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Sommaire

Assurance Maladie - Health Insurance

Karaca-Mandic P., Abraham J.M., Simon K. (2013). Is the medical loss ratio a good target measure for regulation in the individual market for health insurance? *Health Economics,* [Epub ahead of print]

Abstract: Effective January 1, 2011, individual market health insurers must meet a minimum medical loss ratio (MLR) of 80%. This law aims to encourage productive forms of competition by increasing the proportion of premium dollars spent on clinical benefits. To date, very little is known about the performance of firms in the individual health insurance market, including how MLRs are related to insurer and market characteristics. The MLR comprises one component of the price cost margin, a traditional gauge of market power; the other component is percent of premiums spent on administrative expenses. We use data from the National Association of Insurance Commissioners (2001-2009) to evaluate whether the MLR is a good target measure for regulation by comparing the two components of the priceΓcost margin between markets that are more competitive versus those that are not, accounting for firm and market characteristics. We find that insurers with monopoly power have lower MLRs. Moreover, we find no evidence suggesting that insurers' administrative expenses are lower in more concentrated insurance markets. Thus, our results are largely consistent with the interpretation that the MLR could serve as a target measure of market power in regulating the individual market for health insurance but with notable limited ability to capture product and firm heterogeneity.

Buchmueller T.C., Fiebig D.G., Jones G., Savage E. (2013). Preference heterogeneity and selection in private health insurance: The case of Australia. *J Health Econ,* 32 (5) : 757-767.

Abstract: A basic prediction of theoretical models of insurance is that if consumers have private information about their risk of suffering a loss there will be a positive correlation between risk and the level of insurance coverage. We test this prediction in the context of the market for private health insurance in Australia. Despite a universal public system that provides comprehensive coverage for inpatient and outpatient care, roughly half of the adult population also carries private health insurance, the main benefit of which is more timely access to elective hospital treatment. Like several studies on different types of insurance in other countries, we find no support for the positive correlation hypothesis. Because strict underwriting regulations create strong information asymmetries, this result suggests the importance of multi-dimensional private information. Additional analyses suggest that the advantageous selection observed in this market is driven by the effect of risk aversion, the ability to make complex financial decisions and income.

Krueger A.B., Kuziemko I. (2013). The demand for health insurance among uninsured Americans: Results of a survey experiment and implications for policy. *J Health Econ,* 32 (5) : 780-793.

Abstract: Most existing work on the demand for health insurance focuses on employees' decisions to enroll in employer-provided plans. Yet any attempt to achieve universal coverage must focus on the uninsured, the vast majority of whom are not offered employer-sponsored insurance. In the summer of 2008, we conducted a survey experiment to assess the willingness to pay for a health plan among a large sample of uninsured Americans. The experiment yields price elasticities of around one, substantially greater than those found in most previous studies. We use these results to estimate coverage expansion under the Affordable Care Act, with and without an individual mandate. We estimate that 35 million uninsured individuals would gain coverage and find limited evidence of adverse selection.

Economie de la santé / Health Economics

Zare H., Anderson G. (2013). Trends in cost sharing among selected high income countries 2000- 2010. *Health Policy*, 112 (1), pp. 35-44.
Abstract: Many high income countries increased their level of patient cost sharing between 2000 and 2010 as one component of their policy agenda to reduce the level of health care spending. We use data from the OECD, European Observatory, and country-specific resources to analyze trends in the UK, Germany, Japan, France, and the United States. Some forms of cost sharing deductibles, co-insurance, or co-payments increased in all these countries, with the highest rates of increase occurring in the pharmaceutical sector. In spite of higher levels of cost-sharing, out-of-pocket spending as a percentage of total spending remained unchanged in most of these countries because they instituted programs to protect certain categories of individuals by creating out-of-pocket limits, exempting people with certain chronic diseases, or eliminating cost sharing for certain demographic groups and low-income people.

Géographie de la santé / Geography of Health

Touati M, Turgeon J. (2013). Répartition géographique des médecins de famille : quelles solutions à un problème complexe ? *Santé publique - Pratiques et organisation de soins,* 25 (4) : 465-473.
Abstract: **Objectif :** dans cet article, nous nous intéressons à la question de la répartition géographique des médecins omnipraticiens, en focalisant sur les enjeux d'attraction. **Méthodes :** l'analyse repose sur une approche configurationnelle. Définie simplement, cette approche stipule que les impacts d'une intervention sont liés d'une part, à la cohérence interne entre les caractéristiques d'une intervention et d'autre part, à la cohérence qui existe entre cette intervention et son contexte. Une étude de cas longitudinale a été menée, correspondant à l'expérience du Québec sur 35 ans. **Résultats :** les mesures mobilisées ont surtout porté sur la formation, les incitatifs (positifs et négatifs), le support, et depuis 2004 une certaine forme de coercition. Notons que la sélection des candidatures à l'entrée en médecine en fonction de certaines variables individuelles susceptibles d'influencer le lieu de pratique, a été peu mise en œuvre. La combinaison des mesures gagne en efficacité à travers le temps : ces gains en efficacité sont interprétés en se référant à la cohérence interne des mesures et à la cohérence par rapport à l'environnement externe. **Conclusion :** les interventions favorables à une répartition équitable des effectifs ne sauraient se limiter à l'activation d'un levier donné et doivent être pensées comme des interventions complexes. t négatifs), le support, et depuis 2004 une certaine forme de coercition. Notons que la sélection des candidatures à l'entrée en médecine en fonction de certaines variables individuelles susceptibles d'influencer le lieu de pratique, a été peu mise en œuvre. La combinaison des mesures gagne en efficacité à travers le temps : ces gains en efficacité sont interprétés en se référant à la cohérence interne des mesures et à la cohérence par rapport à l'environnement externe.

Ghosn W., Kassie D., Jougla E., Rican S., Rey G. (2013). Spatial interactions between urban areas and cause-specific mortality differentials in France. *Health Place,* 24C 234-241.
Abstract: Spatial interactions constitute a challenging but promising approach for investigation of spatial mortality inequalities. Among spatial interactions measures, between-spatial unit migration differentials are a marker of socioeconomic imbalance, but also reflect discrepancies due to other factors. Specifically, this paper asks whether population exchange intensities measure differentials or similarities that are not captured by usual socioeconomic indicators. Urban areas were grouped pairwise by the intensity of connection estimated from a gravity model. The mortality differences for several causes of death were observed to be significantly smaller for strongly connected pairs than for weakly connected pairs even after adjustment on deprivation.

Hôpital / Hospitals

Mauro L., Donni P., Smith P.C. (2013). Hospital readmission rates: Signal of failure or success? *Journal of Health Economics,* 32 (5) : 909-921.
Abstract: Hospital readmission rates are increasingly used as signals of hospital performance and a basis for hospital reimbursement. However, their interpretation may be complicated by differential patient survival rates. If patient characteristics are not perfectly observable and hospitals differ in their mortality rates, then hospitals with low mortality rates are likely to have a larger share of un-observably sicker patients at risk of a readmission. Their performance on readmissions will then be underestimated. We examine hospitals performance relaxing the assumption of independence between mortality and readmissions implicitly adopted in many empirical applications. We use data from the Hospital Episode Statistics on emergency admissions for fractured hip in 290,000 patients aged 65 and over from 2003 to 2008 in England. We find evidence of sample selection bias that affects inference from traditional models. We use a bivariate sample selection model to allow for the selection process and the dichotomous nature of the outcome variables.

Davis P., Milne B., Parker K., Hider P., Lay-Yee R., Cumming J., Graham P. (2013). Efficiency, effectiveness, equity (E3). Evaluating hospital performance in three dimensions. *Health Policy*, 112 (1), pp. 19-27.
Abstract: There are well-established frameworks for comparing the performance of health systems cross-nationally on multiple dimensions. A sub-set of such comprehensive schema is taken up by criteria specifically applied to health service delivery, including hospital performance. We focus on evaluating hospital performance, using the New Zealand public hospital sector over the period 2001ΓÇô2009 as a pragmatic and illustrative case study for cross-national application. We apply a broad three-dimensional matrix efficiency, effectiveness, equity each based on two measures, and we undertake ranking comparisons of 35 hospitals. On the efficiency dimension relative stay, day surgery we find coefficients of variation of 10.8% and 8.5% respectively in the pooled data, and a slight trend towards a narrowing of inter-hospital variation over time. The correlation between these indicators is low (.20). For effectiveness post-admission mortality, unplanned readmission the coefficient of variation is generally higher (24.1% and 12.2%), and the trend is flat. The correlation is again low (.21). The equity dimension is assessed by quantifying the degree of ethnic and socio-economic variation for each hospital. The coefficient of variation is much higher 40.7ΓÇô66.5% for ethnicity, 55.8ΓÇô84.4% for socio-economic position Γ the trend over time is mixed, and the correlation is moderate (.41). On averaging the rank of hospitals across all measures it is evident that there is limited consistency across the three constituent dimensions. While it is possible to assess hospital performance across three dimensions using an illustrative set of standard measures derived from routine data, there appears to be little consistency in hospital rankings on these New Zealand data for the period 2001-2009. However, the methodology of using rankings derived from readily available data possibly allied with multiple or composite indicator models has potential for the cross-national comparison of hospital profiles, and assessments in three dimensions provide a more holistic and rounded account of performance.

Varabyova Y., Schreyögg J. (2013). International comparisons of the technical efficiency of the hospital sector: Panel data analysis of OECD countries using parametric and non-parametric approaches, *Health Policy,* 112 (1), pp. 70-79.
Abstract: There is a growing interest in the cross-country comparisons of the performance of national health care systems. The present work provides a comparison of the technical efficiency of the hospital sector using unbalanced panel data from OECD countries over the period 2000ΓÇô2009. The estimation of the technical efficiency of the hospital sector is performed using nonparametric data envelopment analysis (DEA) and parametric stochastic frontier analysis (SFA). Internal and external validity of findings is assessed by estimating the Spearman rank correlations between the results obtained in different model specifications. The panel-data analyses using two-step DEA and one-stage SFA show that countries, which have higher health care expenditure per capita, tend to have a more technically efficient hospital sector. Whether the expenditure is financed through private or public sources is not related to the technical efficiency of the hospital sector. On the other hand, the hospital sector in countries with higher income inequality and longer average hospital length of stay is less technically efficient.

Medin E., Hakkinen U., Linna M., Anthun K.S., Kittelsen S., Rehnberg C. (2013). International hospital productivity comparison: Experiences from the Nordic

countries, *Health Policy,* 112 (1), pp. 80-87.
Abstract: This article focuses on describing the methodological challenges intrinsic in international comparative studies of hospital productivity and how these challenges have been addressed within the context of hospital comparisons in the Nordic countries. The hospital sectors in the Nordic countries are suitable for international comparison as they exhibit similar structures in the organisation for hospital care, hold administrative data of good quality at the hospital level, apply a similar secondary patient classification system, and use similar definitions of operating costs. The results of a number of studies have suggested marked differences in hospital cost efficiency and hospital productivity across the Nordic countries and the Finnish hospitals have the highest estimates in all the analyses. Explanatory factors that were tested and seemed to be of limited importance included institutional, structural and technical. A factor that is yet to be included in the Nordic hospital productivity comparison is the quality of care. Patient-level data available from linkable national registers in each country enable the development of quality indicators and will be included in the forthcoming hospital productivity studies within the context of the EuroHOPE (European health care outcomes, performance and efficiency) project.

Sood N., Huckfeldt P.J., Grabowski D.C., Newhouse J.P., Escarce J.J. (2013). The effect of prospective payment on admission and treatment policy: Evidence from inpatient rehabilitation facilities. *J Health Econ,* 32 (5) : 965-979.
Abstract: We examine provider responses to the Medicare inpatient rehabilitation facility (IRF) prospective payment system (PPS), which simultaneously reduced marginal reimbursement and increased average reimbursement. IRFs could respond to the PPS by changing the number of patients admitted, admitting different types of patients, or changing the intensity of care. We use Medicare claims data to separately estimate each type of provider response. We also examine changes in patient outcomes and spillover effects on other post-acute care providers. We find that costs of care initially fell following the PPS, which we attribute to changes in treatment decisions rather than the characteristics of patients admitted to IRFs within the diagnostic categories we examine. However, the probability of admission to IRFs increased after the PPS due to the expanded admission policies of providers. We find modest spillover effects in other post-acute settings and negative health impacts for only one of three diagnostic groups studied.

Tsai T.C., Joynt K.E., Orav E.J., Gawande A.A., Jha A.K. (2013). Variation in Surgical-Readmission Rates and Quality of Hospital Care. *New England Journal of Medicine,* 369 (12) : 1134-1142.

Inégalités de santé / Health Inequalities

Allanson P., Petrie D. (2013). Longitudinal methods to investigate the role of health determinants in the dynamics of income-related health inequality. *Journal of Health Economics,* 32 (5) : 922-937.
Abstract: The usual starting point for understanding changes in income-related health inequality (IRHI) over time has been regression-based decomposition procedures for the health concentration index. However the reliance on repeated cross-sectional analysis for this purpose prevents both the appropriate specification of the health function as a dynamic model and the identification of important determinants of the transition processes underlying IRHI changes such as those relating to mortality. This paper overcomes these limitations by developing alternative longitudinal procedures to analyse the role of health determinants in driving changes in IRHI through both morbidity changes and mortality, with our dynamic modelling framework also serving to identify their contribution to long-run or structural IRHI. The approach is illustrated by an empirical analysis of the causes of the increase in IRHI in Great Britain between 1999 and 2004.

Clark D, Royer H (2013). The Effect of Education on Adult Mortality and Health: Evidence from Britain. *The American Economic Review,* 103 (6) : 2087-2120.
Abstract: AbstractThere is a strong, positive, and well-documented correlation between education and health outcomes. In this paper, we attempt to understand to what extent this relationship is causal. Our

approach exploits two changes to British compulsory schooling laws that generated sharp across-cohort differences in educational attainment. Using regression discontinuity methods, we find the reforms did not affect health although the reforms impacted educational attainment and wages. Our results suggest caution as to the likely health returns to educational interventions focused on increasing educational attainment among those at risk of dropping out of high school, a target of recent health policy efforts. (JEL H52, I12, I21, I28).

Henning-Smith C., McAlpine D., Shippee T., Priebe M. (2013). Delayed and Unmet Need for Medical Care Among Publicly Insured Adults With Disabilities. *Medical Care,* 51 (11) :
Abstract: Background: While Medicaid is an important source of insurance coverage for persons with disabilities, barriers remain to accessing care for this population. Objectives: This study addresses 3 research questions: (1) do adults with disabilities experience greater unmet need/delayed care?; (2) do barriers related to cost, providers, or structure vary by disability status?; and (3) do barriers mediate the relationship between disability and access to care? Research Design: Data were obtained from a 2008 stratified random sample of Minnesota Health Care Program's nonelderly adult enrollees (n=1880). The survey was administered by mail, with a telephone follow-up for nonresponders. Measures:Disability is defined by self-report. Access to care is measured by reported delayed and unmet need for medical care within the past year. Respondents were asked about their experiences with a variety of cost-related, provider-related, and structural barriers to care. Results: Respondents with a disability were more likely to experience delayed (40%) and unmet need (23%) for medical care than persons without disabilities (24% and 10%, respectively). Persons with disabilities also reported multiple barriers to health care, especially structural barriers, such as making a timely appointment and accessing transportation (74% vs. 59%). The greater likelihood of facing a structural barrier partially explained increased risk of delayed or unmet care among adults with disabilities. Conclusions: Disparities in access to health care based on disability status remain even for persons who have insurance. These disparities deserve further research and policy attention to better address the particular needs of this population.

Sieverts S.H. (2013). Demographic factors in immigrants' health care use. *Health Aff.(Millwood.),* 32 (10) : 1858.

Stimpson J.P. (2013). Immigrants' health care use: the author replies. *Health Aff.(Millwood.),* 32 (10) : 1858

Lostao L., Blane D., Gimeno D., Netuveli G., Regidor E. (2013). Socioeconomic patterns in use of private and public health services in Spain and Britain: implications for equity in health care. *Health Place,* 25C 19-25.
Abstract: This paper estimates the pattern of private and public physician visits and hospitalisation by socioeconomic position in two countries in which private healthcare expenditure constitutes a different proportion of the total amount spent on health care: Britain and Spain. Private physician visits and private hospitalisations were quantitatively more important in Spain than in Britain. In both countries, the use of private services showed a direct socioeconomic gradient. In Spain, the use of public GPs and public specialists tends to favour the worst-off, but no significant differences were observed in public hospitalisation. In Britain, with some exceptions, no significant socioeconomic differences were observed in the use of public health care services. The different pattern observed in the use of public specialist services may be due to the high frequency of visits to private specialists in Spain.

Médicaments / Pharmaceuticals

O'Neill P., Mestre-Ferrandiz J., Puig-Peiro R., Sussex J. (2013). Projecting Expenditure on Medicines in the UK NHS. *Pharmacoeconomics,* 31 (10) : 933-957.
Abstract: BACKGROUND: Expenditure on medicines is a readily identifiable element of health service costs. It is the focus of much attention by payers, not least in the UK even though the cost of medicines represents less than 10 % of total UK National Health Service (NHS) expenditure. Projecting future medicines spending enables the likely cost pressure to be allowed for in planning the

scale and allocation of NHS resources. Simple extrapolations of past trends in expenditure fail to account for changes in the rate and mix of new medicines becoming available and in the scope for windfall savings when some medicines lose their patent protection. The objective of this study is to develop and test an improved method to project NHS pharmaceutical expenditure in the UK for the period 2012-2015. METHODS: We have adopted a product-by-product, bottom-up approach, which means that our projections are built up from individual products to the total market. Our projections of the impact of generic and biosimilars entry on prices and quantities of medicines sold, and of the rate of uptake of newly launched medicines, have been obtained from regression analysis of UK data. To address uncertainty, we have created a baseline and two other illustrative scenarios. We have compared our projections with actual expenditure for 2012. RESULTS: Our projections estimate that, between 2011 and 2015, with no change in policy or price regulation, the UK total medicines bill would increase at an average compound annual growth rate (CAGR) of between 3.1 and 4.1 %. Total NHS spending on branded medicines and total NHS spending on generics are projected to increase at average CAGRs of 0.5-1.8 and 10.0-11.0 %, respectively, over the same time period. For the total market, the actual growth rate for 2012 lay within our projected range. CONCLUSIONS: Our methodology provides a useful framework for projecting UK NHS medicines expenditure over the medium term and captures the impacts of existing medicines losing exclusivity and of new medicines being launched onto the market.

Grossmann V. (2013). Do cost-sharing and entry deregulation curb pharmaceutical innovation? *J Health Econ,* 32 (5) : 881-894.

Abstract: This paper examines the role of both cost-sharing schemes in health insurance systems and the regulation of entry into the pharmaceutical sector for pharmaceutical R&D expenditure and drug prices. The analysis suggests that both an increase in the coinsurance rate and stricter price regulations adversely affect R&D spending in the pharmaceutical sector. In contrast, entry deregulation may lead to higher R&D spending of pharmaceutical companies. The relationship between R&D spending per firm and the number of firms may be hump-shaped. In this case, the number of rivals which maximizes R&D expenditure per firm is decreasing in the coinsurance rate and increasing in labor productivity.

Fraeyman J., Verbelen M., Hens N., Van Hal.G., De Loof.H., Beutels P. (2013). Evolutions in both co-payment and generic market share for common medication in the belgian reference pricing system. *Appl.Health Econ Health Policy,* 11 (5) : 543-552.

Abstract: BACKGROUND: In Belgium, a co-insurance system is applied in which patients pay a portion of the cost for medicines, called co-payment. Co-payment is intended to make pharmaceutical consumers more responsible, increase solidarity, and avoid or reduce moral hazards. OBJECTIVE: Our objective was to study the possible influence of co-payment on sales volume and generic market share in two commonly used medicine groups: cholesterol-lowering medication [statins (HMG-CoA reductase inhibitors) and fibrates] and acid-blocking agents (proton pump inhibitors and histamine H2 receptor antagonists). METHODS AND DATA: The data were extracted from the Pharmanet database, which covers pharmaceutical consumption in all Belgian ambulatory pharmacies. First, the proportion of sales volume and costs of generic products were modelled over time for the two medicine groups. Second, we investigated the relation between co-payment and contribution by the national insurance agency using change-point linear mixed models. RESULTS: The change-point analysis suggested several influential events. First, the generic market share in total sales volume was negatively influenced by the abolishment of the distinction in the maximum co-payment level for name brands and generics in 2001. Second, relaxation of the reimbursement conditions for generic omeprazole stimulated generic sales volume in 2004. Finally, an increase in co-payment for generic omeprazole was associated with a significant decrease in omeprazole sales volume in 2005. The observational analysis demonstrated several changes over time. First, the co-payment amounts for name-brand and generic drugs converged in the observed time period for both medicine groups under study. Second, the proportion of co-payment for the total cost of simvastatin and omeprazole increased over time for small packages, and more so for generic than for name-brand products. For omeprazole, both the proportion and the amount of co-payment increased over time. Third, over time the prescription of small packages shifted to an emphasis on larger packages. CONCLUSIONS: As maximum co-payment levels decreased over time, they overruled the reference pricing system in Belgium. The changes in co-payment share over time also significantly affected sales volume, but whether physicians or patients are the decisive actors on the demand side of pharmaceutical consumption remains unclear.

Bracco A., Krol M. (2013). Economic evaluations in European reimbursement submission guidelines: current status and comparisons. *Expert Rev Pharmacoecon Outcomes Res,* 13 (5) : 579-595.
Abstract: This study aimed to review European national health-economic (HE) guidelines and to identify recent developments in guideline recommendations by comparing the findings with those of a review published in 2001. Guidelines were identified by searching websites of the Internal Society for Pharmacoeconomics and Outcomes Research (ISPOR) and government health insurance agencies, and by a literature review. National guidelines showed broad consistency in ranking clinical data sources and choice of comparators for HE analysis, but varied in recommended costs to be included, methods related to cost calculation and discounting. Many European countries have developed or revised national HE guidelines. The recommendations in these guidelines differ in some key aspects, limiting transferability of outcomes of HE evaluations.

Megerlin F., Lopert R., Taymor K., Trouvin J.H. (2013). Biosimilars and the European experience: implications for the United States. *Health Aff.(Millwood.),* 32 (10) : 1803-1810.
Abstract: Biologics are medicines derived from a biological source. Their high prices and rapid uptake have raised hopes that with the gradual expiration of patents on the first generations of biologics, the advent of lower-cost follow-on products known as biosimilars will help "bend the cost curve." Although biosimilars have been available since 2006 within the European Union and are expected to save $15-$44 billion by 2020, the Food and Drug Administration (FDA) has yet to finalize the necessary regulatory processes for their approval in the United States. The European experience suggests, however, that once these are in place, the US biosimilar market may well emerge as bimodal: Initially, modestly discounted biosimilars deemed noninterchangeable with the original products will compete to become the initial treatment of choice in new patients. Subsequently, a second market may be anticipated for those products able to meet the FDA's higher standard for "interchangeability." In that market, discounts may be more dramatic.

Dylst P., Vulto A., Godman B., Simoens S. (2013). Generic medicines: solutions for a sustainable drug market? *Appl.Health Econ Health Policy,* 11 (5) : 437-443.
Abstract: Generic medicines offer equally high-quality treatment as originator medicines do at much lower prices. As such, they represent a considerable opportunity for authorities to obtain substantial savings. At the moment, the pharmaceutical landscape is changing and many pharmaceutical companies have altered their development and commercial strategies, combining both originator and generic divisions. In spite of this, the generic medicines industry is currently facing a number of challenges: delayed market access; the limited price differential with originator medicines; the continuous downwards pressure on prices; and the negative perception regarding generic medicines held by some key stakeholder groups. This could jeopardize the long-term sustainability of the generic manufacturing industry. Therefore, governments must focus on demand-side policies, alongside policies to accelerate market access, as the generic medicines industry will only be able to deliver competitive and sustainable prices if they are ensured a high volume. In the future, the generic medicines industry will increasingly look to biosimilars and generic versions of orphan drugs to expand their business.

Balaban D.Y., Dhalla I.A., Law M.R., Bell C.M. (2013). Private expenditures on brand name prescription drugs after generic entry. *Appl.Health Econ Health Policy,* 11 (5) : 523-529.
Abstract: BACKGROUND: Generic drugs offer a less expensive and therapeutically equivalent alternative to brand name drugs. Nevertheless, many Canadian private drug plans continue to pay for brand name drugs even after generics become available. OBJECTIVE: The objective of this study was to quantify the excess spending resulting from this practice. METHODS: We used the IMS Brogan PharmaStat database to study private-plan drug spending in Ontario from 2000 to 2009. We focused on three widely used drug classes: proton pump inhibitors (PPIs), selective serotonin reuptake inhibitors (SSRIs), and angiotensin-converting enzyme (ACE) inhibitors. For each specific molecule, we determined the difference between what private plans spent on the brand name version and what would have been spent if an available generic version of the same molecule had been purchased instead. RESULTS: We found that prescriptions paid for by private drug plans were often filled with brand name drugs after generics became available. This led to excess private spending of more than Can$107.8 million for these three drug classes over our study period: Can$54.4 million for PPIs, Can$32.4 million for SSRIs and Can$21.0 million for ACE inhibitors. INTERPRETATION: Brand name

drugs continue to be reimbursed by Canadian private drug plans at higher prices even after less expensive generic alternatives are available. By mandating generic substitution, substantial cost savings on benefit plans could be achieved.

Méthodologie – Statistique / Methodology – Statistics

Häkkinen U., Iversen T., Peltola M., et al. (2013). Health care performance comparison using a disease-based approach: The EuroHOPE project. *Health Policy*, 112 (1), pp. 100-109. Abstract: This article describes the methodological challenges associated with disease-based international comparison of health system performance and how they have been addressed in the EuroHOPE (European Health Care Outcomes, Performance and Efficiency) project. The project uses linkable patient-level data available from national sources of Finland, Hungary, Italy, The Netherlands, Norway, Scotland and Sweden. The data allow measuring the outcome and the use of resources in uniformly-defined patient groups using standardized risk adjustment procedures in the participating countries. The project concentrates on five important disease groups: acute myocardial infarction (AMI), ischemic stroke, hip fracture, breast cancer and very low birth weight and preterm infants (VLBWI). The essentials of data gathering, the definition of the episode of care, the developed indicators concerning baseline statistics, treatment process, cost and outcomes are described. The preliminary results indicate that the disease-based approach is attractive for international performance analyses, because it produces various measures not only at country level but also at regional and hospital level across countries. The possibility of linking hospital discharge register to other databases and the availability of comprehensive register data will determine whether the approach can be expanded to other diseases and countries.

Kiivet R., Sund R., Linna M., Silverman B., Pisarev H., Friedman N. (2013). Methodological challenges in international performance measurement using patient-level administrative data. *Health Policy*, 112 (1), pp. 110-121.
Abstract: We conducted this case study in order to test how health system performance could be compared using the existing national administrative health databases containing individual data. In this comparative analysis we used national data set from three countries, Estonia, Israel and Finland to follow the medical history, treatment outcome and resource use of patients with a chronic disease (diabetes) for 8 years after medical treatment was initiated. This study showed that several clinically important aspects of quality of care as well as health policy issues of cost-effectiveness and efficiency of health systems can be assessed by using the national administrative health data systems, in case those collecting person-level health service data. We developed a structured study protocol and detailed data specifications to generate standardized data sets, in each country, for long-term follow up of incident cohort of diabetic persons as well as shared analyzing programs to produce performance measures from the standardized data sets. This stepwise decentralized approach and use of anonymous person-level data allowed us to mitigate any legal, ownership, confidentiality and privacy concerns and to create internationally comparative data with the extent of detail that is seldom seen before. For example, our preliminary performance comparisons indicate that higher mortality among relatively young diabetes patients in Estonia may be related to considerably higher rates of cardiovascular complications and lower use of statins. Modern administrative person-level health service databases contain sufficiently rich data in details to assess the performance of health systems in the management of chronic diseases. This paper presents and discusses the methodological challenges and the way the problems were solved or avoided to enhance the representativeness and comparability of results.

Veillard J., Moses McKeag A., Tipper B., Krylova O., Reason B. (2013). Methods to stimulate national and sub-national benchmarking through international health system performance comparisons: A Canadian approach. *Health Policy,* 112 (1), pp. 141-147.
Abstract: This paper presents, discusses and evaluates methods used by the Canadian Institute for Health Information to present health system performance international comparisons in ways that facilitate their understanding by the public and health system policy-makers and can stimulate performance benchmarking. We used statistical techniques to normalize the results and present them

on a standardized scale facilitating understanding of results. We compared results to the OECD average, and to benchmarks. We also applied various data quality rules to ensure the validity of results. In order to evaluate the impact of the public release of these results, we used quantitative and qualitative methods and documented other types of impact. We were able to present results for performance indicators and dimensions at national and sub-national levels; develop performance profiles for each Canadian province; and show pan-Canadian performance patterns for specific performance indicators. The results attracted significant media attention at national level and reactions from various stakeholders. Other impacts such as requests for additional analysis and improvement in data timeliness were observed. The methods used seemed attractive to various audiences in the Canadian context and achieved the objectives originally defined. These methods could be refined and applied in different contexts.

Bilger M., Manning W.G. (2013). Measuring overfitting in nonlinear models: a new method and an application to health expenditures. *Health Economics,* ahead of pub.
Abstract: When fitting an econometric model, it is well known that we pick up part of the idiosyncratic characteristics of the data along with the systematic relationship between dependent and explanatory variables. This phenomenon is known as overfitting and generally occurs when a model is excessively complex relative to the amount of data available. Overfitting is a major threat to regression analysis in terms of both inference and prediction. We start by showing that the Copas measure becomes confounded by shrinkage or expansion arising from in-sample bias when applied to the untransformed scale of nonlinear models, which is typically the scale of interest when assessing behaviors or analyzing policies. We then propose a new measure of overfitting that is both expressed on the scale of interest and immune to this problem. We also show how to measure the respective contributions of in-sample bias and overfitting to the overall predictive bias when applying an estimated model to new data. We finally illustrate the properties of our new measure through both a simulation study and a real-data illustration based on inpatient healthcare expenditure data, which shows that the distinctions can be important.

Psychiatrie / Psychiatry

Maclean J.C., Xu H., French M.T., Ettner S.L. (2013). Mental Health and High-Cost Health Care Utilization: New Evidence from Axis II Disorders. *Health Services Research,* ahead of pub.
Abstract: Objective To analyze the associations between Axis II (A2) disorders and two measures of health care utilization with relatively high cost: emergency department (ED) episodes and hospital admissions. Data Source/Study Setting Wave I (2001/2002) and Wave II (2004/2005) of the National Longitudinal Survey on Alcohol and Related Conditions (NESARC). Study Design A national probability sample of adults. Gender-stratified regression analysis adjusted for a range of covariates associated with health care utilization. Data Collection The target population of the NESARC is the civilian noninstitutionalized population aged 18 years and older residing in the United States. The cumulative survey response rate is 70.2 percent with a response rate of 81 percent (N=-43,093) in Wave I and 86.7 percent (N=34,653) in Wave II. Principal Findings Both men and women with A2 disorders are at elevated risk for ED episodes and hospital admissions. Associations are robust after adjusting for a rich set of confounding factors, including Axis I (clinical) psychiatric disorders. We find evidence of a doseΓresponse relationship, while antisocial and borderline disorders exhibit the strongest associations with both measures of health care utilization. Conclusions This study provides the first published estimates of the associations between A2 disorders and high-cost health care utilization in a large, nationally representative survey. The findings underscore the potential implications of these disorders on health care expenditures.

Moran V., Jacobs R. (2013). An international comparison of efficiency of inpatient mental health care systems. *Health Policy,* 112 (1), pp. 88-99.
Abstract: There is a fundamental gap in the evidence base on quantitative cross-country comparison of mental healthcare systems due to the challenges of comparative analysis in mental health including a paucity of good quality data. We explore whether existing limited data sources can potentially be

exploited to examine technical efficiency of inpatient mental healthcare systems in 32 OECD countries in 2010. We use two analytical approaches: Data Envelopment Analysis (DEA) with bootstrapping to produce confidence intervals of efficiency scores and country rankings, and Cluster Analysis to group countries according to two broad efficiency groupings. We incorporate environmental variables using a two-stage truncated regression. We find slightly tighter confidence intervals for the less efficient countries which loosely corresponds with the inefficient cluster grouping in the Cluster Analysis. However there is little stability in country rankings making it difficult with current data to draw any policy inferences. Environmental factors do not appear to significantly impact on efficiency scores. The most pressing pursuit remains the search for better national data in mental healthcare to underpin future analyses. Otherwise the use of any sophisticated analytic techniques will prove futile for establishing robust conclusions regarding international comparisons of the performance of mental healthcare systems.

Soins de santé primaires / Primary Health Care

Vats S., Ash A.S., Ellis R.P. (2013). Bending the Cost Curve? Results From a Comprehensive Primary Care Payment Pilot. *Medical Care,* 51 (11) :

Abstract: Background:There is much interest in understanding how using bundled primary care payments to support a patient-centered medical home (PCMH) affects total medical costs. Research Design and Subjects:We compare 2008-2010 claims and eligibility records on about 10,000 patients in practices transforming to a PCMH and receiving risk-adjusted base payments and bonuses, with similar data on approximately 200,000 patients of nontransformed practices remaining under fee-for-service reimbursement. Methods:We estimate the treatment effect using difference-in-differences, controlling for trend, payer type, plan type, and fixed effects. We weight to account for partial-year eligibility, use propensity weights to address differences in exogenous variables between control and treatment patients, and use the Massachusetts Health Quality Project algorithm to assign patients to practices. Results:Estimated treatment effects are sensitive to: control variables, propensity weighting, the algorithm used to assign patients to practices, how we address differences in health risk, and whether/how we use data from enrollees who join, leave, or change practices. Unadjusted PCMH spending reductions are 1.5% in year 1 and 1.8% in year 2. With fixed patient assignment and other adjustments, medical spending in the treatment group seems to be 5.8% (P=0.20) lower in year 1 and 8.7% (P=0.14) lower in year 2 than for propensity-weighted, continuously enrolled controls; the largest proportional 2-year reduction in spending occurs in laboratory test use (16.5%, P=0.02). Conclusions:Although estimates are imprecise because of limited data and quasi-experimental design, risk-adjusted bundled payment for primary care may have dampened spending growth in 3 practices implementing a PCMH.

Kringos D.S., Boerma W.G.W., Van Der Zee J., Groenewegen P.P. (2013). Political, cultural and economic foundations of primary care in Europe. *Social Science & Medicine,* 99 (0) : 9-17.

Abstract: Abstract This article explores various contributing factors to explain differences in the strength of the primary care (PC) structure and services delivery across Europe. Data on the strength of primary care in 31 European countries in 2009/10 were used. The results showed that the national political agenda, economy, prevailing values, and type of healthcare system are all important factors that influence the development of strong PC. Wealthier countries are associated with a weaker PC structure and lower PC accessibility, while Eastern European countries seemed to have used their growth in national income to strengthen the accessibility and continuity of PC. Countries governed by left-wing governments are associated with a stronger PC structure, accessibility and coordination of PC. Countries with a social-security based system are associated with a lower accessibility and continuity of PC; the opposite is true for transitional systems. Cultural values seemed to affect all aspects of PC. It can be concluded that strengthening PC means mobilising multiple leverage points, policy options, and political will in line with prevailing values in a country.

Systèmes de santé / Health Systems

Forde I., Morgan D., Klazinga N.S. (2013). Resolving the challenges in the international comparison of health systems: The must do's and the trade-offs. *Health Policy,* 112 (1), pp. 4-8.
Abstract: Countries are increasingly publishing health system performance statistics alongside those of their peers, to identify high performers and achieve a continuously improving health system. The aim of the paper is to identify, and discuss resolution of, some key methodological challenges, which arise when comparing health system performance. To illustrate the issues, we focus on two OECD flagship initiatives: the System of Health Accounts (SHA) and the Health Care Quality Indicators (HCQI) project and refer to two main actors: a coordinating agency, which proposes and collates performance data and second, data correspondents in constituent health systems, who submit data to the coordinating centre. Discussion is structured around two themes: a set of must-do's (legitimacy of the coordinating centre, validity of proposed indicators, feasibility of data collection and technical support for data correspondents) and a set of trade-offs (depth vs. breadth in the number of system elements compared, aggregation vs. granularity of data, flexibility vs. consistency of indicator definitions and inclusion criteria). Robust fulfillment of the must-do's and transparent resolution of the trade-offs both depend upon effective collaboration between the coordinating centre and data correspondents, and a close working relationship between a technical secretariat and a body of experts.

Oderkirk J., Ronchi E., Klazinga N. (2013). International comparisons of health system performance among OECD countries: Opportunities and data privacy protection challenges. *Health Policy*, 112 (1), pp. 9-18.
Abstract: Health data constitute a significant resource in most OECD countries that could be used to improve health system performance. Well-intended policies to allay concerns about breaches of confidentiality and to reduce potential misuse of personal health information may be limiting data use. A survey of 20 OECD countries explored the extent to which countries have developed and use personal health data and the reasons why data use may be problematic in some. Countries are divided, with one-half engaged regularly in national data linkage studies to monitor health care quality. Country variation is linked to risk management in granting an exemption to patient consent requirements; in sharing identifiable data among government authorities; and in project approvals and granting access to data. The resources required to comply with data protection requirements is a secondary problem. The sharing of person-level data across borders for international comparisons is rarely reported and there were few examples of studies of health system performance. Laws and policies enabling data sharing and data linkage are needed to strengthen national information infrastructure. To develop international studies comparing health care quality and health system performance, actions are needed to address heterogeneity in data protection practices.

Viberg N., Forsberg B.C., Borowitz M., Molin R. (2013). International comparisons of waiting times in health care. Limitations and prospects. *Health Policy*, 112 (1), pp. 53-61.
Abstract: Long waiting times for health care is an important health policy issue in many countries, and many have introduced some form of national waiting time guarantees. International comparison of waiting times are critical for countries to improve policy and for patients to be able to make informed choices, especially in Europe, where patients have the right to seek care in other countries if there is undue delay. The objective of this study was to describe how countries measure waiting times and to assess whether waiting times can be compared internationally. Twenty-three OECD countries were included. Information was collected through scientific articles, official and unofficial documents and web pages. Fifteen of the 23 countries monitor and publish national waiting time statistics and have some form of waiting time guarantees. There are significant differences in how waiting times are measured: whether they measure the ongoing or completed waiting period what kind of care the patient is waiting for; the parameters used; and where in the patient journey the measurement begins. Current national waiting time statistics are of limited use for comparing health care availability among the various countries due to the differences in measurements and data collection. Different methodological issues must be taken into account when making such cross-country comparisons. Within the given context of national sovereignty of health systems it would be desirable if countries could collaborate in order to facilitate international comparisons. Such comparisons would be of

benefit to all involved in the process of continuous improvement of health services. They would also benefit patients who seek cross-border alternatives for their care.

Footman K., Roberts B., Mills A., Richardson E., McKee M. Public satisfaction as a measure of health system performance: A study of nine countries in the former Soviet Union. *Health Policy*, 112 (1), pp. 62-69
Abstract: Measurement of health system performance increasingly includes the views of healthcare users, yet little research has focused on general population satisfaction with health systems. This study is the first to examine public satisfaction with health systems in the former Soviet Union (fSU). Data were derived from two related studies conducted in 2001 and 2010 in nine fSU countries, using nationally representative cross-sectional surveys. The prevalence of health system satisfaction in each country was compared for 2001 and 2010. Patterns of satisfaction were further examined by comparing satisfaction with the health system and other parts of the public sector, and the views of health care users and non-users. Potential determinants of population satisfaction were explored using logistic regression. For all countries combined, the level of satisfaction with health systems increased from 19.4% in 2001 to 40.6% in 2010, but varied considerably by country. Changes in satisfaction with the health system were similar to changes with the public sector, and non-users of healthcare were slightly more likely to report satisfaction than users. Characteristics associated with higher satisfaction include younger age, lower education, higher economic status, rural residency, better health status, and higher levels of political trust. Our results suggest that satisfaction can provide useful insight into public opinion on health system performance, particularly when used in conjunction with other subjective measures of satisfaction with government performance.

Reibling N. (2013). The international performance of healthcare systems in population health: Capabilities of pooled cross-sectional time series methods. *Health Policy*, 112 (1), pp. 122-132
Abstract: This paper outlines the capabilities of pooled cross-sectional time series methodology for the international comparison of health system performance in population health. It shows how common model specifications can be improved so that they not only better address the specific nature of time series data on population health but are also more closely aligned with our theoretical expectations of the effect of healthcare systems. Three methodological innovations for this field of applied research are discussed: (1) how dynamic models help us understand the timing of effects, (2) how parameter heterogeneity can be used to compare performance across countries, and (3) how multiple imputation can be used to deal with incomplete data. We illustrate these methodological strategies with an analysis of infant mortality rates in 21 OECD countries between 1960 and 2008 using OECD Health Data.

Vrijens F., Renard F., Jonckheer P., Van den Heede K., et al. (2013). The Belgian Health System Performance Report 2012: Snapshot of results and recommendations to policy makers. Health Policy, 112 (1), pp. 133-140.
Abstract: Following the commitments of the Tallinn Charter, Belgium publishes the second report on the performance of its health system. A set of 74 measurable indicators is analysed, and results are interpreted following the five dimensions of the conceptual framework: accessibility, quality of care, efficiency, sustainability and equity. All domains of care are covered (preventive, curative, long-term and end-of-life care), as well as health status and health promotion. For all indicators, national/regional values are presented with their evolution over time. Benchmarking to results of other EU-15 countries is also systematic. The policy recommendations represent the most important output of the report.

Veillard J., Moses McKeag A., Tipper B., Krylova O., Reason B. (2013). Methods to stimulate national and sub-national benchmarking through international health system performance comparisons: A Canadian approach. *Health Policy*, 112 (1),pp. 141-147.
Abstract: This paper presents, discusses and evaluates methods used by the Canadian Institute for Health Information to present health system performance international comparisons in ways that facilitate their understanding by the public and health system policy-makers and can stimulate performance benchmarking. We used statistical techniques to normalize the results and present them on a standardized scale facilitating understanding of results. We compared results to the OECD average, and to benchmarks. We also applied various data quality rules to ensure the validity of results. In order to evaluate the impact of the public release of these results, we used quantitative and qualitative methods and documented other types of impact. We were able to present results for

performance indicators and dimensions at national and sub-national levels; develop performance profiles for each Canadian province; and show pan-Canadian performance patterns for specific performance indicators. The results attracted significant media attention at national level and reactions from various stakeholders. Other impacts such as requests for additional analysis and improvement in data timeliness were observed. The methods used seemed attractive to various audiences in the Canadian context and achieved the objectives originally defined. These methods could be refined and applied in different contexts.

Cacace M., Ettelt S., Mays N., Nolte E. (2013). Assessing quality in cross-country comparisons of health systems and policies: Towards a set of generic quality criteria.

Health Policy, 112 (1), pp. 156-162.
Abstract: There is a growing body of cross-country comparisons in health systems and policy research. However, there is little consensus as to how to assess its quality. This is partly due to the fact that cross-country comparison constitutes a diverse inter-disciplinary field of study, with much variation in the motives for research, foci and levels of analyses, and methodological approaches. Inspired by the views of subject area experts and using the distinction between variable-based and case-based research, we briefly review the main different types of cross-country comparisons in health systems and policy research to identify pertinent quality issues. From this, we identify the following generic quality criteria for cross-country comparisons: (1) appropriate use of theory, (2) explicit selection of comparator countries, (3) rigour of the comparative design, (4) attention to the complexity of cross-national comparison, (5) rigour of the research methods, and (6) contribution to knowledge. This list may not be exclusive though publication and discussion of the list of criteria should help raise awareness in this field of what constitutes high quality research. In turn, this should be helpful for those planning, undertaking, or commissioning cross-country comparative research.

Niakas D (2013). Greek Economic Crisis and Health Care Reforms: Correcting the Wrong Prescription.

International Journal of Health Services, 43 (4) : 597-602.
Abstract: In an era of economic crisis in Greece and with many uninsured citizens, the Troika (lenders of Greece) suggests reforms and promotes the internal market, resulting in a public-private system becoming more privatized. This article contradicts these proposals and attempts to suggest the necessary reforms to achieve equity of access for all and to promote efficiency, taking into account the existing needs of the population and the recession of the Greek economy.

Murphy G.T., MacKenzie A. (2013). Using Evidence to Meet Population Healthcare Needs: Successes and Challenges.

HealthcarePapers, 13 (2) : 9-21.
Abstract: <p>In order to respond effectively to the health needs of Canadians, healthcare planners must directly consider these needs when planning and delivering services. However, Canada's various healthcare systems have traditionally been organized based on historical levels of service provision as opposed to population health needs. A number of innovations in care delivery redesign in Canada have already been developed as part of efforts to foster a more effective and sustainable healthcare system. This paper presents two of these as case studies illustrating some of the main challenges in trying to identify and address healthcare needs, as well as some potential solutions to those challenges

Bloor K., Maynard A. (2013). Using Evidence to Meet Population Healthcare Needs: A UK Perspective.

HealthcarePapers, 13 (2) : 42-45.
Abstract: For over 30 years, researchers have questioned the standard practice of planning the health workforce, with relatively little effect on policy. The authors of this commentary find it extremely refreshing and thoroughly heartening to see their Canadian colleagues making new attempts to change the way that the health workforce is planned and structured. In this commentary, the authors discuss what is meant by healthcare and the traditionally poor use of data in healthcare planning, and they support Tomblin Murphy and MacKenzie's call for proper evaluation of healthcare resources interventions.

McDaid D., Quaglio G., Correia de C.A., Dario C., Van W.L., Karapiperis T., Reeves A. (2013). Health protection in times of economic crisis: Challenges and opportunities for

Europe. *J Public Health Policy,* 34 (4) : 489-501.
Abstract: STOA, the European Parliament's technology assessment body, and the European Observatory on Health Systems and Policies recently organised a workshop on the impacts of the economic crisis on European health systems. Evidence of the impact of the recent financial crisis on health outcomes is only just beginning to emerge. Data suggests that this latest recession has led to more frequent poor health status, rising incidence of some communicable diseases, and higher suicide rates. Further, available data are likely to underestimate the broader mental health crisis linked to increased rates of stress, anxiety, and depression among the economically vulnerable. Not only does recession affect factors that determine health, but it also affects the financial capacity to respond. Many European governments have reduced public expenditure on health services during the financial crisis, while introducing or increasing user charges. The recession has driven structural reforms, and has affected the priority given to public policies that could be used to help protect population health. The current economic climate, while challenging, presents an opportunity for reforming and restructuring health promotion actions and taking a long-term perspective.

Travail et santé / Occupational Health

Reichert A.R., Augurzky B., Tauchmann H. (2013). Self-perceived job insecurity and the demand dor medical rehabilitation does fear of unemployment reduce health care utilization ?

Health Economics, ahead of pub.
Abstract: An inverse relationship between job insecurity and sickness absence has been established in the literature, which is explained by employees avoiding to send signals of both poor health and uncooperative behavior towards the employer. In this paper, we focus on whether the same mechanism applies to the demand for medical rehabilitation measures. This question has recently gained much interest in the context of the current public debate on presenteeism. Using county-level unemployment rates as instrument for the employees' fear of job loss on the individual level, we find that an increase in subjective job insecurity substantially decreases the probability of participating in medical rehabilitation.

Bernström V.H. (2013). The relationship between three stages of job change and long-term sickness absence.

Social Science & Medicine, 98 (0) : 239-246.
Abstract: Abstract Although several researchers originally assumed that change always causes strain, a growing number of studies suggest that job change can have positive effects. However, the focus of these studies has generally been on subjective measures of satisfaction and well-being and rarely on health. Therefore, the purpose of the present study was to investigate how job change relates to long-term sickness absence during three stages: exit, entry, and normalization. Norwegian hospital employees, a low-unemployment group, were followed over a 6-year period as they moved in and out of different jobs. The study used fixed-effect methods to analyze changes in absence for each employee. The results show increased odds of long-term sickness absence during the 2 years prior to exiting an organization, a significant drop after the employee entered a new organization, and then a gradual increase in long-term sickness absence thereafter. After 2 years, the employee's odds of entering into long-term sickness absence were no longer significantly different from normal (i.e., the odds in months not related to job change). These findings on employee health are congruent with conclusions drawn from research on job satisfaction and well-being.