn R, Ware WH. *Privacy and Security Issues in Information Systems*. Santa Monica, CA, The RAND Corporation, 1976.
- 120** Mizani MA, Baykal N. Policymaking to preserve privacy in disclosure of public health data: a suggested framework. *Journal of Medical Ethics*. 2015;**41**(3):263–7.
- 121** EU data protection reform: Council confirms agreement with the European Parliament – Consilium [Internet]. 2016 [cited 7 February 2016]. Available from: <http://www.consilium.europa.eu/en/press/press-releases/2015/12/18-data-protection/>
- 122** Gunn PP, Fremont AM, Bottrell M, Shugarman LR, Galegher J, Bikson T. The health insurance portability and accountability act privacy rule a practical guide for researchers. *Medical Care*. 2004;**42**(4):321–7.
- 123** Gostin LO. National health information privacy: regulations under the health insurance portability and accountability act. *Journal of the American Medical Association*. 2001;**285**(23):3015–21.
- 124** Forgó N. My health data – your research: some preliminary thoughts on different values in the General Data Protection Regulation. *International Data Privacy Law*. 2015;**5**(1):54–63.

- 125** McGraw D. Building public trust in uses of Health Insurance Portability and Accountability Act de-identified data. *Journal of the American Medical Informatics Association*. 2013;**20**(1):29–34.
- 126** El Emam K, Jonker E, Arbuckle L, Malin B. A systematic review of re-identification attacks on health data. *PLoS ONE*. 2011;**6**(12):e28071.
- 127** Rothstein MA. Is deidentification sufficient to protect health privacy in research? *American Journal of Bioethics*. 2010;**10**(9):3–11.
- 128** Whitney CW, Lind BK, Wahl PW. Quality assurance and quality control in longitudinal studies. *Epidemiologic Reviews*. 1998;**20**(1):71–80.
- 129** Arts DG, De Keizer NF, Scheffer GJ. Defining and improving data quality in medical registries: a literature review, case study, and generic framework. *Journal of the American Medical Informatics Association*. 2002;**9**(6):600–11.
- 130** World Health Organization. *Improving Data Quality: A Guide for Developing Countries*. World Health Organization, Regional Office for the Western Pacific, 2003.
- 131** Sorensen HT, Sabroe S, Olsen J. A framework for evaluation of secondary data sources for epidemiological research. *International Journal of Epidemiology*. 1996;**25**(2):435–42.
- 132** Hall GC, Sauer B, Bourke A, Brown JS, Reynolds MW, LoCasale R. Guidelines for good database selection and use in pharmacoepidemiology research. *Pharmacoepidemiology and Drug Safety*. 2012;**21**(1):1–10.
- 133** Herrett E, Thomas SL, Schoonen WM, Smeeth L, Hall AJ. Validation and validity of diagnoses in the General Practice Research Database: a systematic review. *British Journal of Clinical Pharmacology*. 2010;**69**(1):4–14.
- 134** Khan NF, Harrison SE, Rose PW. Validity of diagnostic coding within the General Practice Research Database: a systematic review. *British Journal of General Practice*. 2010;**60**(572):e128–36.
- 135** Heerdink ER, Leufkens HG, Koppedraaijer C, Bakker A. Information on drug use in the elderly: a comparison of pharmacy, general-practitioner and patient data. *Pharmacy World & Science*. 1995;**17**(1):20–4.
- 136** Lau HS, de Boer A, Beuning KS, Porsius A. Validation of pharmacy records in drug exposure assessment. *Journal of Clinical Epidemiology*. 1997;**50**(5):619–25.
- 137** European Medicines Agency. The European Network of Centres for Pharmacoepidemiology and Pharmacovigilance (ENCePP). Guide on Methodological Standards in Pharmacoepidemiology. Available from: http://www.encepp.eu/standards_and_guidances/documents/ENCePPGuideofMethStandardsinPE.pdf (last accessed 18 November 2015).
- 138** US Department of Health and Human Services, Food and Drug Administration. Guidance for Industry and FDA Staff: Best Practices for Conducting and Reporting Pharmacoepidemiologic Safety Studies Using Electronic Healthcare Data. Food and Drug Administration, 2013.