L'économie de la cataracte

Bibliographie thématique

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Marie-Odile Safon

Véronique Suhard

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Problématique

Cette bibliographie s'inscrit dans le cadre des travaux sur les dépassements d'honoraires menés par l'Irdes. Ce projet de recherche se propose de faire un état des lieux des pratiques de dépassement en France (effectifs, montant des dépassements, types de soins) et des solutions envisageables pour les réduire.[1]
Il s'agit ici des résultats d'une recherche spécifique sur les dépassements réalisés à l'occasion des opérations de la cataracte et sur la variabilité des pratiques dans ce domaine en France et dans les pays de l'OCDE. Les bases interrogées sont celle de l'Irdes, mais également : Irdes, Pubmed, Web of science, Googlescholar, Sciencedirect. Période : depuis 2013 + quelques dates antérieures

Références bibliographiques

Crump, T. R., Siljedal, G., Weis, E., et al. (2024). "The Eye-Opening Truth About Private Surgical Facilities in Canada." Healthc Policy **19**(3): 33-41.
https://doi.org/10.12927/hcpol.2024.27283

> This paper examines the contentious issue of using contracted surgical facilities (CSFs) for scheduled eye surgeries within Canada's publicly funded healthcare system. Despite the debate over the use of CSFs, there is a stark lack of Canadian-focused empirical evidence to guide policy decisions. This paper uses the Organisation for Economic Co-operation and Development's healthcare system performance conceptual model - access, quality and cost/expenditures - as a framework to explore the debates surrounding CSFs. It highlights the mixed evidence from international studies and proposes recommendations for policy makers to ensure equitable access, maintain high-quality care and achieve cost-effectiveness. The paper underscores the necessity for informed policy making supported by robust empirical research, stakeholder engagement and continuous policy evaluation to address the challenges posed by the integration of CSFs into Canada's healthcare landscape.

Falk, W. (2024). "Commentary: Pricing Cataract (and Other Straightforward) Surgeries - A Policy Perspective to Build Capacity, Value and Innovation." Healthc Policy **19**(3): 42-48.
https://doi.org/10.12927/hcpol.2024.27285

> Aligning with Crump and colleagues' (2024) conclusions on cataract surgery, this article champions a level playing field for expanding surgical capacities for straightforward surgeries. It is agnostic toward for-profit or not-for-profit models. It argues for experimenting with new ambulatory facilities to meet urgent needs, emphasizing Ontario's successful two-decade experience with models such as the Kensington Eye Institute. The discussion advances a three-tiered pricing framework, advocating for transparent, structured pricing to reduce wait times and improve public health outcomes. This approach seeks to balance annual

[1] Pour en savoir plus sur ce projet : https://www.irdes.fr/recherche/projets/decile-les-depassements-d-honoraires-caracterisation-impacts-sur-l-offre-et-leviers-de-regulation.pdf

commitments, quarterly adjustments and spot market needs, promoting innovation, cost-efficiency and quality care.

Or, Z., Cartailler, J. (2024). Atlas des variations de pratiques médicales. = Recours à onze interventions chirurgicales. Edition 2023. Paris, Irdes (Série Atlas)
https://www.irdes.fr/recherche/ouvrages/009-atlas-des-variations-de-pratiques-medicales-recours-a-onze-interventions-chirurgicales.pdf

Ce deuxième Atlas des variations de pratiques médicales, dans la continuité du premier Atlas publié en 2016, dresse l'état des lieux et suit l'évolution des taux de recours à onze interventions chirurgicales entre 2014 et 2019. Cet Atlas élargit également le cadre du suivi et de l'évaluation des variations des pratiques en France en proposant trois nouveaux indicateurs de processus et de qualité des soins : le taux de chirurgie ambulatoire, l'utilisation des protocoles de Récupération améliorée après chirurgie (Raac) et le taux de réadmission à 30 jours. L'Atlas permet ainsi d'illustrer de façon objective les écarts de pratiques chirurgicales existant entre les départements et leur évolution sur une période de cinq ans, afin d'interroger leurs causes et leur pertinence. Il vise à inciter les professionnels de santé à comparer et à questionner leurs pratiques, entre eux et avec les institutionnels et les usagers du système de santé, afin de partager la notion de variation des pratiques médicales. C'est une condition indispensable à l'amélioration non seulement de la qualité mais aussi de l'équité des soins.

Jun, D. et Scott, A. (2023). "The impact of changes in a physician fee schedule on medical expenditures, fees, and volume of services. Evidence from a national fee schedule reform in Australia." Social Science & Medicine **337**: 116269.
https://www.sciencedirect.com/science/article/pii/S0277953623006263

We examine the impact of changes to a national physician fee schedule on total medical expenditures, the volume of services, and fees charged. In our context, changes to the fee schedule were designed to promote value-based health care, and so included different types of changes to subsidised medical services, including changes to fees. Using claims data from a sample of doctors linked to a physician survey, we use difference-in-difference methods with a staggered adoption design to compare medical services which were affected with those which were not. We show that medical expenditures and the volume of affected services fell, though there is uncertainty about the magnitude of the fall. For GPs, we find evidence of increases in expenditures and fees and an increase in fees for some services provided by specialists.

Ma, N., Low, S., Hasan, S., et al. (2023). "A multi-disciplinary approach to transforming eye care services for care home residents." Age and Ageing **52**(Supplement_1).
https://doi.org/10.1093/ageing/afac322.114

Care home residents can have variable access to eye care services and treatments. We developed a collaborative approach between optometrists, care homes, and primary and secondary care to enable personalised patient-centred care. To develop and evaluate an integrated model of eye care for care home residents. Small scale plan-do-study-act (PDSA) service tests were completed in three care-homes in Southwark (2 residential, 1 nursing)

between November 2021 to May 2022. Processes were compared to historical feedback and hospital-based ophthalmology clinic attendances (Mar 2019-2020). Hospital-like assessments were piloted at two care homes for feasibility and acceptability. Further piloting utilised usual domiciliary optometry-led assessment with multidisciplinary meeting access (including optometrist, GP, geriatrician, ophthalmologist and care home nurse) to reduce duplication of assessments and to evaluate MDM processes and referral rates. Examination was 100% successful at home (visual acuity and pressure measurement) compared to hospital outpatients (71.7% success visual acuity, 54.5% pressures). Examination was faster than in hospital settings (16 minutes vs 45 minutes-1 hour). Residents were away from usual activities for 32 minutes vs 6 hours for hospital visits including transport. Residents were less distressed with home-based assessments. Did-Not-Attend (DNA) rates reduced (26.7% to 0%), secondary care discharge rates improved (8.4% to 32%). Hospital eye service referral were indicated in 19% -23%, half of which were for consideration of cataract surgery. Alternative conservative plans were agreed at MDM for nursing home residents who were clinically too frail or would not have been able to comply with treatments avoiding 33% unnecessary referrals. Home-based eye care assessments appear better tolerated and are more efficient for residents, health and care staff. Utilising an MDM for optometrists to discuss residents with ophthalmologists and wider MDT members enabled personalised patient-centred decision-making. Future work to test this borough wide is in progress.

Pershing, S., Sandhu, A. T., Uwilingiyimana, A. S., et al. (2023). "Cataract Surgery in the Medicare Merit-Based Incentive Payment System Episode-Based Cost Measure Development and Evaluation." Ophthalmology Science **3**(4).

Objective: To characterize the development and performance of a cataract surgery episode-based cost measure for the Medicare Quality Payment Program. Design: Claims-based analysis. Participants: Medicare clinicians with cataract surgery claims between June 1, 2016, and May 31, 2017.Methods: We limited the analysis to claims with procedure code 66984 (routine cataract surgery), excluding cases with relevant ocular comorbidities. We divided episodes into subgroups by surgery location (Ambulatory Surgery Center [ASC] or Hospital Outpatient Department [HOPD]) and laterality (bilateral when surgeries were within 30 days apart). For the episode-based cost measure, we calculated costs occurring between 60 days before surgery and 90 days after surgery, limited to services identified by an expert committee as related to cataract surgery and under the influence of the cataract surgeon. We attributed costs to the clinician submitting the cataract surgery claim, categorized costs into clinical themes, and calculated episode cost distribution, reliability in detecting clinician-dependent cost variation, and costs with versus without complications. We compared episode-based cost scores with hypothetical "nonselective" cost scores (total Medicare beneficiary costs between 60 days before surgery and 90 days after surgery).Main Outcome Measures: Episode costs with and without complications, clinician-dependent variation (proportion of total cost variance), and proportion of costs from cataract surgery-related clinical themes. Results: We identified 583 356 cataract surgery episodes attributed to 10 790 clinicians and 8189 with > 10 episodes during the measurement period. Most surgeries were performed in an ASC (71%) and unilateral (66%). The mean episode cost was $2876. The HOPD surgeries had higher costs; geography and episodes per clinician did not substantially affect costs. The proportion of cost variation from clinician-dependent factors was higher in episode-based compared with nonselective cost measures (94% vs. 39%), and cataract

surgery-related clinical themes represented a higher proportion of total costs for episode-based measures. Episodes with complications had higher costs than episodes without complications ($3738 vs. $2276).Conclusions: The cataract surgery episode-based cost measure performs better than a comparable nonselective measure based on cost distribution, clinician-dependent variance, association with cataract surgery-related clinical themes, and quality alignment (higher costs in episodes with complications). Cost measure maintenance and refinement will be important to maintain clinical validity and reliability. Financial Disclosure(s): Proprietary or commercial disclosure may be found after the references. Ophthalmology Science 2023;3:100315 Published by Elsevier on behalf of the American Academy of Ophthalmology. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/ licenses/by-nc-nd/4.0/).

Skovsgaard, C. V., Kristensen, T., Pulleyblank, R., et al. (2023). "Increasing capitation in mixed remuneration schemes: Effects on service provision and process quality of care." Health Econ **32**(11): 2477-2498.
https://onlinelibrary.wiley.com/doi/abs/10.1002/hec.4736

Abstract Many health systems apply mixed remuneration schemes for general practitioners, but little is known about the effects on service provision of changing the relative mix of fee for services and capitation. We apply difference-in-differences analyses to evaluate a reform that effectively reversed the mix between fee for services and capitation from 80/20 to 20/80 for patients with type 2 diabetes. Our results show reductions in provision of both the contact services that became capitated and in other non-capitated (still-billable) services. Reduced provision also occurred for guideline-recommended process quality services. We find that the effects are mainly driven by patients with co-morbidities and by general practitioners with high income, relatively many diabetes patients, and solo practitioners. Thus, increasing capitation in a mixed remuneration schemes appears to reduce service provision for patients with type 2 diabetes monitored in general practice with a risk of unwanted quality effects.

Ting, D. S. J., Tatham, A. J., Donachie, P. H. J., et al. (2023). "The Royal College of Ophthalmologists' National Ophthalmology Database study of cataract surgery: report 16, influence of remuneration model on choice of intraocular lens in the UK." Eye (Basingstoke) **37**(18): 3854-3860.
https://doi.org/10.1038/s41433-023-02665-y

Background/Objectives: Cataract surgery with intraocular lens (IOL) implantation is one of the most commonly performed surgeries worldwide. Within the UK, publicly funded cataract surgery is remunerated by two models: (1) "block contract" (BC), which commissions organisations to deliver whole service pathways without considering specific activity items; or (2) "payment by results" (PbR), which pays a tariff price for each procedure. This study aimed to examine the association between remuneration model and the cost and types of IOL used. Subjects/Methods: Cataract operations recorded on the Royal College of Ophthalmologists' National Ophthalmology Database were included, with additional data collected for remuneration model from NHS England and cost of IOL from the NHS Spend Comparison Service. Results: We included 907,052 cataract operations from 87 centres. The majority of operations were performed in PbR centres (456 198, 50.3%), followed by BC centres (240

641, 26.5%) and mixed models centres (210 213, 23.2%). The mean price of hydrophobic (n = 7) and hydrophilic IOLs (n = 5) were £45.72 and £42.86, respectively. Hydrophobic IOLs were predominantly used (650 633, 71.7%) and were significantly more commonly used in centres remunerated by BC (96.5% vs. 3.5%) than those by PbR (65.7% vs. 34.3%) when compared to hydrophilic IOLs ($p < 0.001$). Conclusions: This study demonstrated that the IOL choice may be perversely incentivised by the IOL cost and remuneration model. Although hydrophobic IOLs are more expensive at the point of surgery, their potential longer-term cost-effectiveness due to reduced requirement for YAG capsulotomy should be considered. © 2023, The Author(s), under exclusive licence to The Royal College of Ophthalmologists.

Viriyathorn, S., Witthayapipopsakul, W., Kulthanmanusorn, A., et al. (2023). "Definition, Practice, Regulations, and Effects of Balance Billing: A Scoping Review." Health Serv Insights **16**: 11786329231178766.
https://doi.org/10.1177/11786329231178766

BACKGROUND: Additional billing is commonly and legally practiced in some countries for patients covered by health insurance. However, knowledge and understanding of the additional billings are limited. This study reviews evidence on additional billing practices including definition, scope of practice, regulations and their effects on insured patients. METHODS: A systematic search of the full-text papers that provided the details of balance billing for health services, written in English, and published between 2000 and 2021 was carried out in Scopus, MEDLINE, EMBASE and Web of Science. Articles were screened independently by at least 2 reviewers for eligibility. Thematic analysis was applied. RESULTS: In total, 94 studies were selected for the final analysis. Most of the included articles (83%) reported findings from the United States (US). Numerous terms of additional billings were used across countries such as balance billing, surprise billing, extra billing, supplements and out-of-pocket (OOP) spending. The range of services incurred these additional bills also varied across countries, insurance plans, and healthcare facilities; the frequently reported were emergency services, surgeries, and specialist consultation. There were a few positive though more studies reported negative effects of the substantial additional bills which undermined universal health coverage (UHC) goals by causing financial hardship and reducing access to care. A range of government measures had been applied to mitigate these adverse effects, but some difficulties still exist. CONCLUSION: Additional billings varied in terms of terminology, definitions, practices, profiles, regulations, and outcomes. There were a set of policy tools aimed to control substantial billing to insured patients despite some limitations and challenges. Governments should apply multiple policy measures to improve financial risk protection to the insured population.

Berlin, N. L., Chopra, Z., Bryant, A., et al. (2022). "Individualized Out-of-Pocket Price Estimators for "Shoppable" Surgical Procedures: A Nationwide Cross-Sectional Study of US Hospitals." Ann Surg Open **3**(2): e162.

To estimate the nationwide prevalence of individualized out-of-pocket (OOP) price estimators at US hospitals, characterize patterns of inclusion of 14 specified "shoppable" surgical procedures, and determine hospital-level characteristics associated with estimators that include surgical procedures. BACKGROUND: Price transparency for shoppable surgical

services is a key requirement of several recent federal policies, yet the extent to which hospitals provide online OOP price estimators remains unknown. METHODS: We reviewed a stratified random sample of 485 U.S. hospitals for the presence of a tool to allow patients to estimate individualized OOP expenses for healthcare services. We compared characteristics of hospitals that did and did not offer online price estimators and performed multivariable modeling to identify facility-level predictors of hospitals offering price estimator with and without surgical procedures. RESULTS: Nearly two-thirds (66.0%) of hospitals in the final sample (95% confidence interval 61.6%-70.1%) offered an online tool for estimating OOP healthcare expenses. Approximately 58.5% of hospitals included at least one shoppable surgical procedure while around 6.6% of hospitals included all 14 surgical procedures. The most common price reported was laparoscopic cholecystectomy (55.1%), and the least common was recurrent cataract removal (20.0%). Inclusion of surgical procedures varied by total annual surgical volume and health system membership. Only 26.9% of estimators explicitly included professional fees. CONCLUSIONS: Our findings highlight an ongoing progress in price transparency, as well as key areas for improvement in future policies to help patients make more financially informed decisions about their surgical care.

Hwang, S.-H. et Lee, J. Y. (2022). "Changes in the volume of cataract surgeries and associated factors in Korea." Public Health Affairs **6**(1): e10.

Ikkersheim, D. et Koolman, X. (2013). "The use of quality information by general practitioners: does it alter choices? A randomized clustered study." BMC Fam Pract **14**: 95.

BACKGROUND: Following the introduction of elements of managed competition in the Netherlands in 2006, General Practitioners (GPs) and patients were given the role to select treatment hospital using public quality information. In this study we investigate to what extent hospital preferences of GP's are affected by performance indicators on medical effectiveness and patient experiences. We selected three conditions: breast cancer, cataract surgery, and hip and knee replacement. METHODS: After an inquiry 26 out of 226 GPs in the region signed up to participate in our study. After a 2:1 randomization, we analyzed the referral patterns in the region using three groups of GPs: GPs (n=17) who used the report cards and received personal clarification, GPs that signed up for the study but were assigned to the control group (n=9), and the GPs outside the study (n=200).We conducted a difference in differences analysis where the choice for a particular hospital was the dependent variable and time (2009 or 2010), the sum score of the CQI, the sum score of the PI's and dummy variables for the individual hospitals were used as independent variables. RESULTS: The analysis of the conditions together and cataract surgery and hip and knee replacement separately, showed no significant relationships between the scores on the report cards and the referral patterns of the GPs. For breast cancer our analysis revealed that GPs in the intervention group refer 1.0% (p=0.01) more to hospitals that score one percent point better on the indicators for medical effectiveness. CONCLUSION: Our study provides empirical evidence that GP referral patterns were unaffected by the available quality information, except for the outcome indicators for breast cancer care that were presented. This finding was surprising since our study was designed to identify changes in hospital preference (1) amongst the most motivated GP's, (2) that received personal clarification of the performance indicators, and (3) selected indicators/conditions from a large set of indicators that they believed were most important. This finding may differ when quality information is based on

outcome indicators with a clinically relevant difference, as shown by our indicators for breast cancer treatment. We believe that the current set of (largely process) hospital quality indicators do not serve the GP's information needs and consequently quality plays little role in the selection of hospitals for treatment.

Fang, R., Yu, Y. F., Li, E. J., et al. (2022). "Global, regional, national burden and gender disparity of cataract: findings from the global burden of disease study 2019." BMC Public Health **22**(1): 2068.

BACKGROUND: To evaluate the global burden of cataracts by year, age, region, gender, and socioeconomic status using disability-adjusted life years (DALYs) and prevalence from the Global Burden of Disease (GBD) study 2019. METHODS: Global, regional, or national DALY numbers, crude DALY rates, and age-standardized DALY rates caused by cataracts, by year, age, and gender, were obtained from the Global Burden of Disease Study 2019. Socio-demographic Index (SDI) as a comprehensive indicator of the national or regional development status of GBD countries in 2019 was obtained from the GBD official website. Kruskal-Wallis test, linear regression, and Pearson correlation analysis were performed to explore the associations between the health burden with socioeconomic levels, Wilcoxon Signed-Rank Test was used to investigate the gender disparity. RESULTS: From 1990 to 2019, global DALY numbers caused by cataracts rose by 91.2%, crude rates increased by 32.2%, while age-standardized rates fell by 11.0%. Globally, age-standardized prevalence and DALYs rates of cataracts peaked in 2017 and 2000, with the prevalence rate of 1283.53 [95% uncertainty interval (UI) 1134.46-1442.93] and DALYs rate of 94.52 (95% UI 67.09-127.24) per 100,000 population, respectively. The burden was expected to decrease to 1232.33 (95% UI 942.33-1522.33) and 91.52 (95% UI 87.11-95.94) by 2050. Southeast Asia had the highest blindness rate caused by cataracts in terms of age-standardized DALY rates (99.87, 95% UI: 67.18-144.25) in 2019. Gender disparity has existed since 1990, with the female being more heavily impacted. This pattern remained with aging among different stages of vision impairments and varied through GBD super regions. Gender difference (females minus males) of age-standardized DALYs (equation: Y = -53.2*X + 50.0, >t 0.001) and prevalence rates (equation: Y = - 492.8*X + 521.6, >; 0.001) was negatively correlated with SDI in linear regression. CONCLUSION: The global health of cataracts is improving but the steady growth in crude DALY rates suggested that health progress does not mean fewer demands for cataracts. Globally, older age, females, and lower socioeconomic status are associated with higher cataract burden. The findings of this study highlight the importance to make gender-sensitive health policies to manage global vision loss caused by cataracts, especially in low SDI regions.

Lin, J. C., Ghauri, S. Y., French, D., et al. (2022). "State-sponsored price transparency programs for ophthalmic services." Health Policy and Technology **11**(4).

Objectives: To characterize the information provided by state-sponsored price transparency programs and describe price variation for ophthalmic services. Methods: We searched for state-sponsored price transparency programs and reviewed all available information on ophthalmic services. Results: In total, 55% (6/11) of state-sponsored price transparency programs included ophthalmic services. Three provided nonfinancial value metrics, five provided prices by clinician organization, and none reported out-of-pocket costs, insurance costs, or prices by insurers for ophthalmic services. The median within-state price ratio was

3.65 (interquartile ratio [IQR]: 2.04-7.91). Mean prices for cataract surgery ranged from $2575 to $5097 and from $873 and $27,801.66 for retinal detachment repair. Discussion: Most of the eleven state-sponsored price transparency programs included pricing information for ophthalmic services. No programs provided specific out-of-pocket costs, insurance costs, or prices by insurers for ophthalmic services. There was substantial variation in prices for all included ophthalmic services within and between states.

Zhang, L. L. et Sun, L. H. (2022). "Impacts of case-based payments reform on healthcare providers' behaviour on cataract surgery in a tertiary hospital in China: An eight-year retrospective study." International Journal of Health Planning and Management **37**(1): 504-512.

Background Case-based payment has extensively been adopted to replace the fee-for-service payment in China. This paper aims to assess the impacts of case-based payment reform on the providers' behaviour using cataract surgery as an example. Methods A total of 400 cataract inpatients were sampled in a tertiary hospital. Data analysis consisted of descriptive statistics, Wilcoxon rank-sum test and Chi-square test. Results The number of routine preoperative laboratory tests and drugs significantly declined after the case-based payment reform ($p < 0.001$). Healthcare providers significantly reduced the use frequency of systemic glucocorticoids (GCs) and antibiotics, adjuvant drugs, multiple antibiotic eye drops, generic drugs in cataract surgery after reform ($p < 0.001$), and they reduced non-ophthalmic medications after reform ($p < 0.01$). Notably, all patients were prescribed GC eye drops, antibiotic eye drops, and original drugs in both groups. Moreover, the preoperative, postoperative, and total length of stay (LOS) declined after the reform ($p < 0.001$). Nonetheless, no significant difference was noted in the care quality between the two group. Conclusion The case-based payment reform decreased the intensity of care by reducing unnecessary drugs and retaining necessary drugs on cataract surgery. Besides, the LOS was shortened. Further, an impaired care quality was not witnessed, however, cost-shifting warrants further attention.

Zhu, Z., Li, L., Scheetz, J., et al. (2022). "Geographic variation in cumulative incidence of private cataract surgery in Australia and its influencing factors: Findings from the 45 and Up Study." Eye **36**(9): 1767-1771.
https://doi.org/10.1038/s41433-021-01630-x

To investigate the geographic variation in the cumulative incidence of private cataract surgery (PCS) and its association with remoteness, socioeconomic, and private health insurance coverage indexes in a large Australian population.

Berkowitz, S. T., Siktberg, J., Hamdan, S. A., et al. (2021). "Health Care Price Transparency in Ophthalmology." JAMA Ophthalmol **139**(11): 1210-1216.

This economic evaluation assesses the degree to which hospitals provide standard charges for the required ophthalmologic shoppable services and characterizes the variability in these standard charges. Question Following new price transparency legislation, what are the availability, usability, and variability of standard reported prices for ophthalmologic procedures? Findings This economic evaluation of price transparency tools found issues of usability, availability, and large interhospital variability for price estimates for Current

Procedural Terminology codes 66984 and 66821. These issues were not explained by geographic variability in costs. Meaning Despite recent federal legislature that codified price transparency requirements, some current standard charges remain ambiguous, which may disproportionately burden vulnerable and uninsured patients. IMPORTANCE Health care price transparency legislation is intended to reduce the ambiguity of hospital charges and the resultant financial stress faced by patients. OBJECTIVE To evaluate the availability, usability, and variability of standard reported prices for ophthalmologic procedures at academic hospitals. DESIGN, SETTING, AND PARTICIPANTS In this multicenter economic evaluation study, publicly available price transparency web pages from Association of American Medical Colleges affiliate hospitals were parsed for standard charges and usability metrics. Price transparency data were collected from hospital web pages that met the inclusion criteria. Geographic practice cost indices for work, practice expense, and malpractice were sourced from the Centers for Medicare & Medicaid Services. Data were sourced from February 1 to April 30, 2021. Multiple regression was used to study the geographic influence on standard charges and assess the correlation between standard charges. MAIN OUTCOMES AND MEASURES Availability and variability of standard prices for Current Procedural Terminology (CPT) codes 66984 (removal of cataract with insertion of lens) and 66821 (removal of recurring cataract in lens capsule using laser). RESULTS Of 247 hospitals included, 191 (77.3%) provided consumer-friendly shoppable services, most commonly in the form of a price estimator or online tool. For CPT code 66984, 102 hospital (53.4%) provided discount cash pay estimates with a mean (SD) price of $7818.86 ($5407.91). For CPT code 66821, 71 hospital (37.2%) provided discount cash pay estimates with a mean (SD) price of $2041.72 ($2106.44). The top quartile of hospitals, prices wise, listed included prices higher than $10 400 for CPT code 66984 and $2324 for CPT code 66821. Usability issues were noted for 36 hospitals (18.8%), including requirements for personal information or web page navigability barriers. Multiple regression analysis found minimal explanatory value for geographic practice cost indices for cash discount prices for CPT codes 66984 (adjusted R-2 = 0.54; 95% CI, 0.41-0.67; P < .001) and 66821 (adjusted R-2 = 0.64; 95% CI, 0.51-0.77; P < .001). CONCLUSIONS AND RELEVANCE Despite recent legislature that codified price transparency requirements, some current standard charges remain ambiguous, with substantial interhospital variability not explained by geographic variability in costs. Given the potential for ambiguous pricing to burden vulnerable, uninsured patients, additional legislation might consider allowing hospitals to defer price estimates or rigorously define standards for actionable cash discount percentages with provisions for displaying relevant benchmark prices.

Goel, H., Wemyss, T. A., Harris, T., et al. (2021). "Improving productivity, costs and environmental impact in International Eye Health Services: using the 'Eyefficiency' cataract surgical services auditing tool to assess the value of cataract surgical services." Bmj Open Ophthalmology **6**(1).

Objective Though one of the most common surgeries, there is limited information on variability of practices in cataract surgeries. 'Eyefficiency' is a cataract surgical services auditing tool to help global units improve their surgical productivity and reduce their costs, waste generation and carbon footprint. The aim of the present research is to identify variability and efficiency opportunities in cataract surgical practices globally. Methods and Analysis 9 global cataract surgical facilities used the Eyefficiency tool to collect facility-level data (staffing, pathway steps, costs of supplies and energy use), and live time-and-motion

data. A point person from each site gathered and reported data on 1 week or 30 consecutive cataract surgeries. Environmental life cycle assessment and descriptive statistics were used to quantify productivity, costs and carbon footprint. The main outcomes were estimates of productivity, costs, greenhouse gas emissions, and solid waste generation per-case at each site. Results Nine participating sites recorded 475 cataract extractions (a mix of phacoemulsification and manual small incision). Cases per hour ranged from 1.7 to 4.48 at single-bed sites and 1.47 to 4.25 at dual-bed sites. Average per-case expenditures ranged between 31.55 pound and 399.34 pound, with a majority of costs attributable to medical equipment and supplies. Average solid waste ranged between 0.19 kg and 4.27 kg per phacoemulsification, and greenhouse gases ranged from 41 kg carbon dioxide equivalents (CO2e) to 130 kg CO2e per phacoemulsification. Conclusion Results demonstrate the global diversity of cataract surgical services and non-clinical metrics. Eyefficiency supports local decision-making for resource efficiency and could help identify regional or global best practices for optimising productivity, costs and environmental impact of cataract surgery.

Mudumbai, S. C., Pershing, S., Bowe, T., et al. (2021). "Variability and Costs of Low-Value Preoperative Testing for Cataract Surgery Within the Veterans Health Administration." JAMA Netw Open **4**(5): e217470.

IMPORTANCE: The Choosing Wisely guidelines indicate that preoperative testing is often unnecessary and wasteful for patients undergoing cataract operations. However, little is known about the impact of these widely disseminated guidelines within the US Veterans Health Administration (VHA) system. OBJECTIVE: To examine the extent, variability, associated factors, and costs of low-value tests (LVTs) prior to cataract operations in the VHA. DESIGN, SETTING, AND PARTICIPANTS: This cohort study examined records of all patients receiving cataract operations within the VHA in fiscal year 2017 (October 1, 2016, to September 31, 2017). Records from 135 facilities nationwide supporting both ambulatory and inpatient surgery were included. EXPOSURES: A laboratory test occurring within 30 days prior to cataract surgery and within 30 days after clinic evaluation. MAIN OUTCOMES AND MEASURES: Overall national and facility-level rates and associated costs of receiving any of 8 common LVTs in the 30 days prior to cataract surgery. The patient characteristics, procedure type, and facility-level factors associated with receiving at least 1 test, the number of tests received, and receipt of a bundle of 4 tests (complete blood count, basic metabolic profile, chest radiograph, and electrocardiogram). RESULTS: A total of 69 070 cataract procedures were identified among 50 106 patients (66 282 [96.0%] men; mean [SD] age, 71.7 [8.1] years; 53 837 [77.9%] White, 10 292 [14.9%] Black). Most of the patient population had either overweight (23 292 [33.7%] patients) or obesity (27 799 [40.2%] patients). Approximately 49% of surgical procedures (33 424 procedures) were preceded by 1 or more LVT with an overall LVT cost of $2 597 623. Among patients receiving LVTs, electrocardiography (7434 patients [29.9%]) was the most common, with some patients also receiving more costly tests, including chest radiographs (489 patients [8.2%]) and pulmonary function tests (127 patients [3.4%]). For receipt of any LVT, the intraclass correlation coefficient was 0.61 ($P < .001$) at the facility level and 0.06 ($P < .001$) at the surgeon level, indicating the substantial contribution of the facility to amount of tests given. CONCLUSIONS AND RELEVANCE: Despite existing guidelines, use of LVTs prior to cataract surgery is both common and costly within a large, national integrated health care system. Our results suggest that publishing evidence-based guidelines alone-such as the Choosing Wisely campaign-may not sufficiently influence

individual physician behavior, and that system-level efforts to directly deimplement LVTs may therefore necessary to effect sustained change.

Patel, S., Glasser, D., Repka, M. X., et al. (2021). "Changes in Medicare Reimbursement for Commonly Performed Ophthalmic Procedures." Ophthalmology **128**(10): 1485-1487.

Rossi, T., Romano, M. R., Iannetta, D., et al. (2021). "Cataract surgery practice patterns worldwide: a survey." Bmj Open Ophthalmology **6**(1).

Objective To report the results of a global survey on cataract practice patterns related to preoperative, intraoperative and postoperative care, surgical setting and personnel allocation. Methods and analysis An online 28 questions survey was sent to 240 ophthalmologists asking to describe prevailing trends in their institutions across 38 countries and 5 continents. Questions inquired country, institution, surgical volume and setting, anaesthesia, preoperative and intraoperative examination and postsurgical care. Statistical analysis used crosstabs lambda statistics for non-parametric nominal variables. P value less than 0.05 was considered statistically significant. Results 209/240 (87%) ophthalmologists responded: 38% representing public hospitals, 36% private practices and 26% academic sites; overall surgical volume was between 241 700 and 410 500 cataracts per year. There was a significant correlation between type of institution and surgical volume. Complete results available in online (https://freeonlinesurveys.com/r/W6BcLLxy). Conclusion Cataract surgery related patterns of perioperative care showed significant difference among respondents, regardless to type of institution, surgical volume and country. Many evidence-based procedures are unevenly practiced around the world and some widespread and expensive habits lack solid scientific evidence while consuming enormous amount of resources both monetary and human. There is a need to reach consensus and share evidence-based practice patterns.

Seid, M., Minyihun, A., Tilahun, G., et al. (2021). "Willingness to pay for cataract surgery and associated factors among cataract patients in Outreach Site, North West Ethiopia." PLoS One **16**(3).

Introduction In Ethiopia, cataract surgery is mainly provided by donors free of charge through outreach programs. Assessing willingness to pay for patients for cataract surgery will help explain how the service is valued by the beneficiaries and design a domestic source of finance to sustain a program. Although knowledge concerning willingness to pay for cataract surgery is substantive for developing a cost-recovery model, the existed knowledge is limited and not well-addressed. Therefore, the study aimed to assess willingness to pay for cataract surgery and associated factors among cataract patients in Outreach Site, North West Ethiopia. Methods A cross-sectional outreach-based study was conducted on 827 cataract patients selected through a simple random sampling method in Tebebe Gion Specialized Hospital, North West Ethiopia, from 10/11/2018 to 14/11/2018. The data were collected using a contingent valuation elicitation approach to elicit the participants' maximum willingness to pay through face to face questionnaire interviews. The descriptive data were organized and presented using summary statistics, frequency distribution tables, and figures accordingly. Factors assumed to be associate with a willingness to pay were identified using a Tobit regression model with a p-value of <0.05 and confidence interval (CI not equal 0). Results The study involved 827 cataract patients, and their median age was 65years. About

55% of the participants were willing to pay for the surgery. The average amount of money willing to pay was 17.5USD (95% CI; 10.5, 35.00) and It was significantly associated with being still worker (beta = 26.66, 95% CI: 13.03, 40.29), being educated (beta = 29.16, 95% CI: 2.35, 55.97), free from ocular morbidity (beta = 28.48, 95% CI: 1.08, 55.90), duration with the condition, (beta = -1.69, 95% CI: -3.32, -0.07), admission laterality (beta = 21.21, 95% CI: 3.65, 38.77) and remained visual ability (beta = -0.29, 95% CI (-0.55, -0.04). Conclusions Participants' willingness to pay for cataract surgery in outreach Sites is much lower than the surgery's actual cost. Early intervention and developing a cost-recovery model with multi-tiered packages attributed to the neediest people as in retired, less educated, severely disabled is strategic to increase the demand for service uptake and service accessibility.

Sen, S. et Deokar, A. V. (2021). "Discovering healthcare provider behavior patterns through the lens of Medicare excess charge." BMC Health Serv Res **21**(1): 2.

BACKGROUND: The phenomenon of excess charge, where a healthcare service provider bills Medicare beyond the limit allowed for a medical procedure, is quite common in the United States public healthcare system. For example, in 2014, healthcare providers charged an average of 3.27 times (and up to 528 times) the allowable limit for cataract surgery. Previous research contends that such excess charges may be indicative of the actual amount that providers bill to non-Medicare patients and subsequent cost-shifting behavior, where a healthcare provider tries to recoup underpayment by Medicare from privately insured, self-pay, out-of-network, and uninsured patients. OBJECTIVES: The objective of this study is to examine the drivers of a provider's excess charge patterns, especially the extent to which the degree of excess charges may be associated with physician characteristics, Medicare reimbursement policy, or socioeconomic status and demographics of a provider's patient base. METHODS: Using data from the 2014 Medicare Provider Utilization files, we identify three procedures with the highest variation in Medicare reimbursements to study the excess charge phenomenon. We then employ a two-step cluster analysis within each procedure to identify distinct provider groups. RESULTS: Each procedure code yielded distinct healthcare provider segments with specific patient demographics and related behavior patterns. Cluster silhouette coefficients indicate that these segments are unique. Three random subsamples from each procedure establish the stability of the clusters. CONCLUSIONS: For each of the three procedures investigated in this study, a sizeable number of healthcare providers serving poorer, riskier patients are often paid significantly lower than their peers, and subsequently have the highest excess charges. For some providers, excess charges reveal possible cost-shifting to private insurance. Patterns of excess charges also indicate an imbalance of market power, especially in areas with lower provider competition and access to health care, thus leading to urban-rural healthcare disparities. Our results reinforce the call for price transparency and an upper limit to overbilling.

Duffy, E. L., Adler, L., Ginsburg, P. B., et al. (2020). "Prevalence And Characteristics Of Surprise Out-Of-Network Bills From Professionals In Ambulatory Surgery Centers." Health Affairs **39**(5): 783-790. https://doi.org/10.1377/hlthaff.2019.01138

Patients treated at in-network facilities can involuntarily receive services from out-of-network providers, which may result in ?surprise bills.? While several studies report the surprise billing prevalence in emergency department and inpatient settings, none document

the prevalence in ambulatory surgery centers (ASCs). The extent to which health plans pay a portion or all of out-of-network providers? bills in these situations is also unexplored. We analyzed 4.2 million ASC-based episodes of care in 2014?17, involving 3.3 million patients enrolled in UnitedHealth Group, Humana, and Aetna commercial plans. One in ten ASC episodes involved out-of-network ancillary providers at in-network ASC facilities. Insurers paid providers? full billed charges in 24 percent of the cases, leaving no balance to bill patients. After we accounted for insurer payment, we found that there were potential surprise bills in 8 percent of the episodes at in-network ASCs. The average balance per episode increased by 81 percent, from $819 in 2014 to $1,483 in 2017. Anesthesiologists (44 percent), certified registered nurse anesthetists (25 percent), and independent laboratories (10 percent) generated most potential surprise bills. There is a need for federal policy to expand protection from surprise bills to patients enrolled in all commercial insurance plans.

Tulp, A. D. M. et Kruse, F. M. (2020). "Independent Treatment Centres Are Not a Guarantee for High Quality and Low Healthcare Prices in The Netherlands - A Study of 5 Elective Surgeries." Int J Health Policy Manag. **9**(9): 380-389.

BACKGROUND: Independent treatment centres (ITCs) are a growing phenomenon in many healthcare systems. Focus factory theory predicts that ITCs provide high quality healthcare with low prices, through specialisation, high-volume and routine. This study examines if ITC care outperforms general hospital (GH) care within a regulated competition system in the Netherlands, by focusing on differences in healthcare quality and price. METHODS: The cross-sectional study combined publicly available quality data, list prices and insurer contracts for 2017. Clinical outcomes of 5 elective surgeries (total hip and knee replacement, anterior cruciate ligament (ACL), cataract and carpal tunnel surgeries) were compared using zero-or-one inflated beta-regressions, corrected for underlying structural factors (ie, volume of care, process and structure indicators, and chain affiliation). Furthermore, price differences between ITCs and GHs were examined using ordinary least squares regressions. Lastly, we analysed quality of care in relation to the number of insurance contracts of the 4 largest Dutch insurance companies using ordered logistic regressions. RESULTS: Quality differences between ITCs and GHs were found to be inconsistent across procedures. No facility type performed better overall. There were no differences exhibited in the list prices between ITCs and GHs. No consistent relationship was found between the underlying factors and quality or price, in different procedures and time. We found no indication for selective contracting based on quality within the ITC sector. CONCLUSION: This study found no evidence that ITCs outperform GHs on quality or price. This evidence does not support the focus factory theory. The substantial practice variation in quality of care may justify more evidence-based contracting within the market for elective surgery.

Tulp, A. D. M., Kruse, F. M., Stadhouders, N. W., et al. (2020). "Independent Treatment Centres Are Not a Guarantee for High Quality and Low Healthcare Prices in The Netherlands - A Study of 5 Elective Surgeries." Int J Health Policy Manag **9**(9): 380-389.

BACKGROUND: Independent treatment centres (ITCs) are a growing phenomenon in many healthcare systems. Focus factory theory predicts that ITCs provide high quality healthcare with low prices, through specialisation, high-volume and routine. This study examines if ITC

care outperforms general hospital (GH) care within a regulated competition system in the Netherlands, by focusing on differences in healthcare quality and price. METHODS: The cross-sectional study combined publicly available quality data, list prices and insurer contracts for 2017. Clinical outcomes of 5 elective surgeries (total hip and knee replacement, anterior cruciate ligament (ACL), cataract and carpal tunnel surgeries) were compared using zero-or-one inflated beta-regressions, corrected for underlying structural factors (ie, volume of care, process and structure indicators, and chain affiliation). Furthermore, price differences between ITCs and GHs were examined using ordinary least squares regressions. Lastly, we analysed quality of care in relation to the number of insurance contracts of the 4 largest Dutch insurance companies using ordered logistic regressions. RESULTS: Quality differences between ITCs and GHs were found to be inconsistent across procedures. No facility type performed better overall. There were no differences exhibited in the list prices between ITCs and GHs. No consistent relationship was found between the underlying factors and quality or price, in different procedures and time. We found no indication for selective contracting based on quality within the ITC sector. CONCLUSION: This study found no evidence that ITCs outperform GHs on quality or price. This evidence does not support the focus factory theory. The substantial practice variation in quality of care may justify more evidence-based contracting within the market for elective surgery.

Barequet, D. et Tur-Sinai, A. (2019). "Health policy regulations pertaining to advanced surgical devices-their socio-economic effects on ophthalmology practice." BMC Health Serv Res **8**(1): 13.

The Israel Ministry of Health enacted regulations that aim to reduce private expenditure on healthcare services and mitigate social inequality. According to the modified rules, which went into effect in the second half of 2016, patients who undergo surgery in a private hospital and are covered by their healthcare provider's supplemental insurance (SI) make only a basic co-payment. The modified regulations limited the option of self-payment for advanced devices not covered by national health basket, meaning that patients for whom such devices are indicated had to pay privately for the entire procedure. These regulations applied to all medical and surgical devices not covered by national health insurance (NHI).Toric intraocular lenses (IOLs) are a case in point. These advanced lenses are implanted during cataract surgery to correct corneal astigmatism and, in indicated cases, obviate the need for complex eyeglasses postoperatively. Toric IOL implantation has been shown to be highly cost-effective in both economic and quality-of-life terms. Limitations of the use of these advanced IOLs threatened to increase social inequality. In 2017, further adjustments of the regulations were made which enabled supplemental charges for these advanced IOLs, performed through the SI programs of the healthcare medical organizations (HMOs). Allowing additional payment for these lenses at a fixed pre-set price made it possible to apply a supplemental part of the insurance package to the surgery itself. In mid 2018 these IOLs were included without budget in the national health basket, allowing for self-payment for the additional cost in addition to the basic coverage for all patients with NHI. This case study suggests that, in their efforts to enhance health care equity, policymakers may benefit if exercising due caution when limiting the extent to which SI programs can charge co-payments. This is because, when a service or product is not available via the basic NHI benefits package, limiting SI co-payments can sometimes result in a boomerang effect - leading to an increase in inequality rather than the sought-after decrease in inequality.

De Regge, M., Gemmel, P. et Meijboom, B. (2019). "How operations matters in healthcare standardization." International Journal of Operations & Production Management **39**(9/10): 1144-1165.

Purpose Process management approaches all pursue standardization, of which evidence-based medicine (EBM) is the most common form in healthcare. While EBM addresses improvement in clinical performance, it is unclear whether EBM also enhances operational performance. Conversely, operational process standardization (OPS) does not necessarily yield better clinical performance. The authors have therefore looked at the relationship between clinical practise standardization (CPS) and OPS and the way in which they jointly affect operational performance. The paper aims to discuss this issue. Design/methodology/approach The authors conducted a comparative case study analysis of a cataract surgery treatment at five Belgium hospital sites. Data collection involved 218 h of observations of 274 cataract surgeries. Both qualitative and quantitative methods were used. Findings suggest that CPS does not automatically lead to improved resource or throughput efficiency. This can be explained by the low level of OPS across the five units, notwithstanding CPS. The results indicate that a wide range of variables on different levels (patient, physician and organization) affect OPS. Research limitations/implications - Considering one type of care treatment in which clinical outcome variations are small complicates translating the findings to unstructured and complex care treatments. Originality/value With the introduction of OPS as a complementary view of CPS, the study clearly shows the potential of OPS to support CPS in practice. Operations matters in healthcare standardization, but only when it is managed in a deliberate way on a hospital and policy level.

Dohmen, P. J. G. et van Raaij, E. M. (2019). "A new approach to preferred provider selection in health care." Health Policy **123**(3): 300-305.

In January 2015 Zilveren Kruis, the largest health insurer in The Netherlands, engaged in a new three-year, unlimited volume contract with five carefully selected providers of cataract surgery. Zilveren Kruis used a novel method, designed to identify the top expert providers in a certain discipline. This procedure for provider selection uses the principles of Best Value Procurement (BVP), and puts the provider in charge of defining key performance indicators for health care quality. The procedure empowers the professional and acknowledges that the provider, not the purchaser, is the true expert in defining what is high quality care. This new approach focuses purely on provider selection and is thus complementary to innovations in health care reimbursement, such as value-based hospital purchasing or outcome-based financing. We describe this novel approach to preferred provider selection and show how it makes affordable quality the core topic in negotiations with providers.

Owens, B. (2019). "Are fees for cataract surgery still too high?" Cmaj **191**(43): E1202-e1203.

Palmer, J. J., Gilbert, A., Choy, M., et al. (2016). "Circumventing 'free care' and 'shouting louder': using a health systems approach to study eye health system sustainability in government and mission facilities of north-west Tanzania." Health Research Policy and Systems **14**.

Background: Little is known about the contributions of faith-based organisations (FBOs) to health systems in Africa. In the specialist area of eye health, international and domestic Christian FBOs have been important contributors as service providers and donors, but they are also commonly critiqued as having developed eye health systems parallel to government structures which are unsustainable. Methods: In this study, we use a health systems approach (quarterly interviews, a participatory sustainability analysis exercise and a social network analysis) to describe the strategies used by eye care practitioners in four hospitals of north-west Tanzania to navigate the government, church mission and donor rules that govern eye services delivery there. Results: Practitioners in this region felt eye care was systemically neglected by government and therefore was 'all under the NGOs', but support from international donors was also precarious. Practitioners therefore adopted four main strategies to improve the sustainability of their services: (1) maintain 'sustainability funds' to retain financial autonomy over income; (2) avoid granting government user fee exemptions to elderly patients who are the majority of service users; (3) expand or contract outreach services as financial circumstances change; and (4) access peer support for problem-solving and advocacy. Mission-based eye teams had greater freedom to increase their income from user fees by not implementing government policies for 'free care'. Teams in all hospitals, however, found similar strategies to manage their programmes even when their management structures were unique, suggesting the importance of informal rules shared through a peer network in governing eye care in this pluralistic health system. Conclusions: Health systems research can generate new evidence on the social dynamics that cross public and private sectors within a local health system. In this area of Tanzania, Christian FBOs' investments are important, not only in terms of the population health outcomes achieved by teams they support, but also in the diversity of organisational models they contribute to in the wider eye health system, which facilitates innovation.

Kruse, F. M., Groenewoud, S., Atsma, F., et al. (2019). "Do independent treatment centers offer more value than general hospitals? The case of cataract care." Health Serv Res **54**(6): 1357-1365.

OBJECTIVE: To identify differences between independent treatment centers (ITCs) and general hospitals (GHs) regarding costs, quality of care, and efficiency. DATA SOURCES: Anonymous claims data (2013-2015) were used. We also obtained quality indicators from a semipublic platform. STUDY DESIGN: This study uses a comparative multilevel analysis, controlling for case mix, to evaluate the performance of ITCs and GHs for patients diagnosed with cataract. DATA COLLECTION: Reimbursement claims were extracted from existing claims databases of the largest Dutch health insurer. Quality indicators were obtained by external agencies through a mixed-mode survey. PRINCIPAL FINDINGS: There are no stark differences in complexity of cases for cataract care. ITCs seem to perform surgeries more frequently per care pathway, but conduct a lower number of health care activities per surgical claim. Total average costs are lower in ITCs compared with GHs, but when adjusted for case mix, the differences in costs are lower. The findings with the adjusted quality differences suggest that ITCs outperform GHs on patient satisfaction, but patients' outcomes are similar. CONCLUSION: This finding supports the postulation-based on the focus factory theory-that ITCs can provide more value for cataract care than GHs.

Sá, L., Siciliani, L. et Straume, O. R. (2019). "Dynamic hospital competition under rationing by waiting times." J Health Econ **66**: 260-282.

We develop a dynamic model of hospital competition where (i) waiting times increase if demand exceeds supply; (ii) patients choose a hospital based in part on waiting times; and (iii) hospitals incur waiting time penalties. We show that, whereas policies based on penalties will lead to lower waiting times, policies that promote patient choice will instead lead to higher waiting times. These results are robust to different game-theoretic solution concepts, designs of the hospital penalty structure, and patient utility specifications. Furthermore, waiting time penalties are likely to be more effective in reducing waiting times if they are designed with a linear penalty structure, but the counterproductive effect of patient choice policies is smaller when penalties are convex. These conclusions are partly derived by calibration of our model based on waiting times and elasticities observed in the English NHS for a common treatment (cataract surgery).

Zafar, S., Wang, P., Srikumaran, D., et al. (2019). "Billing of cataract surgery as complex versus routine for Medicare beneficiaries." Journal of Cataract & Refractive Surgery **45**(11): 1547-1554. https://www.sciencedirect.com/science/article/pii/S0886335019304808

Purpose To estimate ophthalmologist-level variation in cataract surgery billing and evaluate patient and ophthalmologist characteristics associated with complex cataract surgery coding. Setting Cross-sectional study. Design Retrospective case series. Methods Medicare beneficiaries aged 65 years or older who had cataract surgery between January 1, 2016, and December 31, 2017, were included. Billing of cataract surgery as complex versus routine and patient and physician characteristics associated with billing of cataract surgery as complex were evaluated. Results An estimated 3.5 million cataract procedures were performed on Medicare beneficiaries in 2016 and 2017. Men (odds ratio [OR], 1.79; 95% confidence interval [CI], 1.75-1.82), patients 75 years or older (versus those aged 65 to 74 years: OR, 1.35; 95% CI, 1.33-1.36), and racial minorities (blacks versus whites: OR, 1.80; 95% CI, 1.75-1.85) had increased odds of having cataract surgery coded as complex. The mean rate of coding for complex cataract surgery by individual surgeons (n = 10 075) in the United States was 11.2%, with significant variation. A high-risk clinical diagnosis code was associated with 40.0% of complex cataract surgeries. Adjusted for patient characteristics, ophthalmologists who graduated from medical school within the past 10 years (OR, 1.35; 95% CI, 1.22-1.49) were more likely to code for complex cataract surgery. Higher volume ophthalmologists were less likely to code for complex cataract surgery than low-volume ophthalmologists. Conclusions There was marked variation among ophthalmologists in the use of complex cataract surgery. Some variability might represent inaccurate coding and was not entirely based on differences in referral patterns for more complex patients.

Cour des comptes (2018). Les soins visuels : une prise en charge à réorganiser. In : [La sécurité sociale : rapport 2018] Paris Cour des Comptes**:** 247-278 https://www.ccomptes.fr/sites/default/files/2023-10/RALFSS-2018-07-soins-visuels.pdf

Avec près de 9,6 Md€ de dépenses au total305, les soins visuels constituent une charge importante et en forte hausse pour l'assurance maladie, les assurances maladie complémentaires et directement pour les ménages, notamment pour l'optique médicale. Près de 60 % des habitants de notre pays ont un dispositif de correction de la vue (lunettes, lentilles). Les soins visuels se caractérisent par des dysfonctionnements emblématiques de

certaines spécialités médicales : en dépit d'une forte croissance des dépenses, la population est confrontée à de fortes inégalités d'accès aux soins d'ordre géographique et financier. Contrairement à d'autres pays, les ophtalmologues constituent le premier recours aux soins visuels. Or ils sont inégalement répartis sur le territoire et pratiquent généralement des dépassements d'honoraires. Alors que les complémentarités entre les différentes professions de la filière visuelle ont une portée limitée, la forte contraction prévisible de la démographie des ophtalmologues jusqu'en 2030 risque d'exacerber les difficultés d'accès aux soins déjà éprouvées dans certains territoires. Malgré une forte augmentation des dépenses, les besoins de la population en soins visuels sont inégalement couverts. Au-delà de la mise en place annoncée d'offres d'équipements d'optique médicale sans reste à charge, la définition par les pouvoirs publics d'une politique d'ensemble des soins visuels s'impose désormais.

Croes, R. R., Krabbe-Alkemade, Y. et Mikkers, M. C. (2018). "Competition and quality indicators in the health care sector: empirical evidence from the Dutch hospital sector." Eur J Health Econ **19**(1): 5-19.

There is much debate about the effect of competition in healthcare and especially the effect of competition on the quality of healthcare, although empirical evidence on this subject is mixed. The Netherlands provides an interesting case in this debate. The Dutch system could be characterized as a system involving managed competition and mandatory healthcare insurance. Information about the quality of care provided by hospitals has been publicly available since 2008. In this paper, we evaluate the relationship between quality scores for three diagnosis groups and the market power indicators of hospitals. We estimate the impact of competition on quality in an environment of liberalized pricing. For this research, we used unique price and production data relating to three diagnosis groups (cataract, adenoid and tonsils, bladder tumor) produced by Dutch hospitals in the period 2008-2011. We also used the quality indicators relating to these diagnosis groups. We reveal a negative relationship between market share and quality score for two of the three diagnosis groups studied, meaning that hospitals in competitive markets have better quality scores than those in concentrated markets. We therefore conclude that more competition is associated with higher quality scores.

Demir, E., Southern, D., Rashid, S., et al. (2018). "A discrete event simulation model to evaluate the treatment pathways of patients with cataract in the United Kingdom." Isr J Health Policy Res **18**(1): 933.

BACKGROUND: The number of people affected by cataract in the United Kingdom (UK) is growing rapidly due to ageing population. As the only way to treat cataract is through surgery, there is a high demand for this type of surgery and figures indicate that it is the most performed type of surgery in the UK. The National Health Service (NHS), which provides free of charge care in the UK, is under huge financial pressure due to budget austerity in the last decade. As the number of people affected by the disease is expected to grow significantly in coming years, the aim of this study is to evaluate whether the introduction of new processes and medical technologies will enable cataract services to cope with the demand within the NHS funding constraints. METHODS: We developed a Discrete Event Simulation model representing the cataract services pathways at Leicester Royal Infirmary Hospital. The model was inputted with data from national and local sources as well as from a surgery demand forecasting model developed in the study. The model was verified and validated with the participation of the cataract services clinical and management teams. RESULTS: Four

scenarios involving increased number of surgeries per half-day surgery theatre slot were simulated. Results indicate that the total number of surgeries per year could be increased by 40% at no extra cost. However, the rate of improvement decreases for increased number of surgeries per half-day surgery theatre slot due to a higher number of cancelled surgeries. Productivity is expected to improve as the total number of doctors and nurses hours will increase by 5 and 12% respectively. However, non-human resources such as pre-surgery rooms and post-surgery recovery chairs are under-utilized across all scenarios. CONCLUSIONS: Using new processes and medical technologies for cataract surgery is a promising way to deal with the expected higher demand especially as this could be achieved with limited impact on costs. Non-human resources capacity need to be evenly levelled across the surgery pathway to improve their utilisation. The performance of cataract services could be improved by better communication with and proactive management of patients.

De Peretti, C., Oberlin, P., Villain, M., et al. (2018). "Le traitement de la cataracte primaire est la plus fréquente des interventions chirurgicales." Etudes et Résultats (1056) https://drees.solidarites-sante.gouv.fr/etudes-et-statistiques/publications/etudes-et-resultats/article/le-traitement-de-la-cataracte-primaire-est-la-plus-frequente-des-interventions

En France, le nombre de séjours hospitaliers avec traitement chirurgical de cataracte primaire (remplacement du cristallin par une lentille artificielle) s'élève à 826 000 en 2016. Le nombre de patients opérés est toutefois plus faible : 574 000, car 44 % d'entre eux ont été opérés des deux yeux la même année, au cours de deux séjours distincts. Entre 2008 et 2016, la part de la chirurgie ambulatoire est passée de 70 % à 92,5 %. Au cours de cette période, le nombre annuel de séjours pour cataracte primaire a augmenté de 39 % et celui des patients opérés de 28 %. Après prise en compte de l'augmentation de la population et de son vieillissement, la hausse des taux standardisés est de 23 % pour les interventions et de 13 % pour les patients. Ce décalage reflète l'augmentation des interventions bilatérales réalisées au cours de la même année. Si les disparités géographiques ont diminué depuis l'étude réalisée en 1998, elles n'ont pas disparu et restent particulièrement perceptibles au niveau départemental. Ainsi, 17 départements métropolitains et 3 départements et régions d'outre-mer (DROM) présentent un taux standardisé de chirurgie de cataracte primaire inférieur d'au moins 10 % par rapport à la moyenne nationale, l'indice comparatif étant particulièrement bas à Mayotte. (R.A.)

Herbst, T., Foerster, J. et Emmert, M. (2018). "The impact of pay-for-performance on the quality of care in ophthalmology: Empirical evidence from Germany." Health Policy **122**(6): 667-673.

BACKGROUND: Pay-for-performance (P4P) has become a popular approach to increase effectiveness and efficiency in healthcare. So far, there is little evidence regarding the potential of P4P in the German healthcare setting. The aim of this study was to determine the impact of P4P on the quality of care in cataract surgery. METHODS: In 2012, a P4P program was implemented in a German surgical centre for ophthalmology. Five quality measures regarding process quality, outcomes, and patient satisfaction were measured over a period of 4.5 years. The P4P scheme consisted of bonus and penalty payments accounting for five per cent of total compensation. Overall, 1657 P4P cases were examined and compared with 4307 control cases. Interrupted time series and group comparisons were conducted to identify quality and spill-over effects. RESULTS: We found a positive impact on

process quality and patient satisfaction before the implementation of the P4P scheme, but declining trends during and after the implementation. Our findings did not show an impact of P4P on outcome measures. Furthermore, P4P did not result in better quality of care, compared with the German hospital-based reimbursement scheme. CONCLUSION: This study did not show any positive long-term effects of the implementation of P4P on quality of care. Therefore, our results do not support the hypothesis that P4P leads to significant improvements in quality of care.

Ruwaard, S. et Douven, R. (2018). "Hospital Choice for Cataract Treatments: The Winner Takes Most." Int J Health Policy Manag **7**(12): 1120-1129.

BACKGROUND: Transparency in quality of care is an increasingly important issue in healthcare. In many international healthcare systems, transparency in quality is crucial for health insurers when purchasing care on behalf of their consumers, for providers to improve the quality of care (if necessary), and for consumers to choose their provider in case treatment is needed. Conscious consumer choices incentivize healthcare providers to deliver better quality of care. This paper studies the impact of quality on patient volume and hospital choice, and more specifically whether high quality providers are able to attract more patients. METHODS: The dataset covers the period 2006-2011 and includes all patients who underwent a cataract treatment in the Netherlands. We first estimate the impact of quality on volume using a simple ordinary least squares (OLS), second we use a mixed logit to determine how patients make trade-offs between quality, distance and waiting time in provider choice. RESULTS: At the aggregate-level we find that, a one-point quality increase, on a scale of one to a hundred, raises patient volume for the average hospital by 2-4 percent. This effect is mainly driven by the hospital with the highest quality score: the effect halves after excluding this hospital from the dataset. Also at the individual-level, all else being equal, patients have a stronger preference for the hospital with the highest quality score, and appear indifferent between the remaining hospitals. CONCLUSION: Our results suggest that the top performing hospital is able to attract significantly more patients than the remaining hospitals. We find some evidence that a small share of consumers may respond to quality differences, thereby contributing to incentives for providers to invest in quality and for insurers to take quality into account in the purchasing strategy.

Tzamalis, A., Chionos, G., Brazitikos, P., et al. (2018). "Comparing hospital compensation to actual costs based on the Greek Diagnosis-Related Group system in ophthalmology." International Journal of Evidence-Based Healthcare **16**(3): 167-173.

Purpose: The purpose of this study is to evaluate the effects of the new system of pricing medical services in the field of ophthalmology in Greece. In addition, it attempts to benchmark the system with respective interventions at an international level. Materials and methods: The study deals with the implementation of the new system, presenting systematic pairing of ophthalmic coding with other coded information regarding registration and management. Statistical data analysis is performed related to the cost and, finally, proposals are formulated to improve the current system. Results: A significant difference is noted in the quantitative and qualitative characteristics of the Greek system compared with internationally applied Diagnosis-Related Group (DRG) systems in the field of ophthalmology. The proposed funding for ophthalmic inpatient cases mostly meets real needs and costs of

hospitals for supplies. Complicated cases, mainly in cataract surgery, increase the real cost and may cause a deviation depending on the rate of complications. In these cases, the average cost was 673.28 +/- 58.7(sic) as opposed to uncomplicated cases (346.78 +/- 21.3(sic)), bearing a statistically significant difference (P < 0.001, Mann-Whitney test). The total compensation of the hospital was higher than the actual cost for surgical procedures covering the respective expenses. Conclusion: Although the recently implemented compensation system for public hospitals mostly covers the actual cost for ophthalmic surgical cases, some deviations from the real needs are being identified. Several amendments could be applied to increase efficiency and improve the quality of health services provided by Greek hospitals.

Whaley, C. (2018). "The Association Between Provider Price and Complication Rates for Outpatient Surgical Services." J Gen Intern Med **33**(8): 1352-1358.

BACKGROUND: Wide variations exist in price and quality for health-care services, but the link between price and quality remains uncertain. OBJECTIVE: This paper used claims data from a large commercially insured population to assess the association between both procedure- and provider-level prices and complication rates for three common outpatient surgical services. DESIGN: This is a retrospective cohort study. SETTING: The study used medical claims data from commercial health plans between 2009 and 2013 for three outpatient surgical services-joint arthroscopy, cataract surgery, and colonoscopy. MAIN MEASURES: For each procedure, price was assessed as the sum of patient, employer, and insurer spending. Complications were identified using existing algorithms specific to each service. Multivariate regressions were used to risk-adjust prices and complication rates. Provider-level price and complication rates were compared by calculating standardized differences that compared provider risk-adjusted price and complication rates with other providers within the same geographic market. The association between provider-level risk-adjusted price and complication rates was estimated using a linear regression. KEY RESULTS: Across the three services, there was an inverse association between both procedure- and provider-level prices and complication rates. For joint arthroscopy, cataract surgery, and colonoscopy, a one standard deviation increase in procedure-level price was associated with 1.06 (95% CI 1.05-1.08), 1.14 (95% CI 1.11-1.16), and 1.07 (95% CI 1.06-1.07) odds increases in the rate of procedural complications, respectively. A one standard deviation increase in risk-adjusted provider price was associated with 0.09 (95% CI 0.07 to 0.11), 0.02 (95% CI 0.003 to 0.05), and 0.32 (95% CI 0.29 to 0.34) standard deviation increases in the rate of provider risk-adjusted complication rates, respectively. LIMITATIONS: Results may be due to unobserved factors. Only three surgical services were examined, and the results may not generalize to other services and procedures. Quality measurements did not include patient satisfaction or experience measures. CONCLUSIONS: For three common outpatient surgical services, procedure- and provider-level prices are associated with modest increased rates of complication rates.

Wu, A. M., Wu, C. M., Tseng, V. L., et al. (2018). "Characteristics Associated With Receiving Cataract Surgery in the US Medicare and Veterans Health Administration Populations." JAMA Ophthalmol **136**(7): 738-745.

IMPORTANCE Considerable variation exists with respect to the profiles of patients who receive cataract surgery in the United States. OBJECTIVE To identify patient characteristics associated with receiving cataract surgery within the US Medicare and Veterans Health Administration (VHA) populations. DESIGN, SETTING, AND PARTICIPANTS In this population-based retrospective cohort study of 3 073 465 patients, Medicare and VHA patients with a cataract diagnosis between January 1, 2002, and January 1, 2012, were identified from the 2002-2012 Medicare Part B files (5% sample) and the VHA National Patient Care Database. Patient age, sex, race/ethnicity, region of residence, Charlson Comorbidity Index (CCI) scores, and comorbidities were recorded. Cataract surgery at 1 and 5 years after diagnosis was identified. Data analysis was performed from July 1, 2016, to July 1, 2017. MAIN OUTCOMES AND MEASURES Odds ratios (ORs) of cataract surgery for selected patient characteristics. RESULTS The study sample included 1 156 211 Medicare patients (mean [SD] age, 73.7 [7.0] years) and 1 917 254 VHA patients (mean [SD] age, 66.8 [10.2] years) with a cataract diagnosis. Of the 1 156 211 Medicare patients, 407 103 (35.2%) were 65 to 69 years old, 683 036 (59.1%) were female, and 1 012 670 (87.6%) were white. Of the 1 917 254 VHA patients, 905 455 (47.2%) were younger than 65 years, 1 852 158 (96.6%) were male, and 539 569 (28.1%) were white. A greater proportion of Medicare patients underwent cataract surgery at 1 year (Medicare: 213 589 [18.5%]; VHA: 120 196 [6.3%]) and 5 years (Medicare: 414 586 [35.9%]; VHA: 240 884 [12.6%]) after diagnosis. Factors associated with the greatest odds of surgery at 5 years were older age per 5-year increase (Medicare: OR, 1.24 [95% CI, 1.23-1.24]; VHA: OR, 1.18 [95% CI, 1.17-1.18]), residence in the southern United States vs eastern United States (Medicare: OR, 1.38 [95% CI, 1.36-1.40]; VHA: OR, 1.40 [95% CI, 1.38-1.41]), and presence of chronic pulmonary disease (Medicare: OR, 1.26 [95% CI, 1.24-1.27]; VHA: OR, 1.40 [95% CI, 1.38-1.41]). Within Medicare, female sex was associated with greater odds of surgery at 5 years (OR, 1.14; 95% CI, 1.13-1.15). Higher CCI scores (CCI score >= 3 vs 0-2) were associated with increased odds of surgery among VHA but not Medicare patients at 5 years (Medicare: OR, 0.94 [95% CI, 0.92-0.95]; VHA: OR, 1.24 [95% CI, 1.23-1.36]). Black race vs white race was associated with decreased odds of cataract surgery 5 years after diagnosis (Medicare: OR, 0.79 [95% CI, 0.78-0.81]; VHA: OR, 0.75 [95% CI, 0.73-0.76]). CONCLUSIONS AND RELEVANCE Within both groups, older age, residence in the southern United States, and presence of chronic pulmonary disease were associated with increased odds of cataract surgery. Findings from this study suggest that few disparities exist between the types of patients receiving cataract surgery who are in Medicare vs the VHA, although it is possible that a smaller proportion of VHA patients receive surgery compared with Medicare patients.

Gong, D., Jun, L. et Tsai, J. C. (2017). "Trends in Medicare Service Volume for Cataract Surgery and the Impact of the Medicare Physician Fee Schedule." Health Serv Res **52**(4): 1409-1426.

OBJECTIVE: To calculate the associations between Medicare payment and service volume for complex and noncomplex cataract surgeries. DATA SOURCES: The 2005-2009 CMS Part B National Summary Data Files, CMS Part B Carrier Summary Data Files, and the Medicare Physician Fee Schedule. STUDY DESIGN: Conducting a retrospective, longitudinal analysis using a fixed-effects model of Medicare Part B carriers representing all 50 states and the District of Columbia from 2005 to 2009, we calculated the Medicare payment-service volume elasticities for noncomplex (CPT 66984) and complex (CPT 66982) cataract surgeries. DATA EXTRACTION: Service volume data were extracted from the CMS Part B National Summary and Carrier Summary Data Files. Payment data were extracted from the Medicare Physician Fee Schedule. PRINCIPAL FINDINGS: From 2005 to 2009, the proportion of total cataract

services billed as complex increased from 3.2 to 6.7 percent. Every 1 percent decrease in Medicare payment was associated with a nonsignificant change in noncomplex cataract service volume (elasticity = 0.15, 95 percent CI [-0.09, 0.38]) but a statistically significant increase in complex cataract service volume (elasticity = -1.12, 95 percent CI [-1.60, -0.63]). CONCLUSIONS: Reduced Medicare payment was associated with a significant increase in complex cataract service volume but not in noncomplex cataract service volume, resulting in a shift toward performing a greater proportion of complex cataract surgeries from 2005 to 2009.

Ramke, J., Gilbert, C. E., Lee, A. C., et al. (2017). "Effective cataract surgical coverage: An indicator for measuring quality-of-care in the context of Universal Health Coverage." PLoS One **12**(3): e0172342.

OBJECTIVE: To define and demonstrate effective cataract surgical coverage (eCSC), a candidate UHC indicator that combines a coverage measure (cataract surgical coverage, CSC) with quality (post-operative visual outcome). METHODS: All Rapid Assessment of Avoidable Blindness (RAAB) surveys with datasets on the online RAAB Repository on April 1 2016 were downloaded. The most recent study from each country was included. By country, cataract surgical outcome (CSOGood, 6/18 or better; CSOPoor, worse than 6/60), CSC (operated cataract as a proportion of operable plus operated cataract) and eCSC (operated cataract and a good outcome as a proportion of operable plus operated cataract) were calculated. The association between CSC and CSO was assessed by linear regression. Gender inequality in CSC and eCSC was calculated. FINDINGS: Datasets from 20 countries were included (2005-2013; 67,337 participants; 5,474 cataract surgeries). Median CSC was 53.7% (inter-quartile range[IQR] 46.1-66.6%), CSOGood was 58.9% (IQR 53.7-67.6%) and CSOPoor was 17.7% (IQR 11.3-21.1%). Coverage and quality of cataract surgery were moderately associated-every 1% CSC increase was associated with a 0.46% CSOGood increase and 0.28% CSOPoor decrease. Median eCSC was 36.7% (IQR 30.2-50.6%), approximately one-third lower than the median CSC. Women tended to fare worse than men, and gender inequality was slightly higher for eCSC (4.6% IQR 0.5-7.1%) than for CSC (median 2.3% IQR -1.5-11.6%). CONCLUSION: eCSC allows monitoring of quality in conjunction with coverage of cataract surgery. In the surveys analysed, on average 36.7% of people who could benefit from cataract surgery had undergone surgery and obtained a good visual outcome.

Sadler, C. (2017). "The high cost of cataracts." Nurs Stand **31**(20): 22-24.

A report from the Royal National Institute of Blind People (RNIB) has revealed that in some parts of the UK, patients with sight loss wait up to 15 months for cataract surgery, increasing their risk of falls, social isolation and depression.

Sliman, G. (2017). La pertinence des actes et examens médicaux : sondage Odoxa pour la Fédération hospitalière de France. Paris Odoxa ; FHF
https://www.fhf.fr/Presse-Communication/Espace-presse/Communiques-de-presse/Pertinence-des-actes-medicaux-la-FHF-appelle-a-passer-a-l-action

D'après une enquête réalisée, en 2017, par Odoxa pour la Fédération hospitalière de France (FHF), auprès de patients, médecins et directeurs d'hôpital, par Odoxa pour la Fédération

hospitalière de France (FHF), le recours à certains actes chirurgicaux varie du simple au double selon les régions françaises. La chirurgie du rachis par exemple est deux fois plus pratiquée dans la région PACA qu'en Ile-de-France. Les patients bretons reçoivent de leur côté deux fois moins de stents que les patients alsaciens.

Trish, E., Ginsburg, P., Gascue, L., et al. (2017). "Physician Reimbursement in Medicare Advantage Compared With Traditional Medicare and Commercial Health Insurance." JAMA Intern Med **177**(9): 1287-1295.

IMPORTANCE: Nearly one-third of Medicare beneficiaries are enrolled in a Medicare Advantage (MA) plan, yet little is known about the prices that MA plans pay for physician services. Medicare Advantage insurers typically also sell commercial plans, and the extent to which MA physician reimbursement reflects traditional Medicare (TM) rates vs negotiated commercial prices is unclear. OBJECTIVE: To compare prices paid for physician and other health care services in MA, traditional Medicare, and commercial plans. DESIGN, SETTING, AND PARTICIPANTS: Retrospective analysis of claims data evaluating MA prices paid to physicians and for laboratory services and durable medical equipment between 2007 and 2012 in 348 US core-based statistical areas. The study population included all MA and commercial enrollees with a large national health insurer operating in both markets, as well as a 20% sample of TM beneficiaries. EXPOSURES: Enrollment in an MA plan. MAIN OUTCOMES AND MEASURES: Mean reimbursement paid to physicians, laboratories, and durable medical equipment suppliers for MA and commercial enrollees relative to TM rates for 11 Healthcare Common Procedure Coding Systems (HCPCS) codes spanning 7 sites of care. RESULTS: The sample consisted of 144 million claims. Physician reimbursement in MA was more strongly tied to TM rates than commercial prices, although MA plans tended to pay physicians less than TM. For a mid-level office visit with an established patient (Current Procedural Terminology [CPT] code 99213), the mean MA price was 96.9% (95% CI, 96.7%-97.2%) of TM. Across the common physician services we evaluated, mean MA reimbursement ranged from 91.3% of TM for cataract removal in an ambulatory surgery center (CPT 66984; 95% CI, 90.7%-91.9%) to 102.3% of TM for complex evaluation and management of a patient in the emergency department (CPT 99285; 95% CI, 102.1%-102.6%). However, for laboratory services and durable medical equipment, where commercial prices are lower than TM rates, MA plans take advantage of these lower commercial prices, ranging from 67.4% for a walker (HCPCS code E0143; 95% CI, 66.3%-68.5%) to 75.8% for a complete blood cell count (CPT 85025; 95% CI, 75.0%-76.6%). CONCLUSIONS AND RELEVANCE: Traditional Medicare's administratively set rates act as a strong anchor for physician reimbursement in the MA market, although MA plans succeed in negotiating lower prices for other health care services for which TM overpays. Reforms that transition the Medicare program toward some premium support models could substantially affect how physicians and other clinicians are paid.

De Regge, M., Gemmel, P., Duyck, P., et al. (2016). "A multilevel analysis of factors influencing the flow efficiency of the cataract surgery process in hospitals." Acta Ophthalmologica **94**(1): 31-40.

Purpose: To detect factors contributing to variation in cataract surgery processes. Methods: A multilevel study was conducted to compare the process of cataract surgery between hospitals in Belgium. The main data were collected through non-participative observations

and time measurements in four hospitals. Surgeons (n = 16) performing cataract surgery in the selected region and their patients (n = 274) undergoing cataract surgery were observed. Flow efficiency is measured in the operating room (OR) as time for preparation, surgery, exit and turnover. Results: Flow efficiency in the OR can be negatively influenced by the severity of the cataract [+2.778 (1.139) min in preparation time (p < 0.05); +4.616 (1.786) min in surgery time when severe cataract (p < 0.05)] and the presence of special-cause variation [+2.832 (1.893) min preparation time (p < 0.05); +2.503 (1.277) min surgery time (p < 0.05); +1.181 (0.350) min exit time (p <= 0.001)]. Administering topical analgesia instead of peribulbar [+13.548 (4.436) min preparation time (p <= 0.001)], retrobulbar [+3.856 (1.548) min surgery time (p = 0.05)] or general analgesia [+5.617 (2.536) min surgery time (p < 0.05); +5.175 (0.817) min exit time (p <= 0.001)] enhances flow efficiency. The experience of surgeons (>15 years) impacts flow efficiency [+12.838 (5.922) min surgery time when low experience]. The volume of cataracts performed annually per surgeon did not have a significant impact on flow efficiency. The use of specialized scrub nurses [-7.146 (3.099) min preparation time (p <= 0.05); -2.116 (0.586) min turnover time (p <= 0.05)] and the eye clinic design [-1.742 (0.686) min exit time (p < 0.05); 2.296 (1.034) min turnover time (p <= 0.05)] benefit flow efficiency. Conclusion: Controllable and uncontrollable factors with clinical and organizational causes influencing flow efficiency in the cataract process were found. These factors can be taken into account in the management of the healthcare process.

Drees; (2016). La prise en charge des dépassements d'honoraires par les organismes complémentaires. In : [La complémentaire santé : acteurs, bénéficiaires, garanties - édition 2016.] Paris : Drees
https://drees.solidarites-sante.gouv.fr/sites/default/files/2021-03/fiche14.pdf

Erie, J. C., Hodge, D. O. et Mahr, M. A. (2016). "Joint Management of Cataract Surgery by Ophthalmologists and Optometrists." Ophthalmology **123**(3): 505-513.

PURPOSE: To estimate the rate and geographic variation of cataract surgery that is managed jointly by ophthalmologists and optometrists in aging Americans. DESIGN: Database study. PARTICIPANTS: United States fee-for-service (FFS) Medicare Part B beneficiaries and their providers. METHODS: Medicare Provider Utilization and Payment Data furnished by the Centers for Medicare and Medicaid were used to identify cataract surgery claims among FFS Medicare Part B beneficiaries in all 50 states and the District of Columbia in 2012 and 2013. Payments and joint management rates of cataract surgery by ophthalmologists and optometrists were calculated for each United States state. Geographic variations were evaluated by using the extremal quotient and coefficient of variation (CV). MAIN OUTCOME MEASURES: Medicare allowed payments for cataract surgery (Current Procedural Terminology codes 66982 and 66984) and number of unique FFS Medicare Part B beneficiaries undergoing cataract surgery. RESULTS: The overall national rate of joint management of cataract surgery by ophthalmologists and optometrists among FFS Medicare Part B beneficiaries was 10.9% (range by state, 0%-75%) in 2012 and 11.1% (range by state, 0%-63%) in 2013. In 2013, the mean extremal quotient was 67 and the CV was 82.2, demonstrating very high variation in joint management between states. The Medicare allowed payment to optometrists in the joint management of cataract surgery was 2.1% of the total Medicare allowed payments for cataract surgery codes in 2012 and 2013. Twenty percent and 24% of all Medicare-participating optometrists submitted 10 or more Medicare

claims in the joint management of cataract surgery in 2012 and 2013, respectively. CONCLUSIONS: The overall rate of joint management of cataract surgery by ophthalmologists and optometrists among Medicare beneficiaries was 10.9% in 2012 and 11.1% in 2013. Very high geographic variation was documented, with joint management rates ranging from 0% to 63% across states in 2013.

French, D. D., Margo, C. E. et Greenberg, P. B. (2016). "Influence of Managed Care on the Variation in Rate and Timing of Cataract Surgery." JAMA Ophthalmol **134**(7): 846-847. https://doi.org/10.1001/jamaophthalmol.2016.1115

To the Editor In their article on geographic variation in the rate and timing of cataract surgery in US communities, Kauh et al analyzed beneficiary records from a nationwide managed-care network provided by OptumInsight, a subsidiary of UnitedHealth Corp. The authors found considerable variation in age at first cataract surgery and the median time between diagnosis and actual surgery. Analysis was conducted with regression modeling that included a host of patient, environmental, and socioeconomic variables. What may influence the rate of discretionary surgery more than any of the factors in their model, however, is local competition among managed-care organizations. As a remedy to control the rising cost of health care, managed care has developed a number of strategies that effectively alter medical utilization. Market forces dictate what tools managed-care organizations select to regulate consumption. It would seem crucial in any study assessing variation of cataract surgery among managed-care groups to adjust for the effects that factors such as balancing billing or capitation arrangements (to name just a few) have on surgery. Although these contractual agreements are likely important determinants of use, we realize the improbability of accessing this proprietary information. Seasoned health policy researchers have tried and then lamented that “rationing within managed care is a complex, heterogeneous, and poorly understood business. It involves hundreds of decision points within managed care organizations, making direct regulation of these practices costly, complex, and difficult to monitor.” On the other hand, it seems that unless we acknowledge the influence that competition among managed-care organizations has on discretionary surgery, a true understanding of geographic variation of cataract surgery will remain elusive.

Kauh, C. Y., Blachley, T. S., Lichter, P. R., et al. (2016). "Geographic Variation in the Rate and Timing of Cataract Surgery Among US Communities." JAMA Ophthalmol **134**(3): 267-276.

IMPORTANCE: Previous studies using data from the 1980s found relatively little geographic variation in cataract surgery rates across the United States. We do not know whether similar patterns hold true today, nor do we know the patient- and community-level factors that might explain any recent geographic variations in the rate and timing of cataract surgery. OBJECTIVE: To assess the extent of geographic variation in patient age at initial cataract surgery and the age-standardized cataract surgery rate in a large group of insured US patients with cataracts. DESIGN, SETTING, AND PARTICIPANTS: Retrospective cross-sectional study of 1 050 815 beneficiaries older than 40 years of age with cataracts who were enrolled in a nationwide managed-care network during the period from 2001 to 2011. The data analysis was started in 2014 and refined in 2015. MAIN OUTCOMES AND MEASURES: Median age at initial cataract extraction, age-standardized cataract surgery rate, and time from initial diagnosis to first surgery for patients with cataracts were compared among 306 US

communities. Multivariable regression modeling generated hazard ratios (HRs) with 95% CIs identifying factors associated with patients' likelihood of undergoing cataract surgery. RESULTS: A total of 243 104 patients with cataracts (23.1%) underwent 1 or more surgical procedures (55.1% were female patients). Communities with the youngest and oldest patients at initial surgery differed in age by nearly 20 years (59.9-60.1 years in Lansing, Michigan, and Aurora, Illinois, vs 77.0-79.6 years in Marquette, Michigan; Rochester, New York; and Binghamton, New York). The highest age-standardized cataract surgery rate (37.3% in Lake Charles, Louisiana) was 5-fold higher than the lowest (7.5% in Honolulu, Hawaii). The median time from initial cataract diagnosis to date of first surgery ranged from 17 days (Victoria, Texas) to 367 days (Yakima, Washington). Compared with white patients, black patients had a 15% decreased hazard of surgery (HR, 0.85 [95% CI, 0.83-0.87]), while Latino patients (HR, 1.08 [95% CI, 1.05-1.10]) and Asian patients (HR, 1.09 [95% CI, 1.05-1.12]) had an increased hazard. For every 1° higher latitude, the hazard of surgery decreased by 1% (HR, 0.99 [95% CI, 0.98-0.99]). For every additional optometrist per 100 000 enrollees in a community, the hazard of surgery increased 0.1% (HR, 1.001 [95% CI, 1.001-1.001]). CONCLUSIONS AND RELEVANCE: In recent years, patient age at first cataract surgery and the age-standardized surgery rate have varied considerably among some US communities. Future research should explore the extent to which such variations may affect patient outcomes.

Le Bail, M.. et Or, Z. (2016). Atlas des variations de pratiques médicales. Recours à dix interventions chirurgicales - Edition 2016, Paris : Irdes
https://www.irdes.fr/recherche/ouvrages/002-atlas-des-variations-de-pratiques-medicales-recours-a-dix-interventions-chirurgicales.pdf

Premier Atlas français des variations de pratiques médicales, cet ouvrage, élaboré grâce à une collaboration entre la DGOS, l'Irdes et les membres du groupe technique national Pertinence des soins, notamment l'ATIH, la Cnamts et la HAS, propose un panorama de dix interventions chirurgicales parmi 33 thématiques déclarées prioritaires par les pouvoirs publics en termes de pertinence et de qualité des soins, d'équité d'accès à l'offre de soins sur le territoire et d'efficience dans l'allocation de ressources humaines et financières. Ces interventions chirurgicales ont été sélectionnées car elles sont identifiées dans la littérature internationale comme sensibles à l'offre de soins et parce que leurs prises en charge varient selon les patients. Cet Atlas permet d'illustrer les écarts de pratiques chirurgicales existant entre les départements et d'interroger leurs causes afin de réduire celles qui ne correspondent pas aux besoins. Il s'adresse tant aux professionnels de santé qu'aux usagers du système de soins, aux institutions de santé et aux chercheurs : les premiers pour les inciter à comparer et questionner leurs pratiques, les deuxièmes pour leur apporter des informations transparentes, les derniers pour les encourager à alimenter la réflexion par la production de données objectives afin de mieux comprendre les déterminants et les conséquences des variations observées.

Smith, S. D. (2016). "Geographic Variation in Cataract Surgery Rates: Searching for Clues to Improve Public Health." JAMA Ophthalmol **134**(3): 276-277.

Sourty-Le Guellec, M. J. (2001). Le potentiel de développement de la chirurgie ambulatoire de la cataracte en France, en 1999. Rapport Credes. Paris CREDES
https://www.irdes.fr/Publications/Rapports2001/rap1357.pdf

Cette étude fait suite à la précédente analyse sur le potentiel de développement de la chirurgie ambulatoire des cures de hernies inguinales ou crurales. Selon la même méthode et à partir des données du PMSI, l'estimation est réalisée pour la chirurgie de la cataracte. L'objectif est d'apprécier les possibilités de développement de la chirurgie ambulatoire en France pour certains actes pratiqués de façon courante sans hospitalisation dans de nombreux pays, en Amérique du Nord notamment. Cette étude complète une analyse récente de la Direction de la Recherche - des Etudes de l'Evaluation et des Statistiques (DREES) du Ministère de l'Emploi et de la Solidarité sur l'évolution spectaculaire de la chirurgie de la cataracte ces dix dernières années et sur le développement modéré de la chirurgie ambulatoire en France.

van der Geest, S. A. et Varkevisser, M. (2016). "Using the deductible for patient channeling: did preferred providers gain patient volume?" Eur J Health Econ **17**(5): 645-652.

In market-based health care systems, channeling patients to designated preferred providers can increase payer's bargaining clout, other things being equal. In the unique setting of the new Dutch health care system with regulated competition, this paper evaluates the impact of a 1-year natural experiment with patient channeling on providers' market shares. In 2009 a large regional Dutch health insurer designated preferred providers for two different procedures (cataract surgery and varicose veins treatment) and gave its enrollees a positive financial incentive for choosing them. That is, patients were exempted from paying their deductible when they went to a preferred provider. Using claims data over the period 2007-2009, we apply a difference-in-difference approach to study the impact of this channeling strategy on the allocation of patients across individual providers. Our estimation results show that, in the year of the experiment, preferred providers of varicose veins treatment on average experienced a significant increase in patient volume relative to non-preferred providers. However, for cataract surgery no significant effect is found. Possible explanations for the observed difference between both procedures may be the insurer's selection of preferred providers and the design of the channeling incentive resulting in different expected financial benefits for both patient groups.

Bramesfeld, A., Pauletzki, J., Behrenz, L., et al. (2015). "Developing cross-sectoral quality assurance for cataract surgery in the statutory quality assurance program of the German health care system: Experiences and lessons learned." Health Policy **119**(8): 1017-1022.

Since 2001, statutory external quality assurance (QA) for hospital care has been in place in the German health system. In 2009, the decision was taken to expand it to cross-sectoral procedures. This novel and unprecedented form of national QA aims at (1) making the quality procedures comparable that are provided both in inpatient and outpatient care, (2) following-up outcomes of hospital care after patients' discharge and (3) measuring the quality of complex treatment chains across interfaces. As a pioneer procedure a QA procedure in cataract surgery QA was developed. Using this as an example, challenges of cross-sectoral QA are highlighted. These challenges relate, in particular, to three technical problems: triggering cases for documentation, following-up patients' after hospital discharge, and the burden of documentation in outpatient care. These problems resulted finally in the haltering of the development of the QA procedure. However, the experiences gained with

this first development of cross-sectoral QA inspired the reorientation and further development of the field in Germany. Future cross-sectoral QA will rigorously aim at keeping burden of documentation small. It will draw data for QA mainly at three sources: routine data, patient surveys and peer reviews using indicators. Policy implications of this reorientation are discussed.

Coronini-Cronberg, S., Bixby, H., Laverty, A. A., 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.
https://content.healthaffairs.org/content/34/3/381.long

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.

Daien, V., Le Pape, A., Heve, D., et al. (2015). "Incidence and Characteristics of Cataract Surgery in France from 2009 to 2012: A National Population Study." Ophthalmology **122**(8): 1633-1638.
https://www.sciencedirect.com/science/article/pii/S0161642015003796

Purpose To report age- and sex-specific incidence rates of cataract surgery in France and evaluate the trends of cataract surgery from 2009 to 2012. Design Cohort study. Subjects Data for all patients who underwent primary cataract surgery in France between January 2009 and December 2012 were collected from the national database. Methods Annual incidence rates were calculated and adjusted to the corresponding-year national population data from the French National Institute of Statistics. Kaplan–Meier analysis was used to assess the time between surgeries for both eyes. Main Outcome Measures Age- and sex-specific incidence of cataract surgery. Results Over the 4 years, 2 717 203 eyes in 1 817 865 patients (59.1% were women; mean age, 73.5±0.015 years) underwent cataract surgery. Between 2009 and 2012, the total number of operated eyes per year increased, from 634 070 to 723 172 (+14.0%), and the number of patients with 1 or both eyes undergoing cataract surgery decreased, from 475 301 to 449 318 (−5.5%). The incidence of cataract surgery increased from 9.86 to 11.08/1000 person-years and that of operated patients (1 or both eyes) decreased from 7.39 to 6.89/1000 person-years. The incidence of cataract surgery ranged from 1.06/1000 person-years for patients aged 40 to 49 years to 65.94/1000 person-

years for those aged 80 to 89 years. Between 2009 and 2012, the probability of second-eye surgery 12 months after the first-eye surgery increased from 40.6% to 51.2% (P < 0.0001). The median interval for surgery between eyes was 29 (interquartile range, 14–86) days. The rate of posterior capsular tear was 0.20%, with a higher proportion from extracapsular extraction than phacoemulsification (7.9% vs. 0.15%; P < 0.0001). The proportion of patients who underwent cataract surgery with a history of high myopia, eye trauma, or retinal detachment was 0.49%, 0.21%, and 0.80%, respectively. Conclusions This study documented the incidence and trends in cataract surgery in the overall population in France. Between 2009 and 2012, the number of people undergoing cataract surgery slightly decreased, but the total number of operated eyes increased because the proportion of surgeries on the second eye increased.

Douven, R., Mocking, R. et Mosca, I. (2015). "The effect of physician remuneration on regional variation in hospital treatments." International Journal of Health Economics and Management **15**(2): 215-240.
https://dx.doi.org/10.1007/s10754-015-9164-2

We study medical practice variations for nine hospital treatments in the Netherlands. Our panel data estimations include various control factors and physician's role to explain hospital treatments in about 3,000 Dutch zip code regions over the period 2006–2009. In particular, we exploit the physicians' remuneration difference—fee-for-service (FFS) versus salary—to explain the effect of financial incentives on medical production. We find that utilization rates are higher in geographical areas where more patients are treated by physicians that are paid FFS. This effect is strong for supply sensitive treatments, such as cataracts and tonsillectomies, while we do not find an effect for non-supply sensitive treatments, such as hip fractures.

Feinberg, A. E., Porter, J., Saskin, R., et al. (2015). "Regional variation in the use of surgery in Ontario." Canadian Medical Association Open Access Journal **3**(3): E310-E316.

García-Martín, M. J., Giménez-Gómez, R., García-Catalán, R., et al. (2015). "[Clinical practice variation in cataract surgery]." Arch Soc Esp Oftalmol **90**(5): 220-232.

PURPOSE: Cataract surgery rates have dramatically increased in the last two decades. However, clinical practice variation in cataract surgery has not been thoroughly studied. The aim of this review is to analyze clinical practice variation, including the causes and consequences of this phenomenon. Then, its role in health care planning and health care quality is focused, emphasizing the importance of reducing it and providing several practical strategies to accomplish it. RECENT FINDINGS: The latest researches are presented in this article. They identify the development and implementation of clinical practice guidelines as the best tool to standardize care processes. CONCLUSION: Managing unwarranted or unwanted variation would improve quality of care and may lead to a significant saving in health care spending.

Hansen, M. S. et Hardten, D. R. (2015). "Financially efficient cataract surgery in today's healthcare environment." Curr Opin Ophthalmol **26**(1): 61-65.

PURPOSE OF REVIEW: To review the literature and create a concise evaluation and comment on the ways to provide financially efficient cataract surgery in a healthcare environment that produces significant challenges to providing care, while maintaining quality outcomes, safety, patient satisfaction, and employee satisfaction. RECENT FINDINGS: The recent reductions in reimbursement for cataract surgery have fueled an increased need to drive innovation in ways to be more financially efficient. At the same time, new technology in the field, especially as it relates to use of the femtosecond laser for portions of lens surgery, has increased the challenges in creating an efficient and cost-effective structure for providing care. SUMMARY: Cataract surgery is one of the most beneficial procedures for a patient's quality of life, and is one of the most common surgical procedures performed. At the same time, the current cost-effectiveness is quite high, and yet there are still ways to become more financially efficient in many centers providing cataract care.

Robinson, J. C., Brown, T. et Whaley, C. (2015). "Reference-based benefit design changes consumers' choices and employers' payments for ambulatory surgery." Health Aff (Millwood) **34**(3): 415-422.

Some employers are using reference-based benefit (RBB) designs, also known as "reference-based pricing," to encourage patients to select lower-price ambulatory surgery centers instead of expensive hospital outpatient departments. This article analyzes the impact of such benefit designs for cataract removal surgery from the period 2009-13, using data on 2,347 surgical patients covered by the California Public Employees Retirement System (CalPERS), in comparison to 14,867 patients enrolled in non-CalPERS Anthem Blue Cross plans, which are not covered by RBB. After adjusting for changes in patient case-mix and other factors, the shift to RBB was associated with an increase in ambulatory surgery center use by 8.6 percentage points compared to trends among Anthem enrollees. Total employer and employee payments per procedure, after adjusting for changes in case-mix severity and market factors, declined by 19.7 percent compared with Anthem enrollees not subject to RBB. Consumer cost-sharing requirements increased for CalPERS patients who continued to use hospital outpatient departments but who were not exempted from RBB because of geographic or clinical factors. Reference-based benefits for cataract surgery saved CalPERS $1.3 million in the two years after implementation.

Voynet, D. (2015). Restructuration de la filière visuelle. Paris Inspection générale des affaires sociales.
https://igas.gouv.fr/Restructuration-de-la-filiere-visuelle.html

La filière de santé visuelle est confrontée à d'importants problèmes structurels, liés à la baisse du nombre d'ophtalmologistes, à l'accroissement et au vieillissement de la population, à l'augmentation de la prévalence de certaines pathologies chroniques (cataracte, rétinopathie diabétique, glaucome, DMLA) et à la transformation en profondeur d'une spécialité médico-chirurgicale où les actes techniques ont pris une place prépondérante. Elle se caractérise par d'importantes difficultés d'accès (délais d'attente, fréquence et importance des dépassements d'honoraires), par l'importance des besoins mal ou non couverts (prise en charge des urgences, dépistage des pathologies chez l'enfant, suivi des pathologies chroniques) et par une coordination mal structurée entre les différents professionnels qui la composent.

Clemens, J. et Gottlieb, J. D. (2014). "Do Physicians' Financial Incentives Affect Medical Treatment and Patient Health?" Am Econ Rev **104**(4): 1320-1349.

> We investigate whether physicians' financial incentives influence health care supply, technology diffusion, and resulting patient outcomes. In 1997, Medicare consolidated the geographic regions across which it adjusts physician payments, generating area-specific price shocks. Areas with higher payment shocks experience significant increases in health care supply. On average, a 2 percent increase in payment rates leads to a 3 percent increase in care provision. Elective procedures such as cataract surgery respond much more strongly than less discretionary services. Non-radiologists expand their provision of MRIs, suggesting effects on technology adoption. We estimate economically small health impacts, albeit with limited precision.

Di Matteo, L. (2014). "Physician numbers as a driver of provincial government health spending in Canadian health policy." Health Policy **115**(1): 18-35.

> Physician spending is one of the fastest growing Canadian public sector health categories of recent years but despite their recent growth physician numbers are a relatively small contributor to the increases in total provincial government health expenditure. Regression models of the determinants of provincial government health spending are estimated and show physician numbers are a positive and significant driver of provincial government health care spending after controlling for other factors though the overall contribution is relatively small. From 1975 to 2009, the increases in physician numbers accounted for a range of 3.2-13.3 percent of the increase in real per capita total provincial government health expenditures ranging from a low of 1.9 to 7.6 percent for Manitoba to a high of 5.3 to 18.3 percent for Quebec. These are modest contributions to total health spending but vary more substantially across provinces when hospital and physician spending alone are considered particularly for Quebec and British Columbia. Nevertheless, these results suggest that physician numbers alone are a modest policy concern when it comes to restraining health costs and other factors such as utilization and fees are more important. (C) 2013 Elsevier Ireland Ltd. All rights reserved.

Jeurissen, P. P. T., Clemens, J. et Gottlieb, J. D. (2014). "Do Physicians' Financial Incentives Affect Medical Treatment and Patient Health?" Int J Health Policy Manag **104**(4): 1320-1349.

> We investigate whether physicians' financial incentives influence health care supply, technology diffusion, and resulting patient outcomes. In 1997, Medicare consolidated the geographic regions across which it adjusts physician payments, generating area-specific price shocks. Areas with higher payment shocks experience significant increases in health care supply. On average, a 2 percent increase in payment rates leads to a 3 percent increase in care provision. Elective procedures such as cataract surgery respond much more strongly than less discretionary services. Non-radiologists expand their provision of MRIs, suggesting effects on technology adoption. We estimate economically small health impacts, albeit with limited precision.

Naseri, A. et McLeod, S. (2014). "Benefits of and Barriers to Immediate Sequential Cataract Surgery." JAMA Ophthalmol **132**(11): 1362-1363.
https://doi.org/10.1001/jamaophthalmol.2014.3637

In this issue of JAMA Ophthalmology, Neel revisits the issue of the relative cost of immediate sequential cataract surgery (ISCS), ie, performed on the same day, compared with delayed sequential cataract surgery (DSCS). Unlike many previous analyses that have focused on payer and societal costs (and is the subject of another study from Neel examining this data set from that perspective), the analysis is conducted from the perspective of the physician practicing in the United States. The “physician perspective” is an analytic construct rather than a moral or ethical statement; it is simply a method of narrowing the scope of the analysis from the broadest societal perspective to understand the impact of specific benefits and costs on a particular group. The assumption is that a financial incentive or disincentive for the physician may drive practice patterns since the surgeon is a key stakeholder in the decision to provide ISCS vs DSCS. The primary driver of the analysis and its conclusions is the reduction in Medicare professional fee for the second eye in ISCS. In the base case model, Medicare physician compensation for both eyes is $1397.22 for DSCS and $1047.92 for ISCS, constituting a 25% reduction in compensation per patient eligible for bilateral cataract surgery.

Neel, S. T. (2014). "A cost-minimization analysis comparing immediate sequential cataract surgery and delayed sequential cataract surgery from the payer, patient, and societal perspectives in the United States." JAMA Ophthalmol **132**(11): 1282-1288.

IMPORTANCE: The cost difference is evaluated between delayed sequential cataract surgery (DSCS) and immediate sequential cataract surgery (ISCS) in the United States for patients covered by Medicare. OBJECTIVE: To perform a cost-minimization analysis comparing ISCS with DSCS in the United States from the payer, patient, and societal perspectives for the West Tennessee region and nationally. DESIGN, SETTING, AND PARTICIPANTS: A cost-minimization analysis using cataract surgery volume and eligibility estimates, 2012 Medicare reimbursement schedules, and actual or estimated patient cost data for the West Tennessee region and nationally was performed comparing ISCS with DSCS. The West Tennessee model was set in a mixed small city and rural private practice setting and was extrapolated to a national model. Ambulatory surgery center and hospital outpatient department setting costs were evaluated. MAIN OUTCOMES AND MEASURES: West Tennessee and national Medicare payer costs per patient and the total national Medicare payer cost for DSCS and for ISCS, as well as West Tennessee and national Medicare patient (direct medical, travel, and lost wages) costs for DSCS and for ISCS. RESULTS: Nationally, Medicare was estimated to reduce costs by approximately $522 million with the switch from DSCS to ISCS in 2012. With a change to ISCS, a West Tennessee Medicare patient was estimated to reduce costs by $174 for direct medical costs, $40 for travel costs, and $138 for lost wages (total cost reduction range, $329-$649). The total Medicare-based societal cost reduction was $783 million. CONCLUSIONS AND RELEVANCE: Payers and patients would benefit from an economic standpoint by switching from DSCS to ISCS. Patients and their families would benefit from fewer visits. This becomes important given the increasing number of future cataract surgical procedures that will be performed as the baby boomer generation ages, especially given the fact that Medicare is already financially strained. Further research is needed to evaluate the effect of switching to ISCS from the physician and surgical facility perspectives.

Valentine, J., Zurakowski, D. et Ayyala, R. S. (2014). "Comparison of acquisition costs of surgical supplies in different health care systems for cataract and glaucoma procedures." J Glaucoma **23**(6): 355-359.

PURPOSE: To determine cost identification and acquisition cost comparison of surgical supplies for performing cataract and glaucoma procedures. METHODS: This is a nonrandomized comparative and cross-sectional study. Six health care systems [state-run charity hospital, a private university hospital, 2 ambulatory surgical centers (ASCs), and 2 Veterans Affairs Medical Centers] participated in the study. A list of input prices for disposable surgical items necessary for phacoemulsification with intraocular lens and for trabeculectomy with mitomycin-C (MMC), Ex-PRESS shunt placement, and Ahmed glaucoma valve (AGV) with scleral patch graft was administered to 6 facilities. The total acquisition costs for each surgery at each facility was calculated as the sum of necessary items' costs. All costs are expressed in 2011 US dollars. Total acquisition costs for phacoemulsification/intraocular lens, trabeculectomy with MMC, Ex-PRESS shunt and AGV with scleral patch graft implantation in different health care settings were the main outcome measures. RESULTS: The state-run hospital had the highest overall cost of disposable items for both cataract surgery ($648) and trabeculectomy with MMC ($339), whereas the Veterans Affairs Medical Centers had the lowest acquisition costs for cataract ($386) and the ASC ($96) for trabeculectomy. The ASC system had the lowest cost for both Ex-PRESS shunt ($707) and AGV ($865), whereas the University ($1352 for the Ex-PRESS) and the state ($1338 for AGV) had the highest cost. Average difference between total disposable item acquisition costs and Medicare payment after different surgeries per case is as follows: $544.29 for cataract surgery, $1834.50 for trabeculectomy, $763.30 for Ex-PRESS shunt, and $1315.00 for the AGV surgery. CONCLUSIONS: The ASC system had the lowest acquisition cost for disposable items for both cataract and glaucoma surgeries, whereas the university hospital and the state hospital carried the highest costs on an average. Among the 3 glaucoma procedures compared, trabeculectomy has the lowest acquisition costs for disposable items.

Heijink, R., Mosca, I. et Westert, G. (2013). "Effects of regulated competition on key outcomes of care: Cataract surgeries in the Netherlands." Health policy (Amsterdam, Netherlands) **113**(1-2): 142-150.

Similar to several other countries, the Netherlands implemented market-oriented health care reforms in recent years. Previous studies raised questions on the effects of these reforms on key outcomes such as quality, costs, and prices. The empirical evidence is up to now mixed. This study looked at the variation in prices, volume, and quality of cataract surgeries since the introduction of price competition in 2006. We found no price convergence over time and constant price differences between hospitals. Quality indicators generally showed positive results in cataract care, though the quality and scope of the indicators was suboptimal at this stage. Furthermore, we found limited between-hospital variation in quality and there was no clear-cut relation between prices and quality. Volume of cataract care strongly increased in the period studied. These findings indicate that health insurers may not have been able to drive prices down, make trade-offs between price and quality, and selectively contract health care without usable quality information. Positive results coming out from the 2006 reform

should not be taken for granted. Looking forward, future research on similar topics and with newer data should clarify the extent to which these findings can be generalized

Koenig, L. et Gu, Q. (2013). "Growth of ambulatory surgical centers, surgery volume, and savings to medicare." Am J Gastroenterol **108**(1): 10-15.

We studied the impact of the growth of ambulatory surgical centers (ASCs) on total Medicare procedure volume and ASC market share from 2000 to 2009 for four common outpatient procedures: cataract surgery, upper gastrointestinal procedures, colonoscopy, and arthroscopy. ASC growth was not significantly associated with Medicare volume, except for colonoscopy. An additional ASC operating room per 100,000 population results in a 1.8% increase in colonoscopies performed in all outpatient settings. Increases in the number of ASCs were associated with greater ASC market share with effects ranging from 4- to 6-percentage-point gains for each additional ASC operating room per 100,000. The study demonstrates that continued growth of ASCs could reduce Medicare spending, because ASCs are paid a fraction of the amount paid to hospital outpatient departments for the same services.

Liu, T. Y., Ong, E. L., Yan, X. X., et al. (2013). "Factors Influencing the Success of Rural Cataract Surgery Programs in China: The Study of Hospital Administration and Relative Productivity (SHARP)." Investigative Ophthalmology & Visual Science **54**(1): 266-273.

PURPOSE. To explore factors potentially influencing the success or failure of rural Chinese hospitals in increasing cataract surgical output and quality. METHODS. Focus groups (FGs, n = 10) were conducted with hospital administrators, doctors, and nurses at 28 county hospitals in Guangdong Province. Discussions explored respondents' views on increasing surgical volume and quality and improving patient satisfaction. Respondents numerically ranked possible strategies to increase surgical volume and quality and patient satisfaction. FG transcripts were independently coded by two reviewers utilizing the constant comparative method following the grounded theory approach, and numerical responses were scored and ranked. RESULTS. Ten FGs and 77 ranking questionnaires were completed by 33 administrators, 23 doctors, and 21 nurses. Kappa values for the two coders were greater than 0.7 for all three groups. All groups identified a critical need for enhanced management training for hospital directors. Doctors and nurses suggested reducing surgical fees to enhance uptake, although administrators were resistant to this. Although doctors saw the need to improve equipment, administrators felt current material conditions were adequate. Respondents agreed that patient satisfaction was generally high, and did not view increasing patient satisfaction as a priority. CONCLUSIONS. Our findings highlight agreements and disagreements among the three stakeholder groups about improving surgical output and quality, which can inform strategies to improve cataract programs in rural China. Respondents' beliefs about high patient satisfaction are not in accord with other studies in the area, highlighting a potential area for intervention. (Invest Ophthalmol Vis Sci. 2013; 54: 266-273) DOI: 10.1167/iovs.12-10906

Moore, D. B. et Slabaugh, M. A. (2013). "Surgical outcomes and cost basis for resident-performed cataract surgery in an uninsured patient population." JAMA Ophthalmol **131**(7): 891-897.

IMPORTANCE: In the past, resident physicians have provided care to indigent patients under the supervision of experienced physicians. General consensus exists regarding higher surgical costs of patient care at teaching hospitals. No study has examined the outcomes or the cost basis for resident physicians providing health care to an underserved population. OBJECTIVES: To evaluate the visual results in uninsured patients undergoing cataract surgery performed by resident surgeons at a single institution and to determine the cost-effectiveness of care. DESIGN AND SETTING: A retrospective case series of consecutive uninsured patients undergoing cataract procedures performed by attending-supervised resident physicians at the University of Washington from July 1, 2005, through June 30, 2011. Data obtained included demographic information, preoperative and postoperative best-corrected visual acuity (BCVA) in the eye undergoing the procedure, and surgical complications. We calculated the costs of services rendered and normalized them to 2011 dollars. These data were incorporated into time–trade-off discounted utility values. Data were expressed as mean (SD). PARTICIPANTS: One hundred forty-three consecutive patients. EXPOSURE: Cataract surgical procedures. MAIN OUTCOMES AND MEASURES: Costs of the surgical procedure and the utility value associated with the BCVA in the operated-on eye, RESULTS: The mean logMAR preoperative BCVA was 1.09 (0.74) (Snellen equivalent, 20/300). The best-recorded mean postoperative BCVA was 0.24 (0.42) (Snellen equivalent, 20/40), obtained at 3.77 (9.30) months. The final recorded mean BCVA was 0.27 (0.43) (Snellen equivalent, 20/40), obtained at a median (SD) follow-up of 16.32 (17.10) months. Four complications in 3 eyes required a second operation; 15 postoperative laser procedures were performed. The mean health care cost per patient was $3437.24 ($1334.68). Using these data, the mean utility value of cataract surgery in this population was 0.80 (0.12); the quality-adjusted life-years gained, 2.43 (1.87); and the discounted ratio of cost to utility, $1889.16 ($4800.62). CONCLUSIONS AND RELEVANCE: These data support the success and cost-effectiveness of supervised, resident-performed cataract surgery in an underserved patient population. This study lends support for continuing this traditional scheme of surgical training and education. Further work must ensure that we remain aware of the balance between education and patient care.

Nawata, K. et Kawabuchi, K. (2011). Evaluation of the DPC-based inclusive payment system in Japan for cataract operations. MSSANZ 19th Biennial Congress on Modelling and Simulation (MODSIM), Perth, AUSTRALIA.

Since medical care expenses have been increasing rapidly with the ageing of the population, reducing the length of hospital stay (LOS) has become an important political issue in Japan. A new inclusive payment system based on the diagnosis procedure combination (DPC) was introduced in 82 special functioning hospitals in April 2003. Since April 2004, use of the DPC system has been gradually extended to general hospitals. As of July 2009, a total of 1,283 hospitals, about 14% of the 8,862 general hospitals in Japan, had joined the DPC system. These 1,283 hospitals have 434,231 beds, which is nearly half of the total beds (913,234 beds) of general hospitals in Japan. The DPC system is an original system developed in Japan. Inclusive payments based on the DPC system cover fees for the following categories only: basic hospital stays, medical checkups, image diagnosis, medication, injections, treatments under 1,000 points (10 yen per point has been paid to hospitals), and medicines used during rehabilitation treatments and related activities. Fees for all other categories, such as fees for operations, are paid on the basis of the conventional fee-for-service system. Unlike the

diagnosis-related group/prospective payment system (DRG/PPS) used in the U. S. and other countries, the Japanese DPC system is a per diem prospective payment system. The per diem payment becomes less as the LOS becomes longer. Three periods, Period I, Period II, and Specific Hospitalization Period, are determined for each DPC code. For stays over the Specific Hospitalization Period, the per diem payment is determined through the conventional fee-for-service system. The introduction of the DPC system was one of the largest and most important revisions of the payment system since the Second World War. For the effective use of medical resources, improvement of the DPC system by thorough analyses of the system is absolutely necessary. In this paper, we first propose a new model that considers heterogeneity of variances. We then present our analysis of the LOS for cataract operations before and after the introduction of the DPC system using the proposed model. The number of cataract patients in Japan has been increasing rapidly with the ageing of the population. According to a survey conducted by the Ministry of Health, Labour and Welfare (2008), nearly 800,000 cataract operations are performed annually and nearly 2.5 billion yen are spent for cataract operations annually. We analyzed the influence of the DPC system and factors that might affect the LOS for cataract patients by examining data collected from 5 general hospitals before and after the introduction of the system. To eliminate the influences of types of operations and treatments, we used data strictly pertaining to the patients who underwent cataract operations and insertion of a prosthetic lens on one eye only. The number of patients was 2,533. The estimates of the Female, Age 50, Age 90, Not_Home dummies are significant and affect the LOS. We found large differences in the changes of average lengths of stay (ALOSs) among hospitals. In hospitals where the ALOSs were long, the ALOSs decreased significantly under the DPC system. On the other hand, in hospitals where the ALOSs were already short, the ALOSs did not decrease under the DPC system. The results of empirical study imply that the DPC system gave strong incentives to reduce the ALOSs for the former hospitals but it gave weak (or no) incentives for the latter hospitals, where the ALOSs were already short.

Gutiérrez, S. G., Bilbao, A., Beguiristain, J. M., et al. (2010). "Variability in the prioritization of patients for cataract extraction." International Journal for Quality in Health Care **22**(2): 107-114.

The aim of this study was to compare time spent waiting for cataract extraction across various hospitals and to determine if it was influenced by severity of disease or patient characteristics. Ambispective cohort study. Clinical, sociodemographic, and health-related quality of life data were collected along with time spent on the waiting list. Twelve hospitals in four regions of Spain. A total of 4043 patients who were waiting for being intervened on cataracts in the participant centres were recruited prospectively. Priority was assigned retrospectively using a previously validated scoring system. Time spent on waiting list. Statistically significant differences in time spent on the waiting list ($P < 0.0001$) were observed across the hospitals, even after adjusting for pathology, age, social dependency, laterality of the cataract and number of inappropriate interventions in each centre. Waiting time was not correlated with preintervention visual acuity, preintervention visual function measured by the VF-14 or priority score. Allocation of cataract surgery does not appear to be correlated with the need for surgery or the likely benefit to be derived from it in the Spanish participant centres. The use of explicit and standardized priority criteria could provide a fairer, more rational way to manage waiting lists for this procedure and may help to reduce unnecessary variation on access to health care.

Sivey, P. (2010). The Effect of Waiting Time and Distance on Hospital Choice for English Cataract Patients. Melbourne Institute Working; 10/10. Melbourne Melbourne Institute of Applied economics and social research
http://melbourneinstitute.com/wp/wp2010n10.pdf

> To date, there has been little data or empirical research on the determinants of doctors' earnings despite earnings having an important role in influencing the cost of health care, decisions on workforce participation and labour supply. This paper examines the determinants of annual earnings of general practitioners and specialists using the first wave of the Medicine in Australia: Balancing Employment and Life (MABEL), a new longitudinal survey of doctors in Australia. For both GPs and specialists, earnings are higher for men, for those who are self-employed, who do after hours or on-call work, and who work in areas with a high cost of living. GPs have higher earnings if they work in larger practices, in outer regional or rural areas, and in areas with lower GP density, whilst specialists earn more if they are a fellow of their college, have more working experience, spend more time in clinical work, have less complex patients, or work in inner regional areas. Overall, GPs earn about 32% less than specialists. The returns from on-call work, experience, and self-employment are higher for specialists compared to GPs.

Vigneron, E. (2009). "Pertinence des actes : chirurgie de la prostate et de la cataracte." Revue Hospitalière De France(530): 66-69,

> [BDSP. Notice produite par EHESP I8R0xEpB. Diffusion soumise à autorisation]. A l'initiative d'Emmanuel Vigneron, professeur d'aménagement sanitaire à l'université de Montpellier et membre du Haut conseil de la santé publique, un travail de cartographie sur la géographie des actes réalisés à l'hôpital a été réalisé. Ce travail fait ressortir des variations géographiques de certaines pratiques médicales qui ne s'expliquent ni par la composition des populations ni par des données épidémiologiques. Cet article constitue le dernier volet de cette série d'analyses : après les césariennes et l'appendicectomie (n° 525), la libération du canal carpien et la pose de drains transtympaniques (n° 528), c'est au tour de la chirurgie de la prostate et de la cataracte d'être examinée.

Fattore, G. et Torbica, A. (2008). "Cost and reimbursement of cataract surgery in Europe: A cross-country comparison." Health Econ **17**: S71-S82.

> The number of cataract extractions has increased substantially over time. At present, cataract surgery is estimated to be the most common single procedure performed in the developed world. The present study compares the costs of a cataract intervention across nine European countries. To enhance comparability, data were collected using a common template based on a case vignette. Adequate data for analysis were collected from 41 providers and were used to evaluate variation across countries and providers. Ordinary least squares and a multilevel model were used to investigate cost variation. Mean total costs per cataract intervention varied considerably from country to country, ranging from (sic)318 in Hungary to (sic)1087 in Italy. Variations of a similar magnitude were detected for personnel costs and overheads. However, variations in the cost of the lens were more modest. Overall, our results confirm expectations about the causes of cost variations across EU member states, indicating that these variations may be attributable to the quantity of resources used

in performing the operation, the price of resources, and the type of setting in which the operation is performed. The study highlights how accounting practices and available cost data differ across Europe. It also shows the feasibility of collecting data on the basis of vignettes using common cost templates. Studies following this approach will gain importance if cross-country comparisons are to be used to promote European benchmarking exercises. Copyright (C) 2008 John Wiley & Sons, Ltd.

Fenter, T. C., Naslund, M. J., Shah, M. B., et al. (2006). "The cost of treating the 10 most prevalent diseases in men 50 years of age or older." American Journal of Managed Care **12**(4): S90-S98.

Objective: Costs of treating the 10 most prevalent diagnosed diseases in men 50 years of age were examined in hopes of identifying areas for better medical management and opportunities to decrease healthcare costs. Methods: A retrospective analysis of a large national managed care database was utilized to assess the costs of treating the 10 most diagnosed diseases in aging men. All men initiating pharmacy treatment between July 1, 1997, and January 31, 2003, for (1) hypertension; (2) coronary artery disease (CAD); (3) type 2 diabetes; (4) enlarged prostate; (5) osteoarthritis; (6) gastroesophageal reflux disease; (7) bursitis; (8) arrhythmias; (9) cataracts; and (10) depression were included. Patients were continuously followed 6 months before and 12 months after initiating treatment. Costs of treatment and likelihood of experiencing a significant event were examined. Results: One-year total disease-specific medical costs were highest for arrhythmias, osteoarthritis, cataracts, and CAD. Total medical costs for bursitis, type 2 diabetes, and enlarged prostate were between $400 and $500. Inpatient costs as a percentage of total medical costs were highest for CAD (75%), osteoarthritis (61%), arrhythmias (57%), and enlarged prostate (400%). For most diseases, pharmacy charges were < 50% of the total cost. The likelihood of experiencing a significant clinical event within 1 year of initiating treatment was highest in men with bursitis (23%, surgery) and enlarged prostate (19.2%, acute urinary retention and/or surgery), hypertension (13.5%), and diabetes (9.5%). Conclusion: The most costly conditions in the 10 most prevalent diseases in men 50 years of age were typically those that required substantial inpatient care. Conditions such as enlarged prostate, diabetes, and hypertension demonstrated a high likelihood of a clinical event within 1 year of initiating treatment. These conditions are therapeutic areas with the greatest likelihood of improvement, given what is known about the use of appropriate pharmacotherapy and the likelihood of treating to goal. Proactive patient management (eg, initiating/maximizing pharmacotherapy) may have the potential to positively impact clinical and economic outcomes for aging men.

Shrank, W., Ettner, S. L., Slavin, P. H., et al. (2005). "Effect of physician reimbursement methodology on the rate and cost of cataract surgery." Archives of Ophthalmology **123**(12): 1733-1738.

Objectives: To compare the effects of 2 reimbursement methodologies, fee-for-service and contact capitation, on cataract extraction rates and costs in a stable physician population with little potential for the influence of patient selection. Previous research evaluating the relationship between physician reimbursement incentives and cataract surgical rates has been limited by physician and patient selection bias. Methods: A pre-post analysis of claims and encounter data for an average of 91473 commercial beneficiaries and 14 084 Medicare beneficiaries receiving eye care from a network of ophthalmologists and optometrists in St

Louis, Mo, between 1997 and 1998. The rate of cataract extractions per 1000 beneficiaries, the costs of cataract procedures, the rates of noncataract procedures, and the level of professional reimbursement for providers were compared during the final 6 months of fee-for-service physician reimbursement and the first 6 months of contact capitation. Results: Both commercial and Medicare beneficiaries were approximately one half as likely to have cataract extraction (P < .001) under contact capitation as compared with fee-for-service. Professional reimbursement increased by 8% whereas facility fees for cataract procedures decreased by approximately 45%. Cataract surgical rates were disproportionately affected when compared with other ophthalmologic procedures. During the study period, cataract surgical rates were stable in the national and Missouri traditional fee-for-service Medicare population. Conclusions: The stability of the physician and patient populations allowed us to isolate the effects of physician reimbursement methodology on practice patterns. Compared with fee-for-service, contact capitation reimbursement was associated with significant decreases in cataract extraction rates and costs. The frequency of the cataract extraction surgery, the most common major elective procedure in ophthalmology, was more responsive to physician financial incentives than other ophthalmologic procedures were.

Margo, C. E. (2004). "Quality care and practise variation: The roles of practise guidelines and public profiles." Survey of Ophthalmology **49**(3): 359-371.

Goals of the quality-of-care initiative are to improve the structure, process, and outcome of health care. The effectiveness of methods to improve quality have been largely unverified. Most methods are costly to implement and time-consuming to perform; some threaten professional autonomy. The characteristic feature of modern medicine that fuels the debate over quality is the variation in the delivery of health care. This review examines the "variation phenomenon" in medicine and the roles that practice guidelines and physician profiling have in improving health care, in general, and for adult cataract, in particular.

Farnworth, M. G. (2003). "A game theoretic model of the relationship between prices and waiting times." J Health Econ **22**(1): 47-60.

Issue: The role of prices charged to patients as a policy instrument for altering waiting times. Method: A game theoretic model is used to examine the determinants of waiting times. Results: Under certain circumstances an increase in the price charged to patients at some institutions will lower the waiting times at all institutions. Conclusions: The results provide a set of policy implications and testable predictions that arise under a certain set of assumptions. Alternative assumptions as well as the policy implications and testable predictions associated with them are also examined. (C) 2002 Elsevier Science B.V. All rights reserved.

Hendricks, A. M., Lotchin, T. R., Hutterer, J., et al. (2003). "Evaluating VA patient-level expenditures: Decision support system estimates and Medicare rates." Medical Care **41**(6): 111-117.

OBJECTIVES. To make preliminary comparisons of Veterans Health Administration (VA) Decision Support System (DSS) patient-level cost information with Medicare allowable reimbursements. METHODS. For six VA facilities in the Evaluating VA Costs study for federal fiscal year 1999, DSS cost estimates for outpatient inguinal hernia and cataract operations

and inpatient stays for chronic obstructive pulmonary disease, simple pneumonia, diabetes, and detoxification were compared with Medicare allowable reimbursement amounts for the same procedures and diagnosis-related groups. Medicare average base payments were adjusted for disproportionate share, capital, and indirect medical education costs. The amounts include Medicare's geographic adjustments for wages and capital. Medicare professional fees were a weighted average of site-specific fees paid for the indicated procedure. RESULTS. For the chosen types of care in fiscal year 1999, average DSS cost estimates were generally higher than estimated Medicare allowable reimbursement amounts, but included different amounts of professional services per discharge or outpatient procedure. The difference was greatest for inguinal hernia repair ($3253 compared with $1506). Two diagnosis-related groups for detoxification (434 and 435) were least comparable between the systems because some VA discharges undoubtedly included both acute and nonacute portions of the hospitalizations, whereas the Medicare rates are for acute stays only. CONCLUSIONS. Researchers and managers need DSS detail records to make any meaningful comparisons of the VA's DSS costs and non-VA reimbursement amounts such as those of Medicare. Non-VA reimbursement estimates should include an average of all professional services, including those of anesthesiologists and consultants. Separating acute and nonacute bedsections in DSS data would improve the VA's capability for comparison. Current information is insufficient for make or buy decisions.

Blatier, J. F., et al.. (2002). "PMSI et variations des pratiques médicales dans les établissements sanitaires privés. Actes associés à une intervention chirurgicale traceuse : application à la fibrocoloscopie totale, à la gastroplastie, et à l'insertion de cristallin artificiel." Journal D'économie Médicale **20**(7-8): 427-443

[BDSP. Notice produite par ORSRA GbbQR0xc. Diffusion soumise à autorisation]. Une stratégie d'analyse exploratoire des données médicales et financières du PMSI est proposée pour identifier les établissements privés dont les pratiques semblent atypiques. Trois interventions chirurgicales traceuses (coloscopie totale, implantation de cristallin artificiel, gastroplastie pour obésité) sont étudiées dans 25 départements, soit 219 établissements représentant le quart des séjours comptabilisés dans le PMSI des établissements privés en 2000. Les écarts observés entre établissements demeurent très importants et justifient la recherche d'une explication.

Oberlin, P. et Mouquet, M. C. (2002). "Les interventions de chirurgie fonctionnelle : une activité programmée importante mais hétérogène." Etudes Et Résultats(194)

Les interventions de chirurgie fonctionnelle ont pour but de corriger un état physique qui s'altère progressivement, entraînant une gêne fonctionnelle croissante. Cette chirurgie s'adresse essentiellement à des adultes, parfois très âgés. Parmi ces interventions, cette étude en a sélectionné certaines, fréquentes et relatives à plusieurs domaines de la pathologie : les interventions pour adénomes de la prostate, cataractes, hernies de l'aine, hémorroïdes, troubles de la statique pelvienne, syndromes du canal carpien, varices et les arthroplasties de hanche et de genou. Cela représente plus d'un million de séjours en 1999, soit le quart des séjours chirurgicaux des personnes de 15 ans ou plus. L'augmentation est de 31 % par rapport à 1993, alors que l'activité hospitalière de court séjour n'a progressé que de 11 % dans le même temps. Les différences régionales des taux de recours sont importantes

jusqu'à s'écarter de plus de 40 % de la valeur nationale. Elles varient selon les pathologies et s'accompagnent de différences de pratiques, comme un recours plus ou moins important à la chirurgie ambulatoire ou l'utilisation de techniques différentes. Lorsque la pathologie le permet, la fréquence de la chirurgie ambulatoire augmente, de même que les séjours de très courte durée. Les établissements privés occupent une position dominante dans ce type d'interventions (résumé d'auteur).

Westert, G. P. (2002). "Variations géographiques en chirurgie : interventions en ambulatoire versus interventions en hospitalisation." Revue Médicale de L'assurance Maladie **33**(1): 45-49, 43 , 42

La pratique médicale varie dans le temps et dans l'espace. Les pratiques hospitalières, comme par exemple, les durées de séjour et les taux d'interventions chirurgicales, diffèrent selon les zones géographiques. Les nouvelles techniques médicales, les changements dans l'organisation des soins et leur mise en œuvre peuvent expliquer les variations de la pratique médicale. L'objectif de cet article était d'observer si ces variations de pratique médicale s'atténuaient avec le temps et quel effet avaient les changements organisationnels d l'offre de soins sur cette tendance. L'équipe de l'auteur a utilisé les données administratives hospitalières de vingt-cinq régions sanitaires néerlandaises. L'analyse a porté sur des procédures chirurgicales spécifiques (par exemple, l'appendicectomie, la césarienne, la pose de prothèse de hanche, la chirurgie de la cataracte, la méniscectomie), et sur les données d'admission en hospitalisation (1980-1997) et de chirurgie ambulatoire (1997). Les résultats ont montré que les variations géographiques en chirurgie ont légèrement diminué dans la période étudiée et que lorsque les transferts se faisaient de la chirurgie avec hospitalisation vers la chirurgie ambulatoire, les disparités régionales dans la chirurgie des malades hospitalisés augmentaient, temporairement au moins. (Résumé d'auteur). NB : l'article est rédigé en anglais.

Baubeau, D., Bousquet, F. et Joubert, M. (2001). "Le traitement chirurgical de la cataracte en France." Etudes Et Résultats(101)

L'opération de la cataracte est l'acte chirurgical le plus fréquent en France. Il représente la deuxième cause d'hospitalisation. En quinze ans, le nombre d'interventions a été multiplié par trois. Pourtant, les taux de recours restent, à structure de population identique, très différents selon les départements. L'activité est, par ailleurs, très concentrée dans le secteur privé. Les modes de prises en charge tendent à se standardiser allant de la chirurgie ambulatoire à l'hospitalisation de deux jours. Les durées de séjours et la proportion de patients traités en ambulatoire varient en fonction des caractéristiques médicales du patient mais aussi de facteurs propres aux établissements. Le recours à la chirurgie ambulatoire est plus développé dans les établissements privés et dans ceux qui ont un volume d'activité

Sourty-Le Guellec, M. J. (2001). "Le potentiel de développement de la chirurgie ambulatoire de la cataracte en France, en 1999." Questions D'Economie De La Santé (Credes)(4) http://www.irdes.fr/Publications/Qes/Qes41.pdf

Cette étude fait suite à la précédente analyse sur le potentiel de développement de la chirurgie ambulatoires des cures de hernies inguinales ou crurales. Selon la même méthode et à partir des données du PMSI, l'estimation est réalisée pour la chirurgie de la cataracte.

L'objectif est d'apprécier les possibilités de développement de la chirurgie ambulatoire en France pour certains actes pratiqués de façon courante sans hospitalisation dans de nombreux pays, en Amérique du Nord notamment. Cette étude complète une analyse récente de la Direction de la Recherche - des Etudes de l'Evaluation et des Statistiques (DREES) du Ministère de l'Emploi et de la Solidarité sur l'évolution spectaculaire de la chirurgie de la cataracte ces dix dernières années et sur le développement modéré de la chirurgie ambulatoire en France.