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# Sommaire

# Economie de la santé / Health Economics

**Farbmacher H., Winter J. (2013). Per-period payments and the demand for health-care: evidence from survey and claims data.** *Health Economics,* 22 (9) : 1111-1123.

Abstract: When health insurance reforms involve non-linear price schedules tied to payment periods (for example, fees levied by quarter or year), the empirical analysis of its effects has to take the within-period time structure of incentives into account. The analysis is further complicated when demand data are obtained from a survey in which the reporting period does not coincide with the payment period. We illustrate these issues using as an example a health care reform in Germany that imposed a per-quarter fee of â‚¬10 for doctor visits and additionally set an out-of-pocket maximum. This co-payment structure results in an effective spot price for a doctor visit that decreases over time within each payment period. Taking this variation into account, we find a substantial reform effect especially so for young adults. Overall, the number of doctor visits decreased by around 9% in the young population. The probability of visiting a physician in any given quarter decreased by around 4 to 8 percentage points.

# Etat de santé / Health Status

**Maki N., Martikainen P., Eikemo T., Menvielle G., Lundberg O., Ostergren O., Jasilionis D., Mackenbach J.P. (2013). Educational differences in disability-free life expectancy: a comparative study of long-standing activity limitation in eight European countries**. *Soc Sci Med,* 94 1-8.

Abstract: Healthy life expectancy is a composite measure of length and quality of life and an important indicator of health in aging populations. There are few cross-country comparisons of socioeconomic differences in healthy life expectancy. Most of the existing comparisons focus on Western Europe and the United States, often relying on older data. To address these deficiencies, we estimated educational differences in disability-free life expectancy for eight countries from all parts of Europe in the early 2000s. Long-standing severe disability was measured as a Global Activity Limitation Indicator (GALI) derived from the European Union Statistics on Income and Living Conditions (EU-SILC) survey. Census-linked mortality data were collected by a recent project comparing health inequalities between European countries (the EURO-GBD-SE project). We calculated sex-specific educational differences in disability-free life expectancy between the ages of 30 and 79 years using the Sullivan method. The lowest disability-free life expectancy was found among Lithuanian men and women (33.1 and 39.1 years, respectively) and the highest among Italian men and women (42.8 and 44.4 years, respectively). Life expectancy and disability-free life expectancy were directly related to the level of education, but the educational differences were much greater in the latter in all countries. The difference in the disability-free life expectancy between those with a primary or lower secondary education and those with a tertiary education was over 10 years for males in Lithuania and approximately 7 years for males in Austria, Finland and France, as well as for females in Lithuania. The difference was smallest in Italy (4 and 2 years among men and women, respectively). Highly educated Europeans can expect to live longer and spend more years in better health than those with lower education. The size of the educational difference in disability-free life expectancy varies significantly between countries. The smallest and largest differences appear to be in Southern Europe and in Eastern and Northern Europe, respectively.

# Géographie de la santé / Geography of Health

**Bocquier A., Cortaredona S., Boutin C., David A., Bigot A., Chaix B., Gaudart J., Verger P. (2012). Small-area analysis of social inequalities in residential exposure to road traffic noise in Marseilles, France.** *Eur J Public Health,*
Abstract: BACKGROUND: Few studies have focused on the social inequalities associated with environmental noise despite its significant potential health effects. This study analysed the associations between area socio-economic status (SES) and potential residential exposure to road traffic noise at a small-area level in Marseilles, second largest city in France. METHODS: We calculated two potential road noise exposure indicators (PNEI) at the census block level (for 24-h and night periods), with the noise propagation prediction model CadnaA. We built a deprivation index from census data to estimate SES at the census block level. Locally estimated scatterplot smoothing diagrams described the associations between this index and PNEIs. Since the extent to which coefficient values vary between standard regression models and spatial methods are sensitive to the specific spatial model, we analysed these associations further with various regression models controlling for spatial autocorrelation and conducted sensitivity analyses with different spatial weight matrices. RESULTS: We observed a non-linear relation between the PNEIs and the deprivation index: exposure levels were highest in the intermediate categories. All the spatial models led to a better fit and more or less pronounced reductions of the regression coefficients; the shape of the relations nonetheless remained the same. CONCLUSION: Finding the highest noise exposure in midlevel deprivation areas was unexpected, given the general literature on environmental inequalities. It highlights the need to study the diversity of the patterns of environmental inequalities across various economic, social and cultural contexts. Comparative studies of environmental inequalities are needed, between regions and countries, for noise and other pollutants.

**Dunn C.E. (2013). Showcasing geographies of health: An introduction to selected research from the 14th International Medical Geography Symposium**, Durham, UK, July 2011. *Soc Sci Med,* 91 102-104.

# Hôpital / Hospitals

**Occelli P., Quenon J.L., Kret M., Domecq S., Delaperche F., Claverie O., Castets-Fontaine B., Amalberti R., Auroy Y., Parneix P., Michel P. (2013). Validation of the French version of the Hospital Survey on Patient Safety Culture questionnaire**.
*International Journal for Quality in Health Care,* 25 (4) : 459-468.
Abstract: Objective To assess the psychometric properties of the French version of the Hospital Survey on Patient Safety Culture questionnaire (HSOPSC) and study the hierarchical structure of the measured dimensions. Design Cross-sectional survey of the safety culture. Setting 18 acute care units of seven hospitals in South-western France. Participants Full- and part-time healthcare providers who worked in the units. Interventions None. Main outcome measures Item responses measured with 5-point agreement or frequency scales. Data analyses A principal component analysis was used to identify the emerging components. Two structural equation modeling methods [LInear Structural RELations (LISREL) and Partial Least Square (PLS)] were used to verify the model and to study the relative importance of the dimensions. Internal consistency of the retained dimensions was studied. A test-retest was performed to assess reproducibility of the items. Results Overall response rate was 77% (n = 401). A structure in 40 items grouped in 10 dimensions was proposed. The LISREL approach showed acceptable data fit of the proposed structure. The PLS approach indicated that three dimensions had the most impact on the safety culture: “Supervisor/manager expectations & actions promoting safety” ˜Organizational learning” ”continuous improvement” and ˜Overall perceptions of safety”. Internal consistency was above 0.70 for six dimensions. Reproducibility was considered good for four items. Conclusions The French HSOPSC questionnaire showed acceptable

psychometric properties. Classification of the dimensions should guide future development of safety culture improving action plans.

**Georgescu I. (2013). Management control literature and French public hospitals**. Health Policy, 111 (3) : 324-327.
Abstract: The introduction of activity based pricing in combination with hospitals' reorganizations has created a new financial logic in French public hospitals. The organization has an obligation to produce certain levels of activity, since hospitals' resources are directly dependent on the activity level. These changes also imply the implementation of financial results controls in these organizations. The purpose of this answer is to demonstrate how the literature on management control can help to understand what has been happening within the French public hospitals.

**Zhang X., Hauck K., Zhao X. (2013). Patient safety in hospitals : a bayesan analysis of unobservable hospital and specialty level risk factors.** *Health Economics,* 22 (9) : 1158-1174.
Abstract: This paper demonstrates how Bayesian hierarchical modelling can be used to evaluate the performance of hospitals. We estimate a three-level random intercept probit model to attribute unexplained variation in hospital-acquired complications to hospital effects, hospital-specialty effects and remaining random variations, controlling for observable patient complexities. The combined information provided by the posterior means and densities for latent hospital and specialty effects can be used to assess the need and scope for improvements in patient safety at different organizational levels. Posterior densities are not conventionally presented in performance assessment but provides valuable additional information to policy makers on what poorly performing hospitals and specialties may be prioritized for policy action. We use surgical patient administrative data for 2005/2006 for 16 specialties in 35 public hospitals in Victoria, Australia. We use posterior means for latent hospital and specialty effects to compare hospital performance in patient safety. Posterior densities and variances are also compared for different specialties to identify clinical areas with greatest scope for improvement. We also show that the same hospital may rank markedly differently for different specialties.

**Palmer W.L., Bottle A., Davie C., Vincent C.A., Aylin P. (2013). Meeting the ambition of measuring the quality of hospitals' stroke care using routinely collected administrative data: a feasibility** study. *International Journal for Quality in Health Care,* 25 (4) : 429-436.
Abstract: Objective To examine the potential for using routinely collected administrative data to compare the quality and safety of stroke care at a hospital level, including evaluating any bias due to variations in coding practice. Design A retrospective cohort study of English hospitals' performance against six process and outcome indicators covering the acute care pathway. We used logistic regression to adjust the outcome measures for case mix. Setting Hospitals in England. Participants Stroke patients (ICD-10 I60-I64) admitted to English National Health Service public acute hospitals between April 2009 and March 2010, accounting for 91 936 admissions. Main Outcome Measure The quality and safety were measured using six indicators spanning the hospital care pathway, from timely access to brain scans to emergency readmissions following discharge after stroke. Results There were 182 occurrences of hospitals performing statistically differently from the national average at the 99.8% significance level across the six indicators. Differences in coding practice appeared to only partially explain the variation. Conclusions Hospital administrative data provide a practical and achievable method for evaluating aspects of stroke care across the acute pathway. However, without improvements in coding and further validation, it is unclear whether the cause of the variation is the quality of care or the result of different local care pathways and data coding accuracy.

**Jackson C.T., Trygstad T.K., Dewalt D.A., Dubard C.A. (2013). Transitional care cut hospital readmissions for north Carolina medicaid patients with complex chronic conditions**. *Health Aff.(Millwood.),* 32 (8) : 1407-1415.
Abstract: Recurrent hospitalizations represent a substantial and often preventable human and financial burden in the United States. In 2008 North Carolina initiated a statewide population-based transitional care initiative to prevent recurrent hospitalizations among high-risk Medicaid recipients with complex chronic medical conditions. In a study of patients hospitalized during 2010-11, we found that those who received transitional care were 20 percent less likely to experience a readmission during the

subsequent year, compared to clinically similar patients who received usual care. Benefits of the intervention were greatest among patients with the highest readmission risk. One readmission was averted for every six patients who received transitional care services and one for every three of the highest-risk patients. This study suggests that locally embedded, targeted care coordination interventions can effectively reduce hospitalizations for high-risk populations.

**Bradley E.H., Yakusheva O., Horwitz L.I., Sipsma H., Fletcher J. (2013). Identifying Patients at Increased Risk for Unplanned Readmission**. *Medical Care,* 51 (9) :
Abstract: Background: Reducing readmissions is a national priority, but many hospitals lack practical tools to identify patients at increased risk of unplanned readmission. Objective: To estimate the association between a composite measure of patient condition at discharge, the Rothman Index (RI), and unplanned readmission within 30 days of discharge. Subjects: Adult medical and surgical patients in a major teaching hospital in 2011. Measures: The RI is a composite measure updated regularly from the electronic medical record based on changes in vital signs, nursing assessments, Braden score, cardiac rhythms, and laboratory test results. We developed 4 categories of RI and tested its association with readmission within 30 days, using logistic regression, adjusted for patient age, sex, insurance status, service assignment (medical or surgical), and primary discharge diagnosis. Results: Sixteen percent of the sample patients (N=2730) had an unplanned readmission within 30 days of discharge. The risk of readmission for a patient in the highest risk category (RI<70) was >1 in 5 while the risk of readmission for patients in the lowest risk category was about 1 in 10. In multivariable analysis, patients with an RI<70 (the highest risk category) or 70-“79 (medium risk category) had 2.65 (95% confidence interval, 1.72-“4.07) and 2.40 (95% confidence interval, 1.57-3.67) times higher odds of unplanned readmission, respectively, compared with patients in the lowest risk category. Conclusion: Clinicians can use the RI to help target hospital programs and supports to patients at highest risk of readmission.

**Tsugawa Y., Kumamaru H., Yasunaga H., Hashimoto H., Horiguchi H., Ayanian J.Z. (2013). The Association of Hospital Volume With Mortality and Costs of Care for Stroke in Japan.** *Medical Care,* 51 (9) :
Abstract: Background: The association between hospital volume and patient outcomes remains unclear for stroke. Little is known about whether these relationships differ by stroke subtypes. Objectives: To examine the association of hospital volume with in-hospital mortality and costs of care for stroke. Research Design: Secondary data analysis of national hospital database. Subjects: A total of 66,406 patients admitted between July 1 and December 31, 2010 with primary diagnosis of stroke at 796 acute care hospitals in Japan were included. Measures: We used a locally weighted scatter-plot smoothing method to test the relationship between hospital volume and outcomes. On the basis of these results, we categorized patient volume into 3 groups (10 -50, 51 - 100, and >100 discharges/6 mo). We tested the volume-outcome relationship using multivariable regression models adjusting for patient and hospital characteristics. Subgroup analysis was conducted by stratifying on stroke subtype. Results: Compared with those treated at high-volume hospitals (>100 discharges), patients admitted to low-volume hospitals (10 - 50 discharges) had higher in-hospital mortality (adjusted odds ratio, 1.45; 95% CI, 1.23 - 1.71, P<0.0001). In the lowest volume hospitals, adjusted costs of care per discharge were 8.0% lower (95% CI, âˆ'14.1% to âˆ'1.8%, P=0.01) compared with the highest volume hospitals. The volume-mortality association was significant across all stroke subtypes. Highest volume hospitals had higher costs than lowest volume hospitals for subarachnoid hemorrhage, but this association was nonsignificant for ischemic and hemorrhagic stroke. Conclusions: Highest volume hospitals had lower mortality than the lowest volume hospitals for stroke in Japan. Highest volume hospitals had higher costs for subarachnoid hemorrhage, but not for ischemic and hemorrhagic stroke;

**Bradshaw L.E., Goldberg S.E., Lewis S.A., Whittamore K., Gladman J.R.F., Jones R.G., Harwood R.H. (2013). Six-month outcomes following an emergency hospital admission for older adults with co-morbid mental health problems indicate complexity of care needs**. *Age and Ageing,* 42 (5) : 582-588.
Abstract: Background: two-thirds of older patients admitted as an emergency to a general hospital have co-existing mental health problems including delirium, dementia and depression. This study describes the outcomes of older adults with co-morbid mental health problems after an acute hospital admission .Methods: a follow-up study of 250 patients aged over 70 admitted to 1 of 12 wards

(geriatric, medical or orthopaedic) of an English acute general hospital with a co-morbid mental health problem and followed up at 180 days .Results: twenty-seven per cent did not return to their original place of residence after the hospital admission. After 180 days 31% had died, 42% had been readmitted and 24% of community residents had moved to a care home. Only 31% survived without being readmitted or moving to a care home. However, 16% spent >170 of the 180 days at home. Significant predictors for poor outcomes were co-morbidity, nutrition, cognitive function, reduction in activities of daily living ability prior to admission, behavioural and psychiatric problems and depression. Only 42% of survivors recovered to their pre-acute illness level of function. Clinically significant behavioural and psychiatric symptoms were present at follow-up in 71% of survivors with baseline cognitive impairment, and new symptoms developed frequently in this group .Conclusions: the variable, but often adverse, outcomes in this group implies a wide range of health and social care needs. Community and acute services to meet these needs should be anticipated and provided for.

**Cavalieri M., Gitto L., Guccio C. (2013). Reimbursement systems and quality of hospital care: An empirical analysis for Italy** Health Policy, 111 (3) : 273-289.

Abstract: There is an ongoing debate about the effect of different reimbursement systems on hospital performance and quality of care. The present paper aims at contributing to this literature by analysing the impact of different hospital payment schemes on patients- outcomes in Italy. The Italian National Health Service is, indeed, a particularly interesting case since it has been subject to a considerable decentralization process with wider responsibilities devolved to regional governments. Therefore, great variability exists in the way tariffs are used, as Regions have settled them in accordance with the characteristics of health care providers. An empirical analysis of the Italian hospital system is carried out using data from the National Program for Outcome Assessment on mortality and readmissions for Acute Myocardial Infarction (AMI), Congestive Heart Failure (CHF), stroke and Chronic Obstructive Pulmonary Diseases (COPD) in the years 2009-“2010. The results show that hospitals operating in Regions where prospective payments are used more extensively are generally associated with better quality of care.

# Inégalités de santé / Health Inequalities

**Sabel C.E., Kihal W., Bard D., Weber C. (2013). Creation of synthetic homogeneous neighbourhoods using zone design algorithms to explore relationships between asthma and deprivation in Strasbourg, France.** *Soc Sci Med,* 91 110-121.

Abstract: The concept of 'neighbourhood' as a unit of analysis has received considerable research attention over the last decade. Many of these studies raise the question of the influence of local characteristics on variations in health and more recently, researchers have sought to understand how the neighbourhood can influence individual health through individual behaviour. Relatively few studies discuss the question of the borders and definition of a neighbourhood but we know that the results from health or population datasets are very sensitive to how zones are constructed - part of the Modifiable Areal Unit Problem (MAUP). In reality, we know that neighbourhoods are not constrained by artificial statistical boundaries, but rather exist as complex multi-dimensional living communities. This paper tries to better represent the reality on the ground of these communities to better inform studies of health. In this work, we have developed an experimental approach for the automated design of neighbourhoods using a small tessellated cell as a basic building block. Using the software AZTool, we considered population, shape and homogeneity constraints to develop a highly innovative approach to zone construction. The paper reports the challenges and compromises involved in building these new synthetic neighbourhoods. We provide a fully worked example of how our new synthetic homogeneous zones perform using data from Strasbourg, France. We examine data on Asthma reported through calls to the emergency services, and compare these rates with an index of multiple deprivation (NDI) which we have constructed and reported elsewhere. Higher correlations between Asthma and NDI were found using our newly constructed synthetic zones than using the existing French census areas of similar size. The significance of our work is that we show that careful construction of neighbourhoods - which we claim are more realistic than census areas - can greatly aid unpacking our understanding of neighbourhood relationships between health and the social and physical environments.

**Jusot F. (2013). [Inequalities in access to care and their evolution: A review].** *Rev Epidemiol Santé Publique,* 61 Suppl 3 S163-S169.
Abstract: Tackling health inequalities is one of the main public health goals, and equity of access to care is a necessary condition to achieve this objective. Analyzing and assessing inequalities in health care use is therefore essential in order to enlighten public health policies. This article proposes a review on inequalities in access to care in France and OECD countries, their causes and their evolution. During the last decades, inequalities in health care expenditure have decreased in France with diffusion of complementary insurance, due in particular to the CMU-C implementation in 2000, but they are still significant. The reduction of inequalities is particularly important for GP use, for which we observe now pro-poor inequities. However, there are persistent and important inequalities in access to specialist care, as well as in preventive care. Therefore, France is still one of the European countries with the highest level of inequities in access to care.

**Moatti J.P. (2013). [Social determinants of health inequalities: A public health research priority**]. *Rev Epidemiol Santé Publique,* 61 Suppl 3 S123-S125.

**Charles M.A. (2013). [Developmental origins of adult health and disease: An important concept for social inequalities in health].** *Rev Epidemiol Santé Publique,* 61 Suppl 3 S133-S138.
Abstract: According to the theory of the developmental origins of adult health and disease, development in utero and in the first years of life are critical phases during which susceptibility to many chronic diseases is set. Diseases eventually occur only if the environment and lifestyle in later life is favorable. Exposure to chemicals (environmental or drug), to infectious agents, unbalanced nutrition, or psychosocial stress prenatally or in the first months/years of life are all factors which have been shown to impact long-term health of individuals. The consequences, however, are not limited to health. A demonstrative example was provided by the study of the influenza epidemic of 1918-1919 in the United States. Nationwide, it was estimated that the loss of income over a lifetime for individuals exposed during fetal life to this epidemic amounted to 14 billion dollars. This example demonstrates that an exposure during fetal life, which is not socially differentiated, may affect the social situation of individuals in adulthood. In many situations, it is much more difficult to separate the specific effect of a given exposure from the overall effect of the social environment. Indeed, it has been shown that socioeconomic status in childhood is associated with increased risk of mortality in adulthood, even after accounting for the socioeconomic status and risky behaviors in adulthood. Among the explanations, the theory of developmental origins of health credits of biological plausibility the model of critical periods early in which the individual is particularly vulnerable to certain exposures. Thus, ensuring the best conditions for the biological, physical, emotional and cognitive development of children in early life will enable them to reach their potential in terms of health and socioeconomic return to society. Investment in this period also brings the hope of reducing the perpetuation of social inequalities and health from generation to generation.

**Chaix B., Meline J., Duncan S., Jardinier L., Perchoux C., Vallee J., Merrien C., Karusisi N., Lewin A., Brondeel R., Kestens Y. (2013). Neighborhood environments, mobility, and health: Towards a new generation of studies in environmental health research**.
*Rev Epidemiol Santé Publique,* 61 Suppl 3 S139-S145.
Abstract: While public policies seek to promote active transportation, there is a lack of information on the social and environmental factors associated with the adoption of active transportation modes. Moreover, despite the consensus on the importance of identifying obesogenic environmental factors, most published studies only take into account residential neighborhoods in the definition of exposures. There are at least three major reasons for incorporating daily mobility in public health research: (i) to identify specific population groups, including socially disadvantaged populations, who experience mobility or spatial accessibility deficits; (ii) to study the environmental determinants of transportation habits and investigate the complex relationships between transportation (as a source of physical activity, pollutants, and accidents) and physical activity and health; and (iii) to improve the assessment of spatial accessibility to resources and exposure to environmental hazards by accounting for daily

trajectories for a better understanding of their health effects. There is urgent need to develop novel methods to better assess daily mobility. The RECORD Study relies on (i) an electronic survey of regular mobility to assess the chronic exposure to environmental conditions over a relatively long period, and (ii) Global Positioning System tracking to evaluate precisely acute environmental exposures over a much shorter period. The present article argues that future research should combine these two approaches. Gathering scientific evidence on the relationships between the environments, mobility/transportation, and health should allow public health and urban planning decision makers to better take into account the individual and environmental barriers to the adoption of active transportation and to define innovative intervention strategies addressing obesogenic environments to reduce disparities in excess weight.

**Pega F., Kawachi I., Rasanathan K., Lundberg O. (2013). Politics, policies and population health: A commentary on Mackenbach, Hu and Looman** (2013). *Soc Sci Med,* 93 176-179.

# Médicaments / Pharmaceuticals

**Godman G, Persson M., Miranda J., Skiöld P., Wettermark B. (2013). Changes in the Utilization of Venlafaxine after the Introduction of Generics in Sweden**. *Applied Health Economics and Health Policy,* 11 (4) : 383-393.

Abstract: There has been an appreciable increase in the prescribing efficiency of proton pump inhibitors, statins, and renin–angiotensin inhibitor drugs in Sweden in recent years. This has been achieved through multiple reforms encouraging the prescription of generics at low prices versus patented drugs in the same class. Generic venlafaxine also presents an opportunity to save costs given the prevalence of depression. However, depression is more complex to treat, with physicians reluctant to change prescriptions if patients are responding to a particular antidepressant. We assessed (a) changes in the utilization pattern of venlafaxine versus other newer antidepressants before and after the availability of generic venlafaxine and before and after the initiation of prescription restrictions for duloxetine limiting its prescription to refractory patients, (b) utilization of generic versus original venlafaxine after its availability, and (c) price reductions for generic venlafaxine and the subsequent influence on total expenditure on newer antidepressants over time. We performed interrupted time series analysis of changes in monthly reimbursed prescriptions using defined daily doses (DDDs) of patients dispensed at least one newer antidepressant from January 2007 to August 2011. DDDs was defined as the average maintenance dose of a drug when used in its major indication in adults. This included 19 months after the availability of generic venlafaxine and before initiation of prescription restrictions for duloxetine to 13 months after prescription restrictions. Total expenditure and expenditure/DDD for venlafaxine were measured over time. No appreciable change in the utilization pattern for venlafaxine was observed after generic availability when no appreciable demand-side activities by the regions (counties) were implemented to encourage its use. The utilization of venlafaxine significantly increased after prescription restrictions for duloxetine. Generic venlafaxine was dispensed once available, reaching 99.6 % of total venlafaxine (DDD basis) by August 2011. There was an appreciable fall in expenditure for newer antidepressants in Sweden after generic venlafaxine despite increased utilization, helped by a 90 % reduction in expenditure/DDD for venlafaxine by the end of the study versus prepatent loss prices. Multiple demand-side measures are needed to change physician prescribing habits. Authorities should not rely on a spillover effect between drug classes to effect change. Limited influence of prescription restrictions on the subsequent utilization of duloxetine reflects the complexity of this disease area. This is exacerbated by heterogeneous indications for duloxetine.

**Willems I.A.T., Gorgels W.J.M.J., Oude Voshaar R.C., Mulder J., Lucassen P.L.B.J. (2013). Tolerance to benzodiazepines among long-term users in primary care**. *Family Practice,* 30 (4) : 404-410.

Abstract: Background. Tolerance towards the effects of benzodiazepines is observed in various animal and human studies. Therefore, it is assumed that patients who use benzodiazepines for a longer period of time need to increase their dose over time to experience the same effect. Objective. To observe whether long-term benzodiazepine users increase their dose over time. Methods. From the Dutch National Information Network of Family Practices, a group of long-term benzodiazepine users was identified. This group was divided into an incident long-term benzodiazepine users group (N = 113) and a prevalent long-term benzodiazepine users group (N = 992). Long-term use of benzodiazepines was defined as usage for at least 6 months. The main outcome was a change in prescribed dose from baseline until 24 months after baseline. Linear regression analysis was performed to evaluate dose change. Results. Neither incident long-term benzodiazepine users nor prevalent long-term benzodiazepine users were prescribed increasing dosages during follow-up. Conclusion. There is no increase in prescribed dose among long-term users, as might be expected due to the development of tolerance to the effects of benzodiazepines.

**Morden N.E., Schwartz L.M., Fisher E.S., Woloshin S. (2013). Accountable Prescribing**. In : New England Journal of Medicine. *New England Journal of Medicine,* 369 (4) : 299-302.

**Lanthier M., Miller K.L., Nardinelli C., Woodcock J. (2013). An improved approach to measuring drug innovation finds steady rates of first-in-class pharmaceuticals, 1987-2011**. *Health Aff.(Millwood.),* 32 (8) : 1433-1439.
Abstract: For more than a decade, industry analysts and policy makers have raised concerns about declining pharmaceutical innovation, citing declining numbers of new molecular entities (NMEs) approved in the United States each year. Yet there is little consensus on whether this is the best measure of "innovation." We examined NME approvals during 1987-2011 and propose the three distinct subcategories of NMEs-first-in-class, advance-in-class, and addition-to-class-to provide more nuanced and informative insights into underlying trends. We found that trends in NME approvals were largely driven by addition-to-class, or "me too," drug approvals, while first-in-class approvals remained fairly steady over the study period. Moreover, the higher proportion of first-in-class drug approvals over the most recent decade is an encouraging sign of the health of the industry as a whole.

# Méthodologie – Statistique / Methodology – Statistics

**DuGoff E.H., Schuler M., Stuart E.A. (2013). Generalizing Observational Study Results: Applying Propensity Score Methods to Complex Surveys**. *Health Services Research,* ahead of pub
Abstract: Objective To provide a tutorial for using propensity score methods with complex survey data. Data Sources Simulated data and the 2008 Medical Expenditure Panel Survey. Study Design Using simulation, we compared the following methods for estimating the treatment effect: a naïve estimate (ignoring both survey weights and propensity scores), survey weighting, propensity score methods (nearest neighbor matching, weighting, and subclassification), and propensity score methods in combination with survey weighting. Methods are compared in terms of bias and 95 percent confidence interval coverage. In Example 2, we used these methods to estimate the effect on health care spending of having a generalist versus a specialist as a usual source of care. Principal Findings In general, combining a propensity score method and survey weighting is necessary to achieve unbiased treatment effect estimates that are generalizable to the original survey target population. Conclusions Propensity score methods are an essential tool for addressing confounding in observational studies. Ignoring survey weights may lead to results that are not generalizable to the survey target population. This paper clarifies the appropriate inferences for different propensity score methods and suggests guidelines for selecting an appropriate propensity score method based on a researcher's goal.

**Shackley P., Dixon S. (2013). The random card sort method and respondent certainty in contingent valuation and exploratory investigation of range biases**. *Health Economics,* n/a.
Abstract: Willingness to pay (WTP) values derived from contingent valuation surveys are prone to a

number of biases. Range bias occurs when the range of money values presented to respondents in a payment card affects their stated WTP values. This paper reports the results of an exploratory study whose aim was to investigate whether the effects of range bias can be reduced through the use of an alternative to the standard payment card method, namely, a random card sort method. The results suggest that the random card sort method is prone to range bias but that this bias may be mitigated by restricting the analysis to the WTP values of those respondents who indicate they are definitely sure they would pay their stated WTP.

**Borah B.J., Basu A. (2013). Highlighting differences between conditional and unconditional quantile approaches through an application to assess medication adherence**. *Health Economics,* 22 (9) : 1052-1070.
Abstract: The quantile regression (QR) framework provides a pragmatic approach in understanding the differential impacts of covariates along the distribution of an outcome. However, the QR framework that has pervaded the applied economics literature is based on the conditional quantile regression method. It is used to assess the impact of a covariate on a quantile of the outcome conditional on specific values of other covariates. In most cases, conditional quantile regression may generate results that are often not generalizable or interpretable in a policy or population context. In contrast, the unconditional quantile regression method provides more interpretable results as it marginalizes the effect over the distributions of other covariates in the model. In this paper, the differences between these two regression frameworks are highlighted, both conceptually and econometrically. Additionally, using real-world claims data from a large US health insurer, alternative QR frameworks are implemented to assess the differential impacts of covariates along the distribution of medication adherence among elderly patients with Alzheimer's disease.

# Politique de santé / Health Policy

**Mackenbach J, McKee M (2013). Social-Democratic Government and Health Policy in Europe: A Quantitative Analysis**. *International Journal of Health Services,* 43 (3) : 389-413.
Abstract: Although health policy ultimately depends on political decision making, empirical evidence of the impact of politics on implementation of health policies and their population health outcomes is scarce. In this study, we assess the effects of social-democratic government participation on indicators of preventive health policy (tobacco, alcohol, food, mother and child health, infectious diseases, hypertension, cancer screening, road traffic safety, air pollution) in Europe. Cumulative years of social-democratic government differed widely between European countries, as did indicators of current health policy performance, but the latter are not associated with recent social-democratic government. However, there is a positive association with social-democratic government cumulated over five decades. Positive effects of social-democratic government are mainly seen on indicators of tobacco and alcohol control. We conclude that long-term social-democratic government participation may have had a positive impact on some areas of preventive health policy, perhaps through the creation of strong public health institutions or a strong public health workforce.

# Prévention santé / Health Prevention

**Tefft N., Kageleiry A. (2013). State-Level Unemployment and the Utilization of Preventive Medical Services**. *Health Services Research,* ahead of pub
Abstract: Objective To study the association between macroeconomic conditions and preventive medical service utilization. Data Sources/Study Setting Secondary data collection of a survey of the civilian, non-institutionalized population of adults (age 18 and older) in the United States between 1987 and 2010. Study Design Regression analyses that adjust for individual-level demographic and

socioeconomic determinants, state and time-fixed effects, and state-specific time trends. Data Collection/Extraction Methods State health departments, with technological and methodological assistance from the Centers for Disease Control and Prevention, conducted a cross-sectional yearly telephone survey using a standardized questionnaire. Principal Findings The use of preventive medical services is procyclical: a 1 percentage point increase in the state-level unemployment rate is associated with a 1.58 percent decrease in the quantity of distinct preventive care services utilized. Women and economically disadvantaged populations are shown to be especially sensitive to macroeconomic fluctuations. Conclusions Policy makers should be aware of cyclical changes in preventive care use, particularly among disadvantaged populations, when making challenging budgetary decisions during economic downturns. As physician recommendations can have a strong impact on patients' use, health care providers could increase efforts to persuade patients to seek screening exams and necessary vaccinations during periods of high unemployment.

**Ferrat E., Le Breton J., Djassibel M., Veerabudun K., Brixi Z., Attali C., Renard V. (2013). Understanding barriers to organized breast cancer screening in France: women's perceptions, attitudes, and knowledge**. *Family Practice,* 30 (4) : 445-451.
Abstract: Background. The participation rate in organized breast cancer screening in France is lower than recommended. Non-participants either use opportunistic screening or do not use either screening modality. Objective. To assess any differences in perceptions, attitudes and knowledge related to breast cancer screening between users of opportunistic screening and non-users of any screening mammograms and to identify potential barriers to participation in organized screening. Methods. Six focus groups were conducted in May 2010 with 34 French non-participants in organized screening, 15 who used opportunistic screening (OpS group) and 19 who used no screening (NoS group). The guide used for both groups explored perceptions and attitudes related to health, cancer and screening; perceptions of femininity; and knowledge about breast cancer screening. Thematic content analysis was performed. Results. Perceptions, attitudes and knowledge differed between the two groups. Women in the OpS group perceived a high susceptibility to breast cancer, visited their gynaecologist regularly, were unfamiliar with organized screening modalities and had doubts about its quality. NoS women had very high- or low-perceived susceptibility to breast cancer, knew about screening modalities, had doubts about its usefulness and expressed negative opinions of mammograms. Conclusions. Differences in perceptions and attitudes related to breast cancer screening partially explain why some women choose opportunistic screening or no screening. General practitioners and gynaecologists are in a unique position to provide individually tailored preventative messages to improve participation in organized screening.

# Psychiatrie / Psychiatry

**Cook B.L., Zuvekas S.H., Carson N., Wayne G.F., Vesper A., McGuire T.G. (2013). Assessing Racial/Ethnic Disparities in Treatment across Episodes of Mental Health Care**. *Health Services Research,* ahead of pub.
Abstract: Objective To investigate disparities in mental health care episodes, aligning our analyses with decisions to start or drop treatment, and choices made during treatment. Study Design We analyzed whites, blacks, and Latinos with probable mental illness from Panels 9-“13 of the Medical Expenditure Panel Survey, assessing disparities at the beginning, middle, and end of episodes of care (initiation, adequate care, having an episode with only psychotropic drug fills, intensity of care, the mixture of primary care provider (PCP) and specialist visits, use of acute psychiatric care, and termination). Findings compared with whites, blacks and Latinos had less initiation and adequacy of care. Black and Latino episodes were shorter and had fewer psychotropic drug fills. Black episodes had a greater proportion of specialist visits and Latino episodes had a greater proportion of PCP visits. Blacks were more likely to have an episode with acute psychiatric care. Conclusions Disparities in adequate care were driven by initiation disparities, reinforcing the need for policies that improve access. Many episodes were characterized only by psychotropic drug fills, suggesting inadequate medication guidance. Blacks' higher rate of specialist use contradicts previous studies and deserves

future investigation. Blacks' greater acute mental health care use raises concerns over monitoring of their treatment.

**Richard-Devantoy S., Bouyer-Richard A.I., Jollant F., Mondoloni A., Voyer M., Senon J.L. (2013). [Homicide, schizophrenia and substance abuse: A complex interaction**].
*Rev Epidemiol Santé Publique,* 61 (4) : 339-350.
Abstract: BACKGROUND AND AIM: The prevalence of homicide perpetrators with a diagnosis of schizophrenia is 6% in Western countries populations. The relationship between schizophrenia and homicide is complex and cannot be reduced to a simple causal link. The aim of this systematic review was to clarify the role of substance abuse in the commission of murder in people suffering from schizophrenia. METHODS: A systematic English-French Medline and EMBASE literature search of cohort studies, case-control studies and transversal studies published between January 2001 and December 2011 was performed, combining the MeSH terms "schizophrenia", "psychotic disorders", "homicide", "violence", "substance use disorder", and the TIAB term "alcohol". Abstract selection was based on the STROBE and PRISMA checklist for observational studies and systematic and meta-analysis studies, respectively. RESULTS: Of the 471 selected studies, eight prospective studies and six systematic reviews and meta-analysis studies met the selection criteria and were included in the final analysis. Homicide committed by a schizophrenic person is associated with socio-demographic (young age, male gender, low socioeconomic status), historical (history of violence against others), contextual (a stressful event in the year prior to the homicide), and clinical risk factors (severe psychotic symptoms, long duration of untreated psychosis, poor adherence to medication). In comparison to the general population, the risk of homicide is increased 8-fold in schizophrenics with a substance abuse disorder (mainly alcohol abuse) and 2-fold in schizophrenics without any comorbidities. A co-diagnosis of substance abuse allows us to divide the violent schizophrenics into "early-starters" and "late-starters" according to the age of onset of their antisocial and violent behavior. The violence of the "early-starters" is unplanned, usually affects an acquaintance and is not necessarily associated with the schizophrenic symptoms. Substance abuse is frequent and plays an important role in the homicide commission. In addition, the risk of reoffending is high. In the "late-starters", the violence is linked to the psychotic symptoms and is directed to a member of the family. The reoffence risk is low and it depends on the pursuit of care or not. CONCLUSION: Defining subgroups of violent schizophrenic patients would avoid stigmatization and would help to prevent the risk of homicide by offering a multidisciplinary care which would take into account any substance abuse;

**Wood V.J., Curtis S.E., Gesler W., Spencer I.H., Close H.J., Mason J., Reilly J.G. (2013). Creating 'therapeutic landscapes' for mental health carers in inpatient settings: A dynamic perspective on permeability and inclusivity.** *Soc Sci Med,* 91 122-129.
Abstract: Although there has been a shift toward treatment in the home and the community, in the UK, inpatient facilities are still important in modern mental health care. 'Informal carers', including family members, often play an essential role, not only in providing care in the community but also in care of patients during periods of hospitalisation. UK National Health Service policies increasingly consider the position of these carers as 'partners' in the care process, but relatively little attention has been paid to their position within the hospital settings where treatment is provided for inpatients. This paper contributes to geographical work on carers experiences, by reporting how this issue emerged through a study focused on perceptions of a newly built hospital, compared with the inpatient facilities it replaced. We draw on qualitative research findings from discussion groups and interviews with informal carers. The material considered here focused especially on carers' views of aspects of the hospital environment that were important for wellbeing of carers and the people they look after. The carers' views were supplemented by relevant material drawn from other interviews from our wider study, which included service users and members of hospital staff. These accounts revealed how informal carers experienced the hospital environment; we interpret our findings through a conceptual framework that emphasises carers' experiences of a 'journey' along a 'caring pathway' to and through the hospital space. This perspective allows us to make a connection between three bodies of literature. The first relates to phenomenological interpretations of one's environmental perception, formed as one moves through the world. The second derives from the literature concerning 'permeability' of hospital institutions. Bringing these ideas together provides an innovative, dynamic perspective on a third strand of literature from health geography that examines hospitals as

'therapeutic landscapes'. The analysis helps to explore the extent to which carers in this study were positioned as 'outsiders' in the hospital space.

# Soins de santé primaries / Primary Health Care

**Bhatia M, Rifkin S (2013). Primary Health Care, Now and Forever? A Case Study of a Paradigm Change**. *International Journal of Health Services,* 43 (3) : 459-471.
Abstract: The year 2008 marked the 30th anniversary of the Alma Ata Declaration that made Primary Health Care (PHC) the global health policy of member states of the World Health Organization (WHO). Why has PHC remained relevant? In part, this is because of growing evidence that health is a result of social, political, and economic environments, not merely of control of diseases and infirmities through interventions based on biomedical science. Using the conceptual framework developed by Thomas Kuhn, this article traces the emergence of PHC as a new paradigm based on social determinants to address poor health among populations (not individuals), especially those that are low-income. It traces the history of PHC over the last 30 years, focusing on policy developments within WHO. It selects three issues: definitions of PHC; financing and delivery of health services, including lay people's involvement in health care, as examples of the new paradigm; and opposition by those whose concept of health is based on the control of disease and infirmities paradigm. The article concludes by asking whether PHC will continue to be relevant and whether the question mark in the title of this article will be removed in the future.

**Jakab Z. (2013). Public health, primary care and the 'cluster' model.** *Eur J Public Health,* 23 (4) : 528.

**Cameron A., Lart R., Bostock L., Coomber C. (2013). Factors that promote and hinder joint and integrated working between health and social care services: a review of research literature**. *Health & Social Care in the Community,* ahead of pub
Abstract: This article reports the results of a review of the research evidence related to joint working in the field of adult health and social care services in the UK. It explores whether recent reforms to joint working have met the objectives set by policy-makers. The review followed an established methodology: electronic databases were searched using predetermined terms, abstracts were screened against inclusion criteria, studies that met the criteria were read in full and assessed for inclusion and data were extracted systematically. The findings of the review suggest that there is some indication that recent developments, in particular the drive to greater integration of services, may have positive benefits for organisations as well as for users and carers of services. However, the evidence consistently reports a lack of understanding about the aims and objectives of integration, suggesting that more work needs to be done if the full potential of the renewed policy agenda on integration is to be realised. Additionally, while the review acknowledges that greater emphasis has been placed on evaluating the outcome of joint working, studies largely report small-scale evaluations of local initiatives and few are comparative in design and therefore differences between ˜usual care and integrated care are not assessed. This makes it difficult to draw firm conclusions about the effectiveness of UK-based integrated health and social care services.

**Li J., Hurley J., DeCicca P., Buckley G. (2013). Physician response to pay-for-performance: evidence from a natural experiment.** *Health Economics,* ahead of pub
Abstract: This study exploits a natural experiment in the province of Ontario, Canada, to identify the impact of pay-for-performance (P4P) incentives on the provision of targeted primary care services and whether physicians' responses differ by age, size of patient population, and baseline compliance level. We use administrative data that cover the full population of Ontario and nearly all the services provided by primary care physicians. We employ a difference-in-differences approach that controls for selection on observables and selection on unobservables that may cause estimation bias. We implement a set of robustness checks to control for confounding from other contemporaneous interventions of the primary care reform in Ontario. The results indicate that responses were modest

and that physicians responded to the financial incentives for some services but not others. The results provide a cautionary message regarding the effectiveness of employing P4P to increase the quality of health care.

**Sanders A.t.R.J., van Weeghel I., Vogelaar M., Verheul W., Pieters R.H.M., de Wit N.J., Bensing J.M. (2013). Effects of improved patient participation in primary care on health-related outcomes: a systematic review**. *Family Practice,* 30 (4) : 365-378.
Abstract: Background. In primary care, many consultations address symptom-based complaints. Recovery from these complaints seldom exceeds placebo effects. Patient participation, because of its supposed effects on trust and patient expectancies, is assumed to benefit patients' recovery. While the idea is theoretically promising, it is still unclear what the effects of increased patient participation are on patient outcomes. Aim. To review the effects of controlled intervention studies aiming to improve patient participation in face-to-face primary care consultations on patient-oriented and/or disease-oriented outcomes. Methods. This study is a systematic review. A systematic search was undertaken for randomized controlled trials designed to measure the effects of interventions that aimed to improve adult patients' participation in primary care visits. The CINAHL, Cochrane, EMBASE, PsycINFO and PubMed databases were searched .Results. Seven different trials fulfilled the inclusion criteria. Three of the studies were related to symptom-based complaints. Five studies measured patient-oriented outcomes, the primary outcome of interest for this review. All studies suffered from substantial bias. Studies varied widely in their aims, types of complaints/diseases, strength of the interventions and their outcomes. The effects on patient-oriented outcomes and disease-oriented outcomes were ambiguous. Conclusion. Little research has been performed on health outcomes of interventions aiming to increase patient participation in general practice visits among patients suffering from symptom-based complaints. The results still are non-conclusive. The quality of the trials has been weak, possibly due to the complexity of the concept. This weak quality may explain the lack of conclusive results. Proposals for future research designs are offered.

**Stewart M., Fortin M., Britt H.C., Harrison C.M., Maddocks H.L. (2013). Comparisons of multi-morbidity in family practice's issues and biases**. *Family Practice,* 30 (4) : 473-480.
Abstract: Background. As the population ages, practice and policy need to be guided by accurate estimates of chronic disease burden in primary care. Objective. To produce a preliminary set of methodological considerations for cross-sectional and retrospective cohort studies of multi-morbidity in primary care using three studies as examples. Prevalence rate results from the three studies were re-estimated using identical age-sex groups .Methods. We compared the methods and results of three separate studies in primary care: (i) patients in the Saguenay region of Quebec, Canada (2005); (ii) a substudy of the BEACH (Bettering the Evaluation and Care of Health) programme in Australia (2008); and (iii) the DELPHI (Deliver Primary Health Care Information) project in South-western Ontario, Canada (2009). Areas where the methods of multi-morbidity studies may differ were identified. The percentage of patients with two or more chronic conditions was compared by age-sex groups. Results. Multi-morbidity prevalence varied by as much as 61%, where reported prevalence was 95% among females aged 45-64 in the Saguenay study, 46% in the BEACH substudy and 34% in the DELPHI study. Several aspects of the methods and study designs were identified as differing among the studies, including the sampling of frequent attenders, sampling period, source of data, and both the definition and count of chronic conditions. Conclusions. Understanding the differences among the methods used to produce prevalence data on multi-morbidity in primary care can help explain the varying results. Standardization of methods would allow for more valid inter-study comparisons

**Pelone F., Kringos D.S., Spreeuwenberg P., De Belvis A.G., Groenewegen P.P. (2013). How to achieve optimal organization of primary care service delivery at system level: lessons from Europe**. *International Journal for Quality in Health Care,* 25 (4) : 381-393.
Abstract: Objective To measure the relative efficiency of primary care (PC) in turning their structures into services delivery and turning their services delivery into quality outcomes. Design Cross-sectional study based on the dataset of the Primary Healthcare Activity Monitor for Europe project. Two Data Envelopment Analysis models were run to compare the relative technical efficiency. A sensitivity analysis of the resulting efficiency scores was performed. Setting PC systems in 22 European countries in 2009/2010.Main Outcome Measures Model 1 included data on PC governance, workforce development and economic conditions as inputs and access, coordination, continuity and

comprehensiveness of care as outputs. Model 2 included the previous process dimensions as inputs and quality indicators as outputs. Results There is relatively reasonable efficiency in all countries at delivering as many as possible PC processes at a given level of PC structure. It is particularly important to invest in economic conditions to achieve an efficient structure-process balance. Only five countries have fully efficient PC systems in turning their services delivery into high quality outcomes, using a similar combination of access, continuity and comprehensiveness, although they differ on the adoption of coordination of services. There is a large variation in efficiency levels obtained by countries with inefficient PC in turning their services delivery into quality outcomes. Conclusions Maximizing the individual functions of PC without taking into account the coherence within the health-care system is not sufficient from a policymaker's point of view when aiming to achieve efficiency

**Casalino L.P., Wu F.M., Ryan A.M., Copeland K., Rittenhouse D.R., Ramsay P.P., Shortell S.M. (2013). Independent practice associations and physician-hospital organizations can improve care management for smaller practices.** *Health Aff.(Millwood.),* 32 (8) : 1376-1382.
Abstract: Pay-for-performance, public reporting, and accountable care organization programs place pressures on physicians to use health information technology and organized care management processes to improve the care they provide. But physician practices that are not large may lack the resources and size to implement such processes. We used data from a unique national survey of 1,164 practices with fewer than twenty physicians to provide the first information available on the extent to which independent practice associations (IPAs) and physician-hospital organizations (PHOs) might make it possible for these smaller practices to share resources to improve care. Nearly a quarter of the practices participated in an IPA or a PHO that accounted for a significant proportion of their patients. On average, practices participating in these organizations provided nearly three times as many care management processes for patients with chronic conditions as nonparticipating practices did (10.4 versus 3.8). Half of these processes were provided only by IPAs or PHOs. These organizations may provide a way for small and medium-size practices to systematically improve care and participate in accountable care organizations.

**McDonald R., Cheraghi-Sohi S., Bayes S., Morriss R., Kai J. (2013). Competing and coexisting logics in the changing field of English general medical practice.** *Soc Sci Med,* 93 47-54.
Abstract: Recent reforms, which change incentive and accountability structures in the English National Health Service, can be conceptualised as trying to shift the dominant institutional logic in the field of primary medical care (general medical practice) away from medical professionalism towards a logic of "population based medicine". This paper draws on interviews with primary care doctors, conducted during 2007-2009 and 2011-2012. It contrasts the approach of active management of populations, in line with recent reforms with responses to patients with medically unexplained symptoms. Our data suggest that rather than one logic becoming dominant, different dimensions of organisational activity reflect different logics. Although some aspects of organisational life are relatively untouched by the reforms, this is not due to 'resistance' on the part of staff within these organisations to attempts to 'control' them. We suggest that a more helpful way of understanding the data is to see these different aspects of work as governed by different institutional logics.

**Meacock R., Kristensen S.r.R., Sutton M. (2013). The cost-ffectiveness of using financial incentitives to improve provider quality: a framework and application**. *Health Economics,* n/a.
Abstract: Despite growing adoption of pay-for-performance (P4P) programmes in health care, there is remarkably little evidence on the cost-effectiveness of such schemes. We review the limited number of previous studies and critique the frameworks adopted and the narrow range of costs and outcomes considered, before proposing a new more comprehensive framework, which we apply to the first P4P scheme introduced for hospitals in England. We emphasise that evaluations of cost-effectiveness need to consider who the residual claimant is on any cost savings, the possibility of positive and negative spillovers, and whether performance improvement is a transitory or investment activity. Our application to the Advancing Quality initiative demonstrates that the incentive payments represented less than half of the Â£13m total programme costs. By generating approximately 5200 quality-adjusted

life years and Â£4.4m of savings in reduced length of stay, we find that the programme was a cost-effective use of resources in its first 18 months.

**Sisira Sarma M.H.A.T.a.R.C. (2013). The Association between Health Information Technology Adoption and Family Physicians' Practice Patterns in Canada: Evidence from 2007 and 2010 National Physician Surveys.** *Healthcare Policy,* 9 (1) : 97-117.
Abstract: <p>Objective: To describe the association between health information technology (HIT) adoption and family physicians' patient visit length in Canada after controlling for physician and practice characteristics. Method: HIT adoption is defined in terms of four types of HIT usage: no HIT use (NO), basic HIT use without electronic medical record system (HIT), basic HIT use with electronic medical record (EMR) and advanced HIT use (EMR + HIT). The outcome variable is the average time spent on a patient visit (visit length). The data for this study came from the 2007 and 2010 National Physician Surveys. A log-linear model was used to analyze our visit length outcome.</p> <p>Results: The average time worked per week was found to be in the neighbourhood of 36 hours in both 2007 and 2010, but users of EMR and EMR + HIT were undertaking fewer patient visits per week relative to NO users. Multivariable analysis showed that EMR and EMR + HIT were associated with longer average time spent per patient visit by about 7.7% (p<;0.05) and 6.7% (p&lt;0.01), respectively, compared to NO users in 2007. In 2010, EMR was not statistically significant and EMR + HIT was associated with a 4% (p<;0.1) increased visit length. A variety of practice-related variables such as the mode of remuneration, work setting and interprofessional practice influenced visit length in the expected direction. Conclusion: Use of HIT is found to be associated with fewer patient visits and longer visit length among family physicians in Canada relative to NO users, but this association weakened in the multivariable analysis of 2010.

# Systèmes de santé / Health Policy

**Harrison J.Young J.Buttow P. (2013). Needs in Health Care: What Beast is That?**
*International Journal of Health Services,* 43 (3) : 567-585.
Abstract: Need is a pivotal concept within health systems internationally given its driving force in health care policy, development, and delivery at population and individual levels. Needs assessments are critical activities undertaken to ensure that health services continue to be needed and to identify new target populations that demonstrate unmet need. The concept of need is underpinned by varied theoretical definitions originating from various disciplines. However, when needs are assessed, or health interventions developed based on need, little, if any, detail of the theoretical or conceptual basis of what is being measured is ever articulated. This is potentially problematic and may lead to measurement being invalid and planned health services being ineffective in meeting needs. Seldom are theoretical definitions of need ever compared and contrasted. This critical review is intended to fill this gap in the literature. Interpretations of the concept of need drawing from areas such as psychology, social policy, and health are introduced. The concept and relevance of unmet need for health services are discussed. It is intended that these definitions can be used to operationalize the term "need" in practice, theoretically drive needs assessment, and help guide health care decisions that are based upon need.

**Gerring J., Thacker S.C., Enikolopov R., Arevalo J., Maguire M. (2013). Assessing health system performance: A model-based approach.** *Soc Sci Med,* 93 21-28.
Abstract: It is difficult to assess countries' relative success in addressing issues of public health because countries are subject to very different background conditions. To address this problem we offer a model-based approach for assessing health system performance. Specifically, an index of public health is regressed against a vector of variables intended to capture economic, educational, cultural, geographic, and epidemiological endowments. The residual from this model is regarded as a plausible measure of public health performance at the national level. We argue that a model-based approach to performance is informative for policymakers and academics as it focuses attention on those aspects of a country's health profile that are not constrained by structural factors. This sharpens

comparisons across countries and through time, and also allows one to evaluate the degree to which health systems have lived up to their potential.

**Ozawa S., Sripad P. (2013). How do you measure trust in the health system? A systematic review of the literature.** *Soc Sci Med,* 91 10-14.
Abstract: People's trust in the health system plays a role in explaining one's access to and utilization of medical care, adherence to medications, continuity of care, and even self-reported health status. Yet it is not easy to find trust measures and understand what they are measuring. A systematic review of scales and indices identified 45 measures of trust within the health system with an average of 12 questions each, which quantified levels of trust among various relationships across the health system. Existing evidence was narrow in scope, where half examined the relationship between doctors/nurses and patients, and the majority were designed, tested and validated in the United States. We developed a health systems trust content area framework, where we identified that honesty, communication, confidence and competence were captured frequently in these measures, with less focus on concepts such as fidelity, system trust, confidentiality and fairness. Half of the measures employed a qualitative method in the design of these measures and 33% were pilot tested. Reporting of test-retest reliability and inter-rater reliability were less common. This review identifies a need to develop measurements of trust beyond doctor-patient relationships and outside of U.S. contexts, and strengthen the rigor of existing trust measures. Greater development and use of trust measures in the health system could improve monitoring and evaluation efforts, which may in turn result in better health outcomes.

# Travail et santé / Occupational Health

**Niedhammer I., Chastang J.F., Sultan-Taieb H., Vermeylen G., Parent-Thirion A. (2012). Psychosocial work factors and sickness absence in 31 countries in Europe**. *Eur J Public Health,*
Abstract: BACKGROUND: The studies on the associations between psychosocial work factors and sickness absence have rarely included a large number of factors and European data. The objective was to examine the associations between a large set of psychosocial work factors following well-known and emergent concepts and sickness absence in Europe. METHODS: The study population consisted of 14 881 male and 14 799 female workers in 31 countries from the 2005 European Working Conditions Survey. Psychosocial work factors included the following: decision latitude, psychological demands, social support, physical violence, sexual harassment, discrimination, bullying, long working hours, shift and night work, job insecurity, job promotion and work-life imbalance. Covariates were as follows: age, occupation, economic activity, employee/self-employed status and physical, chemical, biological and biomechanical exposures. Statistical analysis was performed using multilevel negative binomial hurdle models to study the occurrence and duration of sickness absence. RESULTS: In the models, including all psychosocial work factors together and adjustment for covariates, high psychological demands, discrimination, bullying, low-job promotion and work-life imbalance for both genders and physical violence for women were observed as risk factors of the occurrence of sickness absence. Bullying and shift work increased the duration of absence among women. Bullying had the strongest association with sickness absence. CONCLUSION: Various psychosocial work factors were found to be associated with sickness absence. A less conservative analysis exploring each factor separately provided a still higher number of risk factors. Preventive measures should take psychosocial work environment more comprehensively into account to reduce sickness absence and improve health at work at European level.

**Casini A., Godin I., Clays E., Kittel F. (2013). Gender difference in sickness absence from work: a multiple mediation analysis of psychosocial factors**. *Eur J Public Health,* 23 (5) : 635-642
Abstract: BACKGROUND: Previous research has shown that job characteristics, private life and psychosocial factors partially account for gender difference in work absences because of sickness.

Most studies have analysed these factors separately. The aim of the present study was to evaluate whether these explanatory factors act as mediators when they are considered simultaneously. METHODS: The evaluated data set comprises the merger of two Belgian longitudinal studies, BELSTRESS III and SOMSTRESS. It includes 3821 workers (1541 men) aged 21-66 years, employed in eight organizations. A multiple mediation analysis was performed to explain the higher prevalence among women. Estimated factors were occupational grade, total number of paid working hours per week, job strain, overcommitment, home-work interference and social support at and outside work. Prospective data concerning duration and frequency of medically justified sickness absence (registered by the organizations) were used as outcomes. RESULTS: Overall, the mediating factors partially account for gender difference in sickness absence. The strongest mediator for both outcomes is job strain. In addition, difference in absence duration is mediated by social support at work, whereas difference in frequency is mediated by professional grade and home-work interference. CONCLUSIONS: Our results call attention to the necessity to elaborate actual preventive actions aiming at favouring a better positioning of women on the labour market in term of hierarchical level as well as in terms of quality of work for reducing sickness absence in this group.

**Dray-Spira R. (2013). [Chronic diseases and employment: Impact on social health inequalities].** *Rev Epidemiol Santé Publique,* 61 Suppl 3 S146-S151.
Abstract: BACKGROUND: Differential consequences of ill health according to individuals' position on the social scale may constitute an important pathway underlying social health inequalities. In the current context, chronic diseases have major consequences on employment. These consequences may play a substantial role in the process of social health inequalities. Understanding the employment consequences of chronic diseases and their socially differentiated nature constitutes a critical field of research for the comprehension and the reduction of social health inequalities. DISCUSSION: In the past decades, studies in various countries have provided evidence of an association between the presence of various chronic conditions and employment outcomes including decreased workforce participation, early retirement, work limitations, sickness absence from work or low access/return to work. However, available data leave unanswered important questions regarding the causal nature and the pathways underlying this association. In addition, only few studies have focused on social inequalities in the employment consequences of specific health conditions. Though, such studies appear essential in order to thoroughly investigate the pathways underlying such inequalities. These pathways deserve to be investigated in future researches. Such researches, in addition to their contribution to a better understanding of social health inequalities, potentially have important public health implications.

**Jones M.K., Latreille P.L., Sloane P.J., Staneva A.V. (2013). Work-related health risks in Europe: are older workers more vulnerable?** *Soc Sci Med,* 88 18-29.
Abstract: Recent policy reforms in a number of countries are extending working lives and deferring the statutory retirement age. Yet such changes may have profound implications for the well-being of older workers if such individuals are more likely to suffer work-related health problems. Using international data from the European Working Conditions Survey for 2005, we test whether older workers (aged 55-65 years) differ significantly from younger workers across a range of self-reported job-related indicators including health risk perception, mental and physical health, sickness absence, injury and fatigue. We estimate discrete choice (probit) models of the outcomes above for a sample comprising 17,459 individuals in 23 countries, and control for personal, job and work characteristics including exposure to physical, ergonomic and psychosocial risk factors. Our results show that failure to account for both endogeneity and the 'healthy worker effect' (sample selection) can lead to misleading inferences. The latter is especially important: only after controlling for selection bias (using a re-weighting approach) do we find older workers are more 'vulnerable' than their younger counterparts in the sense of being significantly more likely to perceive each of the various adverse health outcomes above, with the exception of injury. For the remaining indicators, our estimates suggest the magnitude of this difference is substantial: between 5 and 11 percentage points compared with prime age workers, and 8 and 14 points relative to workers aged 15-35, depending on the measure under consideration.

**Bradford W.D., Lastrapes W.D. (2013). A prescription for unemployment? Recessions and the demand for mental health drugs**. *Health Economics,* ahead of pub.

Abstract: We estimate the relationship between mental health drug prescriptions and the level of labor market activity in the USA. Based on monthly data from the National Ambulatory Medical Care Survey of physicians and aggregated by US census regions, we find that the number of mental health drug prescriptions (those aimed at alleviating depression and anxiety) rises by about 10% when employment falls by 1% and when unemployment rises by 100 basis points, but only for patients in the Northeast region. This paper is one of the first to look at compensatory health behavior in response to the business cycle.

# Vieillissement / Ageing

**Chevreul K., Berg Brigham K. (2013). Financing long-term care for frail elderly in France: The ghost reform**. *Health Policy* : 111 (3) : 213-220.
Abstract: Like many welfare states, France is faced with increasing demand for long term care (LTC) services. Public LTC coverage has evolved over the past 15 years, reaching a coverage depth of 70%. Nonetheless, it does not provide adequate and equitable financial protection for the growing number of frail elderly individuals, who are expected to constitute 3% of the population by the year 2060. Since 2005, various financing reform proposals have been debated, ranging from a newly covered risk under the social security system to targeted subsidies for private LTC insurance. However, to date no reform measure has been enacted. This article provides a brief history of publicly financed LTC in France in order to provide a context for the ongoing debate, including the positions and relative political power of the various stakeholders and the doubtful short-term prospect for reform.

**Cambois E., Blachier A., Robine J.M. (2012). Aging and health in France: an unexpected expansion of disability in mid-adulthood over recent years.** *Eur J Public Health,* 23 (5) : 575-581
Abstract: OBJECTIVES: The study presents new disability-free life expectancies (DFLE) estimates for France and discusses recent trends in the framework of the three 'health and aging' theories of compression, dynamic equilibrium and expansion of disability. The objectives are to update information for France and to compare two methods to analyse recent trends. METHODS: DFLE at ages 50, 65 and in the 50-65 age group are computed for several disability dimensions, using data from five French surveys over the 2000s. Owing to scarce time series, we used two methods to assess trends and consolidate our conclusions: (i) decomposition of the DFLE changes using the available time series; (ii) linear regression using all the available estimates, classified by disability dimensions. RESULTS: Trends in DFLE(65) prolonged the dynamic equilibrium of the previous decades: increasing life expectancy with functional limitations but not with activity restrictions. Meanwhile, partial DFLE50-65 has decreased for various disability dimensions, including some activity restrictions, especially for women. CONCLUSION: France has recently experienced an unexpected expansion of disability in mid-adulthood while it is still on a trend of dynamic equilibrium at older ages. The study highlights the importance of monitoring trends in DFLE for various disability dimensions and broadens the scope of interest to the mid-adulthood.