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27 mars 2015 / March the 27th, 2015

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## Assurance maladie / Health Insurance

**Franc, C. and Pierre A. (2015). "Compulsory private complementary health insurance offered by employers in France: Implications and current debate." *Health Policy* 119(2): 111-116.**

In January 2013, within the framework of a National Inter-professional Agreement (NIA), the French government required all employers (irrespective of the size of their business) to offer private complementary health insurance to their employees from January 2016. The generalization of group complementary health insurance to all employees will directly affect insurers, employers and employees, as well as individuals not directly concerned (students, retirees, unemployed and civil servants). In this paper, we present the issues raised by this regulation, the expected consequences and the current debate around this reform. In particular, we argue that this reform may have adverse effects on equity of access to complementary health insurance in France, since the risk structure of the market for individual health insurance will change, potentially increasing inequalities between wage-earners and others. Moreover, tax exemptions given to group contracts are problematic because public funds used to support these contracts can be higher at individual level for high-salary individuals than those allocated to improve access for the poorest. In response to the criticism and with the aim of ensuring equity in the system, the government decided to reconsider some of the fiscal advantages given to group contracts, to enhance programs and aids dedicated to the poorest and to redefine an overall context of incentives.

## Economie de la santé Health Economics

**Calcoen, P., et al. (2015). "Improved estimates of Belgian private health expenditure can give important lessons to other OECD countries." *Health Policy* 119(3): 341-355.**

OECD Health Data are a well-known source for detailed information about health expenditure. These data enable us to analyze health policy issues over time and in comparison with other countries. However, current official Belgian estimates of private expenditure (as published in the OECD Health Data) have proven not to be reliable. We distinguish four potential major sources of problems with estimating private health spending: interpretation of definitions, formulation of assumptions, missing or incomplete data and incorrect data. Using alternative sources of billing information, we have reached more accurate estimates of private and out-of-pocket expenditure. For Belgium we found differences of more than 100% between our estimates and the official Belgian estimates of private health expenditure (as published in the OECD Health Data). For instance, according to OECD Health Data private expenditure on hospitals in Belgium amounts to euro3.1 billion, while according to our alternative calculations these expenses represent only euro1.1 billion. Total private expenditure differs only 1%, but this is a mere coincidence. This exercise may be of interest to other OECD countries looking to improve their estimates of private expenditure on health.

**Coronini-Cronberg, S., et al. (2015). "English National Health Service's Savings Plan May Have Helped Reduce The Use Of Three 'Low-Value' Procedures." *Health Aff (Millwood)* 34(3): 381-389.**

The pressure to contain health expenditures is unprecedented. In England a flattening of the health budget but increasing demand led the National Health Service (NHS) to seek reductions in health expenditures of 17 percent over four years. The spending cuts were to be achieved through improvements in service quality and efficiency, including reducing the use of ineffective, overused, or inappropriate procedures. However, the NHS left it to the

local commissioning (or funding) organizations, known as primary care trusts, to determine what steps to take to reduce spending. To assess whether the initiative had an impact, we examined six low-value procedures: spinal surgery for lower back pain, myringotomy to relieve eardrum pressure, inguinal hernia repair, cataract removal, primary hip replacement, and hysterectomy for heavy menstrual bleeding. We found significant reductions in three of the six procedures- cataract removal, hysterectomy, and myringotomy- in the program's first year, compared to prior years' trends. However, changes in the rates of all examined procedures varied widely across commissioning organizations. Our findings highlight some of the challenges of making major budget cuts in health care. Reducing ineffective spending remains a significant opportunity for the US health care system, and the English experience may hold valuable lessons.

**Mora, T., et al. (2015). "The influence of obesity and overweight on medical costs: a panel data perspective." *Eur J Health Econ* 16(2): 161-173.**

This paper estimates the increase of direct medical costs of both severe and moderate obesity and overweight with respect to a normal-weight individual using a two-part generalised linear model and a longitudinal dataset of medical and administrative records of patients in primary and secondary healthcare centres followed up over seven consecutive years (2004-2010) in Spain. Our findings indicate that severe and moderate obesity imposes a substantial burden on the Spanish healthcare system. Specifically, being severely obese is associated with increases in medical costs of 26 % (instrumental variables (IV) estimate, 34 %) compared to a normal-weight individual. The effects of moderate obesity and overweight are more modest, raising medical costs by 16 % (IV estimate, 29 %) and 8.5 % (IV estimate, 23 %), respectively. These changes in costs are slightly higher for those patients below the median age and for the women. Notwithstanding, the effects found in this study are comparatively much lower than that reported for the USA, based basically on a private healthcare system and characterised by a more obese population.

## Etat de santé / Health Status

**Pampel, F., et al. (2015). "Cohort changes in educational disparities in smoking: France, Germany and the United States." *Soc Sci Med* 127: 41-50.**

This study investigates the evolution of educational disparities in smoking uptake across cohorts for men and women in three countries. Nationally representative surveys of adults in France, Germany and the United States in 2009-2010 include retrospective measures of age of uptake that are compared for three cohorts (born 1946-1960, 1961-1975, and 1976-1992). Discrete logistic regressions and a relative measure of education are used to model smoking histories until age 34. The following patterns are found: a strengthening of educational disparities in the timing of uptake from older to younger cohorts; an earlier occurrence of the strengthening for men than women and for the United States than France or Germany; a faster pace of the epidemic in France than in the United States, and; a divide between the highest level of education and the others in the United States, as opposed to a gradient across categories in France. Those differences in smoking disparities across cohorts, genders and countries help identify the national and temporal circumstances that shape the size and direction of the relationship between education and health and the need for policies that target educational disparities.

**Peretti-Watel, P., et al. (2015). "[How do we catch flu? Beliefs in France in 2010]." *Rev Epidemiol Santé Publique* 63(1): 1-8.**

AIMS: Our goals were to describe beliefs held by French people concerning the contagiousness of influenza and analyze the relationship of these beliefs with vaccination against seasonal flu. METHODS: A subsample (4749 people aged 15-79) of the Health Barometer 2010 responded to questions dealing with influenza. Responses were analyzed using clustering analysis and logistic regression. RESULTS: Overall, observed beliefs were quite good, but also socially differentiated. 'False' beliefs were more frequent among people with a lower socioeconomic status. Those who overestimated the contagiousness of influenza were less likely to have been vaccinated against seasonal influenza in 2008. CONCLUSIONS: The beliefs analyzed here were associated with vaccination behaviors. 'False' beliefs may be difficult to change as they are nevertheless coherent. These beliefs also exhibit social inequalities that should be taken into account when determining preventive measures.

## Géographie de la santé / Geography of Health

**Garcia-Armesto, S., et al. (2015). "Potential of geographical variation analysis for realigning providers to value-based care. ECHO case study on lower-value indications of C-section in five European countries." *Eur J Public Health* 25 Suppl 1: 44-51.**

BACKGROUND: Although C-section is a highly effective procedure, literature abounds with evidence of overuse and particularly misuse, in lower-value indications such as low-risk deliveries. This study aims to quantify utilization of C-section in low-risk cases, mapping out areas showing excess-usage in each country and to estimate excess-expenditure as a proxy of the opportunity cost borne by healthcare systems. METHODS: Observational, ecologic study on deliveries in 913 sub-national administrative areas of five European countries (Denmark, England, Portugal, Slovenia and Spain) from 2002 to 2009. The study includes a cross-section analysis with 2009 data and a time-trend analysis for the whole period. Main endpoints: age-standardized utilization rates of C-section in low-risk pregnancies and deliveries per 100 deliveries. Secondary endpoints: Estimated excess-cases per geographical unit of analysis in two scenarios of minimized utilization. RESULTS: C-section is widely used in all examined countries (ranging from 19% of Slovenian deliveries to 33% of deliveries in Portugal). With the exception of Portugal, there are no systematic variations in intensity of use across areas in the same country. Cross-country comparison of lower-value C-section leaves Denmark with 10% and Portugal with 2%, the highest and lowest. Such behaviour was stable over the period of analysis. Within each country, the scattered geographical patterns of use intensity speak for local drivers playing a major role within the national trend. CONCLUSION: The analysis conducted suggests plenty of room for enhancing value in obstetric care and equity in women's access to such within the countries studied. The analysis of geographical variations in lower-value care can constitute a powerful screening tool.

**Holte, J. H., et al. (2015). "The impact of pecuniary and non-pecuniary incentives for attracting young doctors to rural general practice." *Soc Sci Med* 128: 1-9.**

Shortages of GPs in rural areas constitute a profound health policy issue worldwide. The evidence for the effectiveness of various incentives schemes, which can be specifically implemented to boost recruitment to rural general practice, is generally considered to be poor. This paper investigates young doctors' preferences for key job attributes in general practice (GP), particularly concerning location and income, using a discrete choice experiment (DCE). The subjects were all final year medical students and interns in Norway (N = 1562), of which 831 (53%) agreed to participate in the DCE. Data was collected in November-December 2010. Policy simulations were conducted to assess the potential impact of various initiatives that can be used to attract young doctors to rural areas. Most

interestingly, the simulations highlight the need to consider joint policy programs containing several incentives if the policies are to have a sufficient impact on the motivation and likelihood to work in rural areas. Furthermore, we find that increased income seem to have less impact as compared to improvements in the non-pecuniary attributes. Our results should be of interest to policy makers in countries with publicly financed GP systems that may struggle with the recruitment of GPs in rural areas.

***Kobayashi, D., et al. (2015). "The effect of centralization of health care services on travel time and its equality." Health Policy 119(3): 298-306.***

**OBJECTIVES:** To analyze the regional variations in travel time between patient residences and medical facilities for the treatment of ischemic heart disease and breast cancer, and to simulate the effects of health care services centralization on travel time and equality of access. **METHODS:** We used medical insurance claims data for inpatients and outpatients for the two target diseases that had been filed between September 2008 and May 2009 in Kyoto Prefecture, Japan. Using a geographical information system, patient travel times were calculated based on the driving distance between patient residences and hospitals via highways and toll roads. Locations of residences and hospital locations were identified using postal codes. We then conducted a simulation analysis of centralization of health care services to designated regional core hospitals. The simulated changes in potential spatial access to care were examined. **RESULTS:** Inequalities in access to care were examined using Gini coefficients, which ranged from 0.4109 to 0.4574. Simulations of health care services centralization showed reduced travel time for most patients and overall improvements in equality of access, except in breast cancer outpatients. **CONCLUSION:** Our findings may contribute to the decision-making process in policies aimed at improving the potential spatial access to health care services.

***Thygesen, L. C., et al. (2015). "Comparing variation across European countries: building geographical areas to provide sounder estimates." Eur J Public Health 25 Suppl 1: 8-14.***

**BACKGROUND:** In geographical studies, population distribution is a key issue. An unequal distribution across units of analysis might entail extra-variation and produce misleading conclusions on healthcare performance variations. This article aims at assessing the impact of building more homogeneous units of analysis in the estimation of systematic variation in three countries. **METHODS:** Hospital discharges for six conditions (congestive heart failure, short-term complications of diabetes, hip fracture, knee replacement, prostatectomy in prostate cancer and percutaneous coronary intervention) produced in Denmark, England and Portugal in 2008 and 2009 were allocated to both original geographical units and new ad hoc areas. New areas were built using Ward's minimum variance methods. The impact of the new areas on variability was assessed using Kernel distribution curves and different statistic of variation such as Extremal Quotient, Interquartile Interval ratio, Systematic Component of Variation and Empirical Bayes statistic. **RESULTS:** Ward's method reduced the number of areas, allowing a more homogeneous population distribution, yet 20% of the areas in Portugal exhibited less than 100 000 inhabitants vs. 7% in Denmark and 5% in England. Point estimates for Extremal Quotient and Interquartile Interval Ratio were lower in the three countries, particularly in less prevalent conditions. In turn, the Systematic Component of Variation and Empirical Bayes statistic were slightly lower in more prevalent conditions. **CONCLUSIONS:** Building new geographical areas produced a reduction of the variation in hospitalization rates in several prevalent conditions mitigating random noise, particularly in the smallest areas and allowing a sounder interpretation of the variation across countries.

## Hôpital / Hospitals

**Cookson, R., et al. (2015). "Socioeconomic inequality in hip replacement in four European countries from 2002 to 2009-area-level analysis of hospital data." *Eur J Public Health* 25 Suppl 1: 21-27.**

BACKGROUND: Cross-country comparisons of socioeconomic equity in health care typically use sample survey data on general services such as physician visits. This study uses comprehensive administrative data on a specific service: hip replacement. METHODS: We analyse 651 652 publicly funded hip replacements, excluding fractures and accidents, in adults over 35 in Denmark, England, Portugal and Spain from 2002 to 2009. Sub-national administrative areas are split into socioeconomic quintile groups comprising approximately one-fifth of the national population. Area-level Poisson regression with Huber-White standard errors is used to calculate age-sex standardised hip replacement rates by quintile group, together with gaps and ratios between richest and poorest groups (Q5 and Q1) and the middle group (Q3). RESULTS: We find pro-rich-area inequality in England (2009 Q5/Q1 ratio 1.35 [CI 1.25-1.45]) and Spain (2009 Q5/Q1 ratio 1.43 [CI 1.17-1.70]), pro-poor-area inequality in Portugal (2009 Q5/Q1 ratio 0.67 [CI 0.50-0.83]) and no significant inequality in Denmark. Pro-rich-area inequality increased over time in England and Spain but not significantly. Within-country differences between socioeconomic quintile groups are smaller than between-country differences in general population averages: hip replacement rates are substantially lower in Portugal and Spain (8.6 and 7.4 per 10 000 in 2009) than England and Denmark (20.2 and 27.8 per 10 000 in 2009). CONCLUSION: Despite limitations regarding individual-level inequality and area heterogeneity, analysis of area-level data on publicly funded hospital activity can provide useful cross-country comparisons and longitudinal monitoring of socioeconomic inequality in specific health services. Although this kind of analysis cannot provide definitive answers, it can raise important questions for decision makers.

**Green, L. V. and N. Liu (2015). "A study of New York city obstetrics units demonstrates the potential for reducing hospital inpatient capacity." *Med Care Res Rev* 72(2): 168-186.**

Hospitals are under significant pressure from payers to reduce costs. The single largest fixed cost for a hospital is inpatient beds, yet there is significant variation in hospital capacity utilization. We study bed capacity in New York City hospital obstetrics units and find that while many hospitals have an insufficient number of beds to provide timely access to care, overall there is significant excess capacity. Our findings, coupled with current demographic and clinical practice trends, indicate that a large fraction of obstetrics units nationwide could likely reduce their bed capacity while assuring timely access to care, resulting in large savings in capital and staffing costs. Given emerging health care delivery and payment models that will likely decrease demand for other types of hospital beds, our study suggests that data-based methodologies should be used by hospitals and policy makers to identify opportunities for reducing excess bed capacity in other inpatient units as well.

**Gutacker, N., et al. (2015). "Comparing the performance of the Charlson/Deyo and Elixhauser comorbidity measures across five European countries and three conditions." *Eur J Public Health* 25 Suppl 1: 15-20.**

BACKGROUND: The Charlson and Elixhauser comorbidity measures are commonly used methods to account for patient comorbidities in hospital-level comparisons of clinical quality using administrative data. Both have been validated in North America, but there is less evidence of their performance in Europe and in pooled cross-country data, which are features of the European Collaboration for Healthcare Optimization (ECHO) project. This

study compares the performance of the Charlson/Deyo and Elixhauser comorbidity measures in predicting in-hospital mortality using data from five European countries in three inpatient groups. METHODS: Administrative data is used from five countries in 2008-2009 for three indicators commonly used in hospital quality comparisons: mortality rates following acute myocardial infarction, coronary artery bypass graft surgery and stroke. Logistic regression models are constructed to predict mortality controlling for age, gender and the relevant comorbidity measure. Model discrimination is evaluated using c-statistics. Model calibration is evaluated using calibration slopes. Overall goodness-of-fit is evaluated using Nagelkerke's R(2) and the Akaike information criterion. All models are validated internally by using bootstrapping and externally by using the 2009 model parameters to predict mortality in 2008. RESULTS: The Elixhauser measure has better overall predictive ability in terms of discrimination and goodness-of-fit than the Charlson/Deyo measure or the age-sex only model. There is no clear difference in model calibration. These findings are robust to the choice of country, to pooling all five countries and to internal and external validation. CONCLUSIONS: The Elixhauser list contains more comorbidities, which may enable it to achieve better discrimination than the Charlson measure. Both measures achieve similar calibration, so for the purpose of ECHO we judged the Elixhauser measure to be preferable.

***Gutacker, N., et al. (2015). "Comparing hospital performance within and across countries: an illustrative study of coronary artery bypass graft surgery in England and Spain." Eur J Public Health 25 Suppl 1: 28-34.***

OBJECTIVE: To assess the feasibility, strengths and weaknesses of using administrative data to compare hospital performance across countries, using mortality after coronary artery bypass graft (CABG) surgery as an illustrative example. METHODS: Country specific and pooled models using individual-level data and logistic regression methods assess individual hospital performance using funnel plots accounting for multiple testing. Outcomes are adjusted for age, sex, comorbidities and indicators of patient severity. Data includes patients from all publicly funded hospitals delivering CABG surgery in England and Spain. Inpatient hospital-level standardized mortality rates within 30 days of CABG surgery are calculated for 83 999 CABG patients between 2007 and 2009. RESULTS: Unadjusted national mortality rates are 5% in Spain and 2.3% in England. Country-specific models identified similar patterns of excess mortality 'alerts' and 'alarms' in hospitals in Spain or England. Pooling data from both countries identifies larger numbers of alerts and alarms in Spanish hospitals, and risk-adjustment increased the already large national mortality difference. This was reduced but not eliminated by accounting for lower volume in Spanish hospitals. CONCLUSION: Cross-national comparisons potentially add value by providing international performance benchmarks. Hospital-level analysis across countries can illuminate differences in hospital performance, which might not be identified using country-specific data or incomplete registry data, and can test hypotheses that may explain national differences. Difficulties of making data comparable between countries, however, compound the usual within-country measurement problems.

***Klein-Hitpass, U., et al. (2015). "Policy trends and reforms in the German DRG-based hospital payment system." Health Policy 119(3): 252-257.***

A central structural point in all DRG-based hospital payment systems is the conversion of relative weights into actual payments. In this context policy makers need to address (amongst other things) (a) how the price level of DRG-payments from one period to the following period is changed and (b) whether and how hospital payments based on DRGs are to be differentiated beyond patient characteristics, e.g. by organizational, regional or state-level factors. Both policy problems can be and in international comparison often are empirically addressed. In Germany relative weights are derived from a highly sophisticated

empirical cost calculation, whereas the annual changes of DRG-based payments (base rates) as well as the differentiation of DRG-based hospital payments beyond patient characteristics are not empirically addressed. Rather a complex set of regulations and quasi-market negotiations are applied. There were over the last decade also timid attempts to foster the use of empirical data to address these points. However, these reforms failed to increase the fairness, transparency and rationality of the mechanism to convert relative weights into actual DRG-based hospital payments.

***Kristensen, S. R., et al. (2015). "A roadmap for comparing readmission policies with application to Denmark, England, Germany and the United States." *Health Policy* 119(3): 264-273.***

Hospital readmissions receive increasing interest from policy makers because reducing unnecessary readmissions has the potential to simultaneously improve quality and save costs. This paper reviews readmission policies in Denmark, England, Germany and the United States (Medicare system). The suggested roadmap enables researchers and policy makers to systematically compare and analyse readmission policies. We find considerable differences across countries. In Germany, the readmission policy aims to avoid unintended consequences of the introduction of DRG-based payment; it focuses on readmissions of individual patients and hospitals receive only one DRG-based payment for both the initial and the re-admission. In Denmark, England and the US readmission policies aim at quality improvement and focus on readmission rates. In Denmark, readmission rates are publicly reported but payments are not adjusted in relation to readmissions. In England and the US, financial incentives penalise hospitals with readmission rates above a certain benchmark. In England, this benchmark is defined through local clinical review, while it is based on the risk-adjusted national average in the US. At present, not enough evidence exists to give recommendations on the optimal design of readmission policies. The roadmap can be a tool for systematically assessing how elements of other countries' readmission policies can potentially be adopted to improve national policies.

***Le Corvoisier, P., et al. (2015). "Functional status and co-morbidities are associated with in-hospital mortality among older patients with acute decompensated heart failure: a multicentre prospective cohort study." *Age and Ageing* 44(2): 225-231.***

Background: among patients admitted for acute decompensated heart failure (ADHF), half are aged 75 years or over. The high prevalence of co-morbidities and functional impairments in this age group may affect patient outcomes. Objective: to assess the association between co-morbidities, functional status and in-hospital mortality in patients with ADHF aged  $\geq 75$  years. Design: a prospective, multicentre cohort study. Setting: five French hospitals. Subjects: five hundred and fifty-five patients aged  $\geq 75$  years admitted to the emergency department with ADHF. Methods: baseline clinical data and co-morbidities were recorded at admission. Functional status and cognition were assessed using the Katz index and Mini-Mental Status Examination score, respectively. The primary outcome was in-hospital mortality. Results: we found high prevalences of co-morbidities and functional impairments including hypertension (74.0%), atrial fibrillation (40.2%), prior acute coronary syndrome (32.3%) and diabetes (18.2%). The average creatinine clearance was 56.3 ml/min/1.73 m<sup>2</sup> (interquartile range, 39.2–77.0). In-hospital mortality was 67/555 (12.1%; 95% confidence interval, 9.4–14.8). In multivariate analysis, in-hospital mortality showed a statistically positive association with prior loss of self-sufficiency (Odds ratio [OR]: 5.85 [2.25–12.19]), hyperglycaemia (OR: 1.80 [1.26–2.54] per 1 SD increase), prior cerebral ischaemic event (OR: 3.56 [1.51–8.44]) and troponin I elevation above upper limit of normal (OR: 2.81 [1.37–5.77]). In addition, systolic blood pressure (OR: 0.98 [0.97–0.99] per 1 mmHg increase) and creatinine clearance (OR: 0.72 [0.51–1.00] per 1 SD increase) were negatively associated with in-hospital mortality. Conclusion: co-morbidities and functional impairments are associated

with a worse short-term prognosis in patients aged  $\geq 75$  years admitted for ADHF. Assessing these parameters at admission may improve patient management.

**Mateus, C., et al. (2015). "Measuring hospital efficiency-comparing four European countries." Eur J Public Health 25 Suppl 1: 52-58.**

BACKGROUND: Performing international comparisons on efficiency usually has two main drawbacks: the lack of comparability of data from different countries and the appropriateness and adequacy of data selected for efficiency measurement. With inpatient discharges for four countries, some of the problems of data comparability usually found in international comparisons were mitigated. The objectives are to assess and compare hospital efficiency levels within and between countries, using stochastic frontier analysis with both cross-sectional and panel data. METHODS: Data from English (2005-2008), Portuguese (2002-2009), Spanish (2003-2009) and Slovenian (2005-2009) hospital discharges and characteristics are used. Weighted hospital discharges were considered as outputs while the number of employees, physicians, nurses and beds were selected as inputs of the production function. Stochastic frontier analysis using both cross-sectional and panel data were performed, as well as ordinary least squares (OLS) analysis. The adequacy of the data was assessed with Kolmogorov-Smirnov and Breusch-Pagan/Cook-Weisberg tests. RESULTS: Data available results were redundant to perform efficiency measurements using stochastic frontier analysis with cross-sectional data. The likelihood ratio test reveals that in cross-sectional data stochastic frontier analysis (SFA) is not statistically different from OLS in Portuguese data, while SFA and OLS estimates are statistically different for Spanish, Slovenian and English data. In the panel data, the inefficiency term is statistically different from 0 in the four countries in analysis, though for Portugal it is still close to 0. CONCLUSIONS: Panel data are preferred over cross-section analysis because results are more robust. For all countries except Slovenia, beds and employees are relevant inputs for the production process.

**Perelman, J., et al. (2015). "The Great Recession in Portugal: Impact on hospital care use." Health Policy 119(3): 307-315.**

The Great Recession started in Portugal in 2009, coupled with severe austerity. This study examines its impact on hospital care utilization, interpreted as caused by demand-side effects (related to variations in population income and health) and supply-side effects (related to hospitals' tighter budgets and reduced capacity). The database included all inpatient stays at all Portuguese NHS hospitals over the 2001-2012 period (n=17.7 millions). We analyzed changes in discharge rates, casemix index, and length of stay (LOS), using a before-after methodology. We additionally measured the association of health care indicators to unemployment. A 3.2% higher rate of discharges was observed after 2009. Urgent stays increased by 2.5%, while elective in-patient stays decreased by 1.4% after 2011. The LOS was 2.8% shorter after the crisis onset, essentially driven by the 4.5% decrease among non-elective stays. A one percentage point increase in unemployment rate was associated to a 0.4% increase in total volume, a 2.3% decrease in day cases, and a 0.1% decrease in LOS. The increase in total and urgent cases may reflect delayed out-patient care and health deterioration; the reduced volume of elective stays possibly signal a reduced capacity; finally, the shorter stays may indicate either efficiency-enhancing measures or reduced quality.

**Thygesen, L. C., et al. (2015). "Potentially avoidable hospitalizations in five European countries in 2009 and time trends from 2002 to 2009 based on administrative data." Eur J Public Health 25 Suppl 1: 35-43.**

INTRODUCTION: Potentially avoidable hospitalizations in chronic conditions are used to

evaluate health-care performance. However, evidence comparing different countries at small geographical areas is still scarce. The aim of the present study is to describe and discuss differences in rates and time-trends across health-care areas from five European countries. METHODS: Observational, ecological study, on virtually all discharges produced in five European countries between 2002 and 2009. Potentially avoidable hospitalizations were operationally defined as a joint indicator composed of six chronic conditions. Episodes flagged as potentially avoidable were allocated to 913 geographical health-care areas. Age-sex standardized rates and standardized hospitalization ratios, as well as several statistics of variation, were estimated. RESULTS: Four hundred sixty-two thousand seven hundred and ninety-two episodes were flagged as potentially avoidable. Variation in rates across countries was notable, from 93.7 cases per 10 000 inhabitants in Denmark to 34.8 cases per 10 000 inhabitants in Portugal. Within-country variation was also noteworthy, from 3.12 times among extreme areas in Spain to a 1.46-fold difference in Denmark. The highest systematic variation was found in Denmark (empirical Bayes 0.45) and the lowest in England (empirical Bayes 0.08). Rates and systematic variation remained fairly stable over time, with Denmark and England experiencing a statistically significant decrease (20% and 10%, respectively). Income and educational level, hospital utilization propensity, and region of residence were found to be associated with avoidable admissions. CONCLUSION: The dramatic variation across countries, beyond age and sex differences, and its consistency over time, implies systemic, although differential, behaviour of the five health-care systems with regard to chronic care.

## Inégalités de santé / Health Inequalities

**Chadwick, K. A. and P. A. Collins (2015). "Examining the relationship between social support availability, urban center size, and self-perceived mental health of recent immigrants to Canada: A mixed-methods analysis." *Soc Sci Med* 128: 220-230.**

The experiences of settlement in a new country (e.g., securing housing and employment, language barriers) pose numerous challenges for recent immigrants that can impede their health and well-being. Lack of social support upon arrival and during settlement may help to explain why immigrant mental health status declines over time. While most urban centers in Canada offer some settlement services, little is known about how the availability of social supports, and the health statuses of recent immigrants, varies by city size. The objective of this mixed-methods study was to examine the relationship between self-perceived mental health (SPMH), social support availability, and urban center size, for recent immigrants to Canada. The quantitative component involved analysis of 2009-2010 Canadian Community Health Survey data, selecting for only recent immigrants and for those living in either large or small urban centers. The qualitative component involved in-depth interviews with managers of settlement service organizations located in three large and three small urban centers in Canada. The quantitative analysis revealed that social support availability is positively associated with higher SPMH status, and is higher in small urban centers. In support of these findings, our interviews revealed that settlement service organizations operating in small urban centers offer more intensive social supports; interviewees attributed this difference to personal relationships in small cities, and the ease with which they can connect to other agencies to provide clients with necessary supports. Logistic regression analysis revealed, however, that recent immigrants in small urban centers are twice as likely to report low SPMH compared to those living in large urban centers. Thus, while the scope and nature of settlements services appears to vary by city size in Canada, more research is needed to understand what effect settlement services have on the health status of recent immigrants

to Canada, especially in smaller urban centers.

**Nancy R, K. and G. P.W. (2015). "Race/Ethnicity and Overuse of Care: A Systematic Review." The Milbank Quarterly 93(1): 112-138.**

## Médicaments / Pharmaceuticals

**(2015). "Pricing in the Market for Anticancer Drugs." Journal of Economic Perspectives 29(1): 139-162.**

Abstract In 2011, Bristol-Myers Squibb set the price of its newly approved melanoma drug ipilimumab—brand name Yervoy—at \$120,000 for a course of therapy. The drug was associated with an incremental increase in life expectancy of four months. Drugs like ipilimumab have fueled the perception that the launch prices of new anticancer drugs and other drugs in the so-called “specialty” pharmaceutical market have been increasing over time and that increases are unrelated to the magnitude of the expected health benefits. In this paper, we discuss the unique features of the market for anticancer drugs and assess trends in the launch prices for 58 anticancer drugs approved between 1995 and 2013 in the United States. We restrict attention to anticancer drugs because the use of median survival time as a primary outcome measure provides a common, objective scale for quantifying the incremental benefit of new products. We find that the average launch price of anticancer drugs, adjusted for inflation and health benefits, increased by 10 percent annually—or an average of \$8,500 per year—from 1995 to 2013. We argue that the institutional features of the market for anticancer drugs enable manufacturers to set the prices of new products at or slightly above the prices of existing therapies, giving rise to an upward trend in launch prices. Government-mandated price discounts for certain classes of buyers may have also contributed to launch price increases as firms sought to offset the growth in the discount segment by setting higher prices for the remainder of the market.

**Boon, W., et al. (2015). "Governance of conditional reimbursement practices in the Netherlands." Health Policy 119(2): 180-185.**

When entering the market, orphan drugs are associated with substantial prices and a high degree of uncertainty regarding safety and effectiveness. This makes decision making about the reimbursement of these drugs a complex exercise. To advance on this, the Dutch government introduced a conditional reimbursement trajectory that requires a re-evaluation after four years. This article focuses on the origins, governance and outcomes of such a conditional reimbursement trajectory for orphan drugs. We find that the conditional reimbursement scheme is the result of years of discussion and returning public pressure about unequal access to expensive drugs. During the implementation of the scheme the actors involved went through a learning process about the regulation. Our analysis shows that previous collaborations or already existing organisational structures led to faster production of the required data on cost-effectiveness. However, cost-effectiveness evidence resulting from additional research seems to weigh less than political, judicial and ethical considerations in decision making on reimbursement of orphan drugs in the Netherlands.

**Danzon, P. M., et al. (2015). "Pharmaceutical Pricing in Emerging Markets: Effects of Income, Competition, and Procurement." Health Economics 24(2): 238-252.**

This paper analyzes determinants of ex-manufacturer prices for originator and generic drugs across countries. We focus on drugs to treat HIV/AIDS, TB, and malaria in middle and low-income countries (MLICs), with robustness checks to other therapeutic categories and the

full income range of countries. We examine the effects of per capita income, income dispersion, competition from originator and generic substitutes, and whether the drugs are sold to retail pharmacies versus tendered procurement by non-government organizations. The cross-national income elasticity of prices is 0.27 across the full income range of countries but is 0.0â€“0.10 between MLICs, implying that drugs are least affordable relative to income in the lowest income countries. Within-country income inequality contributes to relatively high prices in MLICs. Although generics are priced roughly 30% lower than originators on average, the variance is large. Additional generic competitors only weakly affect prices, plausibly because generic quality uncertainty leads to competition on brand rather than price. Tendered procurement that imposes quality standards attracts multinational generic suppliers and significantly reduces prices of originator and generic drugs, compared with their respective prices to retail pharmacies. -©2013 The Authors. Health Economics Published by John Wiley & Sons Ltd

**Fraeyman, J., et al. (2015). "Medicine price awareness in chronic patients in Belgium." *Health Policy* 119(2): 217-223.**

**INTRODUCTION:** Under increasing pressure to contain health expenditures governments across Europe have implemented policies to increase responsible medicine use, e.g. by increasing co-insurance paid for by patients. In times of austerity, how do chronic disease patients perceive the medicine price they have to pay? **METHOD:** We used a mixed methods research design. First, we distributed a close-ended questionnaire among 983 chronic disease patients in 30 Flemish pharmacies. Second, we performed semi-structured interviews with 15 of these patients. We surveyed for knowledge on the prescription medicine they bought, as well as for their needs for information and their therapeutic compliance. **RESULTS:** Although patients express a lack (and a need) of information on prices during the consultation with the general practitioner (GP), (s)he hardly addresses medicine prices. Patients often only know the medicine price when they are at the pharmacy and patients need to decide to buy the medicine or not. This often results in patients taking the medicine when considered affordable within their social and financial context. **CONCLUSION:** It seems essential that patients are better informed about medicine prices as well as the constraints on physicians to prescribe cost-effectively. Therefore, medicine prices should be discussed more often during physician consults.

**Franken, M., et al. (2015). "A comparative study of the role of disease severity in drug reimbursement decision making in four European countries." *Health Policy* 119(2): 195-202.**

Considerations beyond cost-effectiveness are important in reimbursement decision making. We assessed the importance of disease severity in drug reimbursement decision making in Belgium, France, The Netherlands and Sweden. We investigated scientific literature and policy documents and conducted three interviews in each country (four in The Netherlands) with persons involved in drug reimbursement. Disease severity is an important consideration, especially where the level is high. The Netherlands operationalizes disease severity using the proportional shortfall approach. Sweden uses categories to give an indication of the level of severity. In The Netherlands and Sweden, severity only implicitly plays a role in the decision whether to reimburse a drug, whereas in Belgium and France it also explicitly plays a role in determining the willingness to use public resources. Interviewees acknowledged that as well as a qualitative description of the disease, quantitative information may also be useful as input for decision making. None of them, however, considered this to be of decisive importance. Although disease severity is important in drug reimbursement decision making in all four countries, all seem to struggle in explicitly specifying its actual role. Belgium and France are the most explicit by using levels of severity in setting reimbursement levels; all four countries could, however, improve the

transparency of its actual importance relative to the other criteria in the decision-making process.

**Gentes, E., et al. (2015). "[Potentially inappropriate prescribing cardiovascular medications in the aged population: Prospective study in a district hospital centre (France)]." Presse Med 44(2): e41-50.**

OBJECTIVES: Cardiovascular disease is a leading cause of morbidity and mortality in the elderly population. We evaluated the adequacy of prescribing (miss and under used) with respect to STOPP-START criteria. METHODS: A sample of 100 patients hospitalized in cardiovascular specialty divisions (medicine or surgery) or in the different sectors making up the geriatric network (day-care hospital, short or rehabilitation ward, nursing home) has been considered. Drug prescriptions at the admission time were analysed. RESULTS: Eight hundred and seventy-four prescriptions were analysed. In 65% of patients, from 5 to 10 medications were prescribed and in 28% over 10. Fifty-four percent of patients had, at least, one potentially inappropriate prescription (PIP) by STOPP. Among them, 48% of PIP prescriptions contained 1, 41% 2 and 11% 3 or more. The omission of one medication according to START criteria concerned 57% of the sample. Among them, 46% had one omission, 44% 2 to 3 and 10% 4 omissions or over. The cardiovascular system is the one most concerned by the PIP. Whether 28.1% of the PIP by STOPP criteria concerned cardiovascular drugs, the omission of prescription, according to START criteria, was 41.8%. There was no significant difference between the different settings studied. There was no effect of age or sex on the impact of PIP ( $P > 0.20$ ) or being polymedique ( $P = 0.44$ ). According to the criteria STOPP-A, the prescription of antiplatelet (indication and dose) was highlighted. Prescribing omission also concerned antiplatelet agents but also statins in patients with atherosclerosis as well as antiplatelet and anticoagulant in patients with permanent atrial fibrillation and inhibitor of angiotensin converting enzyme (ACE) after myocardial infarction or with chronic heart failure. CONCLUSION: Potentially inappropriate prescribing medications were very common in elderly patients with cardiovascular conditions. They concerned as much as underusing of important drugs with potential benefits and prescribing commission of treatment that did not fit with patients' comorbidities and/or characteristics.

**Grepstad, M. et al. (2015). "A comparative analysis of coverage decisions for outpatient pharmaceuticals: Evidence from Denmark, Norway and Sweden." Health Policy 119(2): 203-211.**

This study analyses the reasons for differences and similarities in coverage recommendations for outpatient pharmaceuticals in Denmark, Norway and Sweden, following HTA appraisals. A comparative analysis of all outpatient drug appraisals carried out between January 2009 and December 2012, including an analysis of divergent coverage recommendations made by all three countries was performed. Agreement levels between HTA agencies were measured using kappa scores. Consultations with stakeholders in the three countries were carried out to complement the discussion on HTA processes and reimbursement outcomes. Nineteen outpatient drug-indication pairs appraised in each of the three countries were identified, of which 6 pairs (32%) had divergent coverage recommendations. An uneven distribution of coverage recommendations was observed, with the highest overlap in appraisals between Norway and Sweden (free-marginal kappa 0.89). Similarities were found in priority setting principles, mode of appraisal and reasoning for coverage recommendations. The study shows that health economic evaluation is less prominent or explicit in outpatient drug appraisals in Denmark than in Norway and Sweden, that all three countries could benefit from improved communication between appraisers and manufacturers, and that final coverage recommendations rely on factors other than safety, comparative efficacy or cost-effectiveness.

**Nguyen, T. A., et al. (2015). "Policy options for pharmaceutical pricing and purchasing: issues for low- and middle-income countries." *Health Policy Plan* 30(2): 267-280.**

Pharmaceutical expenditure is rising globally. Most high-income countries have exercised pricing or purchasing strategies to address this pressure. Low- and middle-income countries (LMICs), however, usually have less regulated pharmaceutical markets and often lack feasible pricing or purchasing strategies, notwithstanding their wish to effectively manage medicine budgets. In high-income countries, most medicines payments are made by the state or health insurance institutions. In LMICs, most pharmaceutical expenditure is out-of-pocket which creates a different dynamic for policy enforcement. The paucity of rigorous studies on the effectiveness of pharmaceutical pricing and purchasing strategies makes it especially difficult for policy makers in LMICs to decide on a course of action. This article reviews published articles on pharmaceutical pricing and purchasing policies. Many policy options for medicine pricing and purchasing have been found to work but they also have attendant risks. No one option is decisively preferred; rather a mix of options may be required based on country-specific context. Empirical studies in LMICs are lacking. However, risks from any one policy option can reasonably be argued to be greater in LMICs which often lack strong legal systems, purchasing and state institutions to underpin the healthcare system. Key factors are identified to assist LMICs improve their medicine pricing and purchasing systems.

**O'Brady, S., et al. (2015). "Reforming private drug coverage in Canada: Inefficient drug benefit design and the barriers to change in unionized settings." *Health Policy* 119(2): 224-231.**

Prescription drugs are the highest single cost component for employees' benefits packages in Canada. While industry literature considers cost-containment for prescription drug costs to be a priority for insurers and employers, the implementation of cost-containment measures for private drug plans in Canada remains more of a myth than a reality. Through 18 semi-structured phone interviews conducted with experts from private sector companies, unions, insurers and plan advisors, this study explores the reasons behind this incapacity to implement cost-containment measures by examining how private sector employers negotiate drug benefit design in unionized settings. Respondents were asked questions on how employee benefits are negotiated; the relationships between the players who influence drug benefit design; the role of these players' strategies in influencing plan design; the broad system that underpins drug benefit design; and the potential for a universal pharmacare program in Canada. The study shows that there is consensus about the need to educate employees and employers, more collaboration and data-sharing between these two sets of players, and for external intervention from government to help transform established norms in terms of private drug plan design.

**O'Mahony, D., et al. (2015). "STOPP/START criteria for potentially inappropriate prescribing in older people: version 2." *Age and Ageing* 44(2): 213-218.**

Purpose: screening tool of older people's prescriptions (STOPP) and screening tool to alert to right treatment (START) criteria were first published in 2008. Due to an expanding therapeutics evidence base, updating of the criteria was required. Methods: we reviewed the 2008 STOPP/START criteria to add new evidence-based criteria and remove any obsolete criteria. A thorough literature review was performed to reassess the evidence base of the 2008 criteria and the proposed new criteria. Nineteen experts from 13 European countries reviewed a new draft of STOPP & START criteria including proposed new criteria. These experts were also asked to propose additional criteria they considered important to include in the revised STOPP & START criteria and to highlight any criteria from the 2008 list they considered less important or lacking an evidence base. The revised list of criteria was then validated using the Delphi consensus methodology. Results: the expert panel agreed a final

list of 114 criteria after two Delphi validation rounds, i.e. 80 STOPP criteria and 34 START criteria. This represents an overall 31% increase in STOPP/START criteria compared with version 1. Several new STOPP categories were created in version 2, namely antiplatelet/anticoagulant drugs, drugs affecting, or affected by, renal function and drugs that increase anticholinergic burden; new START categories include urogenital system drugs, analgesics and vaccines. Conclusion: STOPP/START version 2 criteria have been expanded and updated for the purpose of minimizing inappropriate prescribing in older people. These criteria are based on an up-to-date literature review and consensus validation among a European panel of experts.

***Paulden, M., et al. (2015). "Value-based reimbursement decisions for orphan drugs: a scoping review and decision framework." Pharmacoeconomics 33(3): 255-269.***

**BACKGROUND:** The rate of development of new orphan drugs continues to grow. As a result, reimbursing orphan drugs on an exceptional basis is increasingly difficult to sustain from a health system perspective. An understanding of the value that societies attach to providing orphan drugs at the expense of other health technologies is now recognised as an important input to policy debates. **OBJECTIVES:** The aim of this work was to scope the social value arguments that have been advanced relating to the reimbursement of orphan drugs, and to locate these within a coherent decision-making framework to aid reimbursement decisions in the presence of limited healthcare resources. **METHODS:** A scoping review of the peer reviewed and grey literature was undertaken, consisting of seven phases: (1) identifying the research question; (2) searching for relevant studies; (3) selecting studies; (4) charting, extracting and tabulating data; (5) analyzing data; (6) consulting relevant experts; and (7) presenting results. The points within decision processes where the identified value arguments would be incorporated were then located. This mapping was used to construct a framework characterising the distinct role of each value in informing decision making. **RESULTS:** The scoping review identified 19 candidate decision factors, most of which can be characterised as either value-bearing or 'opportunity cost'-determining, and also a number of value propositions and pertinent sources of preference information. We were able to synthesize these into a coherent decision-making framework. **CONCLUSION:** Our framework may be used to structure policy discussions and to aid transparency about the values underlying reimbursement decisions for orphan drugs. These values ought to be consistently applied to all technologies and populations affected by the decision.

## Prévision – Evaluation / Prevision - Evaluation

***Agampodi, T. C., et al. (2015). "Measurement of social capital in relation to health in low and middle income countries (LMIC): A systematic review." Soc Sci Med 128c: 95-104.***

Social capital is a neglected determinant of health in low and middle income countries. To date, majority of evidence syntheses on social capital and health are based upon high income countries. We conducted this systematic review to identify the methods used to measure social capital in low and middle-income countries and to evaluate their relative strengths and weaknesses. An electronic search was conducted using Pubmed, Science citation index expanded, Social science citation index expanded, Web of knowledge, Cochrane, Trip, Google scholar and selected grey literature sources. We aimed to include all studies conducted in low and middle-income countries, published in English that have measured any aspect of social capital in relation to health in the study, from 1980 to January 2013. We extracted data using a data extraction form and performed narrative synthesis as the measures were heterogeneous. Of the 472 articles retrieved, 46 articles were selected for the review. The

review included 32 studies from middle income countries and seven studies from low income countries. Seven were cross national studies. Most studies were descriptive cross sectional in design (n = 39). Only two randomized controlled trials were included. Among the studies conducted using primary data (n = 32), we identified 18 purposely built tools that measured various dimensions of social capital. Validity (n = 11) and reliability (n = 8) of the tools were assessed only in very few studies. Cognitive constructs of social capital, namely trust, social cohesion and sense of belonging had a positive association towards measured health outcome in majority of the studies. While most studies measured social capital at individual/micro level (n = 32), group level measurements were obtained by aggregation of individual measures. As many tools originate in high income contexts, cultural adaptation, validation and reliability assessment is mandatory in adapting the tool to the study setting. Evidence on causality and assessing predictive validity is a problem due to the scarcity of prospective study designs. We recommend Harpham et al. s' Adapted Social Capital Assessment Tool (A-SCAT), Hurtado et al. s' six item tool and Elgar et al. s' World Value Survey Social Capital Scale for assessment of social capital in low and middle income countries.

## Soins de santé primaires / Primary Health Care

**Abbas, R., et al. (2015). "[Comparison of British and French expatriate doctors' characteristics and motivations]." *Rev Epidémiol Santé Publique* 63(1): 21-28.**

BACKGROUND: Migration of medical practitioners is rarely studied despite its importance in medical demography: the objective of this study was to analyze the characteristics and motivations of the French doctors settled in the United Kingdom and of the British doctors settled in France. METHODS: This cross-sectional study was conducted using a self-completed questionnaire sent to all French doctors practicing in the United Kingdom (in 2005) and all British medicine doctors practicing in France (in 2009). The doctors were identified with official data from the National Medical Councils: 244 French doctors practicing in the United Kingdom and 86 British doctors practicing in France. The questionnaire was specifically developed to determine the reasons of moving to the other country, and the level of satisfaction after expatriation. RESULTS: A total of 98 French doctors (out of 244) and 40 British doctors (out of 86) returned the questionnaire. Respondents were mainly general practitioners with a professional experience of 8 to 9 years. The sex ratio was near 1 for both groups with a majority of women among physicians under 50 years. The motivations were different between groups: French doctors were attracted by the conditions offered at the National Health Service, whereas British doctors were more interested in opportunities for career advancement, joining husband or wife, or favourable environmental conditions. Overall, the respondents considered expatriation as satisfactory: 84% of French doctors, compared with only 58% of British doctors, were satisfied with their new professional situation. CONCLUSION: This study, the first in its kind, leads to a clearer understanding of the migration of doctors between France and the United Kingdom.

**Marshall, M. (2015). "A Precious Jewel — The Role of General Practice in the English NHS." *New England Journal of Medicine* 372(10): 893-897.**

**Saloner, B., et al. (2015). "Primary care appointment availability and preventive care utilization: evidence from an audit study." *Med Care Res Rev* 72(2): 149-167.**

Insurance expansions under the Affordable Care Act raise concerns about primary care access in communities with large numbers of newly insured. We linked individual-level,

cross-sectional data on adult preventive care utilization from the 2011-2012 Behavioral Risk Factor Surveillance System to novel county-level measures of primary care appointment availability collected from an experimental audit study conducted in 10 states in 2012 to 2013 and other county-level health service and demographic measures. In multivariate regressions, we found higher county-level appointment availability for privately insured adults was associated with significantly lower preventive care utilization among adults likely to have private insurance. Estimates were attenuated after controlling for county-level uninsurance, poverty, and unemployment. By contrast, greater availability of Medicaid appointments was associated with higher, but not statistically significant, preventive care utilization for likely Medicaid enrollees. Our study highlights that the relationship between preventive care utilization and primary care access in small areas likely differs by insurance status.

**Simou, E., et al. (2015). "Reinventing primary health care in the Greece of austerity: the role of health-care workers." *Primary Health Care Research & Development* 16(01): 5-13.**

## Systèmes de santé / Health Systems

**Bernal-Delgado, E., et al. (2015). "ECHO: health care performance assessment in several European health systems." *Eur J Public Health* 25 Suppl 1: 3-7.**

BACKGROUND: Strengthening health-care effectiveness, increasing accessibility and improving resilience are key goals in the upcoming European Union health-care agenda. European Collaboration for Health-Care Optimization (ECHO), an international research project on health-care performance assessment funded by the seventh framework programme, has provided evidence and methodology to allow the attainment of those goals. This article aims at describing ECHO, analysing its main instruments and discussing some of the ECHO policy implications. METHODS: Using patient-level administrative data, a series of observational studies (ecological and cross-section with associated time-series analyses) were conducted to analyze population and patients' exposure to health care. Operationally, several performance dimensions such as health-care inequalities, quality, safety and efficiency were analyzed using a set of validated indicators. The main instruments in ECHO were: (i) building a homogeneous data infrastructure; (ii) constructing coding crosswalks to allow comparisons between countries; (iii) making geographical units of analysis comparable; and (iv) allowing comparisons through the use of common benchmarks. CONCLUSION: ECHO has provided some innovations in international comparisons of health-care performance, mainly derived from the massive pooling of patient-level data and thus: (i) has expanded the usual approach based on average figures, providing insight into within and across country variation at various meaningful policy levels, (ii) the important effort made on data homogenization has increased comparability, increasing stakeholders' reliance on data and improving the acceptance of findings and (iii) has been able to provide more flexible and reliable benchmarking, allowing stakeholders to make critical use of the evidence.

**Burwell, S. M. (2015). "Setting Value-Based Payment Goals — HHS Efforts to Improve U.S. Health Care." *New England Journal of Medicine* 372(10): 897-899.**

**Chang, A. M., et al. (2014). "Oregon's Medicaid Transformation - Observations on Organizational Structure and Strategy." *J Health Polit Policy Law* 40 (1) : 257-64**

In the Point article, Steven W. Howard et al. argue that the Oregon Health Authority's

coordinated care organizations (CCOs) are different from traditional Medicaid managed care organizations in ways designed to improve care coordination and transparency, incorporate greater collaborative governance and community accountability, and reform payment and delivery of care. Although Howard et al. note specific challenges to implementing reforms, we identify the progress and successes of Oregon's CCOs in each of the aforementioned areas on the basis of our empirical research, which suggests that CCOs appear to be viable innovations.

***Del Vecchio, M., et al. (2015). "Private health care expenditure and quality in Beveridge systems: Cross-regional differences in the Italian NHS." Health Policy 119(3): 356-366.***

Private health care expenditure ranges from 15% to 30% of total healthcare spending in OECD countries. The literature suggests that there should be an inverse correlation between quality of public services and private expenditures. The main objective of this study is to explore the association between quality of public healthcare and private expenditures in the Italian Regional Healthcare Systems (RHSs). The institutional framework offered by the Italian NHS allows to investigate on the differences among the regions while controlling for institutional factors. The study uses micro-data from the ISTAT Household Consumption Survey (HCS) and a rich set of regional quality indicators. The results indicate that there is a positive and significant correlation between quality and private spending per capita across regions. The study also points out the strong association between the distribution of private consumption and income. In order to account for the influence of income, the study segmented data in three socio-economic classes and computed cross-regional correlations of RHSs quality and household healthcare expenditure per capita, within each class. No correlation was found between the two variables. These findings are quite surprising and call into question the theory that better quality of public services crowds out private spending, or, at the very least, it undermines the simplistic notions that higher levels of private spending are a direct consequence of poor quality in the public sector. This suggests that policies should avoid to simplistically link private spending with judgements or assessments about the functioning or efficacy of the public system and its organizations.

***Howard, S. W., et al. (2014). "Oregon's Experiment in Health Care Delivery and Payment Reform: Coordinated Care Organizations Replacing Managed Care." J Health Polit Policy Law 40 (1) : 245-55***

To control Medicaid costs, improve quality, and drive community engagement, the Oregon Health Authority introduced a new system of coordinated care organizations (CCOs). While CCOs resemble traditional Medicaid managed care, they have differences that have been deliberately designed to improve care coordination, increase accountability, and incorporate greater community governance. Reforms include global budgets integrating medical, behavioral, and oral health care and public health functions; risk-adjusted payments rewarding outcomes and evidence-based practice; increased transparency; and greater community engagement. The CCO model faces several implementation challenges. If successful, it will provide improved health care delivery, better health outcomes, and overall savings.

***Jost, T. S. (2015). "The Affordable Care Act Returns To The US Supreme Court." Health Aff (Millwood) 34(3): 367-370.***

As premium subsidies hang in the balance, the law's advocates and opponents prepare for the justices to rule either way.

***Pollack, H. A. (2014). "More on Oregon's Coordinated Care Organizations." J Health Polit Policy Law 40 (1) : 243-4***

**Sherry, T. B. (2015). "A Note on the Comparative Statics of Pay-for-Performance in Health Care."** *Health Economics*: n/a-n/a.

Pay-for-performance (P4P) is a widely implemented quality improvement strategy in health care that has generated much enthusiasm, but only limited empirical evidence to support its effectiveness. Researchers have speculated that flawed program designs or weak financial incentives may be to blame, but the reason for P4P's limited success may be more fundamental. When P4P rewards multiple services, it creates a special case of the well-known multitasking problem, where incentives to increase some rewarded activities are blunted by countervailing incentives to focus on other rewarded activities: these incentives may cancel each other out with little net effect on quality. This paper analyzes the comparative statics of a P4P model to show that when P4P rewards multiple services in a setting of multitasking and joint production, the change in both rewarded and unrewarded services is generally ambiguous. This result contrasts with the commonly held intuition that P4P should increase rewarded activities. Copyright © 2015 John Wiley & Sons, Ltd.

## Travail et santé / Occupational Health

**Drydakis, N. (2015). "The effect of unemployment on self-reported health and mental health in Greece from 2008 to 2013: A longitudinal study before and during the financial crisis."** *Soc Sci Med* **128**: 43-51.

The current study uses six annual waves of the Longitudinal Labor Market Study (LLMS) covering the 2008-2013 period to obtain longitudinal estimations suggesting statistically significant negative effects from unemployment on self-reported health and mental health in Greece. The specifications suggest that unemployment results in lower health and the deterioration of mental health during the 2008-2009 period compared with the 2010-2013 period, i.e., a period in which the country's unemployment doubled as a consequence of the financial crisis. Unemployment seems to be more detrimental to health/mental health in periods of high unemployment, suggesting that the unemployment crisis in Greece is more devastating as it concerns more people. Importantly, in all specifications, comparable qualitative patterns are found by controlling for unemployment due to firm closure, which allows us to minimize potential bias due to unemployment-health related reverse causality. Moreover, in all cases, women are more negatively affected by unemployment in relation to their health and mental health statuses than are men. Greece has been more deeply affected by the financial crisis than any other EU country, and this study contributes by offering estimates for before and during the financial crisis and considering causality issues. Because health and mental health indicators increase more rapidly in a context of higher surrounding unemployment, policy action must place greater emphasis on unemployment reduction and supporting women's employment.

**Urbanos-Garrido, R. M., et al (2015). "The influence of the economic crisis on the association between unemployment and health: an empirical analysis for Spain."** *Eur J Health Econ* **16**(2): 175-184.

**OBJECTIVES:** To estimate the impact of (particularly long-term) unemployment on the overall and mental health of the Spanish working-age population and to check whether the effects of unemployment on health have increased or been tempered as a consequence of the economic crisis. **METHODS:** We apply a matching technique to cross-sectional microdata from the Spanish Health Survey for the years 2006 and 2011-2012 to estimate the average treatment effect of unemployment on self-assessed health (SAH) in the last year, mental

problems in the last year and on the mental health risk in the short term. We also use a differences-in-differences estimation method between the two periods to check if the impact of unemployment on health depends on the economic context. RESULTS: Unemployment has a significant negative impact on both SAH and mental health. This impact is particularly high for the long-term unemployed. With respect to the impact on mental health, negative effects significantly worsen with the economic crisis. For the full model, the changes in effects of long-term unemployment on mental problems and mental health risk are, respectively, 0.35 (CI 0.19-0.50) and 0.20 (CI 0.07-0.34). CONCLUSIONS: Anxiety and stress about the future associated with unemployment could have a large impact on individuals' health. It may be necessary to prevent health deterioration in vulnerable groups such as the unemployed, and also to monitor specific health risks that arise in recessions, such as psychological problems.

## Vieillessement / Ageing

**Do, Y. K., et al. (2015). "Informal Care and Caregiver's Health." *Health Economics* 24(2): 224-237.**

This study aims to measure the causal effect of informal caregiving on the health and health care use of women who are caregivers, using instrumental variables. We use data from South Korea, where daughters and daughters-in-law are the prevalent source of caregivers for frail elderly parents and parents-in-law. A key insight of our instrumental variable approach is that having a parent-in-law with functional limitations increases the probability of providing informal care to that parent-in-law, but a parent-in-law's functional limitation does not directly affect the daughter-in-law's health. We compare results for the daughter-in-law and daughter samples to check the assumption of the excludability of the instruments for the daughter sample. Our results show that providing informal care has significant adverse effects along multiple dimensions of health for daughter-in-law and daughter caregivers in South Korea. Copyright -© 2013 John Wiley & Sons, Ltd

**Goldstein, J., et al. (2015). "The validation of a care partner-derived frailty index based upon comprehensive geriatric assessment (CP-FI-CGA) in emergency medical services and geriatric ambulatory care." *Age and Ageing* 44(2): 327-330.**

Background: the derivation of a frailty index (FI) based on deficit accumulation from a Comprehensive Geriatric Assessment (CGA) has been criticised as cumbersome. To improve feasibility, we developed a questionnaire based on a CGA that can be completed by care partners (CP-FI-CGA) and assessed its validity. Methods: we enrolled a convenience sample of patients aged 70 or older (n = 203) presenting to emergency medical services (EMS) or geriatric ambulatory care (GAC). To test construct validity, we evaluated the shape of the CP-FI-CGA distribution, including its maximum value, relationship with age and gender. Criterion validity was evaluated by survival analysis and by the correlation between the CP-FI-CGA and specialist-completed FI-CGA. Results: the mean age was 82.2 ± 5.9 years. Most patients were women (62.1%), unmarried (widowed, divorced and single) (59.6%) and lived in their own home or apartment (78.3%). The mean CP-FI-CGA was 0.41 ± 0.15 and was higher in the EMS group (0.45 ± 0.15) than in GAC (0.37 ± 0.14) (P < 0.001). The CP-FI-CGA correlated well with the specialist-completed FI-CGA (0.7; P < 0.05). People who died had a higher CP-FI-CGA than did survivors (0.48 ± 0.13 versus 0.38 ± 0.15). Each 0.01 increase in the FI was associated with a higher risk of death (HR 1.04; 95% CI 1.02–1.06). Conclusion: the CP-FI-CGA has properties that resemble other published FIs and may be useful in busy clinical practice for grading degrees of frailty. It efficiently integrates information from care partners so that it can help guide decision-making.

***Kok, L., et al. (2015). "Costs and benefits of home care for the elderly versus residential care: a comparison using propensity scores." Eur J Health Econ 16(2): 119-131.***

A comparison of the costs of residential care and home care shows that the former is more expensive for society. However, elderly people seem to be happier in residential care. All stakeholders, except the state (and thus the taxpayer), benefit if elderly people enter residential care. This reveals that payment systems in the Netherlands contain adverse incentives stimulating entry into residential care. The research is based on surveys of older people in the Netherlands living at home and those living in residential care homes in the period 2007-2009. Propensity score matching is used to match people living at home with those living in residential care. All costs of living and health care are compared for these two groups.