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**Patient Cost Sharing –
Reforms without Evidence**

Theoretical Considerations and Empirical Findings
from Industrialized Countries

Aus dem Deutschen übersetzt von Meredith Dale

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Abstract

International health service research reveals a uniform tendency in practically all industrialised countries: an increasing shift of costs from solidarity-based financing to private households. Legislators and advisors usually justify this policy through the need to encourage cost-consciousness and especially “individual responsibility”. Economists consider cost-sharing in health care to be necessary to prevent abuse of the welfare state. They expect user charges and co-payments to motivate a more “rational” utilisation of health care and, thus, the financial stabilisation of health systems.

Many politicians and economists base their assumptions about the “health market” on the theorem of demand-side moral hazard. This model transforms patients into rational “utility maximisers” consuming services beyond their needs thereby causing welfare losses to society as a whole. Moral hazard in health insurance belongs to the standard repertoires of economic textbooks.

The present study analyses the extensive theoretical and empirical literature on patient cost-sharing published during the last forty years. The results show that persuasive evidence for demand-side moral hazard is still lacking. Furthermore, the claimed empiricism turns out to be inappropriate for providing evidence. Science health service research and clinical studies instead suggest that health insurance beneficiaries are not aiming to abuse the health system. In fact, introducing patient cost-sharing seems to endanger proper health care since it deters the sick from claiming benefits. The idea of “rational” use transpires to be out of touch with reality.

After a systematic in-depth review of current research on the topic, the author concludes that moral hazard in health insurance is a bogey of academic economic theory. Adequate reality-based evidence for implementing patient user fees and co-payments is lacking. In view of the detrimental effects on health service utilisation, he advises cancelling existing co-payment arrangements and abandoning cost-sharing policies.

Zusammenfassung

Die internationale Gesundheitssystemforschung zeigt in praktisch allen Industrieländern einen einheitlichen Trend auf: die zunehmende Verlagerung der Kosten von der solidarischen Finanzierung auf die privaten Haushalte. Gesetzgeber wie Berater begründen dies üblicherweise mit der Stärkung von Kostenbewusstsein und vor allem der „Eigenverantwortung“. Wirtschaftswissenschaftler betrachten Selbstbeteiligungen in der Gesundheitsversorgung als notwendig, um dem Missbrauch der Solidargemeinschaft entgegenzuwirken. Von Gebühren und Zuzahlungen erwarten sie eine „vernünftigeren“ Inanspruchnahme der Gesundheitsleistungen und eine finanzielle Stabilisierung der Systeme.

Die Sicht vieler Politiker und Wirtschaftsexperten auf den „Gesundheitsmarkt“ ist durch das Theorem des versichertenseitigen Moral Hazard geprägt. Dieses Modell macht Krankenversicherte zu rationalen „Nutzenmaximierern“, die zum eigenen Vorteil über den Bedarf hinaus Leistungen in Anspruch nähmen und dadurch gesamtgesellschaftliche Wohlfahrtsverluste verursachen. Moral Hazard in der Krankenversicherung gehört zum Standard-Repertoire ökonomischer Lehrbücher.

Die vorliegende Arbeit wertet die umfangreiche Literatur über Ansätze und Versuche der Kostenbeteiligung von Patienten aus, die in den letzten vier Jahrzehnten erschienen ist. Dabei stellt sich heraus, dass belastbare Belege für das Moral-Hazard-Verhalten von Versicherten bzw. Patienten bisher fehlen und die üblicherweise angeführte Empirie für den Nachweis ungeeignet ist. Gesundheitswissenschaftliche, versorgungsbezogene und klinische Studien legen vielmehr nahe, dass die Versicherten das System nicht ausnutzen wollen oder können. Die Einführung von Kostenbeteiligungen für Patienten scheint eher die bedarfsgerechte Versorgung zu gefährden, weil sie Kranke von der Inanspruchnahme abhalten. Die Vorstellung von der „rationalen“ Nutzung des Gesundheitswesens entpuppt sich als realitätsfremd.

Nach gründlicher Auswertung des Forschungsstandes kommt der Autor zum Schluss, dass Moral Hazard in der Krankenversicherung ein Popanz der akademischen Wirtschaftstheorie geblieben ist. Für die Einführung von Kostenbeteiligungen für Patienten fehlt es an hinreichender realitätsbasierter Evidenz. In Anbetracht der schädlichen versorgungspolitischen Effekte erscheinen die Rücknahme aller Patientenzuzahlungen und der Verzicht auf Selbstbeteiligungen geboten.

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Foreword

Almost all healthcare systems include some form of cost-sharing arrangement for patients receiving medical treatment, and these are indeed one of the universal ways of financing healthcare. In the early phase of formally regulated social security systems the declared purpose of cost-sharing was to provide an additional source of funding to contain the cost to insurers. By the 1960s, however, policymakers had begun advancing more sophisticated arguments based in economic theory to justify patient co-payments. Above and beyond the goal of providing additional revenues for increasingly hard-pressed healthcare systems, co-payments became part of a strongly advocated move to demand-side disincentives counteracting “moral hazard” and the “abuse” of services.

At first glance this apparently simple and logical approach seems convincing. After all, empirical research repeatedly reveals an inverse relationship between the volume of co-payments and the demand for healthcare. The various forms of co-payment have therefore generally come to be regarded as an effective means both to generate additional revenues and to reduce expenditure by encouraging “more sensible” use of the healthcare system. Although the theoretical concepts underlying this approach are largely ideologically driven and their empirical basis rather thin, the worldwide trend towards individualisation, marketisation and “greater individual responsibility” has boosted the use of patient co-payments as a prominent element of health reforms.

In recent years sociologists and health researchers have taken an increasingly critical view both of the theory behind co-payments and of the empirical evidence supporting them. One of the main reasons to question the generally assumed positive effect of the co-payment system is the growing discrepancy between the potential offered by advances in medicine and pharmacology and the actual impact of these advances on the lives of the chronically ill. It is becoming increasingly apparent that co-payments in fact have a negative effect on *compliance (adherence) to therapy*, because they discourage particularly the poorer among the chronically ill from following their recommended treatment.

Criticism of the rather simplistic assumption that every healthcare procedure that can be avoided leads to lower expenditure is certainly not new. The most relevant arguments against the use of co-payments are found in literature dating back to the 1960s. Both the obvious problem of social justice and the continuing lack of any proof that co-payments reduce healthcare expenditure effectively or reliably have since then thrown up more and more questions about the expected – or claimed – positive outcomes.

This discussion paper is the result of an extensive study of the literature conducted between 2005 and 2007 for the Public Health Research Group at the Social Science Research Center Berlin (WZB) and initially appeared in German only (DP SP I 2008-305). After researchers at the Social Policy Centre (ZeS) at the University of Bremen had themselves undertaken a critical examination of the theoretical coherence and empirical reality of “moral hazard”, co-payments and related incentives (Braun et al. 2006), the ZeS supported our efforts to make the present text available to a broader international readership by financing the cost of an English translation. For practical reasons the original paper has been neither revised nor updated.

The vast majority of studies published in the meantime impressively confirm the findings and conclusions presented here and in some cases provide further convincing empirical indications of the undesirable effects of co-payments. Recent international discussion of the issue has drawn particular attention to the negative effects of co-payments on *adherence to therapy* (Colombi et al. 2008, Choudhry et al. 2010, Maciejewski et al. 2010) and to findings

showing that decreasing the financial burden on patients produces both better adherence to therapy and cost savings (e.g. Chernew et al. 2008, Choudhry et al. 2007 and 2008, Doshi et al. 2010). Particularly worthy of mention with respect to the German healthcare system is the contribution by Eva Münster and her colleagues (2010), which shows that households in debt reduce their use of the healthcare system to a detrimental extent. All in all research findings published since our study was conducted have added to the already large volume of empirical evidence of undesirable and harmful effects of co-payments for medical treatment. Negative confirmation is supplied by certain economic approaches that seek to preserve the desirable steering effects of co-payments while suspending the undesirable selection effects (e.g. Götze and Salomon 2009), but have failed to provide any proof of effectiveness or practicability. Generally speaking, studies conducted since 2007 emphatically underline the empirical findings collected in this working paper.

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Braun Bernard, Hartmut Reiners, Melanie Rosenwirth, Sophia Schlette (2006): Anreize zur Verhaltenssteuerung im Gesundheitswesen. Effekte bei Versicherten und Leistungsanbietern. Chartbook. Gütersloh
(http://www.bertelsmannstiftung.de/cps/rde/xbcr/bst/Verhaltenssteuerung_Chartbook_final.pdf)

Colombi, Alberto; Yu-Isenberg, Kristina; Priest, Julie (2008). The Effects of Health Plan Copayments on Adherence to Oral Diabetes Medication and Health Resource Utilization. *J Occup Environ H* 50 (5), pp. 535-541.

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Choudhry, Niteesh; Avorn, Jerry; Antman, Elliott; Schneeweiss, Sebastian; Shrank, William (2007). Should Patients Receive Secondary Prevention Medications For Free After A Myocardial Infarction? An Economic Analysis. *Health Aff* 26 (1), pp. 186-194
(<http://content.healthaffairs.org/cgi/reprint/26/1/186>).

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(<http://circ.ahajournals.org/cgi/reprint/117/10/1261>).

Choudhry, Niteesh (2010). Relationship Between High Cost Sharing and Adverse Outcomes: A Truism That's Tough to Prove. *Am Journal Man Care* 16 (4), pp. 287-289
(http://www.ajmc.com/media/pdf/AJMC_10aprChoudhryEdt_287to89.pdf).

Doshi, Jalpa; Zhu, Jingsan; Lee, Bruce; Kimmel, Stephen; Volpp, Kevin (2009). Impact of a Prescription Copayment Increase on Lipid-Lowering Medication Adherence in Veterans. *Circ* 119 (3), pp. 390-397 (<http://circ.ahajournals.org/cgi/reprint/119/3/390>).

- Götze, Ralf; Salomon, Tina (2009). Fair Fee. Eine einkommens- und morbiditätsadjustierte Zuzahlung für die Gesetzliche Krankenversicherung in Deutschland. *Zeitschr für Sozialreform* 55 (1), pp. 71-90; Nachdruck in: *Zukunftsideen für das Gesundheitssystem. Beiträge aus dem Hochschulwettbewerb „Perspektive 2020 – Gesundheit als Chance“*. Janssen-Cilag GmbH, Neuß: pp. 109-123 (http://www.janssen-cilag.de/content/literature/janssen-cilag.de_ger/Delphi-Zukunftsideen.pdf).
- Maciejewski, Matthew; Bryson, Chris; Perkins, Mark; Blough, David; Cunningham, Francesca; Fortney, John; Krein, Sarah; Stroupe, Kevin; Sharp, Nancy; Liu, Chuan-Fen (2010). Increasing Copayments and Adherence to Diabetes, Hypertension, and Hyperlipidemic Medications. *Am J Man Care* 16 (1), pp. e21-e34 (http://www.ajmc.com/media/pdf/AJMC_2010janMaciej_WEB_e20to34.pdf).
- Münster, Eva; Rüger, Heiko; Ochsmann, Elke; Alsmann, Christine; Letzel, Stephan (2010). Überschuldung und Zuzahlungen im deutschen Gesundheitssystem – Benachteiligung bei Ausgabenarmut. *Gesundheitswesen* 72 (2), pp. 67-76 (<https://www.thieme-connect.de/ejournals/pdf/gesu/doi/10.1055/s-0029-1214397.pdf>).

Vorwort

Zuzahlungen im Krankheitsfall sind praktisch ausnahmslos in allen Gesundheitssystemen anzutreffen und gehören zu den universell auftretenden Formen der Gesundheitsfinanzierung. In der Frühphase formaler sozialer Sicherungssysteme verfolgten Selbstbeteiligungen erklärtermaßen das Ziel der Kostendämpfung durch die Gewinnung zusätzlicher Mittel für die Krankenversorgung. Spätestens seit den 1960er Jahren kamen indes ausgeklügeltere wirtschaftstheoretische Begründungen für Patientenzahlungen auf. Über die Gewinnung zusätzlicher Einnahmen für die zunehmend klammen Gesundheitssysteme hinaus wurden Eigenbeteiligungen zu einem stark geförderten Ansatz zur Schaffung nachfrageseitiger Anreize mit dem Ziel, „moral hazard“ und dem „Missbrauch“ von Gesundheitsleistungen entgegenzuwirken.

Auf den ersten Blick erscheint dieser Ansatz überzeugend einfach und nachvollziehbar. Empirische Ergebnisse offenbaren immer wieder eine umgekehrte Proportionalität zwischen dem Umfang von Zuzahlungen und der Nachfrage nach Gesundheitsleistungen. Die unterschiedlichen Formen von Selbstbeteiligungen in ihren unterschiedlichen Ausprägungen betrachtete man daher gemeinhin als wirksames Mittel sowohl zur Generierung zusätzlicher Einnahmen durch Reduzierung der Ausgaben als auch zur Erzeugung einer „vernünftigeren“ Inanspruchnahme von Gesundheitsleistungen. Obwohl die zu Grunde liegenden theoretischen Konzepte eher ideologiegetrieben wirken und die empirischen Grundlagen weiterhin recht dünn erscheinen, förderten der weltweite Trend zu Individualisierung, „mehr Eigenverantwortung“ und Marktorientierung wirksam die Anwendung von Patientenselbstbeteiligungen als prominentes Element von Gesundheitsreformen.

In den letzten Jahren überprüfte die sozial- und gesundheitswissenschaftliche Forschung zunehmend die Vorstellungen und die empirische Evidenz von Eigenbeteiligungen kritisch. Anlass zum Hinterfragen der angenommenen positiven Zuzahlungswirkungen ist nicht zuletzt der wachsende Widerspruch zwischen dem potenziellen medizinisch-pharmakologischen Fortschritt und dessen Wirksamkeit im richtigen Leben von chronisch kranken Menschen. Es stellte sich zunehmend heraus, dass Selbstbeteiligungen im Krankheitsfall die *compliance* bzw. *adherence to therapy* negativ beeinflussen, denn Zuzahlungen halten vor allem ärmere Personen mit chronischen Erkrankungen davon ab, die empfohlenen Therapievorgaben einzuhalten.

Die Kritik an der eher simplizistischen Annahme, jede vermiedene Gesundheitsleistung führe zu geringeren Ausgaben ist aber keineswegs neu. Die relevantesten Argumente gegen die Anwendung von Zuzahlungen finden sich seit den 1960er Jahren in der Literatur. Sowohl die offensichtlichen Problemen der sozialen Gerechtigkeit als auch das bisherige Ausbleiben des Nachweises, dass Selbstbeteiligungen wirksam und zuverlässig die Gesundheitsausgaben senken, haben seither immer mehr Fragen zu den erwarteten – bzw. unterstellten – positiven Ergebnissen von Zuzahlungen im Krankheitsfall aufgeworfen.

Das vorliegende discussion paper ist das Ergebnis einer zwischen 2005 und 2007 durchgeführten, umfangreichen Literaturstudie für die Forschungsgruppe Public Health im Wissenschaftszentrum Berlin für Sozialforschung Berlin (WZB) und ist zunächst auf deutsch erschienen (DP SP I 2008-305). Nachdem sich Wissenschaftler des Zentrums für

Sozialpolitik (ZeS) der Universität Bremen selber bereits kritisch mit der theoretischen Stimmigkeit und empirischen Wirklichkeit von „moral hazard“, Zuzahlungen und ähnlicher Anreize (Braun et al. 2006) auseinandergesetzt hatten, unterstützte das ZeS die Bemühungen, den vorliegenden Text auch einem breiteren internationalen Publikum zugänglich zu machen und übernahm dankenswerterweise die Kosten für die Übertragung ins Englische. Aus praktischen Gesichtspunkten erfolgten weder Änderungen noch eine Aktualisierung des ursprünglichen Papers.

Zwischenzeitlich publizierte wissenschaftliche Untersuchungen bestätigen ganz überwiegend und eindrücklich die hier dargestellten Befunde und Schlussfolgerungen oder liefern weitere überzeugende empirische Hinweise auf unerwünschte Wirkungen von Zuzahlungen. Besonderes Augenmerk legt die internationale Diskussion derzeit auf die negativen Einflüsse von Selbstbeteiligungen auf die *adherence to therapy* (Colombi et al. 2008, Choudhry et al. 2010, Maciejewski et al. 2010) und auf Befunde, nach denen eine verringerte Kostenbelastungen für PatientInnen sowohl zur Verbesserung der Therapietreue als auch zu Kostenersparnis führt (z.B. Chernew et al. 2008, Choudhry et al. 2007 und 2008, Doshi et al 2010). In Bezug auf die deutsche Situation ist besonders der Beitrag von Eva Münster und KollegInnen (Münster et al. 2010) erwähnenswert, der bei verschuldeten Haushalten eine unvernünftige Reduzierung der Inanspruchnahme von Gesundheitsleistungen nachweist. Insgesamt haben zwischenzeitlich publizierte Forschungsergebnisse den großen Berg empirischer Belege für unerwünschte und schädliche Wirkungen von Zuzahlungen im Krankheitsfall weiter vergrößert. Dies belegen letztlich auch einzelne wirtschaftstheoretische Ansätze, die erwünschte Steuerungswirkungen erhalten und unerwünschte Selektionseffekte abfedern möchten (z.B. Götze und Salomon 2009), allerdings den Nachweis der Wirksamkeit wie der Praktikabilität noch erbringen müssen. Insgesamt unterstreichen neuere, seit 2007 erschienene Studien nachdrücklich die in diesem Arbeitspapier gesammelten empirischen Befunde.

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(<http://content.healthaffairs.org/cgi/reprint/27/1/103>).

- Choudhry, Niteesh; Avorn, Jerry; Antman, Elliott; Schneeweiss, Sebastian; Shrank, William (2007). Should Patients Receive Secondary Prevention Medications For Free After A Myocardial Infarction? An Economic Analysis. *Health Aff* 26 (1), pp. 186-194 (<http://content.healthaffairs.org/cgi/reprint/26/1/186>).
- Choudhry, Niteesh; Patrick, Amanda; Antman, Elliott; Avorn, Jerry; Shrank, William (2008). Cost-Effectiveness of Providing Full Drug Coverage to Increase Medication Adherence in Post Myocardial Infarction Medicare Beneficiaries. *Circ* 117 (10), pp. 1261-1268 (<http://circ.ahajournals.org/cgi/reprint/117/10/1261>).
- Choudhry, Niteesh (2010). Relationship Between High Cost Sharing and Adverse Outcomes: A Truism That's Tough to Prove. *Am Journal Man Care* 16 (4), pp. 287-289 (http://www.ajmc.com/media/pdf/AJMC_10aprChoudhryEdt_287to89.pdf).
- Doshi, Jalpa; Zhu, Jingsan; Lee, Bruce; Kimmel, Stephen; Volpp, Kevin (2009). Impact of a Prescription Copayment Increase on Lipid-Lowering Medication Adherence in Veterans. *Circ* 119 (3), pp. 390-397 (<http://circ.ahajournals.org/cgi/reprint/119/3/390>).
- Götze, Ralf; Salomon, Tina (2009). Fair Fee. Eine einkommens- und morbiditätsadjustierte Zuzahlung für die Gesetzliche Krankenversicherung in Deutschland. *Zeitschr für Sozialreform* 55 (1), pp. 71-90; Nachdruck in: *Zukunftsideen für das Gesundheitssystem. Beiträge aus dem Hochschulwettbewerb „Perspektive 2020 – Gesundheit als Chance“*. Janssen-Cilag GmbH, Neuß: pp. 109-123 (http://www.janssen-cilag.de/content/literature/janssen-cilag.de_ger/Delphi-Zukunftsideen.pdf).
- Maciejewski, Matthew; Bryson, Chris; Perkins, Mark; Blough, David; Cunningham, Francesca; Fortney, John; Krein, Sarah; Stroupe, Kevin; Sharp, Nancy; Liu, Chuan-Fen (2010). Increasing Copayments and Adherence to Diabetes, Hypertension, and Hyperlipidemic Medications. *Am J Man Care* 16 (1), pp. e21-e34 (http://www.ajmc.com/media/pdf/AJMC_2010janMaciej_WEB_e20to34.pdf).
- Münster, Eva; Rüger, Heiko; Ochsmann, Elke; Alsmann, Christine; Letzel, Stephan (2010). Überschuldung und Zuzahlungen im deutschen Gesundheitssystem - Benachteiligung bei Ausgabenarmut. *Gesundheitswesen* 72 (2), pp. 67-76 (<https://www.thieme-connect.de/ejournals/pdf/gesu/doi/10.1055/s-0029-1214397.pdf>).

1 Introduction

This study examines attempts to introduce pecuniary control of health service demand through direct payments by patients. Making patients contribute to the costs of their medical treatment is one of the oldest health policy ideas, almost as old as Germany's socialised health insurance system itself. During the hyperinflation of 1923 the statutory health insurance fund introduced a 10-percent co-payment for prescription medications.¹ At the end of the 1920s the physician Gustav Hartz complained: "Don't people go to the doctor a dozen times without a thought, when once would be enough – just because the fund is paying? ... They go to the doctor for a cold or a minor injury where previously they would have been ashamed to call themselves sick and take the doctor's time at all."² In line with this view, the next steps to increase cost-sharing came with Brüning's emergency decrees of 1930/31, which introduced a voucher fee and increased prescription charges.³

By the end of the 1950s Christian democratic politicians in West Germany – in particular Theodor Blank (labour minister 1957–65) – had put the issue of direct patient cost-sharing back on the agenda.⁴ Since then the question has played a central role in the Federal Republic's social policy debate and health sector reforms. The Health Modernisation Act of 2004 introduced a "practice fee" (comparable with the voucher fee) and increased drug co-payments.⁵ Although the Statutory Health Insurance Competition Strengthening Act of 2006 refrained from further increasing cost-sharing, it did break another taboo by raising the idea of excluding "self-inflicted" conditions. A clause abolishing coverage of "self-inflicted" illnesses (and thus further increasing out-of-pocket payments) was discussed, but not ultimately included.⁶ The declared goal of all the reforms, and especially of shifting costs to patients, is to slow the steady general increase in health care costs.

The application of out-of-pocket payments for health care is closely tied to the concept of "responsible" behaviour by free independent citizens acting as economic sub-

¹ Schulenburg 1984a: 253; Frerich/Frey 1996: 208.

² Hartz, Gustav (1928). *Irrwege der deutschen Sozialpolitik und der Weg zur sozialen Freiheit*. Berlin; quoted after Höhn 1996: 23.

³ Deppe 1987: 94.

⁴ Schulenburg 1984a: 254.

⁵ The innovation implemented by the Health Modernisation Act (*Gesundheitsmodernisierungsgesetz - GMG*) of 2004 was to introduce 10 percent cost sharing for all health benefits up to a ceiling of €10 per service item or per hospital day for inpatient care (§ 61 SGB V). The so called "practice fee" derives from this general regulation and corresponds to the maximum co-payment of €10 per visit.

⁶ The coalition working group on the Statutory Health Insurance Competition Strengthening Act (*Gesetzliche Krankenversicherung - Wettbewerbsstärkungsgesetz - GKV-WSG*) had seriously discussed the exclusion of benefits due to "self-inflicted" health problems. However, this would have prompted a flood of lawsuits paralysing the Social Courts because the relationship between causes and effects with regard to accidents and diseases is often a chicken and egg dilemma. But the idea of reducing the financial burden from 2 to 1 percent of household income, if patients can prove regular utilisation of preventive diagnostic services, found its way into the first draft law (§ 62 SGB V); this approach follows the idea of rewarding people's "good conduct" with lower co-payments.

jects. Whereas cost-sharing in developing countries is supposed to encourage people to value medical care and demand better quality of the services they pay for, in the world's rich countries the focus is much more on controlling the behaviour of the "consumer in the health market".

Across the world, social policy reforms pursue greater efficiency and fairness. In the European welfare states, and in many other countries too, these two goals are explicitly linked. This raises the question whether and to what extent out-of-pocket payments increase the efficiency and/or enhance the fairness of a health service.⁷

To answer these important academic and policy questions, the present study examines the following questions:

- Does direct patient cost-sharing improve the efficiency of use of resources in health care?
- What effects does it have on social inequality of health opportunities in the population, and the political goal of reducing this?⁸
- What do the existing studies on this subject have to say, and how relevant are they to the realities of healthcare?
- What conclusions can be drawn concerning the commonplace ideas of health economics?

Many of this overview study's significant findings contradict the accepted ideas of health economics and call into question widespread assumptions. Many social policy recommendations and decisions are based much more on subjective perceptions than on hard evidence. So in the interests of evidence-based health policy it would appear a matter of urgency to collect precise information about the complex and often underestimated social repercussions of direct cost-sharing.

⁷ Efficiency means the economical utilisation of available resources and refers in principle to achieving a given objective with minimal effort. However, the social and health policy debate is dominated by a micro-economic approach where efficiency is used with a more restricted meaning, due to the combination of scarce goods with needs alleged to be infinite. The neo-classical efficiency concept assumes rationally acting individuals willing to maximise their utility in a market of perfect competition. In any case, the currently predominant concept of economic efficiency, so-called allocative efficiency, differs essentially from the intuitive, generally accepted meaning of the word and especially from the clinical understanding of what is supposed to be efficient (cf. Schlander 2005: 38).

Economically determined "efficiency" has become an unquestioned catchword, perceived as a good and effective criterion per se but about as meaningless as the comparable terms "modern" and "up to date". Particularly with the current concept of efficiency, there is a high risk of abusive application because it largely fails to take into account ecological factors and an array of social aspects which are not so easily reflected in formulaic and mathematical terms. But when distributional equity and social justice are taken into account, the omnipresent claim of "greater efficiency" can easily become an oxymoron, as the health economist Uwe Reinhardt (1989: 340f) wryly points out.

⁸ Cf. Ottawa-Charter - WHO 2004b

2 The Neo-classical Reinterpretation of Healthcare

Private health spending by European Union citizens has increased steadily over the past twenty-five years, largely on account of increasing co-payments.⁹ Although patient cost-sharing is nothing new in the western European welfare state tradition, its extent has increased conspicuously in recent years. This general tendency not only begs the question why legislators in various countries have increasingly resorted to out-of-pocket payment for health care. It is also necessary to examine the legitimising models on which this systemic trend is based.

Driving the restructuring of health services is an increased focus on the financial side, and on international and national competitiveness, stemming not only from globalisation, but also from society's prioritisation of profit and return on capital. This has been closely connected to the idea that the patient must conform to the *homo oeconomicus* model, the "new man" created by neo-classical economics, which could be said to be the most successful ideological model of man ever created. In Christian communities the frail and the sick were still regarded shown charity in keeping with the precept of "love thy neighbour". In medieval guilds and working mens' associations colleagues and workmates insured one another against incapacity and old age; these were the precursors of the statutory health insurance system in Germany and other European countries. After the Industrial Revolution welfare states acquired health insurance bodies that brought together the population in more or less fragmented "caring communities". The system was set up initially to compensate for income lost through illness, and only later took on the funding of medical treatment. Both in the Bismarck-style social insurance systems and in the national health services created after the Second World War, patients always remained part of a community that shared social risks through a sense of solidarity.

Ideas about the place of the patient and perceptions of health care have changed fundamentally over the past two decades. Today the health policy debate – like the health economics literature – is dominated largely by fundamental tenets from the world of economics and by business priorities:

- Health is no longer a public good distinguished from other goods by a series of special features. As neo-liberal concepts and ideas spread there was a fundamental reassessment of social values and structures. In the course of this, health not only lost its character as a human and social right, but also increasingly gained the status of a commodity that is subject to market mechanisms just like any other. If the character of a public good and the social implications of health are ignored, one can even find good arguments for cost-sharing in the service of redistribution (and even ultimately of fairness): "... with health being a normal good, having positive income and negative price elasticities, those in the upper half of the income distribution consume much more than the poor."¹⁰

⁹ Jemiai et al. 2004: 1; Council of the European Union 2007: 7.

¹⁰ Baker/van der Gaag 1993: 393.

- Conventional economic theories generally assume that the almost insatiable demand of citizens or fund members for (para-)medical services is largely responsible for the steady growth in health spending (alongside general cost increases for health services).¹¹ The primary thrust of this line of thought, which also stresses the general scarcity of resources and potential problems of unfairness associated with otherwise supposedly unavoidable rationing, is to deter the “consumer” from making use of unnecessary and superfluous treatments,¹² but beyond that also to stem supplier-induced expansion of services,¹³ and avoid having the health insurance funds pay for “useless” services.¹⁴ Out-of-pocket payments promise to be effective in reducing take-up when the marginal opportunity costs of the service exceed the subjective marginal utility of treatment.¹⁵ Because price increases usually lead to reduced consumption (even of important goods), user charges appear to be the generally recognised solution to the supposed “cost explosion”. And because overuse of health services is paraded as the central problem of modern social systems, co-payments enjoy broad acceptance as a suitable measure in the struggle against “rampant” health spending.¹⁶

Redefining health services as consumer goods and patients as rational consumers opens the way to apply regulatory goals and instruments from the consumer goods markets to the field of health care. As the central yardstick for the health service we now find an inflated and very arbitrary concept of “efficiency”, which at the societal level leads to a market-driven reformulation of political goals. Cost containment at the macro-level and control of health service use at the micro-level become the central concerns.¹⁷ It is especially conspicuous that efforts to control spending are directed largely at consumers and rarely or never towards providers. Despite the availability of many effective approaches acting primarily on the supply side – limiting the number of services or service-providers (e.g. by restricting the number of practices or introducing positive drug lists), budgeting or price regulation, more effective control of the pharmaceuticals industry and medical equipment manufacturers, deeper structural reforms (GP system, managed care, etc.) and explicit rationing – direct patient cost-sharing is widely regarded as the most important tool for reducing spending in the health service.¹⁸

¹¹ Shapiro 2003; Henke/Schreyögg 2004: 64.

¹² Criel 1998a: 28.

¹³ Kraft/Schulenburg 1985: 137.

¹⁴ Schulenburg 1984b: 1280.

¹⁵ Dixon et al. 2002a: 6.

¹⁶ Newhouse et al. 1981: 1504f; Schulenburg 1984a: 258; Shapiro 2003; cf. Barer et al. 1998: 21.

¹⁷ Carrin/Hanvoravongchai 2003: 2, 6; Prada et al. 2004: 38; Jemai et al. 2004: 2; Zuvekas/Cohen 2007: 256.

¹⁸ Cf. Schulenburg 1984a-d and 2007: 14f; Schulenburg/ Frommknecht 1984; Kraft/Schulenburg 1985; Schulenburg/Wieland 1987: 126f; Henke/Schreyögg 2004: 22.

3 Patients as Consumers

If economic thinking and principles are to be applied meaningfully to the health care system, the underlying theory must be sound, or at least able to explain reality in a convincing manner. However, health economics touches on a series of mostly implicit assumptions that run through the debate as quasi-axioms but are much too rarely tested against other theories, and above all practice. When modelling the “new” patient, economists also resort – generally pretty simplistically – to assumptions from the textbooks of supply and demand theory:¹⁹

1. Consumers have sufficient information to make good choices.
2. Individuals are rational.
3. Consumers know with certainty the results of their decisions.
4. Individuals reveal their preferences through their actions.
5. A person is the best judge of his or her welfare.
6. Social welfare is based solely on individual utility, which in turn is based solely on the goods and services consumed.

Abstract concepts of the market assume that all actors possess sufficient information to make a rational decision to the benefit of all involved. Here the individual consumer is treated as the sole expert when it comes to his or her own behaviour as a consumer. One of the forefathers of modern free-market economic theory, Friedrich August von Hayek, formulated the underlying idea as follows: “It is with respect to this that practically every individual has some advantage over all others in that he possesses unique information of which beneficial use might be made, but of which use can be made only if the decisions depending on it are left to him or are made with his active cooperation.”²⁰ The astonishing thing about this quote is how vague the statements are. Hayek’s supporters seem not to have realised that they are designed to evade the possibility of direct contradiction. What is meant by “practically every individual” and who are the exceptions? The formulation “some advantage” implies possibly some absolutely decisive restriction, and the scope of the individual’s “active cooperation” remains extremely vague and open to interpretation (in the sense of much broader restrictions of consumer freedom of choice than the market radicals are talking about).

US economist Thomas Rice wonders about his colleagues: “in a world such as ours, where high-paid consultants abound and access to more information seems to be the key to success, it is noteworthy that economists often consider an individual consumer to be the world’s greatest expert in one particular area. This area, of course, is what he or she wants.”²¹ But just a glance at real economic life raises great doubts about the significance of sufficient information for consumer decision-making. At the very least, the

¹⁹ Compilation according to Rice 1998: 5.

²⁰ Hayek 1954: 522.

²¹ Rice 1998: 65.

huge importance of advertising for consumer behaviour must cast great doubt on the idea of the informed customer decision. And – to cite just one example familiar to every citizen – how can this theory hold up in the incomprehensible complexity of today's telecommunications market?²²

Finally, in the “health market” the idea of free consumer choice comes apart completely.²³ The information asymmetry between medical expert and patient (who one can define in reference to the word's roots as the “suffering layman”) is self-evident, sufficiently discussed, and unavoidable (unless and until the whole population is able to enjoy medical training). Furthermore, the process of economisation of the health care system has increased the relevance of information asymmetries between funders (e.g. insurance funds, health ministry) and service-providers (physicians, hospitals, other therapists) and the inequality of knowledge between insurers and their members.²⁴ In the latter field there are comprehensive analyses of information advantages of fund members resulting for example in adverse selection or moral hazard,²⁵ but relatively few studies of the effects of an information advantage of insurers over their customers or also over the service-providers they contract and pay.

Various studies of consumer behaviour in the health market also raise fundamental questions regarding patient autonomy as assumed or wished for in free-market ideology. A certain proportion of fund members and patients regularly contradict the assumptions about individual responsibility, preferring to leave decisions about diagnosis and treatment to the doctors.²⁶ This tendency is stronger in tumour patients than among healthy citizens, and is largely found among older people, with more than half of the over-70s (54 percent) expressing this view.²⁷ Although female, younger, healthier

²² Behavioural patterns in health care and in the case of illness were often more adequately described in the spirit of the Austrian-British philosopher Karl Popper: “The actors always act in a way that is most adequate to the situation which they find themselves in” (see Pütz 2003: 28, footnote 23). Finally it is easily comprehensible that a given acute situation can determine and shift people's priority-setting, sometimes in very short order. Popper's statement, however, gets to the core of the matter only in a slightly modified way: people always act in a way that seems to be the most adequate to the situation in which they find themselves. Especially with regard to health services, external effects and ignorance of the individual consequences of treatment alternatives or non-treatment accumulate in an additive way.

²³ Hibbard/Weeks 1988: 234.

²⁴ Cf. on this point Hibbard/Weeks 1988: 236.

²⁵ Cf. Hoffman 2003: 669; Wagstaff/Pradhan 2005: 1.

²⁶ Deber et al. 2000: 1417ff.

²⁷ Steinbach et al. 2004: 2f. In addition, attention should be paid to the fact that in various studies a certain share of health-care-seeking individuals tend to disprove the individual-utilitarian theory by preferring to hand over therapeutic decisions to medical professionals (Deber et al. 2000: 1417ff). This behaviour is more pronounced in tumour patients than in healthy people and can be observed mainly in the elderly (54 percent among those over 70 years) (Steinbach et al. 2004: 2f). Obviously the diagnosis of “cancer” has a polarising effect and an impact on behaviour that confirms Karl Popper's assumption. Certainly there are additional factors in place that are independent of the patient, and the consideration of which would require a significant broadening of prevalent economic theoretical approaches. That means there is obviously an inverse correlation between patients' trust in their attending physicians and the desire for autonomy with regard to treatment decisions: the lower the

and better-educated patients tend to want to have a say and make their own decisions more than their male, older, sicker and less educated counterparts,²⁸ there are minorities with opposing expectations on both sides of this rough divide.²⁹ Just as it skims over the issue of information asymmetry (elsewhere heavily criticised as market-distorting), health economics also all too often ignores the complexity of rational customer decision-making when analysing the health sector. It also owes an answer to the problem that specific expert knowledge can often stand in contradiction to subjectively prioritised personal health needs.³⁰ This is confirmed, too, by the observation that plainly the mere circumstance of “being a patient” negatively influences people’s confidence to make decisions, and that they need not only expert advice but also encouragement to take responsibility.³¹

Effective control of demand for medical services through patient cost-sharing presupposes individuals who are in a position to make the right decision for their health after taking into account the given financial incentives.³² There is no doubt that properly informed “consumers” in the health market (otherwise known as patients) would be an absolutely desirable institution – not just for economists but for physicians too. But they belong more to the realm of myth than to social reality. Of course medical laypeople can decide on the basis of their momentary condition whether or not they are willing to come up with a particular sum for medical treatment, but this is based only on belief, hope or intuition, not on information.³³

If we go beyond the level of cost-sharing for regulating access to treatment and examine the control effects on take-up of medical services, Hayek’s formulation of the individual’s “active cooperation” becomes especially relevant. In view of the enormous information asymmetry between physician and patient, “practically every individual” should be able to derive “some advantage” from involving experts with appropriate knowledge in their own decision-making before making a (secondary) informed consumer decision. However this certainly realistic situation depends on another very different assumption, which has to do directly with the information required for a correct consumer decision. This assumption is that there are always clear rational criteria that allow a firm distinction to be made between indicated “sensible” and non-indicated “superfluous” treatments. But this is simply not the case in medical reality. Medical treatments to which there is no alternative tend to be the exception, and even that only becomes clear – if at all – after a minimum number of examinations have been carried

patients’ trust in medical professionals, the more they want to assume decision-making responsibility, while people with moderate or higher confidence in their physician prefer shared decision-making (Entwistle 2004: 271).

²⁸ Levinson et al. 2005: 532f; Garfield et al. 2007: 365f.

²⁹ McKinstry 2000: 868ff.

³⁰ In view of the massive intrusion of “economic experts” and economic theoreticians in the social policy debate, one might be tempted to recommend the citizens of a good many countries to consider another pearl of wisdom from Karl Popper: “The most important thing is to mistrust all those great prophets who have a nostrum in their pockets and tell you: if you just give me full power, then I will guide you to heaven” (Süddeutsche Zeitung, 27.7.2002: III; translation by the author).

³¹ Stiggelbout/Kiebert 1997: 388f.

³² Hibbard/Weeks 1988: 236, 245.

³³ Cf. e.g. Steffen et al. 2007, Bachmann et al. 2007 and Grudzen/Brook 2007: 1127.

out. So information relevant to decision-making can generally only arise when it is no longer of any use for financially motivated decision-making.

The second fundamental implicit assumption on which health service cost-sharing is based is that people's actions are fundamentally and in all situations rational or rationally guided; that under particular given circumstances consumers will make decisions based on "rational" utility criteria (i.e. comprehensible in terms of their subjective logic and preferences). This thesis also reflects an understanding of human thinking that is very individualistically constructed and above all reduced to a given moment, according to which individuals exist in an imaginary space without any social or historical context and make absolutely uninfluenced decisions.

Ultimately the theory of the economically rational individual cannot be disproved, because within the specified logic countless reasons and justifications can be found that allow particular behaviour to appear "rational" as long as one ignores or marginalises all the factors that suggest extreme irrationality. The carelessness with which the supporters of belief in rationality treat their own theory is demonstrated not least by studies of the "rationality" of addicts in dealing with their addiction.³⁴ Nobody can deny that a forty-year-old with a perforated peptic ulcer is following his own rationality if he, for example, rejects any medical treatment on the grounds of his phobia of white coats. But such a theory contradicts not only many findings of other social sciences, but also common sense and the biological instinct for self-preservation. Unlike other academic disciplines, which generally start from the question of how people actually behave under particular circumstances, economists tend to pursue the question of how people should behave in order to maximise individual gain or social wellbeing.³⁵

Another fundamental assumption behind free-market incentives and management in the health market is that patients are always able to overview and assess the consequences of their respective demand decision with sufficient confidence. That would mean that even in phases of subjective suffering, every person would be able to properly assess the consequences of accepting or refusing medical treatment. In other words, every patient decides whether or not to "consume" a treatment on the basis of a reliable assessment of the consequences.

As well as raising doubts about the practical relevance of this assumption in real life, just taking a glance at "normal" markets also indicates a serious shortcoming in the theory on which it is based. Who has not had the experience that a purchase decision – for example new software or the introduction of a new technology – inevitably ended in the purchase of a complete new computer system, of which there was not the slightest indication at the beginning? And when buying a car, who can really estimate the risk of causing an accident leading to life-long indebtedness or a prison sentence and ensuing loss of income? These few examples suffice to show how short-sighted, unimaginative and limited the understanding of "awareness" is in connection with the consequences of consumer decisions.

Departing from the exclusively individual utilitarian level, the theory that people are fully aware of the consequences of consumer decisions turns out to be completely divorced from reality. Current political debates lead to branches of the economy where there is every reason to doubt that consumers include external effects to any relevant

³⁴ Cf. Rice 2004: 114f.

³⁵ Rice 1997: 393.

extent in their purchasing decisions. For example no-one can seriously claim that a car buyer choosing a louder or less fuel-economical model will also consider the number of additional heart attacks,³⁶ or respiratory illnesses,³⁷ it causes or the resulting loss of life expectancy of those affected.³⁸ And the proportion of tourists who are dissuaded from flying for ecological reasons – or at least buy carbon offsets – is so small that in this field too there is next to no empirical evidence of an adequate inclusion of essential (external) criteria in purchasing decisions. For lack of reliable data anyone attempting to operationalise the “sagacity” of consumers is forced to work with largely fictitious constants and accept correspondingly unrealistic results. Failure to even include the aforementioned and other consequences in the ideas and theories runs the automatic risk of simply overlooking fundamental differences between theoretical hypotheses and real existing (economic) life.³⁹

An intrinsic characteristic of the health sector is that the “consumers” themselves have inadequate knowledge even about supposedly known illnesses.⁴⁰ Consequently laypeople are generally unable to assess the consequences of accepting or rejecting medical treatment; indeed experts do not always succeed in doing this, and generally only following particular tests. To some extent this is in the nature of things, for the human organism has a great capacity for adaptation and self-healing. Not to put too fine a point on it, even in our “modern” medical system it is often unclear whether a healing success was achieved because of or despite a particular therapy. It is similarly unclear to a layperson whether a deterioration was inevitable or caused by a lack of treatment. Although compliance or adherence to recommended therapies represents a complex problem, it also touches without doubt on the level of awareness behind health-related consumer decisions.⁴¹ The broad range of experience with existing compliance problems and their consequences does nothing to support the idea of making informed decisions about using medical treatment.⁴²

So if consumers do not know what they are getting, do they at least know what they want? For economists the answer appears simple. Economic models generally assume that people know their personal preferences and choose consciously from the range on offer.⁴³ There is also an assumption that the wish to acquire more applies only up to a certain quantity of consumed goods or services, and that the additional benefit per unit decreases after a certain point (decreasing marginal utility). The decision how much to consume also depends on the price, which appears to increase in relative terms as marginal utility decreases – as it also does of course where available income is less.

In consumer theory, under the premise that marginal utility will decrease after a certain level has been reached, we have to conclude that people will make their consumer decisions so as to maximise utility according to their personal preferences and market prices. If the expected equilibrium between consumer behaviour and demand

³⁶ Hoffmann et al. 2007.

³⁷ Chauhan et al. 2005; Holgate 2005; Laurent et al. 2007.

³⁸ M. Finkelstein et al. 2003; Schreyer et al. 2007

³⁹ Cf. Reinhardt 2001: 978f.

⁴⁰ Bachmann et al 2007.

⁴¹ Cf. Silverman 2004: 26.

⁴² Petermann 2004, Holst 2007.

⁴³ Cf. Rice 2004: 117f.

has been achieved after enjoyment of the acquired goods and services, people cease their market-related activities.⁴⁴ According to this theory patient cost-sharing and especially its “optimal level” depend decisively on individual risk of sickness and above all on patients’ preferences, which differ from person to person.⁴⁵

In practice it is almost impossible to measure consumer preferences empirically and forecast purchasing decisions. Ultimately, market researchers always need a finished product and a group of test purchasers to simulate the market. In order to overcome this dilemma economists use announced preferences, which measure demand for preferred consumer goods exclusively in terms of actual past purchasing behaviour to the complete exclusion of human psychology and other factors.⁴⁶ Using the theoretical assumption that consumers select their particular preferred basket of goods in the service of maximising their own utility, researchers derive individuals’ preferences from observed consumer decisions made under particular price and income conditions. The question whether it is permissible at all to draw retrospective conclusions about consumers’ preferences on the basis of purchases made in the past (given that purchasing decisions are subject to a wide range of influencing factors and are made individually and situatively in the moment of the consumer decision) is simply not addressed at all.

The fundamental assumption for all forms of demand-led management – that every consumer is interested first and foremost in maximising individual utility understood in pecuniary terms – turns out on closer examination to be simply intrinsic to the theory and all conclusions derived from it are nothing but self-fulfilling prophecies. Only as long as it is assumed that utility maximisation under particular conditions is the sole or at least primary motivation for consumer behaviour can preferences be derived from past consumer decisions. But if we admit other factors such as taste, inclination, emotion and altruism as motives for particular purchasing behaviour, and acknowledge the extensive findings of other disciplines, we find that purchasing behaviour does not (exclusively) express announced preferences and we come to the logical opposite conclusion that individual utility maximisation is actually not the decisive driving force. Only if we make every consumer – albeit retroactively – into a utility maximiser is the *homo oeconomicus* model coherent and ultimately impossible to disprove.

Economics thus creates a theoretical system that allows human behaviour to be considered in complete isolation from the action that would be expected or recommended in relation to the situation. Worse still, it analyses human behaviour through mono-dimensional interpretation of an isolated outcome and makes no effort even to consider the complexity of human nature starting at the intra-individual level. Economic consumer theory ignores the fact that human activity is not always exclusively motivated by egotism and self-centred utility maximisation, but that other factors such as status, group membership and identity, taste, commitment, sympathy and other psycho-emotional motives are significant.⁴⁷ It excludes any social dimension of human existence, where there is unavoidable interaction between the utility functions of different market participants or consumers.⁴⁸ If people’s consumer decisions are led not

⁴⁴ Cf. Rice 2004: 36, 92.

⁴⁵ Cf. Breyer et al. 2005: 267.

⁴⁶ Sugden 1993: 1949.

⁴⁷ Cf. Sen 1982: 92ff; Rice 1997: 389f.

⁴⁸ Sen 1982: 99; Rice 2004: 119f.

exclusively by their own, but also by others' motives, consumer behaviour will only partially reflect personal preferences.

Radical free-marketeters regard social wellbeing as the mere sum of individual utility maximisation, which in turn can only result from consumption of goods and services. They are always trying to show that welfare state institutions such as social health insurance or tax-funded health services lead to a "welfare loss" because the unavoidable occurrence of moral hazard leads people with such security to express excessive demand for health services⁴⁹ that are not "actually" medically necessary.⁵⁰ Empirical studies have indeed shown changes in use of medical treatment when the costs involved are to be covered from the patient's own pocket, and this has been interpreted as an expression of "cost awareness".⁵¹ It is not surprising that this idea is especially widespread among economists,⁵² but it is also found among physicians, politicians and other professions.

The question of what exactly "medically unnecessary" means and what criteria should be applied to determine the necessity of treatment remains completely unanswered – and often unasked. There is also no sensible suggestion as to who can and should make such a decision at all, when it is to be made and how the inevitable uncertainties should be dealt with. It is in the nature of healthcare that the necessity of demand can only be judged retrospectively.⁵³ Despite the term's imprecision and impracticality, the concept of the "actual" necessity of medical treatment serves as an argument against comprehensive welfare coverage, especially among the fraternity of economists.⁵⁴ In view of the conceptual arbitrariness and the complete separation from clinical criteria it is obvious that this must be largely a matter of belief and subjective perception. But above all such concepts and theories not only operate under the usual assumption that human behaviour fully obeys the *homo oeconomicus* model, they also follow the idea that illness is an equally distributed random event.⁵⁵ However, even in the discussion of social protection and welfare effects economic researchers come to diametrically opposing conclusions. Whereas some authors believe they can calculate a

⁴⁹ Pauly 1968: 535; Feldstein 1973: 252ff, 275ff.

⁵⁰ Henke et al. 2002: 12.

⁵¹ Feldstein 1973: 268, 270f, 274.

⁵² Cf. Feldman/Morrisey 1990.

⁵³ Incidentally, this holds true not only for the moral hazard issue of excessive "frivolous" utilisation of health care in case of minor health problems or "self-inflicted" illness; equally, in a situation of sudden unconsciousness, a relevant and generally accepted indication for emergency care, it is only after completing the resuscitation efforts that it is possible to validate whether they were meaningful or needless. This case, which is certainly extreme but not at all rare and by all means cost relevant, makes explicitly clear the absurdity of constructs such as "necessary" or "frivolous" health benefits.

⁵⁴ Pauly 1968: 534f.

⁵⁵ So Mark Pauly (1968: 531) states clearly: "It is assumed that all individuals are expected utility maximizers and are risk-aversers, and that the incidence of illness is a random event." Likewise, Breyer and Haufler (2000, p. 450) base their argumentation on the assumption that health risks were equally distributed: "Importantly, we assume that all individuals face the same probability of being sick". This approach banishes from consideration a series of relevant criteria such as social determinants of illness, environmental factors and others.

“welfare loss” through comprehensive health cover,⁵⁶ others restrict themselves to estimates.⁵⁷ Others still conclude that general coverage of the whole population for financial risks of illness could certainly have a welfare-enhancing effect.⁵⁸

4 The Model Platonism of Actuarial Mathematics

The introduction of patient cost-sharing in countries with existing social security systems generally follows the goal of counteracting the phenomenon of insurance-based moral hazard.⁵⁹ Until recently most empirical health insurance research was dedicated to this question,⁶⁰ and here the econometric literature offers an absolutely boundless wealth of models, sophisticated formulae and other apparently objective predictors of consumer behaviour.⁶¹ A central role in these theories is played by price elasticity, even if this seems to play out very differently for different medical treatments,⁶² social strata, age groups⁶³ and degrees of severity of illness.⁶⁴ ⁶⁵ Here the patient as a rational consumer reappears, taking into account the costs involved in his “purchasing decision”.⁶⁶ But the pure cost of medical treatment is always also accompanied by additional opportunity costs for travel, accommodation, food and income loss that are sometimes quite considerable for the patient and (especially but not exclusively in developing countries) can represent many times the actual health spending and thus can make a mockery of any discussion of price elasticity and its effects on demand.⁶⁷

Of course basing the theory on price elasticity and calculating “optimal” co-payments raises the suspicion that this could be a self-fulfilling prophecy, because the underlying

⁵⁶ Feldstein 1973; q.v. Schulenburg 1984d: 15; Han 2007.

⁵⁷ Feldman/Dowd 1991: 299f.; Manning/Marquis 1996: 627ff.

⁵⁸ Nyman 1999a: 145ff; Nyman 1999b: 819f; Nyman 2004: 196f; Nyman 2006: 20, 22f.

⁵⁹ The debate on direct cost sharing for health care is mostly dominated by the *ex-post moral hazard* assumption, i.e. the presumed unlimited utilisation and production of health care services when payment relies on a third party; in contrast, *ex-ante moral hazard* is of rather more theoretical relevance when it comes to concluding a (health insurance) contract (cf. Drèze 2001: 1f).

⁶⁰ Wagstaff/Pradhan 2005: 1.

⁶¹ Arrow 1963: 969ff; Zeckhauser 1970: 12ff; Feldstein 1973: 267ff; Schulenburg 1987, 157ff; Dow et al. 2000: 6ff; Geoffard 2000: 126ff; Breyer/Haufler 2000: 450ff; Cutler 2001: 38ff; Drèze 2001; Remler/Atherly 2003: 271f; Parente et al. 2004; Osterkamp 2003a: 8ff; Nyman 2003: 4ff; French/Jones 2004: 707f; Hoel 2004; Winkelmann 2004: 1084f; Breyer et al. 2005: 244ff; Shang 2005: 17ff; Smith 2005: 1020ff; Atella et al. 2006; Levaggi/Levaggi 2007: 5ff.

⁶² For example Ramsay 1998: 21, van Vliet 2002: 299.

⁶³ Ahlmaa-Tuompo et al. 1998 a and b, Ahlmaa-Tuompo 1999.

⁶⁴ Wedig 1988: 158ff; Newhouse 1993; Remler/Atherly 2003: 277f.

⁶⁵ Gertler/Hammer 1997: 8f.

⁶⁶ For example Contoyannis et al. 2005: 910. It is surprising, however, that economists obviously have little faith in the capability of such a rationally acting subject is capable to preselect health insurance contracts or modalities according to his/her own preferences or needs, because many a decision that appears to be moral-hazard-driven could perfectly well be the result of purposeful pre-selection (cf. Geoffard 2000: 128, 132).

⁶⁷ Gertler/Hammer 19967: 9f; Geoffard 2000: 132.

elasticity estimates normally result from changes in take-up under particular predefined co-payment conditions, often on the basis of individual experimental or quasi-experimental observations.⁶⁸ These are all based on a wide range of hypotheses, conjecture and primarily economic theories,⁶⁹ whose relation to reality rarely withstands critical examination.⁷⁰ Especially in the United States, where much of the research about price elasticity of pharmaceuticals and other health services comes from, measuring utilisation turns out to be tricky because in real life – unlike under experimental conditions – it is subject to selection effects, overestimates caused by skewed distribution of spending across different patient collectives⁷¹ and effects of the “moral risk” which they in turn seem to demonstrate.⁷²

A health expert who thinks in broader terms than the purely econometric is left speechless by calculations where some economists draw conclusions about demand for hospital treatment under particular conditions of insurance and cost-sharing on the basis of very specific findings⁷³ from a small sample.⁷⁴ There is no way of getting round the question of whether hospital treatment can really adequately be classified as a consumer good whose use is primarily determined by whim and current ability to pay and in no way depends on individual or collective health or social factors. And such a perspective completely ignores the possibility that a decision (influenced by patient cost-sharing) not to seek medical treatment for a condition could lead to a real or subjective deterioration in health status and this in turn to reduced work productivity⁷⁵ – and to slower economic growth.⁷⁶ Conversely, free health coverage might lead not to the generally presupposed moral hazard and resulting welfare losses but instead to welfare gains through income security, maintenance of productivity and alleviation of suffering.

Many economic models of price elasticity do not even rudimentarily include such effects and the associated complexity,⁷⁷ and only in isolated cases happens a critical and restricting examination of the theory-based statements addressing for example the

⁶⁸ Manning et al. 1987: 267f; Winkelmann 2004: 1084f; Stein 2003: 44; Buntin et al. 2006: W518.

⁶⁹ Markus et al. 1998: 17; Pauly/Ramsay 1999: 445f; Osterkamp 2003b: 80f; Hilitris 2004: 19; Contoyannis et al. 2005: 917.

⁷⁰ A noticeable feature, and one worthy of systematic quantitative-semantic analysis, is the frequent use of verbs such as “suggest”, “believe”, “assume” or “possibly” in the international literature on moral hazard and demand-side policy approaches in health financing. In the description of methods and results, these terms build an obvious contrast to the mostly very concrete quantitative appraisals and calculations. In some cases the authors mention at least elementary limitations of their model quotations, though without taking them adequately into consideration for the interpretation of their findings (e.g. Manning/Marquis 1996: 632f).

⁷¹ Remler/Atherly 2003: 270, 278f.

⁷² Cf. Shea et al. 2007: 936.

⁷³ Finkelstein 2004: 20f.

⁷⁴ This applies, for example, to the universally quoted RAND experiment, on which basic assumptions regarding co-payment effects are founded to this day. This paper will address this natural experiment in more depth in Chapter 9.

⁷⁵ Jinnett et al. 2007: 7ff.

⁷⁶ Dow et al. 2000: 9f, 24; cf. also SVR 2003b.

⁷⁷ Cf. Russell 1996: 221; cf. Also Remler/Atherly 2003: 277f.

inadequate recording the unequal distributions of health status⁷⁸ and the lack of consideration of different populations or insurance conditions. Possible or even probable changes in various other parameters through or at least parallel to the measured variables and effects regularly drop out of the frame on the basis of the *ceteris paribus* hypothesis. There can be no doubting the following assessment of cost-sharing: “The impact of this instrument is especially evident within the model world of economics.”⁷⁹ For the sake of completeness we must add that this study shows that the evidence remains restricted exclusively to the world of economic modelling.

5 The Dogma of “Individual Responsibility”

The demand for more “individual responsibility” permeates the health policy discussion in most welfare states.⁸⁰ In the (West) German reform debate individual responsibility for their own health has played an increasingly important role over the past three decades.⁸¹ The ideology of individual responsibility receives support especially from the employers’ organisations and allied experts, from physicians’ representatives, and from the Christian democratic and liberal parties, but also from social democratic leaders and parts of the Green Party.

The ideological superstructure of the reform agenda is held up by a combination of social and economic liberalism, in the sense of an understanding of freedom based on civil liberties. Individual self-determination and self-realisation of “responsible citizens” represent broadly accepted values of democratic societies. At the same time – in political synergy – the free-market economy has established itself more or less as the economic counterpart to democracy, where the state is primarily responsible for “ensuring an economic order that guarantees freedom” and personal liberty is inseparably linked to the free-market system.⁸² From this perspective public interventions in the free play of market forces and the placing of any form of obligation on the members of a polity – for example in the scope of the social insurance systems of developed countries – represent coercive measures with the potential to distort the market.

The Ottawa Charter of 1986 established the right to self-determination as a fundamental and global principle of health and in particular of health promotion: “Health promotion is the process of enabling people to increase control over, and to improve,

⁷⁸ For example Remler/Atherly 2003: 278f.

⁷⁹ “Die Wirkung dieses Instruments wird besonders evident unter Zuhilfenahme der Modellwelt der Volkswirtschaftslehre”: Schulenburg/Wieland 1984: 631.

⁸⁰ Cf. Bodenheimer 2005a: 851.

⁸¹ The starting point was the Health Insurance Cost Containment Act of 1977, passed under the first coalition government of Social Democrats and Liberals in Germany.

⁸² Pütz 2003: 34. Cf. also Breyer et al. 2005: 190. In this context it is worth mentioning that, specifically in health care systems, being characterised by pronounced external effects and heavy information asymmetry to the detriment of the patients who are the perceived clients, the general postulate of economic liberalism that individuals ought to be responsible for the consequences of their actions is subject to inherent practical restrictions.

their health.”⁸³ Behind this there is an unmistakable emancipatory approach, where social justice and equality of opportunity play a central role in efforts to improve health alongside environmental, labour and other living conditions: “Health promotion action aims at reducing differences in current health status and ensuring equal opportunities and resources to enable all people to achieve their fullest health potential.”⁸³

Behind the smokescreen of a social policy debate dominated by supposed financial constraints, the question of individual responsibility has come to define the social policy discourse in a quite different sense in recent years.⁸⁴ The idea of “self-inflicted illnesses” has successfully found its way into popular and scientific publications. Proposals to exclude the consequences of accidents and high-risk sport injuries from statutory health insurance coverage and the latest decision on side-effects of tattooing and piercing⁸⁵ jostle with ideas on how to cap publicly shared insurance protection for lung-cancer in smokers and other “self-inflicted” health problems. The confirmed finding that many patho- and salutogenetic factors are in fact determined not exclusively individually but to a great degree by social and environmental influences gets sidelined in the mainstream debate.⁸⁶ An individual’s health status depends to an important extent on his or her socioeconomic living situation, and there is growing evidence for a genetic etiology of many supposedly “self-inflicted” pathologies.⁸⁷

Initiative Neue Soziale Marktwirtschaft (ISNM) in Cologne is one of the most prominent groups lobbying for a restructuring of the German welfare state, working closely with the pro-business Institut der Deutschen Wirtschaft (IW) to fan the widespread myths of a cost explosion in the health system, dramatic demographic problems and social insurance contributions destroying jobs.⁸⁸ Deutsche Bank Research (which presents itself in all modesty as one of the world’s leading think tanks for economic, social and financial affairs) not only reproduces all the usual myths of the health debate, but explicitly calls for “tangible cost-sharing” to solve imminent funding problems.⁸⁹ Calls to expand and increase patient cost-sharing are among the standard demands of employers organisations and the conservative and liberal parties.⁹⁰ The Kronberger Kreis⁹¹

⁸³ WHO 1986: 1.

⁸⁴ For example Fink 2002.

⁸⁵ The 2006 health sector reform in Germany called “Statutory Health Insurance Competition Strengthening Act” of 2006 (GKV-WStG) implemented, for the first time in history, exclusions from public health insurance coverage for all treatments which are attributable to self-inflicted procedures, namely tattooing and piercing.

⁸⁶ For example Brauer et al. 2002: 1094f; M. Finkelstein et al. 2003: 399f; Mielck 2005: 26ff; Wheeler/Ben-Shlomo 2005: 952ff; Gehring et al. 2006: 548f; Laurent et al. 2007; Dockery/Stone 2007: 511f; Elliot et al. 2007 (3rd page).

⁸⁷ In this strongly ideological debate, it is enlightening to observe that many advocates of more “self-responsibility” can be found among the very same neoliberal “modernisers” who agitate in favour of intensifying genetic research, arguing that it has the potential to improve future treatment options for diseases with genetic aetiology that cannot yet be adequately treated.

⁸⁸ INSM (undated); Gerken/Raddatz 2002: 10f.

⁸⁹ Deutsche Bank Research (undated): 7.

⁹⁰ Ruf 1982: 21f; Deppe 1987: 82, 161f; Spiegel online 2006 a, b.

⁹¹ The Kronberger Kreis, created by Wolfram Engels in 1982, is a pool of German economic and political scientists who are mainly engaged in regulatory issues.

also says that to solve the existing problems “the regulatory insurance business idea of the health system” needs to be “placed on a new footing”⁹² and recommends a series of measures to increase patients’ participation in financing their health.⁹³

Even the economic textbooks seem to be largely unimpressed by empirical research and discussion, and inculcate each new generation of students with platitudes that have little to do with reality and much with belief.⁹⁴ The pharmaceuticals industry, too, is especially interested in strengthening consumer autonomy by abolishing irritating “coercive measures” such as the ban on drug advertising and the prescription requirement for most effective medications. The industry cites how supposedly well informed the population is to make autonomous lay decisions.⁹⁵ “These days 41 percent of all medicines sold in Germany and 68 percent of all non-prescription medicines are acquired by patients **on their own initiative** as self-medication.”⁹⁶

The call for greater patient participation in health care,⁹⁷ which has found its way into the international reform debate in industrialised countries as “patient empowerment”, basically pulls in the same direction.⁹⁸ Superficially in line with the Ottawa Charter,⁹⁹ “patient empowerment” focuses on improving the position of the “customer” in the health care market and systematically overlooks the problems of social exclusion and inequality of opportunity. Furthermore, this approach neglects the fact that a not insignificant number of patients are only too pleased to hand responsibility for solving their medical problems to their doctors and are only willing to participate in decision-making processes after specific encouragement and guidance.¹⁰⁰ Nonetheless, market-oriented ideas of participation and decision-sharing have found their way, for example, into the US healthcare system under the innocuous-sounding term “consumer-driven” or “consumer-directed health care”.¹⁰¹ Under this banner the insurance business pushes policies with high deductibles and individual health saving accounts,¹⁰² which they hope will strengthen the demand side.¹⁰³

⁹² Donges et al. 2002: 4.

⁹³ Donges et al. 2002: 84ff.

⁹⁴ Cited in evidence are Schulenburg 1987 (p. 175) and the “standard work” on health economics by Breyer et al. (2005), which unscrupulously uses terms such as “cost explosion” (p. 190) and “increased drug cost sharing of the insured” as an “alternative to public drug price regulation” (p. 471, footnote 7); cf. also Rothman 1992: 443, 452.

⁹⁵ BAH 1999a.

⁹⁶ BAH 1999b, author’s emphasis; cf. also Zok 2006.

⁹⁷ O’Brien et al. 2000: 12.

⁹⁸ Cf. also Cornwell/Gaventa 2001: 11f. As explained more in detail in Chapter 3, a not-insubstantial number of patients are willing and quite glad to leave the responsibility for resolving upcoming health problems to medical professionals, though most want to participate in decision-making (Deber et al. 2001: 1417ff; Steinbach et al. 2004: 2f).

⁹⁹ WHO 2004b.

¹⁰⁰ Deber et al. 2001: 1417ff; Steinbach et al. 2004: 2f.

¹⁰¹ Gabel et al. 2002a: W395f; Garber 2004: 293; Buntin et al. 2006: w516f.

¹⁰² Parente 2002: 1192; Fronstin 2004: 1, 5; Buntin et al. 2006: 517f; Goodman 2006: w541; Miller 2006: w550.

¹⁰³ Gabel et al. 2004: W399.

German economists, too, hope that such measures will increase “consumer sovereignty” in the health market,¹⁰⁴ believing that sufficiently high financial incentives on the patient side will not only stem moral hazard behaviour but also put an effective brake on provider-driven demand increases.¹⁰⁵ However, even such supposedly emancipatory approaches cannot hide the fact that the ultimate outcome will be an increasing redistribution of health costs to the detriment of citizens in general and in particular the less healthy members of society.¹⁰⁶

There are anyway good grounds to doubt whether this approach to enhancing the customer’s wishes and individual responsibility actually improves the efficiency of health care. Providing incentives to cut costs through cost-sharing and co-payments aggravates the danger of underuse of medical care.¹⁰⁷ In particular with regard to early treatment and health expenditure there is evidence that “consumer-oriented” contracts tend to lead to risk selection¹⁰⁸ and are more attractive to better-educated sections of society.¹⁰⁹ Also, initial observations indicating a decrease in the use of medical services as a whole but an apparently more frequent need for hospital treatment than before could be a consequence of failure to consult a practitioner in good time.¹¹⁰ Finally, the insurance funds demonstrate a conspicuous lack of creativity and innovation in providing graduated cost-sharing and charges to accommodate low-income groups.¹¹¹

6 The Political Economy of Direct Cost-sharing

Introducing or increasing patient cost-sharing means shifting costs to patients,¹¹² and hence placing an ever-increasing burden of health spending on the weakest actors in health policy. This development is the outcome of a manifestly unequal distribution of political power in health policy. One example of this is employer-funded health insurance as practised in the United States, where it is easier offload costs onto members than onto employers.¹¹³ This is noteworthy to the extent that this realisation is a recent phenomenon, and in fact experts originally expected stiff and widespread resistance to increased co-payments.¹¹⁴

It has not escaped insurees’ notice that they are bearing the brunt of the privatisation of costs. Opinion polls suggest that the restructuring of the insurance systems to more “customer orientation” and freedom of choice do not increase acceptance of the

¹⁰⁴ For example Pütz 2003: 42f.

¹⁰⁵ Fraser-Institute 1999; Kephardt et al. 2003; Goodman 2006: w541.

¹⁰⁶ Gabel 2002b: W401; Davis 2004: 1219ff.

¹⁰⁷ Rosenthal/Milstein 2004: 1068ff.; cf. also Lohr et al. 1986b: 540ff.

¹⁰⁸ Parente et al. 2004a: 1106f; Davis 2004: 1224f.

¹⁰⁹ Parente et al. 2004a: 1108f.

¹¹⁰ Parente et al. 2004b: 1198f; Davis 2004: 1224.

¹¹¹ Tu/Ginsburg 2007: 4f.

¹¹² Schulenburg 1984b: 1278.

¹¹³ Fronstin 2004: 14; Prada et al. 2004: 41; Trude/Grossman 2004: 1f; Weinick et al. 2005: 504; Blumenthal 2006a: 85; Ross 2006: w553; McDevitt et al. 2007: 213f.

¹¹⁴ Freiman 1984: 90; Hibbard/Weeks 1988: 244.

system at all.¹¹⁵ Surveys from the United States, where the co-payment ratio is very high, show relatively low approval for the system and the quality of care tends to be regarded as unsatisfactory.¹¹⁶ Overall satisfaction with the health system there is lower than in countries with broad or universal social protection and significantly lower co-payments.¹¹⁷ Surveys from Chile, where health insurance clients also have to pay a considerable share of their health costs out of pocket, incidentally show similar results.¹¹⁸ In Croatia, too, surveys show that women and low-income groups are especially dissatisfied with the health care system because of rising out-of-pocket payments and inequitable distribution of the financial burden.¹¹⁹

Finally, introducing cost-sharing also serves to make up lost income for service providers who generally also feel the effects of cost-containing measures on their own revenues. The political influence of the various providers in the health care system is generally much greater than that of fund members and patients. Finally, in many countries the health system is one of the largest and often fastest-growing sectors of the economy, and represents an important growth factor even in the poorest states.¹²⁰

7 Forms of Direct Cost-sharing

Various forms of material and immaterial incentive are available for demand-side management in health care and for implementing the widespread demand for “more individual responsibility”.¹²¹ This study concentrates on patients’ direct pecuniary share of treatment costs. Unlike insurance contributions paid in advance and independent of actual use of health services, out-of-pocket payments for health care are designed to increase patients’ consumer awareness and the transparency of take-up behaviour for health services.

¹¹⁵ More than a few theoreticians try to make people believe that health care systems are undergoing a crisis of acceptance because many insured people feel exploited by collective social protection. Here again, rational utility-maximisers are assumed to prefer systems that attach high importance to self-responsibility and prevent “parasitism”.

¹¹⁶ Schoen et al. 2005: W5-512ff; Davis et al. 2006: 4ff, 16ff; Lee/Zapert 2005: 1203.

¹¹⁷ Blendon et al. 1990: 188f; Blendon et al. 2002: 182f.

¹¹⁸ Holst 2004: 276ff.

¹¹⁹ Miroslav/Babić-Bosanac 2002: 421; Mastilica/Kušec 2005: 224f.

¹²⁰ In China, for instance, the health budget increased yearly by 13 percent between 1996 and 2002, even faster than the impressive pace of growth in China’s national economy (Meessen et al. 2003: 582).

¹²¹ Cf. e.g. Stuart/Stockton 1973: 346 and 348. Explicitly, these comprise not only the different forms of co-payment and co-insurance but also bonus-malus systems which have garnered general approval despite the lack of any empirical foundation. In the German context, for instance, the latest paper on the effects of merit rating systems in dental prevention and maintenance based only on model estimations dates from the 1980s (Schneider 1988). There is a lack of more recent validations of the positive assumptions regarding boni and mali, at least in Germany.

Most social security and health insurance systems include out-of-pocket payments. They are relatively widespread for medicines¹²² and other treatments, but there is nothing to prevent service-providers also charging for surgery visits, hospital stays, itemised diagnostic and therapeutic services, episodes of sickness¹²³ or globally for any use during a particular period. Cost-sharing encompasses all the costs that households are required to cover in direct temporal connection with the utilisation of health care services.¹²⁴ Health insurance contributions, on the other hand, are not out-of-pocket payments because they are made in advance and are not related to use of services.

Table 1: Forms of out-of-pocket payment

Form	Definition
Direct payment (selective exclusion)	Payments for goods or services that are not covered by any form of pre-payment or insurance.
Cost-sharing	A provision of most health funding systems that requires the individual who is covered to pay part of the cost of health care received; often referred to as user charges.
Informal payment	Unofficial payments for goods or services that should be fully funded from pooled revenue; sometimes referred to as envelope or under-the-table payments.

Table 2: Forms of direct cost-sharing

Form	Definition
Co-payment	The user pays a fixed (small) fee per item or service (flat rate).
Co-insurance	The user pays a fixed or variable proportion of the total cost, with the insurer paying the remaining proportion.
Deductible/ extra billing	The user bears a fixed amount of the costs, with any excess borne by the insurer; deductibles can apply to specific cases or a period of time

Source: *European Observatory on Health Systems and Policies*.¹²⁵

From the perspective of the insurance business there are four basic types of patient co-payment: flat fees; charge per service or package, co-insurance; deductibles and balance billing or extra billing.¹²⁶ Of course, combinations of these basic types are also possible.¹²⁷ International research generally distinguishes between user fees, which are

¹²² Willison et al. 2001: 24f.

¹²³ Stierle 1998: 1.

¹²⁴ Cf. Galbraith et al. 2005: 2.

¹²⁵ Jemai et al. 2004: 1; with supplementary material from Schachenhofer 1997 (pp. 161ff), Rosian et al. 2002 (pp. 20ff) and Bodenheimer 2005 (p. 851).

¹²⁶ Cf. Rubin/Mendelson 1995: 2-15f, 2-159ff; Schachenhofer 1997: 161ff; Halton 2000: 1f; Robinson 2002: 162f; Skinner 2002: 14; Rosian et al. 2002: 20ff; Irvine/Green 2003: 33; Knappe 2003: 238f.

¹²⁷ For example Parente et al. 2004.

charged by public and other institutions where treatment should theoretically be free, and co-payments or co-insurance made in addition to an insured person's normal health insurance contributions.

Actuaries advise insurers to use deductibles (extra billing) primarily where there is a tendency for excessive use of the insured services with the possible consequence of economic losses. "Deductibles" represent a particular amount, generally defined in the contract, that the insured person has to contribute themselves, even for minor claims. Deductibles face policy-holders with an "all-or-nothing" decision,¹²⁸ because they have to pay all medical (and hospital) bills up to a particular limit defined in the policy out of their own pocket, before the insurance will cover the further costs.¹²⁹ Deductibles can apply both to individual services or service packages (franchise deductible) or for all medical and para-medical care during a particular period (absolute franchise).¹³⁰ In these systems there is an upper limit on a household's healthcare burden, although this does not obviate the regressive nature of this form of cost-sharing, because the same absolute contribution will represent very different proportions of different households' incomes.

The main purpose of deductibles is to reduce utilisation and accounting work for minor treatments. Deductibles can reduce an insurance fund's spending in two different ways, by reducing spending on services and by cutting the administrative costs of processing minor claims.¹³¹ The inversely proportional actuarial relationship between deductibles and insurance contribution allows the level of contributions to be varied according to the level of deductible, assuming other conditions remain unchanged. This approach is common in private-sector insurance,¹³² but is also found in Switzerland's quasi-public insurance market.¹³³ Graduated deductibles also function as an economic incentive for patients to prioritise cheaper service-providers and medicines.¹³⁴

According to commonplace actuarial theory, if patient-side moral hazard leads to increased demand for health services, funds should introduce flat-rate or proportional co-payments for particular medical, para-medical and dental or orthodontic treatments.¹³⁵ In order to neutralise the insured person's supposed information advantage regarding his or her own health status the contribution should correlate with the actual cost. So either the frequency of use or the complexity or price of the treatment should influence the level of contribution, in order to create an incentive for the health insurance customer to keep their own losses – and thus the fund's costs – as small as possible.¹³⁶

Here proportional co-payments are assumed to have a stronger influence than flat-rate co-payments on the cost-efficiency of decisions by fund members claiming for

¹²⁸ Shea et al. 2007: 935.

¹²⁹ Katz/Rosen 1994: 596; Bodenheimer 2005a: 851.

¹³⁰ Schachenhofer 1997: 161f.

¹³¹ Katz/Rosen 1994: 596; Markus 1998: 8.

¹³² Gabel et al. 2002a: W398ff; Huskamp et al. 2003a+b; Greß et al. 2005: 42.

¹³³ Gerlinger 2003: 10f.

¹³⁴ Gabel 2002b: W399; Chapters 7 and 9 will address in more detail the increasing relevance of tiered co-payments mainly for drugs.

¹³⁵ Criel 1998a: 65; Parente 2004: 1194; Berleemann/Karmann 1998: 586ff.

¹³⁶ Cf. Hunterlink 2003.

healthcare services. Proportional patient cost-sharing reduces insurance fund spending per treatment, but discourages the consumer from searching the market for cheaper service-providers.¹³⁷ Actuarial expositions of this ilk generally fail to mention that proportional co-payments (where the insured person pays a certain percentage of the bill) are especially financially threatening for lower-income groups because expensive, urgent or long-term treatments can place an excessive financial burden on individual households.¹³⁸

Less attention is given to maximum service limits, although Medicare and many insurers in the United States use them for medicines.¹³⁹ In contrast to the extra billing system, the service limit relates not to individual treatments or medicines but to a group of services for particular conditions or to particular periods. Risk limits of this kind also exist in developing countries and countries in transition, where they apply to all services and sometimes even occur in combination with percentage coverage. Maximum service limits represent a kind of absolute risk limitation or deductible for the insurer. Patients pay all costs exceeding the maximum permitted volume of treatment themselves.¹⁴⁰

Private health insurers typically apply a very wide variety of combinations of the various forms of cost-sharing, which are defined in the individual contracts. Where insurance is non-compulsory (for example in the United States or Australia) people who currently have a low health risk tend to choose products with less comprehensive coverage while the chronically sick and other risk groups prefer to restrict the financial burden of co-payments.¹⁴¹

8 Promising “Optimal Co-Payments”

In order to protect lower-income groups better from unwanted effects of cost-sharing, neo-classical economists increasingly recommend “optimal co-payments”.¹⁴² Using sophisticated mathematical models, Norwegian researcher Hoel, for example, investigated the possible effects of different scenarios on welfare gains in societies with public social security systems. Working from the assumption that health spending is primarily a function of the insured person’s individual preferences, and that willingness to pay is a

¹³⁷ Markus et al. 1998: 8f.

¹³⁸ Knappe 2003: 245; Holst 2004: 166.

¹³⁹ Breyer et al. 2005: 226; Cox et al. 2001: 297.

¹⁴⁰ Mainly in the US, many private or employer-based health insurance policies establish a maximum ceiling for indemnification payments during the whole contract period or lifetime, which amount in most cases to between US\$250,000 and 1 million (Breyer et al. 2005: 226). Private health insurers in Chile (ISAPREs) also apply yearly coverage ceilings for certain benefits or benefit groups, though first of all for outpatient or day patient care. This leads to extremely narrow insurance coverage, particularly for long-term chronic and, especially, psychiatric diseases, even though more recent statutory regulations have considerably improved the financial protection of beneficiaries (Holst 2001: 98f).

¹⁴¹ Colombo/Taray 2001: 29.

¹⁴² Pauly/Ramsay 1999: 445ff; Chernew et al. 2000: 599ff; Osterkamp 2003 a+b; Hoel 2004; Pauly/Blavin 2007: 3ff; Levaggi/Levaggi 2007: 7f.

decisive variable for use of medical treatment Hoel concludes that differentiated co-payments promote equality and can increase the welfare gains of all citizens. And the Italians Laura and Rosella Levaggi calculate “optimal co-payments” not just as a source of additional resources but even as elements of income redistribution.¹⁴³

However, it must be said that these models are based on a breathtaking volume of interconnected assumptions and simplifications of the kind outlined earlier. The authors rashly presume that the risk of becoming ill is evenly distributed across the whole population,¹⁴⁴ contradicting accepted research on social determinants and inequalities in health.¹⁴⁵ What is more, the theoretical assumptions plainly apply only to illnesses that can be completely cured for a price that can be determined in advance. That is not the case with chronic pathologies, and consequently what is now the largest group of illnesses is not adequately accounted for in these models. Less serious in comparison with such fundamental limitations is the criticism that it remains completely unclear why and how people who decide to do without medical treatment because of the level of existing co-payments are supposed to benefit from increasing cost-sharing.¹⁴⁶ Nor does the hypothetical assumption of an “optimally progressive tax system” do anything for the practical relevance of these ideas.¹⁴⁷

For Germany’s statutory health insurance system individual authors also propose a sliding scale of co-payments linked to income **and** illness.¹⁴⁸ Differentiating the co-payment rates by income and cost of treatment would ultimately mean that every person covered by statutory health insurance in Germany would be better off than before after the introduction of such co-payments – even people with a low income and simultaneously high treatment costs. Under certain preconditions, in combination with an as yet undetermined “socially accepted maximum co-payment rate”, it could be possible to reduce the rate of insurance contributions as a percentage of income by between 1.9 and 2.6 percentage points.¹⁴⁹

This line of argument assumes that the utilisation of services by people with health insurance is both excessive and an expression of moral hazard, rather than of comprehensible medical needs; that only the healthy would reduce their demand for medical treatment; and that the increased revenue would make it possible to reduce contribution rates (premiums) for everyone.¹⁵⁰ Following the logic of Pareto efficiency “positive” co-payments not otherwise defined in any detail are here supposed to lead to improved allocation in the health system from which all insured persons would ultimately benefit.¹⁵¹ This approach thus stands in the unbroken tradition of a worrying detachment from reality that has characterised conventional economic ideas and proposals.¹⁵² All

¹⁴³ Levaggi/Levaggi 2007: 17.

¹⁴⁴ Hoel 2004: 2, 14; Levaggi/Levaggi 2005: 12.

¹⁴⁵ For example nMarmot 2001, 2003, 2005; Wilkinson/Marmot 2004; Marmot 2006: 2083ff; cf. on this point also Remler/Atherly 2003: 278f.

¹⁴⁶ Hoel 2004: 5.

¹⁴⁷ Hoel 2004: 13.

¹⁴⁸ Breyer 1984; Osterkamp 2003a+b; cf. also de Wolf et al. 2005: 369.

¹⁴⁹ Osterkamp 2003a: 15.

¹⁵⁰ For example Pauly/Blavin 2007: 17.

¹⁵¹ Osterkamp 2003b: 84.

¹⁵² Pauly 1968; Breyer 1984; Schulenburg 1987; Breyer et al. 2005; Pauly/Blavin 2007.

too often they are based on a multitude of assumptions that flow into the models without critical examination and lead to overblown conclusions.¹⁵³ There is also no sign that the authors adequately factored in the impact of the intended and expected fall in treatment take-up when they estimated the additional revenues through co-payments; often the estimate of additional income appears to be based simply on the level of current demand. And the models regularly neglect the administrative costs,¹⁵⁴ even though following the imposition of co-payments and especially the introduction of exemptions they are bound to have an impact on the level of contributions and will hence probably consume part of the gains forecast from increased revenue and spending cuts.¹⁵⁵

Above all, however, the distinction posited by the moral hazard theorem between sensible and unjustified treatment belongs in the realm of fiction.¹⁵⁶ Not only do the demand for medical care and patients' behaviour fail to obey the theoretical expectations, but the assumptions concerning the seriousness of illnesses do not match up to reality either.¹⁵⁷ Thus economic approaches normally follow the simplistic assumption that unused services produce savings fully equivalent to their cost, and hence completely ignore the issue of the possible consequential and additional costs resulting from non-treatment. At least one or two authors appear to guess that savings and efficiency in the health sector could be associated with welfare losses as a consequence of reduced treatment rates.¹⁵⁸

¹⁵³ Reinhardt 2001: 990, Rice 1997: 386f.

¹⁵⁴ For example Rothman 1992: 447.

¹⁵⁵ Ibid.: 451f.

¹⁵⁶ One of the statements which is difficult to understand from a clinical point of view indicates that "the severity of sickness of the good risks is **always** lower than that of the bad risks" (Osterkamp 2003: 80 – author's emphasis).

¹⁵⁷ A common example from clinical practice will clarify this: a statutory health insurance beneficiary who has so far been considered as healthy is affected by an intense and severe headache. To simplify to the issue of provider selection, let this happen on a Saturday afternoon so that the person has practically no choice but to seek care in the emergency room of the closest hospital. From a clinical point of view, one of the following four causes of headache is most likely to turn out to be the reason: brain tumour, cerebral bleeding, (first manifestation of) migraine and attendant symptoms of a viral infection (with harmless transitory involvement of the meninges). With regard to the advocated policy of differential co-payment depending on the severity of the underlying illness, what form would this take in practice? Does the patient have to pay, for instance, 50 percent of the emergency room costs out-of-pocket if it is "only" a flu, while the due amount is fixed e.g. at 25 percent in case of migraine, 10 percent for cerebral bleeding and 5 percent if doctors detect a brain tumour? Acting on the assumption that a definite diagnosis requires a computer tomography or even a more expensive magnetic resonance tomography, it thus appears that this type of co-payment design would imply considerable out-of-pocket expenditure on health care. As a medical layperson is generally unable to estimate in advance the severity of immediate medical conditions, (s)he is bound to perceive such a procedure as a subsequent punishment, which would increase barriers to access, including for necessary and highly indicated care.

¹⁵⁸ Osterkamp 2003a: 4. Even Mark Pauly, the great proponent of the moral hazard theorem in health insurance contexts, has apparently come to suspect that reality is somewhat more complicated than the mere individual-utilitarian approach might conceive: "We believe we know very little about how the shape of demand curves varies across people, if it does vary." (Pauly/Blavin 2007: 17). Two things, however, remain fascinating, namely the static nature

In practice the reach of the “optimisation approaches” has remained weak and is always restricted to a small proportion of insured persons who benefit from exemptions and hardship clauses. Often exemptions are given to particular groups rather than applying a differentiated sliding scale. Thus in Germany in 2003 almost half of all prescriptions (48 percent) were exempt from co-payments. As well as children and pregnant women, anyone who has spent 2 percent of their annual income on health care (for the chronically sick 1 percent) is entitled to benefit from the hardship clause. The number of insured persons exempt from co-payments rose steeply from 326,921 in 1997 to 2,188,699 in 2003.¹⁵⁹

Despite these measures the chronically sick bear a disproportionate financial burden. Because the frequency of prescriptions increases with age,¹⁶⁰ the financial burden of cost-sharing also rises continuously, reaching its peak among men aged over 90 (annual mean €83.46) and women aged between 85 and 89 (annual mean €70.92). The gender-specific pattern of frequency of exemption from charges confirms, incidentally, that older women in particular are exposed to an increased risk of poverty.¹⁶¹ Overall the volume of co-payments in the statutory health insurance system rose from approx. €6.6 billion in 1992 to €8.6 billion in 1996 and 9.8 billion in 2000.¹⁶²

The effectiveness of such exemption rules is fundamentally restricted by the high administrative costs, difficulties in implementation and the ensuing costs.¹⁶³ Targeted social subsidies present great difficulties even for highly developed countries.¹⁶⁴ Even in well-organised countries like Switzerland, exemptions and subsidies generate new difficulties and inequalities, as seen for example in the allocative problems associated with public health insurance subsidies for low-income groups.¹⁶⁵

Only the private health insurance market in the United States has any significant experience with tiered cost-sharing. Income-related cost sharing, which causes comparatively little administrative expense at least for larger insurers, is certainly not a

of the approach and, particularly, the fact that demand curves and “optimal co-payments” can be calculated completely independently from the disease patterns covered or to be covered. Moreover, the apologists for the neo-classical market ideology refuse to give up the attempt to steer people towards their rightful positions in the edifice of economic theory: “If consumers could be convinced that their own marginal benefit curves are wrong, they might go along with this paternalism – but they might not be easy to convince or, if convinced, might then change their demand curves back closer to the true ones with a higher optimal coinsurance rate” (ibid: 16).

¹⁵⁹ Nink/Schröder 2004a: 167.

¹⁶⁰ Nink/Schröder 2004b: 1105.

¹⁶¹ Nink/Schröder 2004a: 168.

¹⁶² Müller et al. 2003: 6.

¹⁶³ O’Brien et al.: 11; Robinson 2002: 177.

¹⁶⁴ Garber 2004: 292.

¹⁶⁵ The poverty- and needs-assessment is not regulated countrywide but falls to the responsibility of each canton (Gerlinger 2003: 8f). This leads to very diverse interpretations and, particularly, to large financing gaps in practice. Not less than one out of every 30 Swiss households becomes impoverished due to health expenditure, and Switzerland is ranked third from last in Europe, above Greece and Portugal; and about one-sixth of affected households become impoverished because of the cost-sharing arrangements (Murray/Evans 2003: 525f).

new idea,¹⁶⁶ but for a long time it was applied only by a few employer-based private-sector insurers.¹⁶⁷ By 2002 no more than 5 percent of US American employees had HMO or PPO contracts with tiered deductibles for hierarchising choice of non-drug medical services within a provider network.¹⁶⁸ In the field of medicines the proportion of policies with supplier-dependent and product-dependent co-payments has risen more quickly. The proportion of employer-funded policies with incentive formularies rose from 46 to 69 percent between 2000 and 2002. Almost three out of every five of these contracts include three or more different classes of drugs and co-payment. Today comparatively comprehensive medication coverage with tiered co-payments has become the norm for US health insurers.¹⁶⁹

Particularly in a health system without universal coverage, where the individual's insurance protection is sometimes patchy, a tiered co-payment system raises considerable ethical problems.¹⁷⁰ All these increasingly sophisticated attempts to contain growing health sector expenditure build on the assumption that patient demand is insatiable. Economic theory claims that if medicines are completely or largely free for insured patients, everyone will take as many as they can. Leaving aside the problems actually observed with antibiotics and Ritalin in certain countries, this interpretation ignores the regulating effect of obligatory prescription by medical experts, whose behaviour is unlikely to be influenced either by flat-rate or tiered co-payments. But above all, there is not a scrap of evidence for patient-driven overuse of the medicine supply in industrialised countries. Closer analysis of insurance data collected for the RAND experiment brought to light widespread underdiagnosis and consequentially inadequate treatment of chronic conditions.¹⁷¹ A systematic MEDLINE search also failed to produce any evidence for the widely posited overuse of medicines, and instead pointed to a situation of underprovision.¹⁷²

Following this introductory review of the theory and concepts, the following chapters will revisit some of the assumptions on which neo-classical economists base their models. As well as a dearth of scientific evidence, we find above all effects that are both unforeseen and undesirable. Ultimately the current recommendations to make patients contribute to the costs of their treatment would appear to actually be counterproductive for the proper functioning of health systems. Recent data suggests that such financial barriers impair access to medical services in sometimes unplanned ways and harm the population's health status.

¹⁶⁶ Stuart/Stockton 1973: 380.

¹⁶⁷ Rice/Thorpe 1993: 24f, 35.

¹⁶⁸ Gabel et al. 2002: W399f; Gabel et al. 2003b: 146.

¹⁶⁹ Provost 2004: 16.

¹⁷⁰ Krohmal/ Emmanuel 2007: 434.

¹⁷¹ Lohr et al. 1986b: 542ff.

¹⁷² Kleinke 2004b: 39.

9 The “Health Insurance Experiment” and Its Evidence

To this day the controlled, randomised Health Insurance Experiment in California¹⁷³ (the RAND study) is regarded as the major investigation of moral hazard in health insurance.¹⁷⁴ Although it was conducted back in the mid-1970s, many of the hypotheses and recommendations concerning cost-sharing and user charges in the health sector are still based on the RAND Corporation’s findings.¹⁷⁵ The study investigated the service utilisation behaviour of a population of 5,809 US citizens and their dependants under different co-payment modalities,¹⁷⁶ focusing on the relationship between cost-sharing and use of medical facilities, health spending and health outcomes.¹⁷⁷ The researchers allocated the participants, most of whom were relatively young and all under 65, randomly to one of fourteen different health insurance policies and observed their behaviour for three to five years.

All the contracts paid service-providers on a fee-for-service basis and implemented an upper limit for cost-sharing. The co-payment modalities varied: one contract offered treatment free of any out-of-pocket payment; three offered a 50 percent co-payment with upper limits of 5, 10 and 15 percent of household income up to a maximum of \$1,000; three others had 95 percent co-payments with the same upper limits; three contracts had 50 percent cost-sharing for psychiatric and dental treatment and 25 percent for all other services, also with the same upper limits; while one policy covered all the costs of hospital treatment in full combined with 95 percent co-payments for all outpatient services up to a limit of \$150 per person and \$450 per family.¹⁷⁸

If visits to the dentist were excluded, there was an inverse correlation between the level of co-payment and the frequency of medical treatment. Whereas the latter was 86.7 percent among insured persons with full cost coverage it fell to 68.0 percent as the level of out-of-pocket payment rose. At the same time, a fall of up to one third was observed in average health spending per person.¹⁷⁹ Because of the use of upper limits, the actual average co-payments were considerably lower than the nominal rates in all groups, namely: 16 percent for the group with 25 percent cost-sharing, 24 percent for those with 50 percent cost-sharing and 31 percent for those who in theory had 95 percent cost-sharing.¹⁸⁰

¹⁷³ Newhouse et al. 1982; Lohr et al. 1986a; Manning et al. 1987.

¹⁷⁴ Ramsay 1998: 20; Buntin et al. 2006: W518.

¹⁷⁵ Private organisation predominantly financed by public resources.

¹⁷⁶ Ramsay 2002: 19.

¹⁷⁷ Manning et al. 1987: 253f. As dependent variables, the study captures the likelihood of health care utilisation, yearly number of physician visits, hospital admission rates and health expenditure for all benefits except dental and outpatient psychiatric care (Fraser-Institute 1999).

¹⁷⁸ Ramsay 1998: 20.

¹⁷⁹ Newhouse et al. 1982: 13ff; Newhouse et al. 1993: 44; q.v. Gruber 2006: 1f. Compared to beneficiaries exempted from any co-payment, a 50 percent cost-sharing policy reduced health insurance expenditure on average by 25 percent, and 95 percent co-payment policies by as much as 33 percent (Newhouse 1993: 44).

¹⁸⁰ Newhouse et al. 1993: 358f; Richardson 1991: 19.

It was also found that the effect of co-payments occurred almost exclusively at first contact with health institutions and had only a negligible influence on subsequent use of health services in any given episode of sickness.¹⁸¹ Differences in dependency on co-payment conditions were found among different types of services. For example, the frequency of admission to hospital paediatric wards varied considerably less than outpatient psychiatric treatment.¹⁸² The RAND experts explain this phenomenon partly as an effect of different degrees of price elasticity in the health market, which like every commodity depends both on the “customer’s” ability to pay and the complexity of the medical service involved. Another important influencing factor is the level of out-of-pocket payment to be borne by the patient, because as co-payment rose so did the price elasticity of the various health services.¹⁸³

Those who had policies with cost-sharing used medical facilities about one third less than those whose insurance covered the full costs of their treatment. Setting aside the epidemiologically significant findings of poorer blood pressure control, less frequent eye tests and poorer dental care (caries and gum disease), the initial investigation found that those with cost-sharing were actually slightly healthier than those who had no co-payments.¹⁸⁴ The authors of the RAND study initially concluded that greater use of medical facilities by persons with full cost coverage by their health insurer had no or negligible influence on health status and that no significant differences between the different insurance groups could be found in relation to mortality risk or health problems.¹⁸⁵ The considerably lower take-up of cancer screening programmes had no influence on outcomes during the albeit relatively short period of observation.¹⁸⁶

However, the dental sector illustrates very clearly the problems involved in assessing the effectiveness of co-payments merely by recording visits. The RAND study produced consistent evidence that higher co-payments for dental treatment lead to poorer dental health among adults. If out-of-pocket payments are required, children less often receive orthodontic treatment, and among those from poorer and less educated families dental care as a whole is poorer.¹⁸⁷ Spending on dental treatment rose by 46 percent following the abolition of 95 percent co-payments, with demand rising especially during the first year after the introduction of free dental treatment.¹⁸⁸

Over the course of time closer scrutiny of the RAND study by independent experts brought to light many questionable and downright dubious assumptions and conclusions. Closer examination of patient behaviour in the study also revealed the noteworthy finding that co-payments reduced not only the number of “unjustified” visits to the practitioner, but also the number of necessary consultations and preventive measures,

¹⁸¹ Richardson 1991: 21.

¹⁸² Ramsay 1998: 21; q.v. Ahlmaa-Tuompo et al. 1998a: 266f; 1998b: 328f and 1999: 135ff.

¹⁸³ Manning et al. 1987: 267f; cf. also Markus et al. 1998: 17. After an increase in co-payment from 0-25 to 25-95 percent, the price elasticity for all kinds of medical care rose from 0.10 to 0.14 and for outpatient care from 0.13 to 0.21 (Manning et al. 1987: 268).

¹⁸⁴ Manning 1987a: 226.

¹⁸⁵ Newhouse et al. 1993.

¹⁸⁶ Keeler et al. 1987: 290ff.

¹⁸⁷ Grembrowski et al. 1985: 770ff; Ku 2003: 2, 9

¹⁸⁸ Manning et al. 1985: 898ff.

leading to worse vision¹⁸⁹ and blood pressure control¹⁹⁰ especially among the chronically sick. Cost-sharing also had negative effects on the indicators for the population groups with the worst health and the lowest income, and noticeably shortened the life expectancy of high-risk patients: free medical treatment reduced the mortality risk of this group by 10 percent.¹⁹¹ Overall in the RAND study the co-payments affected the lowest-income and unhealthiest two fifths of the population especially harshly.¹⁹² Low-income hypertension sufferers were cared for better in the full-coverage model than under insurance conditions with cost-sharing.¹⁹³ The prevalence of symptoms such as angina pectoris, respiratory distress, haemorrhage or weight loss was 26 percent higher in this group compared to the better-off and considerably lower in the group without co-payments as a whole.¹⁹⁴

Many experts concluded from the RAND study that the cost-containing effects of cost-sharing would be achieved at the expense of the consumers of health services. But a study with a relatively small cohort of not even six thousand families and random allocation to the different insurance modalities does not really allow conclusions to be drawn about the system as a whole. In this design each physician dealt with only a small group of participating patients, which precludes drawing any conclusions about global cost developments.¹⁹⁵ Co-payments must apply to all patients equally if they are to have any cost-reducing effect at all.¹⁹⁶ Apart from changes in insured persons or patients, the behaviour of service-providers also has the potential to counteract any cost-saving reduction in real or presumed moral hazard behaviour by the members of a health insurance fund. This reinforces the doubts that the introduction of user charges can act as a brake on rising costs in the health system as a whole.¹⁹⁷

Plainly the concentration on patient co-payments for a long time distracted attention from another finding of the RAND study: that the method of payment to service providers is more effective than patient cost-sharing for containing costs. Health expenditure on insured persons in co-payment-free HMO contracts was namely 38 percent lower than for persons whose health insurance provided for fee-for-service payment.¹⁹⁸ Furthermore, the RAND study also indicates how difficult it is to measure the

¹⁸⁹ Lurie et al. 1989.

¹⁹⁰ Keeler et al. 1985: 1930; cf. also Dow et al. 2000: 10.

¹⁹¹ Brook et al. 1983; Davis 2004: 1221.

¹⁹² For the evaluation of these results, bear in mind that for members of lower socio-economic groups this selective effect adds to the existing deprivation of this section of the population. So the RAND experiment had shown, among other findings, a significantly lower utilisation of outpatient paediatric services by low class children. Under the conditions of an insurance policy without cost sharing, the likelihood of utilising relatively effective paediatrician visits is 85 percent for better-off children, but only 56 percent for children living under poorer socio-economic conditions (Lohr 1986: 35). However, the situation turns out to be different for paediatric emergency care services (Ahlamaa-Tuompo et al. 1998a: 266f; 1998b: 328f and 1999: 135ff).

¹⁹³ Ramsay 2002: 19; Davis 2004: 1221.

¹⁹⁴ Rasell 1997: 1166.

¹⁹⁵ CHRSF 2001: 2.

¹⁹⁶ Rasell 1995: 1167.

¹⁹⁷ Barer et al. 1993b: 6; Evans et al. 1993b: 5; Evans et al. 1993d: 13, 16, 33; Holst/Laaser: 3361.

¹⁹⁸ Bodenheimer 2005a: 851.

effect of insurance protection on health status. It is unlikely that the experiment and survey themselves will have had no influence on the participants' perception of their own health, and measuring an "objective" health status is a very complex matter which is unlikely to be adequately covered by measuring a couple of parameters.¹⁹⁹

This fundamental problem is further exacerbated in studies based on rather subjective health indicators, because the simple fact of contact with the health system produces systematic measuring errors that depend – alongside social class – especially on the utilisation of services and thus on their price. When the prices of medical services rise, subjective variables such as self-assessed general health status improve, at the same time as more objective indicators such as coping with the tasks of daily life deteriorate.²⁰⁰ Accordingly, when objective parameters are used a better health status is observed with free treatment than where co-payments are obligatory. But if we draw exclusively on subjective, self-assessed survey data, we tend to find that free health care encourages greater utilisation but produces a poorer health status.²⁰¹

Altogether the position in the international debate on co-payments in health occupied to this day – despite its relatively small sample and very specific setting – by the massively influential RAND study is absolutely questionable. Its uncritical extrapolation to the system as a whole from specific, often experimentally gained findings in small samples that only inadequately record the health outcomes²⁰² – which one could call the "RAND error" – is unjustified and misleading.²⁰³ Especially given that this experiment actually showed that demand for necessary treatment fell and take-up of medical services shifted from lower-income to higher-income groups.²⁰⁴ Despite all the contradictions and open questions, oversimplified conclusions from the RAND experiment to this day define the health policy and partly even the health science debate. "The RAND analysis continues the tradition of hope and hype," write the US health economists Himmelstein and Woolhandler. "Unfortunately, behind their impressive predictions of savings lie a disturbing array of unproven assumptions, wishful thinking, and special effects."²⁰⁵

¹⁹⁹ Dow et al. 2000: 9; Richardson 1991: 32f.

²⁰⁰ Dow et al. 2000: 20. Because people with higher co-payments tend to utilise less medical care, they expose themselves less to the risk of detecting slight deteriorations in their health status and feel subjectively healthier than people who maintain more regular contact with their physician. This does not mean that doctors make patients sick, but they do communicate information which leads those who visit the doctor more regularly to perceive their health status as lower (Dow et al. 2000: 17f).

²⁰¹ Dow et al. 2000: 9f.

²⁰² Wells et al. 1987: 15; Dow et al. 2000: 10.

²⁰³ Deber et al. 2004: 54f.

²⁰⁴ Barer et al. 1998: 31.

²⁰⁵ Himmelstein/Woolhandler 2005: 1121.

10 Impact on Provision of Pharmaceuticals

In most European countries cost-sharing primarily affects medicines and medical aids,²⁰⁶ dental treatment and prosthetics,²⁰⁷ and extra services associated with comfort and accommodation.²⁰⁸ In the welfare states cost-sharing for such services and privileges is widely accepted.²⁰⁹ In the public health systems of the industrialised countries attempts to manage demand through co-payment arrangements concentrate especially on pharmaceuticals.²¹⁰ Different routes are used to increase patients' contribution to the cost of drugs – prescription charges (flat-rate co-payments per prescription or medicine), absolute, tiered²¹¹ or proportional cost-sharing,²¹² coverage limits, and excluding particular drugs from reimbursement.²¹³

Medicines are generally regarded as health services with relatively high price elasticity, whose consumption correlates closely with the level of co-payments.²¹⁴ This is confirmed by the observation that between 1998 and 2000, when drug prices in the United States rose considerably more steeply than the consumer price index, the proportion of drug prescriptions not filled rose from 9.5 to 13.1 percent.²¹⁵ The combination of price rises and simultaneous co-payment increases had a particularly dramatic effect on Medicare members. People on low incomes plainly have a limited capacity to compensate for price rises for medical services through savings or by doing without other consumer goods.²¹⁶

A large retrospective study from the United States confirms that doubling even small drug co-payments causes measurable changes in medicine-taking behaviour. The effects vary quite widely depending on the class of substance: the biggest drop is observed in non-steroid antiphlogistics (45 percent), followed by antihistamines (44 percent), lipid-lowering drugs (34 percent), H₂-receptor antagonists and proton pump inhibitors (33 percent), bronchodilators (32 percent),²¹⁷ antihypertensives (26 percent),²¹⁸

²⁰⁶ Saltman/Figueras 1996: 16; Creese 1997: 202; Robinson 2002: 161, 164.

²⁰⁷ Jemiai et al. 2002, S.2; Ziniel 2004: 31.

²⁰⁸ Böcken et al. 2000: 71.

²⁰⁹ Hjertquist 2002: 2, Prada et al 2004: 41. At least in Germany, a perceptible paradigm shift can be observed because studies from the old Federal Republic during the 1970s found evidence of a generally sceptical attitude of the population regarding the claim for more self-responsibility and higher cost sharing for health care (Recke 1980: 80ff).

²¹⁰ Nink/Schröder 2004a: 166; Birkett et al. 2001: 104f; Greß et al. 2005: 7, 20ff, 34; cf. also Ramsay/Esmail 2004: 42.

²¹¹ Tiered drug co-payments are usually arranged in such a way that out-of-pocket payment is lowest for generics, moderate for preferred brand drugs and highest for nonpreferred brand products (Frank 2001: 120f; Motheral/Fairman 2001: 1298ff; Huskamp et al. 2003a: 150; Garber 2004: 292).

²¹² de Wolf et al. 2005: 369; Lee/Hoo 2006: w546.

²¹³ Lexchin/Grootendorst 2002: 6; Rosian et al. 2002: 21; Busse et al. 2005: 332, 342f.

²¹⁴ Harris et al. 1990: 912ff; Kaczmarek 1999: 228, 234; Kozyrskyj 2001: 901; Lexchin/Grootendorst 2002: 8; Chandra et al. 2007.

²¹⁵ Wilson et al. 2005.

²¹⁶ Wilson et al. 2005: 719f.

²¹⁷ Anti-cholinergics, anti-inflammatory asthma agents, leucotriene modulators, oral steroids and steroid inhalers, sympathomimetics and xanthines.

antidepressants (26 percent),²¹⁹ and oral antidiabetic drugs (25 percent).²²⁰ In patients with chronic conditions and receiving constant treatment the effect of changes in co-payments was smaller: people with depression reduced their dose of prescribed psychotropic drugs by only 8 percent, and among people with arterial hypertension the consumption of antihypertensives fell by 10 percent. Larger falls were recorded for consumption of antiphlogistics by patients with chronic arthritis, of antihistamines by allergics (31 percent) and of oral hypoglycemics by diabetics (23 percent).²²¹

Other calculations from the United States suggest that increasing the price of antihypertensives by one dollar leads annual purchases to fall by 114 tablets per person.²²² Perceptible drug co-payments lead older and poorer citizens in particular to turn down prescriptions or fail to fill them, while others reduce the prescribed dose by taking them less often.²²³ Current studies demonstrate very clearly that older people respond especially sensitively to cost-sharing. It was found that cost considerations led nearly one in five older US citizens (18.3 percent) and one in four of the chronically sick to decide not fill their prescriptions. 15.8 percent of older people and 21.8 percent of the chronically ill regularly skipped doses in order to make a prescribed medicine last longer, and 12.4 and 18.5 percent took smaller doses for the same reason.²²⁴ A study from California shows that increasing drug co-payments by an average of \$5, which corresponded roughly to a doubling, reduced prescription fill rates by 7–19 percent.²²⁵ Overall, cost-induced non-adherence to medical recommendations is observed more often among people who need treatment than among healthy citizens.²²⁶

²¹⁸ This group comprises angiotensin-converting enzyme (ACE) inhibitors, calcium channel blockers, diuretics, β -blockers and angiotensin II receptor blockers.

²¹⁹ Selective serotonin reuptake inhibitors and tricyclic antidepressants.

²²⁰ Sulfonylureas, metformin, glitazones and other oral antidiabetic drugs.

²²¹ Goldman et al. 2004: 2347f. A more recent study that also measures the impact of disability costs and lost productivity corroborates the otherwise rarely captured effect on compliance for people with chronic arthritis (Jinnett et al. 2007).

²²² Blustein 2000: 226.

²²³ Dustan et al. 1992: 852; Cox et al. 2001: 298f; Steinmann et al. 2001: 795f; Fairman et al. 2001: 10, 19; Schneeweiss et al. 2002: 524f; Schafheutle et al. 2002: 190ff; Gibson et al. 2005b: 736f. A representative survey among US citizens underpins the finding that more than one in every five adults has not filled at least one prescription during the last year for financial reasons; 14 percent declared that during the last year they had taken a prescription drug in smaller doses than prescribed because of the cost. And 16 percent said they had taken a medication less frequently than prescribed to save money (Talyor/Leitman 2001).

²²⁴ Wilson et al. 2007: 9.

²²⁵ Chandra et al. 2007.

²²⁶ Bluestein 2000: 219; Steinmann et al. 2001: 796; Taylor/Leitman 2002; Soumerai et al. 2006: 1831ff; Taira et al. 2006: 681. During a telephone survey of 1010 adult US-citizens in November 2002, 18 percent had not asked for prescriptions because of the cost, and this proportion rose to 33 percent of those in only fair or poor health, and to as much as 41 percent of those with monthly out-of-pocket payments of US\$150 or more. Likewise, 15 and 18 percent of all adults were using a lower dose or taking their drug less often, respectively, in order to make prescriptions last longer; for the group with high co-payment burdens, 48 and 46 percent respectively admitted to applying the strategies mentioned above (Taylor/Leitman 2002: 1f).

Numerous US studies show that co-payments as a rule deter a particular proportion of patients from acquiring and taking prescribed medicines.²²⁷ One important cause – that is largely disregarded in the economic literature – is that especially with conditions such as hypertension or lipid metabolic disorders the diagnosis is best made at a point where a layperson can derive only abstract benefit from taking a drug and has only theoretical considerations on which to base their consumer decision. So it is (incidentally in agreement with the theory of rational consumer choice) no surprise that medicine-taking behaviour is very sensitive to patient co-payments.²²⁸ Those affected do not realise that – statistically speaking – they are running a 55 or 41 percent higher risk, respectively, of hospital admission or emergency treatment at an emergency department, especially if they belong to a socio-economic or epidemiological risk group.²²⁹ The phenomenon that the US citizens who are poorest and have the greatest health problems consume the fewest medicines²³⁰ has worsened still further during recent years.²³¹

The US experience corresponds with that of other differently organised health systems, as illustrated by the Quebec Universal Drug Program in the Canadian province of Quebec, which introduced proportional cost-sharing for medicines in two steps beginning in 1996.²³² A retrospective study impressively demonstrates the impact of this measure on the medicine-taking behaviour of older and poorer citizens and the resulting overall effects. Following a “small” increase in drug co-payments consumption of essential medications fell by 9.12 percent among older people and by even more, 14.42 percent, among welfare benefit recipients. For medicines not felt to be essential, consumption in the two groups fell by 15.14 and 22.39 percent. During the period of observation the frequency of incidents connected with reduced medicine consumption rose among older people from 5.8 per 10,000 person-months before introduction of the co-payments to 12.6, and among welfare benefit recipients from 14.2 to 27.6 per 10,000 person-months. The number of acute medical emergencies caused by inadequate medi-

²²⁷ Federmann et al. 2001: 1735; White et al. 2002: 189f; Jackevicius et al. 2002: 466; Schultz et al. 2005: 309; Soumerai et al. 2006: 1831f.

²²⁸ White et al. 2002: 189f; Jackevicius et al. 2002: 466; Schultz et al. 2005: 309; Soumerai et al. 2006: 1831f

²²⁹ Tamblyn et al. 2001: 426f; Appleton 2002: 496; Goldman et al. 2006a: 27; Atella et al. 2006: 888ff. Patients with diabetes mellitus, coronary or ischaemic heart disease (esp. after myocardial infarction), arteriosclerosis or other vascular diseases.

²³⁰ Medicare beneficiaries with three or more chronic health conditions lacking drug coverage purchased almost 25 percent fewer prescriptions than did those with coverage; however, the uncovered paid on average US\$375 more out of pocket (Poisal/Murray 2001: 82f). A gender gap was also observed, because uncovered males used about 40 percent fewer prescriptions than males with drug coverage, while usage was only 27 percent lower for uncovered than for covered females. With regard to the burden of out-of-pocket payments, this means that males without coverage spend only around 47 percent in total on their medications compared with covered males, while non-covered females were spending a total of 60 percent of the drug expenditure of their counterparts with drug coverage (ibid.: 79).

²³¹ Poisal/Chulis 2000: 251f, 254f; Poisal/Murray 2001: 79f; Steinmann et al. 2001: 797.

²³² Currie/Nielson 1999: 48, 51.

cation rose from 8.5 to 19.9 per 10,000 person-months among older people and from 69.6 to 123.8 among welfare benefit recipients.²³³

Another study conducted in Quebec about the prescription of essential heart medicines (beta-blockers, ACE inhibitors and lipid-lowering drugs) after acute myocardial infarction showed that co-payment terms had no effect on medicine-taking behaviour and complication rates in the first thirty days after discharge from hospital.²³⁴ But over time drug co-payments plainly do have negative effects, as demonstrated by a study of privately insured employees in the United States. Increasing the drug co-payment by one dollar led to a \$9.71 fall in drug spending, a \$6.46 fall in outpatient treatment costs, a \$3.39 fall in hospital costs and a \$20.39 fall in total health spending. However, in the second year after the increase in co-payments the costs for inpatient and outpatient treatment rose by \$10.71 and \$13.03 respectively and overall spending by \$22.85, while drug spending fell by \$8.35.²³⁵ Increasing drug co-payments achieved smaller effects in employer-funded health insurance plans in the United States, which is probably at least partly because people with a regular income will regard an increase in the out-of-pocket payment from \$5 to \$10 or \$8 to \$15 as less dramatic than poorer citizens or pensioners. In any case, with this group the insurers' spending on drugs fell by only approximately 4 percent.²³⁶

From 1970 to 1998 the absolute volume of direct co-payments in the United States rose from \$24.9 billion to \$199.5 billion, while their share of overall spending certainly halved, from 34.02 to 17.36 percent, largely as a consequence of the extension of public insurance programmes.²³⁷ By the end of the 1990s US citizens were paying 15.6 percent of medical expenses out of their own pockets.²³⁸ Since the beginning of the twenty-first century out-of-pocket payments for health care have grown much more quickly, especially with vertical integration insurance plans. Thus in Preferred Provider Organisations (PPO) between 2000 and 2003 the deductibles rose by 57 percent for in-network providers and 65 percent for out-of-network providers, while drug co-payments increased by 46 percent for preferred products and 71 percent for other medicines.²³⁹ It is nothing new for US employers to attempt to include increasing out-of-pocket payments in their private insurance policies, whether by means of flat-rate or tiered co-

²³³ Tamblyn et al. 2001: 425f. One should also mention in this context further research and calculations from the Franco-Canadian province showing that the price elasticity usually presumed as underlying health policy decisions is often overestimated (Contoyannis 2005: 919f).

²³⁴ Pilote et al. 2002: 249f.

²³⁵ Gaynor et al. 2005a: 23ff and 2005b: 29ff. Sometimes comparative calculations are carried out, including the potentially achievable prolongation of life expectancy as a consequence of secondary and tertiary care. In this context, the focus is on insurance expenditures, which increase in line with the longer lifetimes and consequently longer treatment periods for all beneficiaries whose expenditures exceed the contributions collected (Shang 2005: 69). In these matters, however, strict economic rationality clashes with basic ethical considerations and the core function of health care and health care financing.

²³⁶ Joyce et al. 2002: 1738.

²³⁷ Levit et al. 1999: 131.

²³⁸ Ibid.: 129.

²³⁹ Garber 2004: 292f

payments, co-insurance or deductibles.²⁴⁰ While the average premium of an American employee rose 175 percent between 1999 and 2005 from \$129 to \$226, deductibles increased by 467 percent during the same period from \$49 to \$229, and some firms began offering insurance policies with annual deductibles of \$1,000 to \$5,000.²⁴¹

The uncontested aim of this policy is for companies to reduce or at least stabilise the burden of contributions to health insurance plans acquired for their employees.²⁴² The shift from paying in advance to point-of-use affects lower-income groups more than the better-off and especially burdens the chronically ill with high and sometimes unaffordable health costs.²⁴³ At the system level it should be noted that employers' efforts to stabilise contributions leads them to neglect the supplier side and focus on patient behaviour.²⁴⁴ In the United States a debate is now beginning about a possible deterioration in the quality of care, especially for the chronically ill, through the implementation of consumer-directed health care with high deductibles.²⁴⁵ Recent studies also provide evidence that the cost savings intended by employers through shifting medicine costs to employees with chronic conditions do not pay off at all. It was found that reduced medication adherence related to co-payments had direct effects on the frequency and duration of incapacity to work among employees with rheumatoid arthritis.²⁴⁶

In Israel, too, there are financial barriers to access to health care. In a survey by the Myers-JDC-Brookdale Institute, 5 percent of respondents said in 2001 that they had done without prescribed treatments during the previous year, and two years later the figure was 6 percent. People on low incomes waived medical treatment most frequently: 10 percent stopped taking medicines, while half that number did without recommended appointments with specialists. Ignorance of co-payment limits plainly exacerbated the situation, because poorer citizens were more likely to be unaware of them (81 percent compared with the average of 73 percent) and spent more than one percent of their income on cost-sharing.²⁴⁷

²⁴⁰ Freiman 1984: 90; Claxton et al. 2004: 88f; Claxton et al. 2005: 76f, 91ff; Weinick et al. 2005: 504; Lee/Hoo 2006: w546; McDevitt et al. 2007: 213f.

²⁴¹ Blumenthal 2006b: 196; Buntin et al. 2006: w517

²⁴² Colombo/Taray 2001: 38; Katz 2001; P. Ginsburg 2002: 7; Trude et al. 2002: 66, 74; Fuchs 2002: 1822; J. Finkelstein 2004; Prada et al. 2004: 41; Crawford et al. 2004: 3.

²⁴³ P. Ginsburg 2002: 7; Trude et al. 2002: 66, 70f, 74; Trude 2003; Goodman 2006: w541; McDevitt et al. 2007: 215f.

Between 1977 and 1987, the number of employer-financed health insurance policies with cost sharing had increased from 85 percent to 95 percent; a similar increase was observed for policies with a minimum 20 percent co-payment (Rice/Thorpe 1993: 23). Interestingly, some surveys reveal a significantly higher share of persons with chronic diseases having insurance policies with high absolute co-payments compared to those with relatively low out-of-pocket payments (Lee/Zapert 2005: 1204); this might suggest a problem of adverse selection (Buntin et al. 2006: W 517f), but at the same time it shows the potential relevance of the risk of patients discontinuing or reducing medical treatment because of the costs.

²⁴⁴ J. Finkelstein 2004; cf. also Ross 2006: w552f.

²⁴⁵ Lee/Zapert 2005: 1203f; Buntin et al. 2006: W519f; Yegian 2006: W 534f.

²⁴⁶ Jinnett et al. 2007: 6f.

²⁴⁷ Gross et al. 2005: 8.

In the industrialised countries of Western Europe user charges come largely in the form of co-payments for health care, and largely affect medicines and selected other health services.²⁴⁸ Additionally, cost-sharing is required for hospital treatment for example in Germany and France, while inpatient treatment in the Netherlands is free of co-payments.²⁴⁹

A meta-analysis of three studies from Australia, Canada and the United States found that out-of-pocket payments amounting to 25–30 percent of treatment costs reduced demand for medical services by 25–28 percent.²⁵⁰ But such conclusions must always be treated with caution and are certainly difficult to transfer from one country or health system to another. Also, that kind of global analysis does not allow distinctions to be made between different age, risk and social groups. Theoretical economic calculations from Australia assume that doubling co-payments from \$A2.50 to \$A5 would cause a 20 percent fall in the medicine consumption of pensioners, while an increase to \$A6 would cause a 34 percent fall.²⁵¹ Despite the relatively large percentage increase, under Australian income conditions such prices certainly fall into the category of “minor co-payments” that politicians are willing to impose in other countries too, yet the impact is enormous.²⁵²

Since co-payments have the strongest and longest-lasting effect on medicines for treating cardiovascular conditions and hypertension and on psychotropic drugs, which patients usually have to take long-term,²⁵³ we can assume that even cost-sharing on a relatively small scale will have relevant consequences for the health of a population and cause negative repercussions on overall health spending.²⁵⁴ One piece of evidence for this is the observation that among low-income Medicaid members suffering from schizophrenia, limiting reimbursable psychotropic drugs to three prescriptions per month led to a 15 to 49 percent reduction in the consumption of all relevant kinds of antipsychotic, antidepressant and anxiolytic medication. In the subsequent period a clear increase in the use of psychiatric emergency facilities and daycare institutions was observed, which as well as plainly reflecting more suffering of the affected persons also increased overall spending for this group of patients.²⁵⁵ Per capita expenditure on

²⁴⁸ Carrin/Hanvoravongchai 2003: 6; Barry et al. 2004: 191.

²⁴⁹ Henke/Schreyögg 2004: 64, 67f.

²⁵⁰ Richardson 1991: 9ff.

²⁵¹ Richardson 1991: 49.

²⁵² For publicly registered drugs meeting well-defined efficacy, safety, and quality standards, patients in Australia have to pay fixed co-payments of approximately US\$11.80 per item; so called concession patients (aged, disabled, unemployed, or students, for example) pay a fixed amount of US\$1.90 per drug item (Birkett et al. 2004: 105f).

²⁵³ Reeder/Nelson 1985: 399f; cf. on this point Chapters 9 and 10.

²⁵⁴ This suggests indirectly that Medicaid beneficiaries with additional insurance coverage for dialysis, the so-called Medicaid end-stage-renal-disease (ESRD) program paying even for immunosuppressant drugs and erythropoietin, also more frequently use antihypertensives, cardiovascular and other drugs prescribed by treating physicians and covered by the public health insurance scheme (Shih 1999: 52f). Cf. also Gaynor et al. 2005a: 23).

²⁵⁵ It is relatively difficult to evaluate the consequences and follow-up costs of the reduced utilisation of medications for children with attention deficit and hyperactivity syndrome. Certainly, increased drug co-payments are not without impacts for the group of affected children, despite the undeniable psychological stress of the latter and their social environ-

psychiatric outpatient treatment following the introduction of the restriction on prescriptions exceeded the savings achieved by a factor of more than seventeen, even given that many indirect costs were not even included in this calculation.²⁵⁶

In Europe there are generally monthly or yearly upper limits for drug co-payments, and sometimes tiered out-of-pocket spending,²⁵⁷ which have two main aims.²⁵⁸ On the one hand they potentially strengthen the negotiating position of the state or insurers vis-à-vis the pharmaceuticals manufacturers, promote price competition especially among brand products but also with and among generics,²⁵⁹ and can lead to a reduction in overall drug spending. On the other, they might tend to shift consumption towards cheaper products and thus tend to reduce drug prices.²⁶⁰

However, tiered drug co-payments bring with them a series of implementation problems²⁶¹ and their effects are not uniform²⁶² so it ultimately remains uncertain whether they actually lead to changes in patients' health-related behaviour. Although there is evidence that they could represent an effective regulating instrument for especially expensive medicines whose marginal utility is questionable,²⁶³ the findings and

ment. In employer-based managed care policies contracting large managed-care organisations, the implementation of three-tiered and generally rising levels of cost sharing (US\$0 per prescription for generics, US\$15 for preferred brand products and US\$30 for other than preferred brand drugs), the predicted monthly probability of using ADHD medication showed a 17 percent decrease compared to the control group and induced a substantial shift of ADHD treatment costs onto households (Huskamp et al. 2005: 438f).

²⁵⁶ Soumerai et al. 1994: 652ff.

²⁵⁷ Huskamp et al. 2000: 12f, 17f; Jemai et al 2002: 2; Barry et al. 2004: 191; Mossialos/Oliver 2005: 295; cf. also Böcken et al. 2000: 126.

²⁵⁸ Huskamp et al. 2003a: 150.

²⁵⁹ Frank 2001: 117f, 121, 126; Huskamp et al. 2003a: 150f; Greß et al. 2005: 10f.

²⁶⁰ Hong/Shepherd 1999: 528f; Huskamp et al. 2000: 20; Motheral/Fairman 2001: 1301f; Lexchin/Grootendorst 2002: 22f; Joyce et al. 2002: 1737f; Esposito 2002: 13; Rector et al. 2003: 401f; Busse/Schlette 2004: 59f; Briesacher et al. 2004: 1681f; Provost 2004: 14; Newhouse 2004a: 90; de Wolf et al. 2005: 369. Estimates for Germany also assume potential savings of approximately €1.5 billion through the systematic utilisation of generics (Ratiopharm 2005). However, the cutback of the market segment suitable for generics and the decline of the price differences compared to branded products suggest that the potential efficiency gains will stay below the expected level (Nink/Schröder 2004, S 156).

²⁶¹ Huskamp et al. 2000: 15ff.

²⁶² Cf. e.g. Thomas/Mann 1998, S, 1830; Schneeweiss et al. 1998: 258f; Schneeweiss et al. 2002a: 826ff; Schneeweiss et al. 2002b: 523ff.

²⁶³ Cf. Joyce et al. 2002: 1737f; Fairman et al. 2003: 3157f; de Wolf et al. 2005: 371; Lee/Hoo 2006: w545. For preventing economically induced discrimination against worse-off patients with regard to medical therapy and secondary prevention in times of "consumer-driven" health care in private health insurance markets like the US, experts are increasingly demanding that patient cost sharing – mainly for pharmaceutical therapies – should be defined according to their expected clinical as well as economic effectiveness (Goldman et al. 2006a: 27; Sipkoff 2004: 22; Lee/Hoo 2006: W545; Taira et al- 2006: 681f). Private health insurance companies in the US control beneficiaries' drug utilisation applying different forms of so called formulary lists or formularies (Frank 2001: 120f). These lists vary substantially from one scheme to the other. In principle, three different types can be distinguished (Motheral/Fairman 2001: 1293f; Huskamp et al. 2003a: 150f; Gabel et al. 2002: 151; cf. also Greß et al. 2005: 42): Open formularies list all medications defined as preferred drugs by the

conclusions from North America concerning the overall effect on the health status of the population are still quite inconsistent.²⁶⁴ Depending on the structure of the health system and the available data, it can be exceptionally difficult to isolate the effects of price controls for medicines, as we have seen in the case of drug price controls in Germany.²⁶⁵ Nor is switching between supposedly equivalent preparations always unprob-

particular health insurance providers, whereas this does not imply any obligation for providers to restrict prescriptions exclusively to these products. Closed formularies are positive lists in the strict sense of the meaning because they specifically define the prescription drugs covered. One or several specific medicines are assigned to each therapeutic area of application, and within these drug classes medicines are registered differently as generics and branded products. Incentive formularies, also referred to as three-tier formularies, include closed lists as well, but for certain indications they permit a choice between comparable medicines, namely a brand name product, a non-preferred brand and a generic. Beneficiaries have to pay different amounts or different percentages of the cost out of pocket. Co-payment is highest for those branded products that are sold under their brand name and me-too drugs are available for. Out-of-pocket charges are second highest for branded medicines without a less expensive generic, and lowest cost sharing is due for generics (Gabel et al. 2002b: 147; cf. Greß et al. 2005: 42). As completely closed formularies create competition-related problems especially for private health insurance companies, mix formularies with partly open and partly closed areas are increasingly prevailing. These areas refer to drug classes and have been defined mainly for high utilisation medicines with empirical evidence of therapeutic effectiveness, e.g. ACE inhibitors, β and α blockers, statin type lipid lowering agents (HMG CoA reductase-inhibitors), H₂-blockers, and proton pump inhibitors. For prescriptions of drugs included in these and other classes patients have to pay three-tiered amounts or shares out of pocket (Schneeweiss et al. 2002a: 824ff; Huskamp et al. 2003a: 151; Huskamp et al. 2003b: 2225, 2227f; cf. Greß et al. 2005: 42). In the last years mainly incentive pricing has been established requiring lower co-payments for generics or cheap branded products, but significantly higher out-of-pocket payments for expensive and patented brand drugs (Provost 2004: 16). Since formularies are linked to co-payments, these lists itemise the drugs belonging to a substance group in principal according to cost-effectiveness criteria. Patients requiring off-formulary medicines, that means other products of a therapeutic class unregistered in the insurer's drug list, (s)he has to pay the full price out of pocket (Huskamp et al. 2000: 13ff; Greß et al. 2005: 42f). As a consequence of these increasingly established health insurance conditions in the US, the average co-payment for brand-name drugs belonging to therapeutic classes that include a generic equivalent rose only between 2001 and 2002 from US\$16 to US\$26. At the same time, average cost sharing for me-too products increased just from US\$8 to US\$9. Altogether, during this period, out-of-pocket payment rose by 11 percent in smaller companies and by as much as 60 percent in larger enterprises (Gabel et al. 2002b: 146f). This is because in smaller companies three-tiered co-payments are relatively more expensive in terms of bureaucratic and, thus, financial costs; hence enterprises with fewer employees are easily overburdened by the necessary bureaucratic tasks (Trude/Grossman 2004: 3).

²⁶⁴ Gibson et al. 2005b: 738f.

²⁶⁵ Schneeweiss et al. 1998: 256ff.

lematic;²⁶⁶ this leads to increasing adherence problems among patients²⁶⁷ and at least in the transition phase to increased use of other medical services.²⁶⁸

There are fundamental differences between health policy interests – especially where they are strongly influenced by economic targets – and clinical considerations. Political decisions are usually based on the expected net impact of governance effects, which allows no detailed assessment of the impact on subgroups. Primarily clinical considerations are potentially subject to the problem of distortion through selection, losses through mortality and unexpected selection mechanisms.²⁶⁹ Regardless of such difficulties, the debate on the application of co-payments for hierarchically desired steering of the service provider utilisation is currently gaining in importance in Europe. Thus patients in Denmark, France and – since the Health Modernisation Act – in Germany too are required to pay higher or additional co-payments when they visit specialists' practices on their own initiative without a referral.²⁷⁰ This all occurs without any reliable proof that patients' demand for medicines is at all as insatiable as the economic theory assumes for (almost) free goods.²⁷¹

11 Effects on Care of High-risk Patients

In all the industrialised countries – and elsewhere – the number of chronic diseases and their importance is rising steadily, transforming healthcare requirements and the challenges faced by the health system. Unlike acute illnesses, chronic conditions require long-term, often life-long medication. Here long-term medication is crucial for the course of the illness, and adequate pharmacological therapy is in the long term decisive both for the individual's health status and for the individually incurred costs.²⁷² Inadequate treatment with essential medications such as beta-blockers and or lipid-lowering drugs after myocardial infarction or for other vascular problems leads to measurable undesired outcomes, and causes high avoidable costs, especially compared with relatively inexpensive drug therapy.²⁷³ Conspicuous in this connection is the finding of an Australian study on the burden of co-payments for rheumatism patients, which found that female patients had higher out-of-pocket payments than male patients, and that these increased above all with the length of illness.²⁷⁴

²⁶⁶ Thomas/Mann 1998: 1830.

²⁶⁷ Schneeweiss et al. 2002a: 824, 826.

²⁶⁸ Ibid. as well as Soumerai/Ross-Degnan 1991: 1975; Soumerai et al. 1991, 1994 and 1997; Tamblyn et al. 2001; OECD 2004b: 18; Goldman et al. 2004, 2006; Anis et al. 2005: 1337ff; Chandra et al. 2007.

²⁶⁹ Schneeweiss et al. 2001: 101ff.

²⁷⁰ Cf. Ettelt et al. 2006: 6.

²⁷¹ Kleinke 2004b: 39f.

²⁷² Gaynor et al. 2005a: 23f.

²⁷³ Soumerai et al. 1997: 118; Soumerai et al. 2006: 1831f; at least for β -blockers this effect seems to depend on the price because it is less pronounced for lower-cost medicines (Schneeweiss et al. 2007).

²⁷⁴ Lapsley et al. 2002: 820.

A meta-analysis of fifty-nine studies on the effects of drug co-payments on medicine-taking, health status and medical and hospital costs came to the conclusion that drug co-payments affected low-income patients most, while they had only minor effects on economically active younger and better-off citizens.²⁷⁵ The most vulnerable groups, precisely, restricted their consumption of essential and non-essential medicines.²⁷⁶ This seems to become especially relevant when patients reach possible coverage ceilings, which occurs especially in the case of capped drug coverage. Because of their incomplete health insurance coverage, older Americans insured through Medicare have to raise relatively high co-payments and especially to pay for outpatient medications out of their own pocket.²⁷⁷ When they have used up their annual prescription cap they switch to various cost-cutting strategies, through which they sometimes expose themselves to increased risk of illness and death.²⁷⁸ This effect is plainly dependent on the total annual burden of drug co-payments and is less strong in insurance contracts with relatively high coverage.²⁷⁹

Even patients whose dramatic experiences could lead one to assume greater insight into the necessity of therapy economise on their medications. A new multi-centred study from the United States found that 12 percent of heart attack patients completely ceased the standard drug therapy (ASS, beta-blocker plus statin-type lipid-lowering drug) in the very first month after discharge from acute hospital treatment, and another almost 18 percent stopped taking at least one of the drugs. Poorer, less educated and older patients were especially affected.²⁸⁰ One-year mortality among those who stopped all their drugs was five times higher than among those patients who were still taking their triple therapy after one month (survival rate 85.5 percent compared with 97.7 percent).²⁸¹

Health insurance data from the United States show that diabetics, like patients with coronary heart disease, tend to take their medication incompletely or not at all even though there has been a noticeable improvement in care and treatment options for patients with diabetes mellitus in industrialised countries over the past twenty-five years, and this has been reflected in the values for example for HbA_{1c}, blood pressure and lipid levels.²⁸² Incomplete or absent antidiabetic therapy leads not only to a worsening of these indicators, but also significantly increases the risk of hospital admission and

²⁷⁵ Lexchin/Grootendorst 2002.

²⁷⁶ Newhouse 1993: 162; Fairman et al. 2001: 10f, cf. also Chapter 10.

²⁷⁷ Neuman/Rice 2003: 1f. However, low-income pensioners in the USA have the option for supplemental coverage by the social Medicaid programme covering, in many cases, a range of benefits excluded from Medicare (Neuman/Rice 2003: 2).

²⁷⁸ Chubon et al. 1994, S, 413f; Cox et al. 2001: 299f. The most commonly reported strategies are obtaining samples from physicians (38.2 percent), taking less than the prescribed amounts (23.6 percent), stopping to take prescribed drugs (16.3 percent), going without other necessities (15 percent) and borrowing money to buy drugs (12 percent) (Cox et al. 2001: 298).

²⁷⁹ Huskamp et al. 2007: 11ff; q.v. Shea et al. 2007: 946.

²⁸⁰ Applegate 2002: 496; Benner et al. 2002: 457f; Lee et al. 2006: 2568; Gibson et al. 2006a: 512ff and 2006b: SP14ff; cf. also Ye et al. 2007: 2751; Alevizos et al. 2007: e2; as well as Pedan et al. 2007: 491f.

²⁸¹ Ho et al. 2006a: 1845f.

²⁸² Saaddine et al. 2006: 469ff.

mortality.²⁸³ Co-payments for blood glucose test strips and comparable means for type 2 diabetics to test their own blood sugar may reduce – as intended – the overuse of such diagnostic services, but they also reduce the application of indicated measures,²⁸⁴ whereby this effect is again stronger among lower-income patients than in higher-income groups.²⁸⁵

Another recent US study also finds comparable results for other forms of therapy and groups of medicines. Increasing the co-payment for statin-type lipid-lowering drugs²⁸⁶ from \$10 to \$20 depending on the patient's risk profile led to a reduction of 6 to 10 percentage points in full compliance. Taking lipid-lowering drugs as prescribed not only significantly reduces the hospitalisation rate of high-risk patients²⁸⁷ in comparison with those who stop therapy (357 fewer hospital admissions per 1,000), but also considerably in comparison with incomplete compliance (168 fewer hospital admissions per 1,000). On the other hand, among lower-risk patients the reduction in hospital admissions was only marginal (with higher compliance by 42 and with moderate adherence by 21 per 1,000). It would be obvious to apply differentiated cost sharing depending on the patient's risk profile, so that only those with a small health risk or a marginal indication for lipid-lowering drugs would have to pay anything out of their own pocket for medicines. Co-payment-free access to cholesterol-lowering medications for high-risk patients would reduce the annual number of emergency treatments by 31,411 and the number of hospital admissions by 79,837, resulting in overall savings in health spending of more than one billion dollars.²⁸⁸

In the field of psychiatry, which largely deals with long-term conditions, it has long been known that short-term savings through drug co-payments often have the opposite effect in the end.²⁸⁹ A study from Berlin published more than forty years ago, in 1965, shows that 85 percent of the patients of the Zentralinstitut für Psychogene Störungen who had received psychoanalysis or psychoanalytical psychotherapy experienced a clinical improvement, while the frequency of hospital admission also fell during the five-year observation period.²⁹⁰ A comprehensive meta-analysis of twenty-five studies on the effect of psychosomatic therapies on psychiatric patients and addicts found evi-

²⁸³ Ho et al. 2006b: 1838f.

²⁸⁴ Roblin et al. 2005: 955f.

²⁸⁵ Karter et al. 2000: 482. It should not remain unmentioned here that the (cost-) effectiveness of ambulatory self testing of patients with type 2 diabetes ("adult onset diabetes") has recently been up for debate. There is a lack of convincing evidence for self monitoring of blood glucosis with and without instruction to improve glycaemic control of non-insulin treated patients with type 2 diabetes (Farmer et al. 2007). For validating this finding, however, a series of limiting factors have to be kept in mind (Heller 2007), which allow one main conclusion to be drawn: the most cost-effective clinical needs of different patients and patient groups cannot be lumped together; differentiated offers are required that can hardly be taken into account adequately by any demand-side cost-containment strategy.

²⁸⁶ Regarding the importance of statins in relation to cost-sharing approaches and the debate on economic efficiency in health care systems, see Chapter 4.

²⁸⁷ Patients with diabetes mellitus, coronary and ischaemic heart disease (after myocardial infarction), arteriosclerosis or other vascular diseases.

²⁸⁸ Goldman et al. 2006a: 23ff; Goldman et al. 2006b.

²⁸⁹ Cf. also Schneeweiss et al. 2002: 525.

²⁹⁰ Dührssen/Jorswiek 1965: 167f.

dence of a reduction in the subsequent use of medical services by an average of 20 percent.²⁹¹ Interestingly, psychotherapeutic treatment seems to have a stronger effect on demand for hospital treatment than on outpatient services, with the effect incidentally being stronger among older patients.²⁹² In view of the considerably higher costs of hospital treatment this would suggest a relevant potential for savings through demand-driven access to psychiatric therapy services.²⁹³

In this connection it is interesting to consider an American study of the behaviour of older citizens suffering from schizophrenia, whose income is still above the limit for Medicaid and are therefore only insured under Medicare on grounds of age. This group was between 25 and 45 percent less likely to have used rehabilitation services, individual therapies with non-psychiatrist providers and case-management than the control group who were covered by both Medicare and Medicaid. Analysis of data from the Schizophrenia Care and Assessment Program (SCAP) showed no difference between the two groups in terms of access to second-generation antipsychotics or regular contact with a psychiatrist. This means that the higher out-of-pocket payments for those insured only with Medicare (or the lack of opportunity to obtain reimbursement of the required co-payments) represent a decisive cause for the differences in treatment.²⁹⁴

The direct effect on medication even of "minor co-payments" is also demonstrated by an Italian study published at the end of 2006, which examined the medicine-taking behaviour of patients with hypertension and the consequences for health in the context of two consecutive reforms. Health reforms introduced in quick succession at the beginning of this decade created a kind of "natural experiment" in Italy: after first temporarily abolishing drug co-payments of approximately €1.50 per prescription on 1 January 2001, the number of drugs per prescription was reduced from six to three on 30 September the same year; on 1 March 2002 the Italian government reintroduced drug co-payments at €1 per prescription. After the suspension of prescription charges an improvement in compliance among patients with hypertension was found within just three months. This effect was particularly strong among those individuals who had been taking reduced doses. Accordingly adherence worsened again during the same timeframe when the €1 prescription charge was reintroduced, although because the amount was smaller, the effect was smaller than fifteen months previously. Co-payments and compliance had measurable effects on hospitalisation rates and mortality. After the suspension of drug co-payments the number of hospital admissions of hypertensive patients with low compliance fell by 0.8 percentage points (from 7.9 to 7.0 percent) while the figure for those with good compliance remained unchanged. The effect on mortality was also weaker among low-compliers, falling by 0.2 percentage points (from 3,4 to 3,2 %). After reintroduction of the prescription charge both indicators rose again.²⁹⁵

Of course part of the responsibility lies with the practitioners, who fail to properly explain to their patients the newly prescribed medicines, how long they should be taken

²⁹¹ Jones/Vischi 1979.

²⁹² Mumford et al. 1998: 78f.

²⁹³ Schlesinger et al. 1983: 424ff; Mumford et al. 1998: 82.

²⁹⁴ Slade et al. 2005: 963ff.

²⁹⁵ Atella et al. 2006: 888ff.

and what the potential undesired effects might be.²⁹⁶ Again and again in health systems that should in principle guarantee universal coverage and a high degree of equity – whether social health insurance or tax-funded – we find evidence of inadequate prescription of evidence-based medication leading to general and socially inequitable underprovision.²⁹⁷ The healthcare system undeniably bears a certain positive responsibility for the country’s citizens and in particular for its patients.²⁹⁸ But financial burdens also always play an important role in the often bemoaned poor compliance of the chronically sick.²⁹⁹ This is clearly demonstrated by a recent study by the non-profit Integrated Benefit Institute (IBI) in San Francisco, which investigated the medicine-taking behaviour of employees with rheumatoid arthritis under different health insurance conditions. A clear substance-dependent relationship between co-payment and compliance was found: both purely pain-relieving and anti-rheumatic medicines demonstrated a clear price elasticity dependent on the level of co-payment, which was in fact stronger for symptom-relieving medicines. Increasing the co-payment by \$20 led the acquisition of anti-rheumatic medicines to fall by 35 percent and pain-relieving medicines by 84 percent.³⁰⁰

In mid-2007 the *Journal of the American Medical Association* (JAMA) published a meta-analysis of studies on the effects of drug co-payments. The analysis covered 132 English-language PubMed articles examining the connection between cost-containing measures through drug prescription limits and/or co-payments and the outcome factors of medicine consumption, use of non-drug medical services, health spending and consequences for health. It was consistently found that making patients share drug costs leads to a reduction in medication rates, poorer adherence and more frequent cessation of therapy. Per 10 percent increase in cost-sharing drug spending fell by 2 to 6 percent (depending on the type of medicine and the patient’s circumstances), with the decrease being the same where reimbursement or number of prescriptions was capped as with direct patient cost-sharing. With certain chronic conditions such as heart failure, lipid

²⁹⁶ Tarn et al. 2006a: 1857ff; Wilson et al. 2007: 8f. Challenges of the physician-patient-relationship attributable to the high financial burden on patients has attracted too little interest so far (Gurwitz et al. 2003: 1114; Trude 2003; Alexander et al. 2003: 958; Lee et al. 2006: 2569; Schoen et al. 2007: 9f). Inexperience, time scarcity and concerns about displeasing their “clients” make it difficult for medical providers to address the issue of drug co-payments and to inform patients sufficiently and adequately about newly prescribed medicines, the period of utilisation and potential undesired effects (Gurwitz et al. 2003: 1112f; Tarn et al. 2006a: 1857ff). In addition, provider payment for patient information and education is normally insufficient (Goodman 2006: w541). Moreover, physicians are often unfamiliar with their patients’ co-payment conditions and underestimate the financial burden, a perception that may well be combined with the impression that patients should not actually have to pay anything out of pocket (Kasje et al. 2002: 1573ff). Divergent experiences are available from the United Kingdom where general practitioners (GPs) apparently seem to address their patients’ co-payment problems quite frequently and support them in identifying alternative therapy options in order to reduce the financial burden of health care (Schafheutle et al. 2002: 191f).

²⁹⁷ ACCAHC 2003: 38, 85; Whincup et al. 2002: 27f; Ward et al. 2007: 5ff.

²⁹⁸ Holst 2007

²⁹⁹ Mojtabai/Olfson 2003: 224; Soumerai et al. 2006: 1831ff; Taira et al. 2006: 681.

³⁰⁰ Jinnett et al. 2007: 5f

metabolic disorders, diabetes mellitus, schizophrenia and probably also for bronchial asthma an increase in drug co-payments leads to increased use of other medical services such as consulting practitioners and hospital admission. From the health service research perspective, the authors conclude, cost coverage for medicines is a decisive factor for improving treatment quality and adherence. Drug co-payments may lead to reduced compliance, but the medium- and long-term consequences for the health of those affected are to date unclear.³⁰¹

12 Effects on Prevention and Health Promotion

Especially in the context of current health policy debates and initiatives to strengthen prevention and health promotion, the effects of cost-sharing on the consumption of preventive and promotive services gain obviously in importance. As is the case with other medical and pharmaceutical services, co-payments act generally as a deterrent to use of preventive services, too.³⁰² This is confirmed by the observation that the use of check-ups and screening rises after they are exempted from co-payments³⁰³ and that including such preventive services in the health insurance coverage package increases their use.³⁰⁴

Experts and decision-makers often underestimate the negative impact on health status when prevention is discouraged by co-payments. In the RAND study the period of observation was restricted to five years and participants over 65 were excluded.³⁰⁵ But the effects of underprovision – especially of preventive measures – only reveal themselves after a latency period of many years and will thus probably have largely escaped the attention of the RAND researchers.³⁰⁶ Even with pathological values, certain measured health parameters such as blood pressure have no subjectively discernible health repercussions for a long period of time, and the consequences only become apparent after many years.³⁰⁷

Of course the immediate impact of cost-sharing on take-up of preventive measures is more easily and quickly measured than complex long-term effects. Alongside the direct effects of co-payments for preventive services, the prevention-related consequences of co-payments for other health services and possible overlap effects must be considered. Use of preventive services is reduced not only by the direct costs involved, but also by all forms of co-payment for contact with physicians in situations where preventive services are implicitly performed.³⁰⁸ Matters become yet more complicated

³⁰¹ Goldman et al. 2007: 64ff

³⁰² Fischer et al. 1984: 1402f; Lurie et al. 1987: 803f; Manning et al. 1987: 267; Solanki/Schauffler 1999: 131f; Hudman/O'Malley 2003: 1; Trude/Grossman 2003: 7; Crawford et al. 2004: 10.

³⁰³ Brook et al. 1983: 1429ff; Bluestein 1995: 1139f; Rasell 1995: 1165.

³⁰⁴ Weinick et al. 1997: 187ff.

³⁰⁵ Rosian et al. 2002: III.

³⁰⁶ Richardson 1991: 24.

³⁰⁷ Bodenheimer 2005a: 851.

³⁰⁸ Solanki et al. 2000: 44.

where preventive measures are basically free of co-payments, but practitioners demand patient payments for other services. Experience from Germany since the introduction of the practice fee reveals a considerable potential for misuse on the part of service providers, aided by general ignorance on the part of patients and further confused by the grey zone of “individual health services” for which patients are officially required to pay the full cost themselves.³⁰⁹ Apparently just not knowing about whether there will be cost-sharing, and uncertainty about the financial burden, plainly keeps at least marginal groups from using screening programmes such as mammograms or Pap smears.³¹⁰

In this context the findings of a study thirty years ago in California are worth revisiting. It was found that the introduction of a practice fee of one dollar per contact – generally regarded as “marginal” – noticeably reduced family physician visits by poorer patients receiving benefits under California’s MediCal welfare programme. Some of the affected patients had to be admitted to hospital a few months later with conditions that would have been avoidable if they had consulted a practitioner in time.³¹¹ In direct connection with prevention and screening services, a study of the utilisation of four preventive measure (mammograms, Pap smears, blood pressure screening and preventive consultations) among more than ten thousand employees in the western United States showed that cost-sharing had significant negative indirect effects on the number of preventive consultations, Pap smears and mammograms, while the effect on blood pressure screening was inconsistent.³¹²

Efforts to deal with the growing global problem of obesity have already brought forth proposals to encourage people to reduce their weight through direct cost-sharing.³¹³ The idea of “self-inflicted” illnesses may be ideally suited for populist speechmaking and political rabble-rousing; and associated sanctioning mechanisms nearly made it into Germany’s Statutory Health Insurance Competition Strengthening Act of 2006. But as long as social and environmental factors have considerably greater measurable impact on health (see note 86), a strategy of punishing individuals is absolutely lacking any serious basis.

One important field of prevention is dental care, where the loss of tooth substance as a consequence of caries and inflammation of the gums is the central concern. Caries is a condition that affects almost everyone – about 99 percent of the population – and one whose non-treatment inevitably causes long-lasting and even progressing harm. Therapy cannot be carried out by a layperson, and the earliest possible professional treatment is the most effective means of avoiding considerable consequences and costs.³¹⁴ The introduction of the practice fee for dentists reduced visits in the first two

³⁰⁹ See e.g. Zok 2005b; see also Tuff 2007.

³¹⁰ Somkin et al. 2004: 919ff.

³¹¹ Roemer et al. 1975: 463f.

³¹² Solanki et al. 2000: 48. A distinction according to the type of employer-based health insurance pointed out that the 5 to 9 percent and the 3 to 9 percent decrease of preventive consultations and Pap smears, respectively, occurred in Health Maintenance Organizations (HMO) and in Preferred Provider Organizations (PPO), while the 3 to 9 percent reduction in the utilisation of mammograms was only observed in PPOs (Solanki/Schauffer 1999: 129ff; Solanki et al. 2000: 1339, 1342).

³¹³ Bhattacharya/Sood 2005: 22.

³¹⁴ Klingenberger 2005: 203.

quarters of 2004 by 13.1 and 8.2 percent. Thus, this co-payment arrangement must be regarded as potentially dangerous, because it makes early detection and treatment more difficult especially among the most vulnerable social groups.³¹⁵

A reduction in use of services due to patient co-payments was also found in medium- and even long-term therapies in the field of tertiary prevention, whose cost-benefit ratio for the target group of chronically ill high-intensity users becomes relatively quickly positive in view of the costs that would otherwise be expected.³¹⁶ A study produced at the RAND Graduate College investigated the connection between the level of co-payments and outpatient addiction therapies following treatment for alcohol poisoning among privately insured Americans. The number, length and intensity of follow-on therapy services used by alcoholics was inversely proportional to the level of co-payments.³¹⁷ Incidentally, all the investigated insurance contracts required relatively small co-payments of up to \$30.³¹⁸ So this study confirms that even relatively insignificant out-of-pocket payments can impact negatively on the take-up of clinically and epidemiologically worthwhile services.

13 Effects on Emergency Care

Even in the case of (objectively or subjectively) dramatic health problems, cost-sharing influences use and brings with it demonstrably unclear or even undesirable consequences for both the affected and overall spending. Research from the 1980s demonstrates reduced utilisation of medical outpatient facilities including emergency departments following the introduction of cost-sharing.³¹⁹ But of course the symptoms of conditions such as cardiac infarction are so grave that they usually lead to rapid presentation at a casualty department. A retrospective study from the state of Washington showed neither a relevant delay in treatment of privately insured patients with symptoms of acute myocardial infarction nor any correlation between the level of generally low co-payments and delay before treatment was started.³²⁰ Similarly, a retrospective analysis of hospital admissions found no significant difference between patients with cost-sharing and those with insurance plans covering full costs in the frequency of admissions classified as unnecessary.³²¹

Especially in the United States “frivolous” admissions to casualty departments are regarded as a great waste of resources and there have been repeated attempts to limit their use by introducing charges.³²² A retrospective study of client insurance data at the largest HMO insurance company, Kaiser Permanente, showed that after co-payments for

³¹⁵ Ibid.: 201f.

³¹⁶ These issues have been discussed at length in Chapter 11, above.

³¹⁷ Stein 2003: 44.

³¹⁸ Simply lowering the highest cost-sharing payments would cut the dropout rate by almost 50 percent (Stein 2003: 44).

³¹⁹ Newhouse et al. 1982; Cherkin et al. 1989; Simon et al. 1994; O’Grady et al. 1985.

³²⁰ Magid et al. 1997: 1726f.

³²¹ Siu et al. 1986: 1263ff.

³²² O’Grady et al. 1987: 488f; Markus et al. 1998: 11.

emergency treatment were raised from \$5–10 to \$25–35 the use of casualty departments fell by about 15 percent. A direct increase in undesired consequences of avoided emergency treatment could not be proven, but the overall numbers of deaths were too small to say anything about a possible effect on mortality rates.³²³ A comparable result was found by an analysis of casualty admissions and clinical complications of more than 2,250,000 people with private health insurance and more than 260,000 with Medicare. Over the course of three years (1999–2001) emergency department visits fell as the level of co-payment increased. With out-of-pocket payments between \$20 and \$35, 12 percent fewer people attended an emergency department, while with co-payments of \$50–100 the figure was 23 percent fewer compared to cost-free access. The number of hospital admissions, intensive care treatments and deaths did not rise; instead the number of hospital admissions fell by 4 percent with lower co-payments and by 10 percent with higher out-of-pocket payments.³²⁴

Patients are often inadequately informed or even completely uninformed about the level of co-payments for emergency treatment. A survey of nearly seven hundred adult patients of a managed care system in the United States found that only one in three were aware of the level of co-payment for emergency care, whereas three quarters knew precisely the amounts involved for prescriptions or visiting a physician. More than half underestimated the out-of-pocket payment for emergency treatment by \$20 or more. Still, one in nine reported having delayed or avoided attending a casualty department because of the co-payments, and this behaviour correlated with the level of actual cost involved.³²⁵

An earlier survey of a comparatively small group of people insured with a large HMO in the United States already showed that the great majority (82 percent) had to pay for emergency treatment out of their own pocket, but only one in two knew the level of cost-sharing. Almost one respondent in five reported having modified their behaviour during the preceding twelve months for that reason: 12 percent visited a different facility, 12 percent contacted a different provider by phone, 9 percent delayed going to casualty and 2 percent did not go at all. There was a clear correlation between the level of co-payment and changed take-up behaviour.³²⁶

Another study shows that people with both low and high co-payments make less use of emergency care for less serious symptoms than those whose insurance covers the full cost. But high co-payments additionally reduced the likelihood of visiting a casualty department with serious symptoms. For the chronically ill, co-payments – regardless of their scope – reduce the use of emergency facilities for both less and more serious symptoms. A study of 3,589 chronically ill persons in the United States showed that the use of medical services fell with both low and high co-payments, independently of the severity of the illness or health problem. Closer analysis also showed that those with high or low co-payments were less likely to have sought medical care for minor symptoms than patients whose costs were covered in full. For serious symptoms reduced take-up was observed only among those with high out-of-pocket payments, while behaviour was unchanged with low co-payments and with none. So perceptible co-

³²³ Selby et al. 1996: 635, 639f.

³²⁴ Hsu et al. 2006b: 1813ff.

³²⁵ Hsu et al. 2004: 293f.

³²⁶ Reed et al. 2005: 813f.

payments in particular reduce take-up regardless of the severity of the symptoms. During the four-year observation period no effects were discernible on the health status of chronically ill patients.³²⁷

As expected, similar effects can be achieved through high-deductible formularies. A quasi-experimental comparative study from the United States showed that changing from employer-funded insurance policies to policies with deductibles between \$500 and \$2,000 for individuals and \$1,000 to \$4,000 for families reduced the use of emergency care by about one tenth. Insurance data showed that people tended to avoid attending a casualty department with less serious problems and especially for repeated treatments.³²⁸ During the brief observation period (on average not even one year) no adverse effects were observed such as increased hospital admissions or other complications.³²⁹ However the study allows no conclusions to be drawn about the respective level of cost-sharing and did not record delayed or non-attendance at emergency departments under different health conditions.³³⁰

The data presented so far show clearly that co-payments also act as a deterrent to attending casualty department and using emergency facilities. Especially where co-payments are high, but not only in this case, the effect is maintained with serious symptoms. However, the consequences for the health of those affected have not been adequately researched. Depending on the circumstances and expectations completely different factors may be playing a role on the demand side. For example a survey at the Charité hospital in Berlin showed that although three quarters of patients visited the casualty department due to subjectively perceived medical needs, two thirds came without being referred by a practitioner because they were simply unaware of the alternatives.³³¹

14 The Practice Fee in Germany

The German Health Modernisation Act of 2003 introduced a co-payment of 10 percent of the costs on all medical services up to a maximum of €10; the minimum charge is €5, below that the patient pays the actual cost. A good two years after the Act came into force in Germany at the beginning of 2004 the first research findings arrived on the increase in existing co-payment modalities and especially the introduction of new ones. Mirroring the priorities of public and media attention, the research focused on the practice charge. Since 1 January 2004 every adult beneficiary of the statutory health insurance has had to pay a charge of €10 to visit the physician or dentist. The fee is due once per quarter, but is also charged for every additional consultation made without a referral from the practitioner visited first. Preventive measures such as immunisations, check-ups and screening are exempted.³³²

³²⁷ Wong et al. 2001: 1891f.

³²⁸ Wharam et al. 2007: 1097ff.

³²⁹ Ibid.: 1100f.

³³⁰ Grudzen/Brook 2007: 1126f.

³³¹ Steffen et al. 2007: A1090/B971/C923.

³³² Redaktionsbüro Gesundheit 2005: 2.

The most striking thing about the published research on the funding and steering effects of the practice charge is the conspicuous contradiction between studies. One study by the Wissenschaftliches Institut der AOK (WIdO) shows a clear social impact across the board at the end of the first quarter of 2004,³³³ while a joint analysis by the Deutsches Institut für Wirtschaftsforschung (DIW) and the Technical University (TU) in Berlin for the same period was unable to find income-dependent differences in ambulatory doctor visits.³³⁴

The discrepancies can be partly explained by the different data sets on which the studies are based, as well as by incongruous approaches. But closer analysis also shows that premature analysis of very short-term effects may have influenced some of the findings. None of the research published up to the beginning of 2007 on the practice fee supplied sufficient valid and reliable data to be able to call into question the relevance for the German context of the many international research findings.

All research on the practice charge in Germany published to date is based on the beneficiaries' subjective assessment of their own health. The data sets from insurance funds and service providers (e.g. the Regional Associations of Statutory Health Insurance Physicians) are not congruent and data protection laws make it very difficult to match service-use data to individual patients. Furthermore, all the assessments are based either on random samples or panel surveys, where marginalised social groups are fundamentally excluded. So the effects of the practice charge and other co-payment increases on homeless people, drug addicts and other groups with extremely high health risks are thus excluded from the research, which would mean a systematic underestimate of the social impact.³³⁵ Another fundamental restriction of the validity of the German studies stems from the short observation period and the difficulties in es-

³³³ While 8.2 percent of the interviewees with a net household income of €3,000 or more declared that they had postponed doctor visits because of the €10 user charge per calendar quarter, this share was 19.2 percent among those with an income below €1,000. Compared to average social health insurance beneficiaries, the unemployed admitted twice as often (20.9 percent) at the end of the same quarter of the previous year to having skipped a doctor visit or postponed it to the following calendar quarter because of the co-payment (Zok 2005: 5).

³³⁴ Zok 2005a: 5; Grabka et al. 2005: 5f.

³³⁵ According to unsystematically gathered observations by the personnel of the drug prevention project *Fixpunkt* e.V. in Berlin / Germany, the initially pronounced undesired effects of user fees for physician visits seem to have attenuated in the meantime, at least for low-income intravenous substance abusers enrolled in physician-based drug substitution programs. Regular visits to the substituting physician and spending in pharmacies quickly bring social welfare recipients (Hartz IV), in particular, to the exemption threshold fixed for the chronically ill at one percent of yearly income; due to the statutory health insurance funds' practice of carrying forward lower exemption limits into the following year and approving these limits in advance, co-payments are no longer perceived as an unsurmountable barrier. This as well as other similar and familiarisation effects might have contributed to the finding that some surveys no longer show that low-income groups are reducing their number of doctor visits (cf. Zok 2005: 5). Thus, increased cost sharing could unexpectedly provide the clinically controversial methadone programme with additional positive effects (interviews with social workers employed by *Fixpunkt* in April 2006).

timating the medium-term and systemic effects of new or increased co-payments.³³⁶ The effects of co-payment conditions on service utilisation certainly represent an interesting approach, but neither the number of physician contacts nor the monetary value of avoided practice visits allow us to say anything about the meaningfulness of the steering achieved and still less about any savings that may have been made.³³⁷

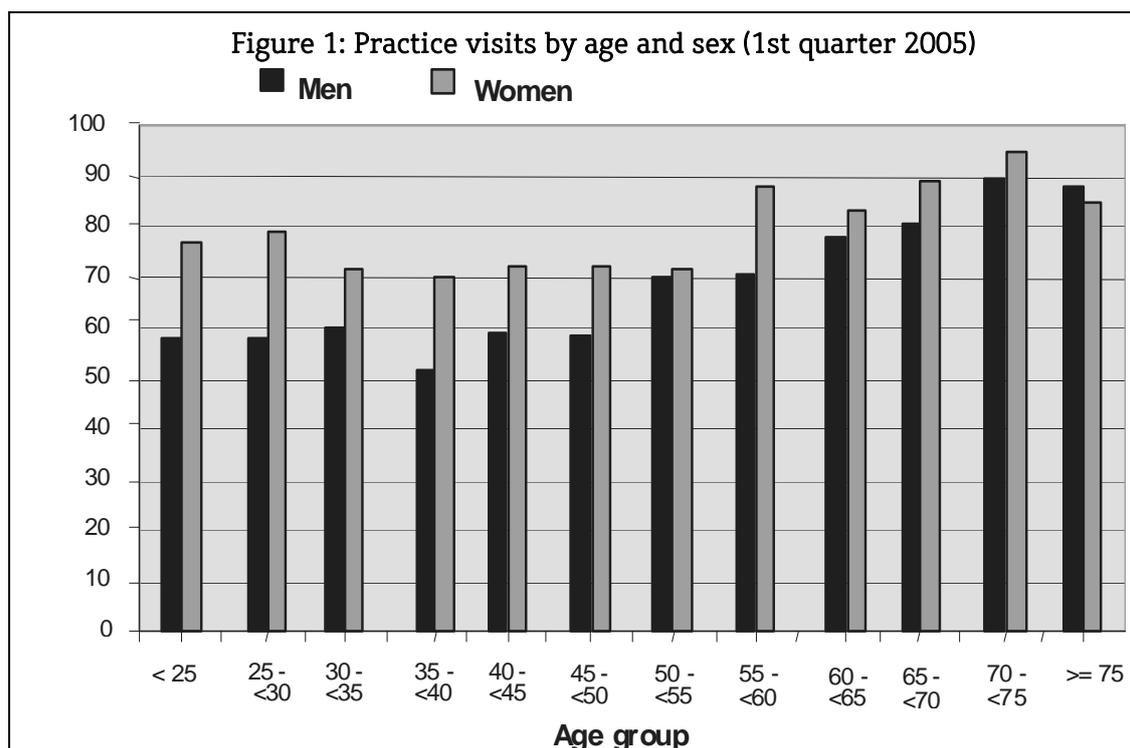
A study by WIdO examines possible changes in behaviour caused by the practice charge using a representative sample of three thousand people covered by statutory health insurance. The surveys were conducted shortly after the end of the first quarter in 2004 and 2005, in other words directly after the Health Modernisation Act came into force and one year later, and related to the three months preceding the interview. The second survey was conducted primarily to identify and exclude possible distortions occurring in close association with the actual introduction of the practice fee (anticipatory behaviour, changeover difficulties, teething problems).³³⁸ The observation that three quarters of respondents reported having had medical treatment between January and March is conspicuous: the proportion is strikingly high in comparison with the population as a whole.³³⁹ Analyses of office visits by gender and age show a higher proportion of women, and although service use increases steadily with age, the burden of cost-sharing through the practice charge is expected to increase significantly less steeply than the burden of drug co-payments.

³³⁶ Quite a few examples of the discrepancy between short-, middle- and long-term effects are presented in the preceding Chapters 9 to 13; also cf. principally Hankin et al. 1980; Schneeweiss et al. 2002: 525; Schokkaert/van de Voorde 2005: S32; Gaynor et al. 2006; Shang 2005.

³³⁷ Further details discussed in Chapter 8. 10-13 and 15.5-15.7.

³³⁸ Zok 2005a: 2.

³³⁹ The direct data evaluation exhibited an utilisation increase in early 2005 as compared to the first calendar quarter of 2004: Whilst immediately after the implementation of user charges for outpatient care 29.9 percent of the informants stated that they had not made any doctor visits, one year later the share had decreased to 25.8 percent (Zok 2005: 2).



Source: *Wissenschaftliches Institut der AOK*.³⁴⁰

Of the one quarter of respondents who had not been to the practitioner in the preceding quarter, only a minority said that the practice fee was the reason (6.5 percent in 2004 and 6.6 percent in 2005). Beyond that nearly one fund member in ten who self-reported to be mildly ill and one in fourteen who reported to be seriously ill said that they had delayed consulting a physician or not gone at all because of the practice fee. The overall proportion of fund members who did not go to the practitioner or delayed their visit to the next quarter because of the practice fee was 9.4 percent in May 2005, rather less than the previous year (11.7 percent). Although the proportion who postponed consulting a physician because of the practice fee fell in all age groups, the magnitude of the effect decreased with the age of the fund member. Whereas among the under-30s 14.7 percent consulted a physician later or not at all, the proportion of over-65s was just 5.4 percent. The practice fee is also more likely to lead women to avoid or delay consulting a practitioner (10.4 percent compared with 8.2 percent for men).³⁴¹

In the study, 50.2 percent of respondents said that they tried to complete consultations or treatments within a quarter if possible to save additional practice fees. But this observation does not automatically mean that it can be said that the practice fee has a “sensible” management effect, as long as it is impossible to judge whether possible premature use of services causes unnecessary spending, whether fitting the end of a course of treatment into a quarter is reasonable and, conversely, whether possibly delaying visiting a physician until a new quarter does not cause avoidable complications and deterioration with ensuing extra costs.

³⁴⁰ Zok 2005a: 3

³⁴¹ Zok 2005a: 5f.

One conspicuous finding of the WIdO study is that the observed social impact of the practice fee and other co-payments in the early phase following the implementation of the Health Modernisation Act was no longer observable just one year later.³⁴² After the first quarter of 2004 almost one fund member in five with a monthly income under €1,000 (19.2 percent of that group) reported having postponed a consultation because of the practice fee, whereas this was the case with less than one in twelve fund members whose income was over €3,000. The socio-economic differences had evened out, whereby in particular the clear fall in the co-payment burden on the lowest-income groups and the unemployed could reflect an effective hardship arrangement.

However, another study whose latest data cover the same period contradicts this finding. According to the Bertelsmann Foundation's Gesundheitsmonitor the total number of consultations fell and the number of referrals shot up. Here it was found that members of the lowest income group were disproportionately likely to avoid a consultation completely (37 percent compared with the average of 28 percent of all better-off respondents, whereas in the higher social strata this effect was less strong, and this group tended more to delay consultations.³⁴³ The greatest fall in consultations was interestingly found among the under-35s, while older citizens were apparently less responsive to the introduction of the practice charge.³⁴⁴

Table 3:

Proportion of respondents who postponed, avoided or arranged additional consultations in response to the practice fee, by social class

Social class	Postponed	Avoided completely	Additional	No information
Upper	27.76	14.20	24.82	33.22
Upper middle	26.79	17.11	23.70	32.40
Middle	25.63	18.79	28.17	27.41
Lower middle	28.92	20.28	23.63	27.16
Lower	29.44	22.25	26.28	22.03

Source: Reiners and Schnee 2007 (N=6716, p=0.000)

At the same time, the number of insurance fund members who sought no treatment at all from fund practitioners fell following introduction of the Health Modernisation Act compared with the respective period before the reform (spring 2003, well before the introduction of the practice fee, and spring 2005, twelve months afterwards),³⁴⁵ but re-

³⁴² Ibid.

³⁴³ Reiners/Schnee 2007.

³⁴⁴ Hesse/Schlette 2005: 5; this finding is consistent with former and recent observations monitored in the USA, showing that individuals in poorer health are less sensitive to price in the decision to seek health care (Wedig 1988: 161; Newhouse 1993; Remler/Atherly 2003: 277f).

³⁴⁵ Like other analysis of the Health Monitor (*Gesundheitsmonitor*), data on physician contacts reveal seasonal trends attributable to the date of the survey, because in spring beneficiaries tend to have better recollection of health problems during the winter semester while surveys performed in autumn are more likely to recall events during summer time when ill-

mained relatively constant between 2 and 3 percent.³⁴⁶ The overall trend for the consultation ratio remained relatively constant, but rose slightly by 0.2 percent between spring 2003 and spring 2005. In relative terms, the effects of the practice fee tended to be stronger in the number of consultations with particular types of specialist and less with general practitioners. The more meaningful figure for total office visits on the other hand fell more clearly, by about 8 percent, between spring 2003 and spring 2005. According to another study, the biggest drop was seen by internists (-7 percent), followed by family practitioners (-5 percent) and gynaecologists (-3 percent). However a downward trend was already observable here, because consultations fell by only 5 percent between autumn 2003 and autumn 2004.³⁴⁷

Analysis of office visits reveals a worrying trend. Especially people with a poor health status reduced their contacts between spring 2003 and spring 2005 from about twenty-three to sixteen visits per quarter, while the corresponding figure for people with outstanding health fell from about five to three. However, in the latter group a slight rise was observed between autumn 2004 and spring 2005, and only in the group with poor health was the fall more sustained.³⁴⁸ Unlike the DIW-TU study briefly described below, the Gesundheitsmonitor found that all fund members had reduced their practice visits and that this effect was especially pronounced among persons with poor health. That would not only suggest that important consultations could be affected and relevant ensuing costs involved.³⁴⁹ This finding also shows that the government has not fully succeeded in its aim of preventing undesirable effects of co-payments through suitable hardship arrangements.³⁵⁰ It is namely also conspicuous that unemployed people and single parents were especially likely to completely avoid or postpone a consultation (21 and 18 percent of respondents respectively).³⁵¹

ness and physician contacts are more infrequent. Data comparison of autumn 2003 or autumn 2004 and spring 2004 or spring 2005, respectively, have likewise delivered interesting results, but the "purest" effect of the co-payment for ambulatory doctor visits can be expected from comparing the data for spring 2003 and spring 2005 (Gebhardt 2005: 14).

³⁴⁶ Reiners/Schnee 2007.

³⁴⁷ Gebhardt 2005: 15f.

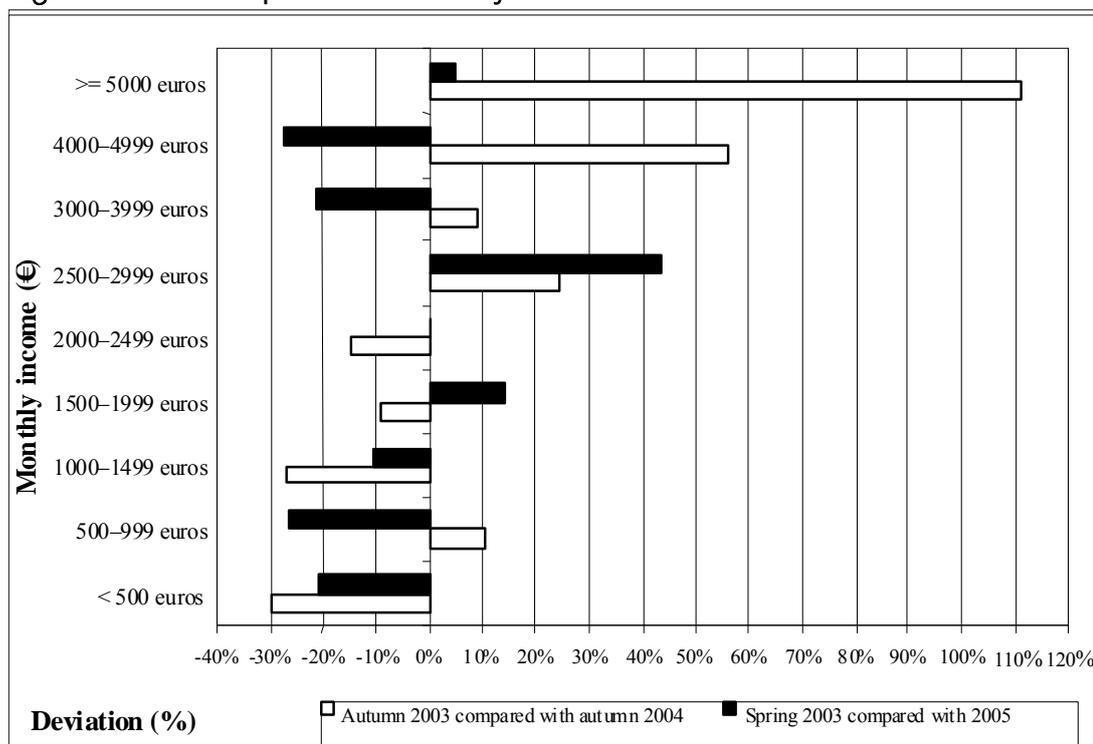
³⁴⁸ Gebhardt 2005: 20.

³⁴⁹ Ibid.: 23f.

³⁵⁰ Ibid.: 24.

³⁵¹ Ibid.: 27.

Figure 2: Use of outpatient services by income



Source: Gebhardt 2005: 24

Against the background of the moral hazard theory, it is astonishing in the Gesundheitsmonitor survey that above all people with a high number of consultations reduced their number of visits. In fact, among people with up to four consultations per year the number of contacts actually rose by up to 10 percent following the introduction of the practice charge. At the same time it was observed that the number of contacts fell above all among persons who visited a physician at least ten times per year. While the average frequency of practice contacts in this group in spring 2003 was 28.9 visits per person and quarter, the figure fell to 25.4 in spring 2004 and still further to 23.8 in spring 2005 and 23.2 in spring 2006.³⁵² Actually the practice fee cannot have any effect on moral hazard behaviour among the “high frequency users” so an increase in consultations would have been expected. Because they are very likely to visit a practice at least once every quarter and will thus have to pay the practice fee anyway – at least up to the exemption limit – avoiding additional consultations within the quarter will not save them any costs. For people with a high number of consultations generally evenly distributed throughout the year due to chronic conditions, the practice charge offers no economic incentive to visit the practitioner less often. As utility-maximising *homines oeconomici* these people should be expected to maximise consultations in order to take full advantage of the fee once paid.³⁵³ Here various other factors will surely be decisive, such as

³⁵² Reiners/Schnee 2007.

³⁵³ Gebhardt 2005: 17.

increases in other co-payments at the same time as the introduction of the practice charge, the ongoing debate about supposed overuse of the health service, general uncertainty about the effects of the reform, and above all interference by effects of the almost simultaneous changes in payment arrangements for practice-based physicians and the introduction of practice budgets.³⁵⁴

In any case the measured behaviour relativises the economic theory of rational demand in the health sector and demonstrates that other factors play an important role and may relegate behaviour derived from economic theory to the background.³⁵⁵ Furthermore it is questionable whether the described changes were really caused by the introduction of the practice fee. There is reason to believe that the changes in frequency of consultations are more likely a consequence of modified behaviour by practice-based practitioners adapting to the almost simultaneous changes in payment and budgeting arrangements.³⁵⁶ This is probably also reflected in another effect observed following the changes brought about by the Health Modernisation Act. The number of consultations of practice-based specialists without a referral by a family physician or another specialist fell clearly after 2004. Previously only 55–59 percent of patients had obtained a referral from a general practitioner before visiting a specialist, but after the introduction of the practice fee that figure jumped to between 81 and 85 percent by 2006. Habituation effects or falling referral rates have not been observed to date, so the practice charge does seem to strengthen the gatekeeper function of family physician.³⁵⁷

A joint study by the DIW and the Technical University of Berlin (TU) analysing the socio-economic panel (SOEP) found a significant fall in the average number of consultations by 0.24 (or 8.8 percent) between 2003 and 2004, whereby people with good or very good health visited the practitioner considerably less often than those with poorer health. The authors concluded that the practice fee primarily reduced unnecessary and multiple consultations, but led neither to a fall in medically necessary treatment nor to any disadvantage for members of lower social classes.³⁵⁸ However, this finding stands in clear contradiction to the results of international research outlined earlier in this study.

Indeed, closer examination of the design reveals fundamental conceptual weaknesses in the DIW-TU study, in view of which the far-reaching conclusions would appear overstated. The early date of the survey suggests a low discriminative power of findings and above all precludes making general statements about the steering effects of co-payments, which as a rule can only be assessed after a sufficient interval has passed.³⁵⁹ Also the implied connection between general health status in year *x* and necessity of practice-based medical services in year *x*+1 is questionable from a clinical perspective. The assessment of the “necessity” of consultations derived from that statement seems too arbitrary to justify any conclusions about the effectiveness of the steering function

³⁵⁴ Cf. Reiners/Schnee 2007.

³⁵⁵ Stuart/Stockton 1973: 353, footnote 2; cf. also Kern/Kupsch 2002: 15 and M. Ginsburg 2006: w537f.

³⁵⁶ Cf. Zuckerman et al. 2004: 379ff; Rice/Labelle 1989: 597; Creese/Kutzin 1995: 10; Schroeder/Cantor 1991: 1099; Richardson 1991: 16; Reiners/Schnee 2007.

³⁵⁷ Reiners/Schnee 2007.

³⁵⁸ Grabka et al. 2005: 5ff.

³⁵⁹ See footnote 336.

of co-payments,³⁶⁰ especially given that avoided treatment by no means automatically generates cost-saving effects, and can lead instead to considerably higher ensuing costs.³⁶¹ And even if members of the lower class do not reduce their use of medical services more strongly than the average of the population, that certainly does not exclude social disadvantage as claimed by the study.³⁶² Increased use of services can be an expression of social disadvantage and a “normal” decrease can affect poorer citizens more strongly in relation to real need.

A study published in 2005 investigated for the first time the effects of deductibles in statutory health insurance in Germany, as offered to voluntarily insured members of the Techniker Krankenkasse (TK) since the beginning of 2003.³⁶³ The experience of 10,155 fund members in three regions shows that the number of visits to practice-based practitioners by voluntarily insured fund members fell by 36.4 percent after the first twelve months, while visits by co-insured family members fell by 6.4 percent. This represented a cost reduction for insurance fund expenditure for outpatient services of €38–94 and an overall reduction in use of health services amounting to €137.³⁶⁴ However, this study covers only people who are voluntarily insured in the statutory health insurance system – in other words the better off – and of these only a tiny not necessarily representative sample (0.015 percent of all statutory health insurance fund members). As voluntary members they are partly outside the solidarity-based funding system because their income is only counted up to the cut-off level (currently €3,562.50 monthly).³⁶⁵ This is very important in relation to the postulated gains for fund members as a whole, which despite the asymmetric burden imposed by deductibles are supposed to lead to more “solidarity”.³⁶⁶

Fundamentally the study assumes overuse of health services and ignores important empirical findings of health science research. Correspondingly the authors determine the cost-cutting and steering potential of “deductibles” without distinguishing between desirable and undesirable effects. But not going to the practitioner can result in considerable costs that can more than cancel out the calculated savings.³⁶¹ The short-term nature of the identified management effect is especially worrying, given that international research identifies clear differences between the first year following the intro-

³⁶⁰ Alongside other studies, the RAND experiment had revealed that co-payments have a much stronger negative effect, especially on initial physician visits, by those in good to excellent health than people in bad health or with chronic conditions; only for follow-up doctor visits, healthy and ill individuals present a similar reduction of utilisation (Wedig 1988: 158ff; Newhouse 1993: 160ff).

³⁶¹ Chapters 10 to 13 provide several examples for this undesired co-payment effect that can be generally observed; Sections 15.6 and 15.7 summarise again the findings concerning this matter. The following citations should be highlighted at this point because of the sample size or the comprehensiveness of the approach: Soumerai et al. 1991, 1994 and 1997; Tamblyn et al. 2001; OECD 2004b: 18; Goldman et al. 2004, 2006; Chandra et al. 2007.

³⁶² Grabka et al. 2005: 5.

³⁶³ By bearing an absolute cost-sharing amount of €300, beneficiaries of the “TK-Program 240” obtain a yearly contribution discount of €240 per year in which each outpatient physician visit accounts for €20.

³⁶⁴ Felder/Werblow 2006: 65, 71.

³⁶⁵ AOK-Mediendienst 2005.

³⁶⁶ Cf. Pütz 2003: 39.

duction of cost-sharing and subsequent years.³⁶⁶ Rather than making a helpful contribution to scientific debate, publishing such research after (less than) one year calls its seriousness into question.

15 Unresolved Problems

The following summary provides an overview of the most important theoretical and practical contradictions of co-payment theory and the central findings about the effects of cost-sharing. This summary reiterates why the risks associated with out-of-pocket payment for health care often outweigh the expected benefits.

15.1. Patient Behaviour not Operationalisable

The one-sided concept of the *homo oeconomicus* can at best explain a small part of the behaviour of the “consumer in the health market”. The assumption that all insured persons are 100 percent rational utility maximisers³⁶⁷ leaves out many real motives for behaviour.³⁶⁸ There is no proof that people in the “perfectly imperfect” health market behave fully or decisively in the way proposed by the endless formulae and figures from the economists’ ivory towers.³⁶⁹ With the practice charge in Germany for example, we find none of the free-riding effects that would confirm the idea of the individual economic rationality of statutory health insurance fund members.³⁷⁰ Similarly, studies from the United States from the early 1990s show that the effects of co-payments for visiting a family practitioner, contrary to widespread theoretical presumptions,³⁷¹ do not differ noticeably between different income groups.³⁷² That might at first glance appear to provide confirmation for objective “rational” steering, but it certainly calls into question some of the conventional modelling ideas about purchasing power, marginal utility and prioritisation.

Fundamentally too little attention is given to the question whether moral hazard effects or “hidden actions” of people with health insurance cannot in fact also have desired effects,³⁷³ namely where there is underuse of services offered;³⁷⁴ this is an issue in certain areas of the German health care system.³⁷⁵ The proposed solutions for the

³⁶⁷ Pauly 1968, 1983; Breyer et al. 2005; Pütz 2003: 28, Felder/Werblow 2006: 17f and many others.

³⁶⁸ Ginsburg 2006: w528f; Yegian 2006: w534.

³⁶⁹ Reiners 2006: 10ff.

³⁷⁰ Reiners/Schnee 2007; presentation of Bernard Braun, University of Bremen, during a hearing of the Federal parliamentary group of the “Left Party” (Linkspartei) in the German House of Parliament (Deutscher Bundestag) on user charges for outpatient physician visits held on May 15, 2006 in Berlin.

³⁷¹ See e.g. Stuart/Stockton 1973: 353, footnote 2.

³⁷² Cherkin et al. 1992: 38f.

³⁷³ Cf. Rice 2004: 134ff.

³⁷⁴ For example McGlynn et al. 2003.

³⁷⁵ SVR 2003a: 52, 218.

dilemma that subjectively rational consumer behaviour unfortunately does not always match up with the cost efficiency that is increasingly being demanded are hardly satisfactory. An analysis in British accident and emergency departments showed that physiotherapy initiated immediately for soft tissue injuries, which was associated with perceptible out-of-pocket payments, led to greater patient satisfaction but not to a quicker restoration of ability to work and thus caused no broader macroeconomic benefit.³⁷⁶ This problem might tend to increase as drug advertising to laypeople expands, for if pharmaceutical advertisers succeed in convincing “consumers” of the unproven advantages of new products,³⁷⁷ demonstrating cost-effectiveness will definitely require an imaginative use of models and data.³⁷⁸

Altogether it is fascinating how unshakeably the moral hazard theory has come to dominate – for four decades – not only health economics but also the social policy and development debates. No amount of pointing to “impressive economic studies”³⁷⁹ can disguise the fact that the empirical evidence – apart from interviews with selected economists – is largely restricted to a superficial interpretation of the findings of the RAND study (described in detail in chapter 8). The moral hazard assumptions are based exclusively on a subjective perception of overuse of health care services and observed changes in use of medical services under different cost-sharing conditions.³⁸⁰ The derived data for “price elasticity” and especially the classification as “frivolous” or even “wasteful” consumption³⁸¹ completely ignore any clinical-epidemiological, socio-economic or other influence on the demand behaviour of patients.

If direct payments by patients reduce the use of both useful evidence-based treatment and medically non-indicated measures (see chapter 9), then there is no basis to conclude from cost-dependent changes in utilisation that there has been “unjustified” or “frivolous” exploitation of the situation of being insured. For avoiding the use of medical services does not correlate at all with their clinical-epidemiological justification and purposefulness. The decisive research question would instead be whether the demand for a health service by an insured person is to be regarded as justified use or an expression of moral hazard. That question, however, has to date not only remained unanswered; the proponents of “moral risk” have so far successfully avoided asking it.³⁸² In the worldwide renaissance of neo-positivism, where the neo-classical ideology has

³⁷⁶ Richardson et al. 2005: 91f.

³⁷⁷ Kravitz et al. 2005: 1998f.

³⁷⁸ A good example of this is Block 2007.

³⁷⁹ In Schulenburg (2007: 14), the following statement on cost-sharing arrangements can be found: “Empirical studies support impressively that co-payments induce a sustained reduction of the demand for health care benefits and are an effective means for preventing the so called supply-induced demand of health care delivery.”

³⁸⁰ Manning and Marquis (1996: 610) define moral hazard as follows: “Cost sharing decreases the out-of-pocket price paid by the patient, which increases the amount of medical care demanded (moral hazard).” This approach fully ignores the possibility that in view of a potential under-utilisation this effect might rather express medical needs than frivolous use. By the way, the same is also true for the assumption of ex-ante moral hazard, which does not play an important role in the matter of patient out-of-pocket payment in any case, and the empirical evidence for which still remains to be furnished.

³⁸¹ Moise/Jacobzone 2003: 20.

³⁸² Cf. Wagstaff/Pradhan 2005: 1.

succeeded in placing politicians and social policy-makers under a permanent obligation to provide evidence for the obvious, it is rather surprising to find that there is a complete lack of clinical, epidemiological, psychological, sociological or even economic indicators for the objective measurement of moral hazard.

15.2 Provider-driven Demand

Patient cost-sharing ignores the real power relations in the healthcare system. The expensive decisions are made not by the patient but by the physician.³⁸³ It has been adequately demonstrated that the design of the payment arrangements largely determines the services provided by providers.³⁸⁴ As a rule physicians and hospitals respond to reduced revenues – be it through loss of “points” per service or through reduced or abolished patient co-payments – by inducing demand for their services³⁸⁵ or through other modifications of their behaviour as providers,³⁸⁶ in order to avert income losses.³⁸⁷ The volume of services provided is thus primarily the outcome of payment and budgeting systems and not of the demand behaviour of the insured persons.³⁸⁸ In this context managing physicians’ decisions would appear to be more promising for controlling health expenditure than additionally burdening patients with charges and cost-sharing.

Patient co-payments exacerbate the problem of increasing supply-induced demand and reduce the efficiency of the system as a whole.³⁸⁹ Thus the restriction of drug coverage for older Medicaid members in the US state of New Hampshire to a maximum of two products led not only to a 35 percent drop in medicine-taking, but also to a significant increase in admissions to nursing homes.³⁹⁰ After the abolition of this restriction the effect – whose costs clearly exceeded the potential savings – turned out to be completely reversible.³⁹¹ Also revealing are findings from Canada, where a study examining the behaviour of older rheumatism patients under different drug co-payment conditions between 1997 and 2000 found that although cost-sharing led to a drop in prescription collections, in times of high drug co-payments the number of visits to physicians rose significantly and the number of hospital admissions also tended to rise.³⁹² This result confirms the observation that hospital treatment and above all practitioner’s visits can be avoidance responses to new or increasing prescription charges, which

³⁸³ Steinbach et al. 2004: 2f; Deber et al. 2001: 1417ff.

³⁸⁴ Cf. Pfaff 1985: 273f; Zuckerman et al. 2004: 379ff.

³⁸⁵ Rice/Labelle 1989: 597; Creese/Kutzin 1995: 10.

³⁸⁶ Beck/Horne 1980: 794f; Schroeder/Cantor 1991: 1099; Richardson 1991: 16.

³⁸⁷ The implementation of cost sharing in the United Mine Workers Health and Retirement Fund in Pennsylvania did indeed reduce expenditure on health care for miners by 10 percent, but overall average costs per illness period increased for all patients in the catchment area by 17 percent. Similarly, outpatient physician consultations by miners decreased by 4 percent, whereas doctor visits for the rest of the population increased by 11 percent (Fahs 1992: 35, 41f).

³⁸⁸ Bodenheimer 2005a: 851.

³⁸⁹ Cf. Arhin-Tenkorang 2000: 13f.

³⁹⁰ Soumerai/Ross-Degnan 1991: 1975.

³⁹¹ Soumerai et al. 1991: 1075, 1076.

³⁹² Anis et al. 2005: 1337ff.

greatly undermine the intended saving effect.³⁹³ Studies of the effect of co-payments must always also take into consideration provider behaviour if they claim to be providing empirical evidence. Thus the effects of the practice fee in Germany may at least to some extent be due to alterations to the payment system for physicians and the introduction of practice budgets, which occurred at almost the same time.³⁹⁴

15.3 Cost Containment Lacking

Health policy and especially health economics almost always very considerably overestimate the potential of cost-sharing as an instrument for cost-containment.³⁹⁵ It generally has an effect only at first contact with the healthcare system and on simpler, cheaper services. The really cost-intensive measures, such as hospital treatment, operations, cancer drugs, chemotherapy and radiotherapy depend almost exclusively on the diagnoses and decisions made by medical professionals.³⁹⁶ On the other hand, the risks of partial underprovision are not negligible,³⁹⁷ and often the costs ensuing from delayed intervention may exceed the savings.³⁹⁸ In view of this record the continued faith in patient cost-sharing would seem more pseudo-religious than evidence-based.³⁹⁹

Almost nobody seriously calls for a proportionate burden to be placed on the high-intensity users of the health service. As a consequence of advances in medical technology an increasing concentration of health spending on ever smaller sectors of the population has been observed since the middle of the twentieth century. Thus US studies at the end of the 1980s show that half of the US population accounts for no more than 4 percent of health spending, while more than 50 percent is spent on one twentieth of the population and nearly 30 percent on just the 1 percent of high-intensity users.⁴⁰⁰ In 1987 the “healthy” half of the population consumed just 3 percent of health spending in the United States, while 41 percent went on the 2 percent who had to make most use of the system.⁴⁰¹ Recent studies from the United States actually show that just 7 percent of spending is on 70 percent of the population, while more than 50 percent of spending is accounted for by the “sickest” 5 percent. The unequal distribution of health spending in the United States has stabilised at a high level during the past two to three decades.⁴⁰²

Similar distributions have also long been known for France, where in 1970 two fifths of health spending was concentrated on 2 percent of citizens and the healthier half of the population was responsible for no more than 1 percent of the costs.⁴⁰³ In Germany the spending curve is similarly skewed. Whereas half the members of the

³⁹³ Anis et al. 2005: 1339. Cf. also Tamblyn et al. 2003.

³⁹⁴ Pfaff 1985: 273f; Reiners/Schnee 2007.

³⁹⁵ Manning et al. 1987: 269; Saltman/Figueras 1996: 17; Zuvekas/Cohen 2007: 256.

³⁹⁶ Stoddart et al. 1993: 7; Deber 2000: 37; Neuman/Rice 2003: 5.

³⁹⁷ See Chapters 10–13.

³⁹⁸ Beck 1974: 139f; Beck/Horne 1980: 793ff; Roemer et al. 1975; Evans 1993a, 1995; Fraser-Institute 1999; Tamblyn et al. 2001; OECD 2004c: 18.

³⁹⁹ Schroeder/Cantor 1991: 1099; Evans et al. 1997: 43; Drèze 2001: 14.

⁴⁰⁰ Berk et al. 1988: 51

⁴⁰¹ Berk/Monheit 1992: 146f

⁴⁰² Berk/Monheit 2001: 12f

⁴⁰³ Berk/Monheit 1988: 53

statutory insurance funds cause just 1 percent of spending on treatment, four fifths of spending is accounted for by one tenth of the insured population, nearly 50 percent by one fortieth and no less than 20 percent by 0.5 percent of the insured population.⁴⁰⁴

This skewed distribution of the financial burden of treatment across the population is found in all industrialised countries and is of fundamental importance for the cost-sharing discussion.⁴⁰⁵ Purely mathematically, the potential for reducing society's health expenditure is very small, as long as co-payments are applied largely to low-intensity users.⁴⁰⁶ The claimed funding and steering effects of cost-sharing would – at least theoretically – be expected to be much stronger if they affected those “users” who cause the highest costs. However in most societies cost-sharing for high- and maximum-intensity users of the health service is not only ethically extremely problematic, but there is also currently insufficient evidence that it would lead to reduced spending for this group of patients.⁴⁰⁷ Besides, they compete with other cost-containment approaches, in particular the disease management programmes which have now also found their way into the German statutory health insurance system and aim to provide better and more efficient – and thus more cost-effective – healthcare especially for high-intensity users.

Alongside the inevitable effects of demographic, epidemiological and particularly technological developments,⁴⁰⁸ in international comparison mainly the following factors turn out to be cost-driving: a high general level of prices and high charges for medical services,⁴⁰⁹ high administrative costs,⁴¹⁰ efficiency losses through excess capacity and underuse,⁴¹¹ and the intensity of utilisation of medical facilities.⁴¹² The authors of the RAND study already came to the conclusion that spending on health care could only be influenced to a relatively small extent (approximately 10 percent) by the structure of the funding and insurance system.⁴¹³

In the rich industrialised states there is a certain correlation of out-of-pocket payments and high health expenditure.⁴¹⁴ One explanation could be that legislators respond to high levels of spending with cost-sharing. But it is just as plausible that privatisation of costs leads to a loss of political control. The stronger the free-market element in social protection and the more healthcare is located outside public or at least regulated insurance arrangements, the greater the wiggle room for service providers to increase

⁴⁰⁴ GEK 2003. In the USA average health expenditures for the “healthy” half of the population were US\$122 per year, whereas the most expensive cases amounted on average to \$56,459 per person (Berk/Monheit 2001: 13). A statutory health insurance provider in Germany calculated the yearly per capita expenditure at €70 for the healthy group of beneficiaries while the most cost-intensive half percent of beneficiaries give rise to expenditures of €21,074 per person per year (GEK 2003: 6f).

⁴⁰⁵ Bodenheimer 2005a: 851.

⁴⁰⁶ See Hajen 2004: 10.

⁴⁰⁷ Bodenheimer 2005b: 1001.

⁴⁰⁸ Ginsburg 2004: 1591.

⁴⁰⁹ Redelmeier/Fuchs 1993: 776ff; Fuchs/Hahn 1990: 888f.

⁴¹⁰ Woolhandler/Himmelstein 1991: 769f; Woolhandler et al. 1993: 401, 403; Woolhandler et al. 2003: 772f.

⁴¹¹ Redelmeier/Fuchs 1993: 774f; McGlynn et al. 2004: 2638ff.

⁴¹² Rouleau et al. 1993: 783f.

⁴¹³ Manning et al. 1987: 269.

⁴¹⁴ Rasell 1995: 1265; WHO 2000.

their profits at the expense of the patients, whose negotiating position is weak. Charges due from users of healthcare facilities serve to make up for budget-limited or otherwise capped revenues. Shifting costs to patients takes the pressure off funders, increases the revenues of medical service-providers, and also bypasses the political conflicts with service-providers that are otherwise inevitably provoked by reform measures. Costs increasingly shift to the weakest players in health policy, the patients, to the benefit of the providers.⁴¹⁵

15.4 Discriminating against the Old and the Poor

A relevant revenue increase through out-of-pocket payment for health care can only be achieved through high and subjectively tangible cost-sharing.⁴¹⁶ But the greater the burden on the individual when medical facilities are used, the stronger the unavoidable consequences of social disadvantages for poorer sections of the population and ill citizens.⁴¹⁷ Cost-sharing acts as an access barrier to health services especially for members of lower-income groups because their purchasing power is smaller.⁴¹⁸ But because at the same time the need for healthcare is higher and doctor-patient contacts are more frequent in this share of the population,⁴¹⁹ payments are due more frequently and deductibles more quickly become a cost trap. The outcome is a partial inversion of the idea that the healthy should help bear the financial burden of sickness⁴²⁰ and contradicts one of the basic tenets of social protection against health risks.⁴²¹ The increasing social gap in take-up of dental services, which has been observed in the past two decades in the United States,⁴²² is certainly partly due to the widespread and – especially in Medicaid – continually rising cost-sharing for dental treatment.⁴²³ A similar trend, incidentally, has also been found in Denmark – a northern European country with comparably small social inequalities.⁴²⁴

With older people this effect is especially striking, because here old-age poverty and chronic complaints come together.⁴²⁵ On one hand, patient cost-sharing reduces the capability of social protection systems to even out social inequalities of health opportunities. Against this background, many countries have set up protective arrangements for vulnerable groups. However, these can never exclude or counterbalance all social hardships, their effectiveness turns out to be quite uneven and they are always associ-

⁴¹⁵ Barer et al. 1998: 20.

⁴¹⁶ Cf. Kern/Kupsch 2002: 15.

⁴¹⁷ Cf. Stuart/Stockton 1983: 383; Rosian 2002: 169, 171; Trude/Grossman 2003: 5f; Nink/Schröder 2004: 168.

⁴¹⁸ For instance Beck 1974: 136f; Whitehead et al. 2001; Dixon/Mossialos 2001; Burström 2002; Waitzkin 2003; Deppe 2003; Holst et al. 2004: 280; Ku/Wachino 2005; Ku/Broadus 2005.

⁴¹⁹ Doorslaer et al. 2002: 237f.

⁴²⁰ Ziniel 2004: 44.

⁴²¹ Grootendorst et al. 1997: 388ff.

⁴²² Manski et al. 2001: 658, 661.

⁴²³ Ku/Broadus 2005: 3; Ku/Wachino 2005: 2.

⁴²⁴ Cf. Schwarz 1996.

⁴²⁵ For instance Beck/Horne 1980; Dixon/Mossialos 2001; Tamblyn 2001; Kawabata et al. 2002; Burström 2002; Robinson 2002; Applegate 2002; Benner et al. 2002; Lee et al. 2006; Chandra et al. 2007.

ated with sometimes considerable organisational expense. On the other hand, they do have an inhibiting effect on the two desired effects of cost-sharing because they reduce the direct revenues the providers (unless they are compensated for the revenue foregone) and at least for the exempted groups they lessen the postulated management effect.⁴²⁶

15.5 Transaction Costs

The set-up, collection, accounting and control of patient cost-sharing is associated with not inconsiderable administrative costs, which are, however, regularly omitted from the model calculations and ignored in evaluations. The collection of co-payments – and especially the implementation of exemption arrangements – may in fact often impact on the level of insurance contributions and thus consume part of the postulated gain from increased revenue and reduced spending.⁴²⁷ It must also be kept in mind that every administrative regulation has its weaknesses. In practice a varying proportion of those entitled to support will be excluded. Good examples of this are found in unclaimed social welfare benefits in Germany⁴²⁸ and the unreliable allocation of fund insurance subsidies (“premium discount”) for low-income groups in Switzerland.⁴²⁹

In the Netherlands various governments have repeatedly made attempts since the early 1980s to establish co-payments in acute medical care. In most cases they turned out to be unsuccessful and were abandoned shortly after their introduction.⁴³⁰ Both the introduction of small flat-rate drug co-payments of approximately one euro per prescription and low co-insurance arrangements for medicines in the 1990s were designed to avoid any negative repercussions, but the revenues collected turned out to be insufficient to cover the administrative costs involved.⁴³¹ In 1997 the Netherlands introduced a 20 percent practice fee per physician visit, but neither the hoped-for funding returns nor the expected management effect materialised, so this form of co-payment also came to an end after just three years.⁴³² Overall it can be observed that calling co-payments “minor” can perhaps be justified for short treatment episodes, but with long- or everlasting therapies even small cost-sharing amounts add up to a noticeable financial burden for those affected.⁴³³

⁴²⁶ Cf. Langer et al. 2006: 21f.

⁴²⁷ Deppe 1987: 100; Schachenhofer 1997: 151; O’Brien et al. 2000: 37ff; Akal/Harvey 2001: 19. Legislators and health insurance funds cannot avoid this by simply transferring a relevant part of the additional bureaucratic burden to other stakeholders in the health care system; this is the case for the user charge for outpatient visits in Germany, where the responsibility for collecting the co-payment rests exclusively with statutory health insurance physicians. Even though their bureaucratic expenses are currently neutral for health insurance funds, undoubtedly some form of compensation will exist.

⁴²⁸ Deppe 1987: 109.

⁴²⁹ Gerlinger 2003: 19.

⁴³⁰ Maarse 2004: 4.

⁴³¹ de Wolf et al. 2005: 362.

⁴³² Probst 2004: 23.

⁴³³ Moise/Jacobzone 2003: 20.

15.6 Disregarding Medical Needs

The approach taken by many economists and politicians, to regulate health spending via demand behaviour of patients, ignores the relevance of clinical diagnoses in a very fundamental way. Co-payments that are intended to keep supposedly trivial cases out of the healthcare system lead to incompetent self-diagnoses⁴³⁴ and to self-medication.⁴³⁵ According to the extent that diagnosis shifts to the layperson, this can moreover lead to overprovision, undersupply and inadequate provision of care.⁴³⁶ It is now sufficiently established and has been widely proven that the various forms of patient cost-sharing prevent both superfluous and medically indicated interventions.⁴³⁷ To date cost-sharing has never been used successfully in any field of (para-)medical care to reliably and confidently distinguish between “reasonable” and “superfluous” utilisation of health care and to restrict the desired effects to “frivolous” use.⁴³⁸ The intended – and often also achieved – reduction of use through co-payments always has just as strong an impact on indicated and highly efficient measures as on inappropriate or ones whose effect is marginal.⁴³⁹

To achieve a reduction in demand for supposedly unjustified treatments via user fees would presuppose that users of the health care system have a degree of medical knowledge that actually only medical professionals can have.⁴⁴⁰ It is plain that such prior knowledge does not exist in the population, otherwise the services provided by medical experts would be superfluous. Research into the understanding and general knowledge of the population about relevant illnesses indeed shows – despite broad media treatment of the issues – a very sobering lack of knowledge among citizens.⁴⁴¹ For making a “rational” decision patients would firstly have to estimate in advance the level of the out-of-pocket payment involved and secondly be able to weigh up the consequences of treatment and non-treatment.⁴⁴² Because this is normally not the case, cost-sharing is simply unable to fulfil the assumption that a patient will manage to distinguish with adequate reliability between “rational” and “frivolous” use of health services. Ultimately out-of-pocket payments lead, whether symptoms are slight or severe, to a significant cutback in healthcare utilisation.⁴⁴³

⁴³⁴ Padula 1992: 24.

⁴³⁵ Cf. also Zok 2006.

⁴³⁶ The example of intense headache reveals the risk of self diagnosis by medical laypersons because this symptom might be a sign of such diverse and serious conditions as flu, migraine or cerebral bleeding.

⁴³⁷ M. Shapiro et al. 1989: 1646f; Halton 2000: 4; Crawford et al. 2004: 28.

⁴³⁸ Stoddart et al. 1993: 9; Evans 2002: 26; Wong 2001: 1892.

⁴³⁹ Lohr et al. 1986a: S36; Siu et al. 1986: 1259; Richardson 1991: 23; Evans et al. 1993d: 2, 9; Barer et al. 1993a: 15, 31; Stoddart et al. 1993: 20; Rasell 1995: 1165; Deber 2000: 39; Kephart et al. 2003; Braithwaite/Rosen 2007: 603f.

⁴⁴⁰ A minimum of clinical expertise reveals the absurdity of the self-responsibility ideology, because again, a symptom such as intense headache might be a sign of such different health problems as migraine, haemorrhage or flu.

⁴⁴¹ Bachmann et al 2007.

⁴⁴² Neuman/Rice 2003: 5f; Ahmed et al. 2005: 393; cf. also Goodman 2006: w542f.

⁴⁴³ M. Shapiro et al. 1989: 1646f.

Furthermore, the often observed treatment delays caused by cost-sharing lead to a worsening of conditions and increase the cost of medical intervention.⁴⁴⁴ Delayed or avoided treatment by no means automatically generates the desired savings, but may in fact result in considerably higher ensuing costs.⁴⁴⁵ Recently published research confirms the long-held suspicion⁴⁴⁶ that delayed treatment in medical facilities for beneficiaries of the Veteran Affairs insurance scheme increases mortality. If a patient has to wait longer than a month to be seen their mortality in the following half year is significantly higher than for those who are treated more quickly.⁴⁴⁷ Cost-sharing arrangements that adequately take into consideration the medical or clinical needs at the individual level do not as yet exist.

15.7 Underestimated External Effects

As the general – and worldwide – rise in health expenditure is induced considerably more strongly by suppliers than by consumers,⁴⁴⁸ it is, as already demonstrated, no surprise that the demand-side instrument of involving patients directly in health care costs makes little contribution to reducing spending and containing costs.⁴⁴⁹ Instead cost-sharing – especially among the chronically sick – reduces take-up of healthcare services in an undesired manner that endangers the quality of clinical care while at the same time increasing follow-on costs.⁴⁵⁰ Applying the cost-sharing ideology to the chronically ill brings to light an inherent contradiction in the funding and steering function of co-payments. In the population where the highest spending occurs and thus potentially the greatest savings or revenues could be achieved, “cost-sharing” contradicts the approach of using co-payments to prevent “unnecessary” use of healthcare services. In fact, making these patients contribute to the costs of their treatment brings about absolutely unwanted counterproductive effects.

Not every avoided office visit is necessarily a gain, and in fact not every prescription less will necessarily reduce costs for the insurer. The primarily economic – and above all micro-economic – perspective on health financing in general and specifically patient cost-sharing has led in Germany and elsewhere to a popularisation of the simplistic misconception that every saved health treatment is automatically reflected in cuts in expenditure. If the use of healthcare services affected by co-payments falls this is generally regarded as proof of the effectiveness of cost-sharing. But this assumption ignores both the clinical and epidemiological aspects and the external effects.⁴⁵¹ The

⁴⁴⁴ For example Chandra et al. 2007.

⁴⁴⁵ See e.g. Soumerai et al. 1991, 1994 and 1997; Tamblyn et al. 2001; OECD 2004b: 18; Goldman et al. 2004, 2006; Chandra et al. 2007 and many others.

⁴⁴⁶ Kenagy et al. 1999: 664.

⁴⁴⁷ Prentice/Pizer 2007: 656f.

⁴⁴⁸ Saltman/Figueras 1996: 17.

⁴⁴⁹ Creese 1997: 202.

⁴⁵⁰ Chernew et al. 2006: 153f

⁴⁵¹ According to more recent findings, high quality primary health care can not only improve patient satisfaction but also reduce the demand for more complex and, especially, for inpatient treatment (see Carlsen et al. 2007: 21ff). This might indirectly confirm the potentially negative consequences of saved physician visits, because even though doctor contacts do not guarantee access to quality care, they are a necessary condition for it.

urgently needed distinction between desired and undesired effects – which would be imperative for converting treatment reductions into cost savings – is lacking both in most of the published studies and in the political debate.

Overall, the expected influence of cost-sharing on general cost trends is at best negligible – whether through reducing the required amount of reimbursement for health care benefits delivered or through reductions in the total number of treatments.⁴⁵² Often the undesired effects cause considerably higher costs than the sum of revenues and savings and completely counteract the cost-containing effects widely expected of co-payments. Finally, the undesired effects go far beyond the level of the insurance funds and affect the individual's social and economic participation. Cost-related therapy terminations caused by cost-sharing lead not only to a worse health status of people with chronic illnesses and to an increase in fundamentally avoidable complications and to a greater need for treatments,⁴⁵³ but also to increased incapacity to work and to productivity losses.⁴⁵⁴ In this way out-of-pocket payments for health care ultimately endanger the quality and reliability of the social health protection system, which all industrialised nations at least aim to realise.

15.8 Erosion of Solidarity

Out-of-pocket payments reduce the social compensatory effect of health insurance funds and state-run health systems. They undermine the functioning of solidarity-based insurance schemes, which are based on predictable regular prepayment for covering unpredictable costs of sickness and have proven to be superior to all other funding models.⁴⁵⁵ This is also supported by the observation that in poorer countries, especially, user charges counteract the income-maintaining effects of (social) health insurance⁴⁵⁶ while in richer societies they can be contradictory to the established mechanisms of the principle of solidarity, partly undermine their effects, and reinforce social injustice and inequality.⁴⁵⁷ Directly involving patients in their treatment costs may reduce the financial access barriers to health insurance but it always has a negative effect on the quality of the insurance protection⁴⁵⁸ and on access to high-quality medical care.⁴⁵⁹ This is especially easy to comprehend where the patient's own share amounts to a high proportion of treatment costs, as is the case in many insurance contracts in the United States and across the board for example in South Korea,⁴⁶⁰ or where co-payments are particularly substantial; among the industrialised countries this is most

⁴⁵² Rasell 1997: 1167.

⁴⁵³ Soumerai/Ross-Degnan 1991: 1074f; Soumerai et al. 1994; Slade et al. 2005; Atella et al. 2006

⁴⁵⁴ Jinnett et al. 2007.

⁴⁵⁵ WHO 2000a: 35f; Eichler/Lewis o.J.: 3; OECD 2003: 46; Kephardt et al. 2003.

⁴⁵⁶ Cf. e.g. Dong et al. 1999: 51ff; Tseng et al. 2003: 223f.

⁴⁵⁷ Stuart/Stockton 1973: 344; Deppe 1987: 109; Richardson 1991: 22; Arhin-Tenkorang 2001: 11f, 38; Deppe 2003; Gericke et al. 2003: 24, and 2004; Knappe 2003: 236; Ziniel 2004: 33; CEPAL 2006: 88f; Gruber 2006: 1.

⁴⁵⁸ Grootendorst et al. 1997: 390ff; Holst 2004: 43, 226; Holst et al. 2004: 280; Chernew et al. 2006: 153f.

⁴⁵⁹ Eisenberg/Power 2000: 2102.

⁴⁶⁰ Yang/Holst 2006: 161.

important in Japan, where hospital treatment can easily cost the patient many thousands of euros.⁴⁶¹

The theory of many economists that cost-sharing makes health systems fairer by eliminating waste and thus stabilising the acceptance of solidarity-based health insurance systems seems increasingly to be disproved. Instead, in a situation of ever new cost-sharing arrangements participants are losing their confidence in fair social redistribution.⁴⁶² Despite all the rhetoric, cost-sharing and co-payments do nothing to achieve financial sustainability of health care systems.⁴⁶³ Instead they improve the position of the healthy and better-off to the detriment of the ill and the poor.⁴⁶⁴ Prescribing the bitter pill of co-payments is only justified when all other health policy options have been considered and exhausted.⁴⁶⁵ The small and at best hypothetical benefit of increasing cost-sharing in the health sector justifies neither the risks of losing acceptance of the social protection system nor the danger of medium- and long-term cost increases.⁴⁶⁶

⁴⁶¹ Tu et al. 2003: 242f.

⁴⁶² Cf. on this point Wasem 1999: 74; Böcken et al. 2000: 125f; Marstedt 2002: 120f; Sachverständigenrat 2003a: 17; 2003b: 55ff; WHO 2005: 138f.

⁴⁶³ CHSRF 2001: 2

⁴⁶⁴ Deppe 2003

⁴⁶⁵ Creese 1997: 203

⁴⁶⁶ Müller et al. 2003: 6

References

- Advisory Council for the Concerted Action in Health Care (ACCAHC) (2003). Health Care Finance, User Orientation and Quality. Report 2003, Summary. Bonn (<http://www.svr-gesundheit.de/gutacht/sogu03/03eng/engl03.pdf>).
- Afonso, Nelia; Nassif, George; Aranha, Anil; DeLor, Bonnie; Cardozo, Lavoisier (2006). Low-density Lipoprotein Cholesterol Goal Attainment Among High-risk Patients: Does a Combined Intervention Targeting Patients and Providers Work? *Am J Manag Care* 12 (10), pp. 589-594 (http://www.ajmc.com/files/articlefiles/AJMC_06octAfonso589to594.pdf).
- Ahlmää-Tuompo, Jaana; Linna, Miika; Kekomäki, Martti (1998). Impact of user charges and socio-economic environment on visits to paediatric trauma unit in Finland. *Scand J Pub Health* 26 (4), pp. 265-269 (<http://sjp.sagepub.com/cgi/reprint/26/4/265>).
- Ahlmää-Tuompo, Jaana; Linna, Miika; Kekomäki, Martti (1998). User charges and the demand for acute paediatric traumatology services. *Pub Health* 112 (5), pp. 327-329.
- Ahlmää-Tuompo, Jaana (1999). The Effect of User Charges and Socio-Demographic Environment on Paediatric Trauma Hospitalisation in Helsinki in 1989-1994. *Eur J Epidem* 15 (2), pp. 133-139 (<http://www.springerlink.com/content/r88752270210180g/fulltext.pdf>).
- Alan, Sule; Crossley, Thomas; Grootendorst, Paul; Veall, Michael (2002a). Out-of-Pocket Prescription Drug Expenditures and Public Prescription Drug Programs. Research Institute for Quantitative Studies in Economics and Population, Research Report No. 379, McMaster University Hamilton, L8S 4M4 (<http://socserv2.mcmaster.ca/qsep/p/qsep379.pdf>).
- Alan, Sule; Crossley, Thomas; Grootendorst, Paul; Veall, Michael (2002b). The effects of drug subsidies on out-of-pocket prescription drug expenditures by seniors: regional evidence from Canada. *J H Econ* 21 (5), pp. 805-826.
- Alan, Sule; Crossley, Thomas; Grootendorst, Paul; Veall, Michael (2003). Out-of-Pocket Prescription Drug Expenditures and Public Prescription Drug Programs. Forschungsinstitut zur Zukunft der Arbeit/Institute for the Study of Labor, IZA Discussion Paper No. 695, Bonn (<http://opus.zbwkiel.de/volltexte/2003/290/pdf/dp695.pdf>; <http://socserv.mcmaster.ca/rdc/RDCwp1.pdf>).
- Alber, Jens (2002). Besser als sein Ruf. Der Sozialstaat als erfolgreiches Modell. WZB-Mitteilungen 98. Wissenschaftszentrum Berlin für Sozialforschung, Berlin (http://www.wz-berlin.de/publikation/pdf/wm98/WM98_24-28.pdf).
- Alevizos, Alevizos; Mihas, Constantinos; Mariolis, Anargiros (2007). The Effects of Cost Sharing on Statin Adherence. *Am J Man Care* 13 (8), pp. e2-e3 (http://www.ajmc.com/files/articlefiles/AJMC_07AUG_WebLtrToEd.pdf).
- Alexander, Caleb; Casalino, Laurence; Meltzer, David (2003). Patient-physician communication about out-of-pocket costs. *JAMA* 290 (7), pp. 953-958 (<http://jama.ama-assn.org/cgi/reprint/290/7/953.pdf>).

- Alexander, Caleb; Tseng, Chien-Weng (2004). Six strategies to identify and assist patients burdened by out-of-pocket prescription costs. *Cleveland Clin J Med* 71 (5), pp. 433-437 (<http://home.uchicago.edu/~galexand/Alexander504.pdf>).
- Alexander, Caleb; Casalino, Laurence; Meltzer, David (2005). Physician Strategies to Reduce Patients' Out-of-pocket Prescription Costs. *Arch Intern Med* 165 (6), pp. 633-636 (<http://archinte.ama-assn.org/cgi/content/reprint/165/6/633>).
- Altman, Drew (2004). The New Medicare Prescription-Drug Legislation. *N Engl J Med* 350 (1), pp. 9-10 (<http://www.nejm.org/doi/pdf/10.1056/NEJMp038224>).
- Anderson, Ronald; Bozzette, Samuel; Shapiro, Martin; St. Clair, Patricia; Morton, Sally; Crystal, Stephen; Goldman, Dana; Wenter, Neil; Gifford, Allen; Leibowitz, Arleen; Asch, Steven; Berry, Sandra; Nakazono, Terry; Heslin, Kevin; Cunningham, William; and the HCSUS Consortium (2000). Access of Vulnerable Groups to Antiretroviral Therapy Among Persons in Care for HIV in the United States. *H Serv Res* 35 (2), pp. 389-416 (<http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=1089126&blobtype=pdf>).
- Andersson, Karolina; Petzold, Max-Gustav; Sonesson, Christian; Lonnroth, Knut; Carlsten, Anders (2006). Do policy changes in the pharmaceutical reimbursement schedule affect drug expenditures? Interrupted time series analysis of cost, volume and cost per volume trends in Sweden 1986-2002. *H Pol* 79 (2-3), pp. 231-243.
- Anell, Anders; Svensson, Marianne (1999). User charges in health care: the Swedish case. *World Health Organization, Geneva, Eurohealth* 5 (3), pp. 25-26 (http://www.euro.who.int/document/obs/EuroHealth5_3.pdf).
- Anis, Aslam; Guh, Daphne; Wang, Xiao-hua (2001). A dog's breakfast: prescription drug coverage varies widely across Canada. *Med Care* 39 (4), pp. 315-326.
- Anis, Alsam; Guh, Daphne; Lacaille, Diane; Marra, Carlo; Rashidi, Amir; Li, Xin; Esdaile, John (2005). When patients have to pay a share of drug costs: effects on frequency of physician visits, hospital admissions and filling of prescriptions. *CMAJ* 173(11), pp. 1335-1340 (<http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=1283500&blobtype=pdf>).
- AOK Mediendienst – Presseservice Gesundheit (2002). Gesundheitspolitiker streiten sich um einen Selbstbehalt für Versicherte – Was ist das eigentlich, Herr Dr. Jacobs? *psg thema Ausgabe* 5, pp. 15-16. Bonn, 13.9.2002.
- AOK-Mediendienst (2005). Von A(rztbesuch) bis Z(uzahlung): Das gilt 2006. *Pressestelle des AOK-Bundesverbandes*, Bonn.
- Applegate, William (2002). Elderly Patients' Adherence to Statin Therapy. *JAMA* 288 (4), pp. 495-497 (<http://jama.ama-assn.org/cgi/reprint/288/4/495>).
- Arhin-Tenkorang, Dyna (2000). Mobilizing Resources for Health: The Case of User Fees Revisited. *CMH Working Paper Series, Paper No WG3:6*. Washington D.C. (http://www.cmhealth.org/docs/wg3_paper6.pdf).
- Arrow, Kenneth (1963). Uncertainty and the Welfare Economics of Medical Care. *Am Econ Rev* 53 (5), pp. 941-973 (<http://links.jstor.org/sici?sici=0002-8282%28196312%2953%3A5%3C941%3AUATWEO%3E2.O.CO%3B2-C>).

- Arzneimittelbrief (2007). Ein Vorbericht des IQWiG zur Hypertoniebehandlung: Vergleichende Nutzenbewertung verschiedener Antihypertensiva als Therapie der ersten Wahl. *Der Arzneimittelbrief* 41 (4), pp. 27-29
http://www.arzneimittelbrief.de/_anfang/Artikel.aspx?J=2007&S=27;
http://www.arzneimittelbrief.de/_anfang/DER_ARZNEIMITTELBRIEF.aspx?J=2007&S=27).
- Ashley, John; LeBow, Robert; Pero, Robert (2001). Health for All 101. Policy Resolution # 01-01(I), American College of Preventive Medicine, Washington DC
http://www.acpm.org/res_0101I.htm).
- Ashley, John; LeBow, Robert; Pero, Robert (2002). Health for All. Policy Resolution # 03-02(A), American College of Preventive Medicine, Washington DC
http://www.acpm.org/res_0302A.pdf).
- Asplin, Brent; Rhodes, Karin; Levy, Helen; Lurie, Nicole; Crain, Lauren; Carlin, Bradley; Kellermann, Arthur (2005). Insurance Status and Access to Urgent Ambulatory Care Follow-up Appointments. *JAMA* 294 (10), pp. 1248-1254 (<http://jama.ama-assn.org/cgi/reprint/294/10/1248>).
- Atella, Vincenzo; Peracchi, Franco; Depalo, Domenico; Rossetti, Claudio (2006). Drug compliance, co-payment and health outcomes: evidence from a panel of Italian patients. *H Econ* 15 (9), pp. 875-892 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/112664983/PDFSTART>);
http://www.rand.org/labor/adp_pdfs/2006_peracchi.pdf).
- Augurzky, Boris; Bauer, Thomas; Schaffner, Sandra (2006). Copayments in the German Health System – Does it work? RWI Discussion Paper No. 43, Rheinisch-Westfälisches Institut für Wirtschaftsforschung, Essen/IZA Discussion Paper 2292, Forschungsinstitut zur Zukunft der Arbeit (Institute for the Study of Labor), Bonn (<http://ftp.iza.org/dp2290.pdf#search=%22Augurzky%20Bauer%20Schaffner%20Copayments%22>);
http://www.rwiesen.de/pls/portal30/docs/FOLDER/PUBLIKATIONEN/RWIDP/RWI_DP043/DP_06_043.PDF#search=%22Augurzky%20Bauer%20Schaffner%20Copayments%22;
http://www.iza.org/index_html?lang=en&mainframe=http%3A//www.iza.org/en/webcontent/personnel/photos/index_html%3Fkey%3D271&topSelect=personnel&subSelect=fellows).
- Avorn, Jerry; Monette, Johanne; Lacour, Anne; Bohn, Ronda; Monane, Mark; Mogun, Helen; LeLorier, Jacques (1998). Persistence of use of lipid-lowering medications: a cross-national study. *JAMA* 279 (18), pp.1458-1462 (<http://jama.ama-assn.org/cgi/reprint/279/18/1458>).
- Avorn, Jerry (2006). Part “D” for “Defective” – The Medicare Drug-Benefit Chaos. *N Engl J Med* 354 (13), pp. 1339-1341
<http://www.nejm.org/doi/pdf/10.1056/NEJMp068034>).
- Babazono, Akira; Ogawa, Takanori; Babazono, Tsuneko; Hamada, Hirohisa; Tsuda, Toshihide; Aoyama, Hideyasu (1991). The Effect of a Cost Sharing Provision in Japan. *Fam Pract* 8 (3), pp. 247-252
<http://fampra.oxfordjournals.org/cgi/reprint/8/3/247>).

- Babazono, Akira; Tsuda, Toshihide; Yamamoto, Eiji; Mino, Yoshio; Une, Hiroshi; Hillman, Alan (2003). Effects of an Increase in Patient Copayments on Medical Service Demands of the Insured in Japan. *Int J Techn Ass Health Care* 19 (3), pp. 465-475 (Abstract: <http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=176027>).
- Babisch, Wolfgang (2000). Traffic Noise and Cardiovascular Disease: Epidemiological Review and Synthesis. *Noise and Health* 2 (8), pp. 9-32 (Abstract: <http://www.ingentaconnect.com/content/nrn/nh/2000/00000002/00000008/art0002;jsessionid=1q93djl06gw7v.alice>).
- Bachmann, Lucas; Gutzwiller, Florian; Puhon, Milo; Steurer, Johann; Steurer-Stey, Claudia; Gigerenzer, Gerd (2007). Do citizens have minimum medical knowledge? – A survey. *BMC Medicine* 5 (14) (<http://www.biomedcentral.com/1741-7015/5/14>).
- Bae, Seung-in; Paltiel, David; Fuhlbrigge, Anne; Weiss, Scott; Kuntz, Karen (2008). Modeling the Potential Impact of a Prescription Drug Copayment Increase on the Adult Asthmatic Medicaid Population. *Value in Health* 11 (1), pp. 110-118 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/119414375/PDFSTART>; <http://assets0.pubget.com/pdf/18237365.pdf>).
- Baker, Judy; van der Gaag, Jacques (1993). Equity in health care and health care financing: evidence from five developing countries. In: van Doorslaer, Eddy; Wagstaff, Adam; Rutton, Frans. *Equity in the Finance and Delivery of Health Care: An International Perspective*. Oxford University Press, Oxford.
- Bakker, Frank; van Vliet, René (1995). The introduction of deductibles for prescription drugs in a national health insurance: compulsory or voluntary? *H Pol* 31 (1), pp. 53-65.
- Baldwin, Arthur; Mulkey, Marian; Kagan, Matthew (2005). *The Price of Illness: Cost Sharing and Health Plan Benefits*. Issue Brief Sept. 2005, California Healthcare Foundation, Oakland (<http://www.chcf.org/documents/insurance/ThePriceofIllnessConsumerCostSharing.pdf>).
- Bankrate.com (2005). Health insurance terms and definitions. (<http://www.bankrate.com/nscre/news/insur/20020709a.asp#b>).
- Barer, Morris; Bhatia, Vandha; Stoddart, Greg; Evans, Robert (1993a). User Charges, Snares and Delusions: Another look at the literature. Centre for Health Services and Policy Research, University of British Columbia. HPRU, 93. 14D. Calgary (<http://www.chspr.ubc.ca/hpru/pdf/hpru93-14D.pdf>).
- Barer, Morris; Bhatia, Vandha; Stoddart, Greg; Evans, Robert (1993b). The Remarkable Tenacity of User Charges: A Concise History of the Participation, Positions and Rationales of Canadian Interest Groups over “Direct Patient Participation” in Health Care Financing. Centre for Health Services and Policy Research, University of British Columbia. HPRU, 93. 15D. Calgary. (<http://www.chspr.ubc.ca/hpru/pdf/hpru93-15D.pdf>).
- Barer, Morris; Evans, Robert; Hertzman, Clyde; Johri, Mira (1998). Lies, Damned Lies, and Health Care Zombies: Discredited Ideas That Will Not Die. HPI Discussion Paper No. 10, The University of Texas – Houston Health Science Center (HPRU 98:5D) (www.chspr.ubc.ca/hpru/pdf/hpru98-05D.pdf).
- Barnett, Barbara (1998). FHI – Do Client Fees Help or Hurt? Family Health International, Durham (http://www.fhi.org/en/RH/Pubs/Network/v18_2/NW182ch2.htm).

- Barry, Michael; Tilson, Lesley; Ryan, Máirín (2004). Pricing and reimbursement of drugs in Ireland. *Eur J H Econ* 5 (2), pp. 190–194 (<http://www.springerlink.com/content/t2fufk8np1w55yw/fulltext.pdf>).
- Batnia, Vandha; Stoddart, Greg; Barer, Morris; Evans, Robert (1993). *User Charges in Health Care: A Bibliography*. Health Policy Research Unit, University of British Columbia, Vancouver.
- Baume, Elaine; Juárez, Mercedes; Standing, Hillary (2000). *Gender and Health Equity Resource Folder*. Institute of Development Studies, Universität Sussex, Brighton. (<http://www.ids.ac.uk/bridge/Reports/geneqfolder.pdf>)
- Beck, Ralf (1974). The effects of Co-Payment on the Poor. *J Hum Res* 9 (1), pp. 129–142 (<http://links.jstor.org/sici?sici=0022-166X%28197424%299%3A1%3C129%3ATEOCOT%3E2.0.CO%3B2-S>).
- Beck, Ralf; Horne, John (1980). Utilization of publicly insured public services in Saskatchewan before, during and after copayment. *Med Care* 18 (8), pp. 787–806 (<http://links.jstor.org/sici?sici=0022-4367%28197603%2943%3A1%3C73%3AECARAE%3E2.0.CO%3B2-O>).
- Becker, Karolin; Zweifel, Peter (2005). *Cost Sharing in Health Insurance: An Instrument for Risk Selection? Working Paper No. 0513*, Sozialökonomisches Institut (Socio-economic Institute), Universität Zürich (<http://www.soi.unizh.ch/research/wp/wp0513.pdf>).
- Beer, François-Joachim; Beer-Poitevin, Françoise (1980). Die Selbstbeteiligung in der französischen Krankenversicherung. In: *Internationale Gesellschaft für Gesundheitsökonomie*, pp. 75–78.
- Benítez-Silva, Hugo; Buchinsky, Moshe; Chan, Hiu Man; Cheidvasser, Sofia; Rust, John (2004). How Large is the Bias in Self-Reported Disability? *J Appl Econ* 19 (6), pp. 649–670 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/109799429/PDFSTART>).
- Benner, Joshua; Glynn, Robert; Mogun, Helen; Neumann, Peter; Weinstein, Milton; Avorn, Jerry (2002). Long-term persistence in use of statin therapy in elderly patients. *JAMA* 288 (4), pp. 455–461 (<http://jama.ama-assn.org/cgi/reprint/288/4/455>).
- Bentur, Netta; Gross, Revital; Resnitzki, Shirly; Brammli-Greenberg, Shuli (2004). The Effect of Co-Payments on the Accessibility of Primary Health Services for Stroke Patients. *Soc Sec: J Welfare and Int Soc Sec Studies* 66, pp. 63–75.
- Berié, Hermann; Braeseke, Grit; Fink, Ulf; Völker, Ingrid (2005). *Strukturen und Kostensteuerungsmechanismen im deutschen Gesundheitswesen unter besonderer Berücksichtigung der GKV. Gutachten im Auftrag des AOK-Bundesverbandes*. WISO – Institut für Wirtschaft & Soziales GmbH, Berlin (http://www.wiso-gruppe.de/download/wiso_gutachten_200509.pdf).
- Berk, Mark; Monheit, Alan; Hagan, Michael (1988). How the U.S. Spent Its Health Care Dollar: 1929–1980. *H Aff Fall* 1988, pp. 46–60 (<http://content.healthaffairs.org/cgi/reprint/7/4/46>).
- Berk, Mark; Monheit, Alan (1992). The Concentration of Health Expenditures: An Update. *H Aff Winter* 1992, pp. 145–149 (<http://content.healthaffairs.org/cgi/reprint/11/4/145>).
- Berk, Mark; Monheit, Alan (2001). The Concentration Of Health Care Expenditures, Revisited. *H Aff* 20 (2), pp. 9–18 (<http://content.healthaffairs.org/cgi/reprint/20/2/9>).

- Berki, S.E. (1986). A Look At Catastrophic Medical Expenses And The Poor. *H Aff* 5 (4), pp. 138- 145 (<http://content.healthaffairs.org/cgi/reprint/5/4/138>).
- Berlemann, M., A. Karmann (1998). Moral Hazard im Gesundheitswesen – Ein Beispiel aus der Kieferorthopädie. *Zeitschr Wirtsch Sozialwiss (ZWS)*, Vol. 118, pp. 573-595.
- Bhattacharya, Jayanta; Neeraj, Sood (2005). Health Insurance and the Obesity Externality. NBER Working Paper No. W11529, Washington DC (http://papers.ssrn.com/sol3/papers.cfm?abstract_id=776017#PaperDownload).
- BIG – Die Direktkrankenkasse (2004). Presseportal: forsa-Umfrage lässt keine Rückschlüsse auf Wahlabsicht zu. Dortmund (<http://www.presseportal.de/story.htx?nr=532722>).
- Birch, Stephen (1986). Relationship between increasing prescription charges and consumption in groups not exempt from charges. *J R Coll Gen Pract* 36 (285), pp. 154-156 (<http://www.pubmedcentral.nih.gov/tocrender.fcgi?iid=138912>).
- Birch, Stephen (1989). Health care charges: lessons from the U.K.. *H Pol* 13 (2), pp. 145-157.
- Birch, Steven (2004). Charging the patient to save the system? Like bailing water with a sieve. *CMAJ/JAMC* 170 (12), pp. 1812-1813 (<http://www.cmaj.ca/cgi/content/full/170/12/1812>).
- Birkett, Donald; Mitchell, Andrew; McManus, Peter (2001). A Cost-Effectiveness Approach To Drug Subsidy And Pricing In Australia. *H Aff* 20 (3), pp. 104-114 (<http://content.healthaffairs.org/cgi/reprint/20/3/104>).
- Bitrán, Ricardo; Giedion, Ursula (2003). Waivers and Exemptions for Health Services in Developing Countries. Social Safety Net Primer Series, Worldbank, Washington ([http://wbIn0018.worldbank.org/HDNet/hddocs.nsf/65538a343139acab85256cb70055e6ed/2327dc75151b9f1385256cf0005e323c/\\$FILE/0308.pdf](http://wbIn0018.worldbank.org/HDNet/hddocs.nsf/65538a343139acab85256cb70055e6ed/2327dc75151b9f1385256cf0005e323c/$FILE/0308.pdf)).
- Blais, Lucie; Couture, Julie; Rahme, Elham; Le Lorier, Jacques (1997). Évaluation de l'impact du régime général d'assurance-médicaments du Québec sur la consommation de médicaments chez les aînés. *L'Actualité Médicale*, Association des Médecins de langue française du Canada, Montreal (Abstract: <http://www.sqgeriatrie.org/pdf/BULLETTIN-MARS-2000.pdf>).
- Blais, Lucie; Boucher, Jean-Marc; Couture, Julie; Rahme, Elham; LeLorier, Jacques (1999). Impact of the Quebec cost sharing drug insurance plan on the monthly dispensed prescriptions of 4 classes of medications among elderly. Abstract presented at Canadian Association for Population Therapeutics Annual Conference, Halifax. *Pharmacoepidem Drug Safety* 8 (S2), pp. S79-S196 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/63001476/PDFSTART>).
- Blais, Lucie; Boucher, Jean-Marc; Couture, Julie; Rahme, Elham; LeLorier, Jacques (2001). Impact of a cost sharing drug insurance plan on drug utilization among elderly. *J Am Ger Soc* 49 (4), pp. 410-414 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/118968020/PDFSTART>).
- Blais, Lucie; Couture, Julie; Rahme, Elham; LeLorier, Jacques (2003). Impact of a cost sharing drug insurance plan on drug utilization among individuals receiving social assistance. *H Pol* 64 (2), pp. 163-172.
- Blendon, Robert; Leitman, Robert; Morrison, Ian; Donelan, Karen (1990). Satisfaction with Health Systems in Ten Nations. *H Aff* 9 (2), pp. 185-192 (<http://content.healthaffairs.org/cgi/reprint/9/2/185>).

- Blendon, Robert; Schoen, Cathy; DesRoches, Catherine; Osborn, Robin; Scoles, Kimberly; Zapert, Kinga (2002). Inequities In Health Care: A Five-Country Survey. *H Aff* 21 (3), pp. 182-191 (<http://content.healthaffairs.org/cgi/reprint/21/3/182.pdf>).
- Block, Adam (2007). Costs and Benefits of Direct-to-Consumer Advertising: The Case of Depression. *Pharmakoecon* 25 (6), pp. 511-521 (<http://web.ebscohost.com/ehost/pdf?vid=3&hid=116&sid=3696ee43-fa14-44cc-9178-4754cdda0f85%40sessionmgr108>; Abstract: <http://pharmacoeconomics.adisonline.com/pt/re/phe/abstract.00019053-200725060-00006.htm>).
- Bloom, Gerald (1997). Primary Health Care Meets the Market: Lessons from China and Vietnam. Institute for Development Studies (IDS), Working Paper 53, Brighton, ISBN 1 85864 119 5 (<http://www.ids.ac.uk/ids/bookshop/wp/wp53.pdf>).
- Bloom, Bernard (2001). Another Theory About Healthcare Expenditures and Inflation Refuted by the Facts. *Am J Manag Care* 7 (7), pp. 740-741 (http://www.ajmc.com/files/articlefiles/AJMC2001julBloom740_741.pdf).
- Blustein, Jan (1995). Medicare Coverage, Supplemental Insurance, and the Use of Mammography by Older Women. *N Engl J Med* 332 (17), pp. 1138-1143 (<http://www.nejm.org/doi/pdf/10.1056/NEJM199504273321706>).
- Blumenthal, David (2006a). Employer-Sponsored Health Insurance in the United States – Origins and Implications. *N Engl J Med* 355 (1), pp. 82-88 (<http://www.nejm.org/doi/pdf/10.1056/NEJMHpr060703>).
- Blumenthal, David (2006b). Employer-Sponsored Insurance – Riding the Health Care Tiger. *N Engl J Med* 355 (2), pp. 195-202 (<http://www.nejm.org/doi/pdf/10.1056/NEJMHpr060704>).
- Blustein, Jan (2000). Drug coverage and drug purchases by Medicare beneficiaries with hypertension. *H Aff* 19 (2), pp. 219-230 (<http://content.healthaffairs.org/cgi/reprint/19/2/219>).
- Bodenheimer, Thomas (2001). Affordable Prescriptions for the Elderly. *JAMA* 286 (14), pp. 1762-1763 (<http://jama.ama-assn.org/cgi/reprint/286/14/1762>).
- Bodenheimer, Thomas (2005a). High and Rising Health Care Costs. Part 1: Seeking an Explanation. *Ann Int Med* 142 (10), pp. 847-854 (<http://www.annals.org/cgi/reprint/142/10/847.pdf>).
- Bodenheimer, Thomas (2005b). High and Rising Health Care Costs. Part 3: The Role of Health Care Providers. *Ann Intern Med* 142 (12), pp. 996-1002 (http://www.annals.org/cgi/reprint/142/12_Part_1/996.pdf).
- Böcken, Jan; Butzlaff, Martin; Esche, Andreas (Hrsg.) (2000). Reformen im Gesundheitswesen. Ergebnisse der internationalen Recherche. Verlag Bertelsmann Stiftung, Gütersloh (<http://www.bertelsmann-stiftung.de/cps/rde/xbcr/SID-OA000FOA-1EB3E760/stiftung/515.pdf>).

- Boos-Nünning, Ursula; Lauterbach, Karl; Karsten, Rudolf; Weisskirchen, Gerd (2004). Mut zur Veränderung. Innovation und Chancengleichheit durch eine integrierte Bildungs-, Gesundheits- und Familienpolitik. Friedrich-Ebert-Stiftung, Bonn (<http://fesportal.fes.de/pls/portal30/docs/FOLDER/PRESSE/PRESSEARCHIV/2004/PUBLIKATIONEN2004/INNOVATIONUNDCHANCENGLEICHHEIT.PDF>).
- Bozette, Frank; Joce, Geoffrey; McCaffrey, Daniel; Leibowitz, Arleen; Morton, Sally; Berry, Sandra; Rastegar, Afshin; Timberlake, David; Shapiro, Martin; Goldman, Dana (2001). Expenditures for the Care of HIV-Infected Patients in the Era of Highly Active Antiretroviral Therapy. *N Engl J Med* 344 (11), pp. 817-823 (<http://www.nejm.org/doi/pdf/10.1056/NEJM200103153441107>).
- Braam, Tamara (2005). The impact of health sector financing reforms on sexual and reproductive health services in Africa. University of the Witwatersrand, Johannesburg: Ravindran, Sundari; de Pinho, Helen (Eds.). *The right reform? Health Sector Reforms and Sexual and Reproductive Health*. Women's Health Project, School of Public Health, University of the Witwatersrand (<http://www.wits.ac.za/whp/rightsandreforms/docs/AFRICAFINANCE.pdf>).
- Braithwaite, Scott; Rosen, Allison (2007). Linking Cost Sharing to Value: An Unrivalled Yet Unrealized Public Health Opportunity. *Ann Intern Med* 146 (8), pp. 602-605 (<http://www.annals.org/cgi/reprint/146/8/602.pdf>).
- Brammli-Greenberg, Shuli (2003). *Co-Payments for Health-Plan Services*. Health Policy Division, JDC-Brookdale Institute, Jerusalem.
- Brauer, Michael; Hoek, Gerard; van Vliet, Patricia; Meliefste, Kees; Fischer, Paul; Wijga, Alet; Koopman, Laurens; Neijens, Herman; Gerritsen, Jorrit; Kerkhof, Marjan; Heinrich, Joachim; Bellander, Tom; Brunekreef, Bert (2002). Air Pollution from Traffic and the Development of Respiratory Infections and Asthmatic and Allergic Symptoms in Children. *Am J Respir Crit Care Med* 166 (8), pp. 1092-1098 (<http://ajrccm.atsjournals.org/cgi/reprint/166/8/1092.pdf>).
- Brett, Allan (2007). Two-Tiered Health Care: A Problematic Double Standard. *Arch Intern Med* 167 (5), pp. 430-432 (<http://archinte.ama-assn.org/cgi/content/reprint/167/5/430>).
- Breyer, Friedrich (1984). Moral Hazard und der optimale Krankenversicherungsvertrag. Eine Übersicht. *Zeitschr ges Staatswiss* 140, pp. 288-307 (http://www.digizeitschriften.de/no_cache/home/jkdigtools/loader/?tx_jkDigiTools_pi1%5BBIDDOC%5D=154908).
- Breyer, Friedrich (1991). Distribution effects of coinsurance options in social health insurance systems. In: López-Casasnovas, Guillem (ed). *Incentives in health systems*. Springer, Berlin Heidelberg New York.
- Breyer, Friedrich; Haufler, Andreas (2000). Health Care Reform: Separating Insurance from Income Redistribution. *Int Tax Publ Fin* 7 (4-5), pp. 445-461 (http://www-cgi.uni-regensburg.de/Fakultaeten/WiWi/Wiegard/start/de/lehre/2002-2003/seminar/Health_care_reform.pdf).
- Breyer, Friedrich; Haufler, Andreas (2000). Health Care Reform: Separating Insurance from Income Redistribution. DIW Discussion Paper No. 205, Berlin (<http://opus.zbw-kiel.de/volltexte/2003/222/pdf/dp205.pdf>).
- Breyer, Friedrich; Zweifel, Peter; Kifmann, Matthias (2005). *Gesundheitsökonomik*. 5. Edition. Springer-Verlag, Berlin-Heidelberg-New York.

- Briesacher, Becky; Kamal-Bahl, Sachim; Hochberg, Marc; Orwig, Denise; Kahler, Kristjan (2004). Three-tiered-copayment drug coverage and use of nonsteroid anti-inflammatory drugs. *Arch Int Med* 164 (15), pp. 1679-1684 (<http://archinte.ama-assn.org/cgi/content/reprint/164/15/1679>).
- Briesacher, Becky; Stuart, Bruce; Ren, Xiaoqiang; Doshi, Jalpa; Wrobel, Marian (2005). Medicare beneficiaries and the impact of gaining prescription drug coverage on inpatient and physician spending. *H Serv Res* 40 (5, Part1), pp. 1279-1296 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/118685436/PDFSTART>; http://www.findarticles.com/p/articles/mi_m4149/is_5_40/ai_n15874887).
- Brixner, Diana; Joish, Vijay; Oderda, Gary; Avey, Steven; Hanson, Douglas; Cannon, Eric (2007). Effects of Benefit Design Change Across 5 Disease States. *Am J Man Care* 13 (6, Part 2), pp. 370-376 (http://www.ajmc.com/files/articlefiles/AJMC_07junPrt2__Brixner370to76.pdf).
- Brodsky, David (1987). The Correlates of Cost-Conscious Behavior Among Elderly Consumers of Health Care Services. *J Appl Geront* 6 (1), pp. 25-38 (<http://jag.sagepub.com/cgi/reprint/6/1/25>).
- Brook, Robert; Ware, John; Rogers, William; Keeler, Emmett; Davies, Allyson; Donald, Cathy; Goldberg, George (1983). Does free care improve adults health? Results from a randomized controlled trial. *N Engl J Med* 309 (23), pp. 1426-1434 (<http://www.nejm.org/doi/pdf/10.1056/NEJM198312083092305>).
- Brook, Robert (1989). Practice guidelines and practicing medicine. Are they compatible? *JAMA* 262 (21), pp. 3027-3030 (<http://jama.ama-assn.org/cgi/content/abstract/262/21/3027>).
- Brooks, Robert (1980). Der Selbstbehalt in der österreichischen Sozialversicherung. In: *Internationale Gesellschaft für Gesundheitsökonomie*, pp. 58-60.
- Büchi, Martin; Bachmann, Lucas; Fischer, Joachim; Peltenburg, Michael; Steurer, Johann (2000). Alle Macht den Patienten? Vom ärztlichen Paternalismus zum Shared Decision Making. *Schweizerische Ärztezeitung* 81 (49), pp. 2776-2780 (<http://www.saez.ch/pdf/2000/2000-49/2000-49-1017.PDF>).
- Bundesverband der Arzneimittelhersteller (BAH) (1999a). BAH-Bevölkerungsbefragung: 62 Prozent der Bundesbürger betreiben regelmäßig Selbstmedikation. Das Freie Medikament 1-3/99 (<http://www.bah-bonn.de/forum/publikationen/dfm/dfm1-3-99.htm#BAH-Bev%61kerungsbefragung>).
- Bundesverband der Arzneimittelhersteller (BAH) (1999b). Der Selbstmedikationsmarkt 1998. Das Freie Medikament 1-3/99 (<http://www.bah-bonn.de/forum/publikationen/dfm/dfm1-3-99.htm#BAH-Bev%61kerungsbefragung>).
- Buntin, Melinda; Damberg, Cheryl; Haviland, Amelia; Kapur, Kanika; Lurie, Nicole; McDewitt, Roland; Marquis, Susan (2006). Consumer-Directed Health Care: Early Evidence About Effects On Cost And Quality. *H Aff* 25 (6), pp. W516-W530 (<http://content.healthaffairs.org/cgi/content/full/hlthaff.25.w516>).
- Burström, Bo (2002). Increasing inequalities in health care utilisation across income groups in Sweden during the 1990s? *H Pol* 62 (2), pp. 117-129.
- Burström, Bo (2004). User charges in Sweden. *European Observatory on Health Systems and Policies, Euro Observer* 6 (3), pp. 5-6 (http://www.euro.who.int/document/Obs/EuroObserver6_3.pdf).

- Busch, Susan; Barry, Colleen; Vegso, Sally; Sindelar, Jody; Cullen, Mark (2006). Effects Of A Cost-Sharing Exemption On Use Of Preventive Services At One Large Employer. *H Aff* 25 (6), pp. 1529-1536 (<http://content.healthaffairs.org/cgi/reprint/25/6/1529>).
- Busse, Reinhard; Riesberg, Annette (2004). Health Care Systems in Transition. Germany. WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies, Copenhagen (http://www.healthpolicymonitor.org/Downloads/HiT_Germany_2005.pdf).
- Busse, Reinhard; Schlette, Sophia (Hrsg.) (2004). Gesundheitspolitik in Industrieländern. Ausgabe 2. Im Blickpunkt: Gesundheitspolitik und Alter, Arzneimittelpolitik, Fachkräfteentwicklung. Verlag Bertelsmannstiftung, Gütersloh. ISBN 3-89204-767-7 (<http://www.wm.tu-berlin.de/~mig/papers/index.html>).
- Busse, Reinhard; Schlette, Sophia (2005). Gesundheitspolitik in Industrieländern. Ausgabe 4. Im Blickpunkt: Zugang, Primärversorgung, Organisationsreform. Verlag Bertelsmann Stiftung, Gütersloh (http://www.healthpolicymonitor.org/Downloads/Gesundheitspolitik_in_Industrielaendern_Ausgabe_4.pdf;jsessionid=ODD454B3CBD59FED2F2ECA72FEDB7BA0).
- Busse, Reinhard; Schreyögg, Jonas; Henke, Klaus-Dirk (2005). Regulation of pharmaceutical markets in Germany: improving efficiency and controlling expenditures? *Int J H Plan Mgmt* 20 (4), pp. 329-349 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/112140375/PDFSTART>).
- Butler, Robert (2001). Old and Poor in America. Issue Brief, International Longevity Center, New York (www.ilcusa.org/_lib/pdf/brief_001.pdf).
- Canadian Alliance Grassroots (2002). Doctors Want More Private Care. Belleville/Ontario (<http://www.canadiangrassroots.ca/sections.php?op=printpage&artid=38>).
- Canadian Health Services Research Foundation (CHSRF) (2001). Myth: User fees stop waste and ensure better use of the healthcare system. Myth busters. CHSRF, Ottawa (<http://www.chrsf.ca>).
- Cannon, Christopher; Braunwald, Eugene; McCabe, Carolyn; Rader, Daniel; Rouleau, Jean; Belder, Rene; Joyal, Steven; Hill, Karen; Pfeffer, Marc; Skene, Allan (2004). Intensive versus Moderate Lipid Lowering with Statins after Acute Coronary Syndromes. *N Engl J Med* 350 (15), pp. 1495-1504 (<http://www.nejm.org/doi/pdf/10.1056/NEJMoa040583>).
- Carlsen, Frederick; Grytten, Jostein; Kjølvik, Julie; Skau, Irene (2007). Better primary physician services lead to fewer hospital admissions. *Eur J Health Econ* 8 (1), pp. 17-24 (<http://www.springerlink.com/content/9030485k85884r54/fulltext.pdf>).
- Carlson, Matthew; DeVoe, Jennifer; Wright, Bill (2006). Short-Term Impacts of Coverage Loss in a Medicaid Population: Early Results From a Prospective Cohort Study of the Oregon Health Plan. *Ann Fam* 4 (5), pp. 391-398 (<http://www.annfammed.org/cgi/reprint/4/5/391>).
- Carroll, Margaret; Lacher, David; Sorlie, Paul; Cleeman, James; Gordon, David; Wolz, Michael; Grundy, Scott; Johnson, Clifford (2005). Trends in Serum Lipids and Lipoproteins of Adults, 1960-2002. *JAMA* 294 (14), pp. 1773-1781 (<http://jama.ama-assn.org/cgi/reprint/294/14/1773>).

- Chandra, Amitabh; Gruber, Jonathan; McKnight, Robin (2007). Patient Cost-Sharing, Hospitalization Offsets, and the Design of Optimal Health Insurance for the Elderly. Working Paper 12972, National Bureau of Economic Research, Cambridge (<http://www.nber.org/papers/w12972>).
- Chauhan, Anoop; Chatterjee, Anwesh; Johnston, Sebastian (2005). Acute Respiratory Infections. In: Krzyzanowski, Michael, Kuna-Dibbert, Birgit, Schneider, Jürgen: pp. 44-69.
- Chen, Meei-shia; Mastilica, Miroslav (1998). Health care reform in Croatia: for better or for worse? *Am J Publ H* 88 (8), pp. 1156-1160 (<http://www.ajph.org/cgi/reprint/88/8/1156>).
- Cherkin, Daniel; Grothaus, Louis; Wagner, Edward (1989). The effect of office visit co-payments on utilization in a health maintenance organization. *Med Care* 27 (11), pp. 1036-1045.
- Cherkin, Daniel; Grothaus, Louis; Wagner, Edward (1992). Is magnitude of co-payment effect related to income? Using census data for health services research. *Soc Sci Med* 34 (1), pp. 33-41.
- Chernew, Michael; Encinosa, William; Hirth, Richard (2000). Optimal health insurance: the case of observable, severe illness. *J H Econ* 19 (5), pp. 585-609.
- Chernew, Michael; Smith, Dean; Kirking, Duane; Fendrick, Mark (2001). Decomposing Pharmaceutical Cost Growth in Different Types of Health Plans. *Am J Manag Care* 7 (7), pp. 667 -673 (http://www.ajmc.com/files/articlefiles/AJMC2001julCHERNEW667_673.pdf).
- Chernew, Michael; Rosen, Allison; Fendrick, Mark (2006). Rising Out-of-pocket Costs in Disease Management Programs. *Am J Manag Care* 12 (3), pp. 150-154 (http://www.ajmc.com/files/articlefiles/AJMC_06mar_Chernew150to54.pdf).
- Chernew, Michael; Rosen, Allison; Fendrick, Mark (2007). Value-based Insurance Design. *H Aff* 26 (2), pp. w195-w203 (<http://content.healthaffairs.org/cgi/reprint/26/2/w195>; <http://www.sph.umich.edu/vbidcenter/pdfs/w195Chernew.pdf>).
- Chewning, Betty (2006). The healthy adherer and the placebo effect. *BMJ* 333 (7557), pp. 18-19 (<http://www.bmj.com/content/333/7557/18.full.pdf>).
- Choe, Hae Mi; Stevenson, James; Streetman, Daniel; Heisler, Michele; Standiford, Connie; Piette, John (2007). Impact of Patient Financial Incentives on Participation and Outcomes in a Statin Pill-splitting Program. *Am J Man Care* 13 (6, Part 1), pp. 298-304 (http://www.ajmc.com/files/articlefiles/AJMC07_junPrt1Choe298to304.pdf).
- Choudhry, Niteesh; Avorn, Jerry; Antman, Elliott; Schneeweiss, Sebastian; Shrank, William (2007). Should Patients Receive Secondary Prevention Medications For Free After A Myocardial Infarction? An Economic Analysis. *H Aff* 26 (1), pp. 186-194 (<http://content.healthaffairs.org/cgi/reprint/26/1/186>).
- Chubon, Sandra; Schulz, Richard; Lingle Jr., Earle; Coster-Schulz, Marcia (1994). Too Many Medications, Too Little Money: How Do Patients Cope? *Public Health Nursing* 11 (6), pp. 412-415 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/119277850/PDFSTART>).
- Ciechanowski, Paul; Katon, Wayne; Russo, Joan (2000). Depression and Diabetes: Impact of Depressive Symptoms on Adherence, Function, and Costs. *Arch Intern Med* 160 (21), pp. 3278-3285 (<http://archinte.ama-assn.org/cgi/reprint/160/21/3278>).

- Clade, Harald; Merten, Martina (2004). Direktbeteiligung: Deutschland liegt auf einem Mittelplatz. *Dt Ärztebl* 101 (34-35), p. A-2288 /p. B-1920 /p. C-1848 (<http://www.aerzteblatt.de/v4/archiv/artikel.asp?src=heft&id=43081>).
- Claxton, Gary; Gil, Isadora; Finder, Benjamin; Holve, Erin; Gabel, Jon; Pickreign, Jeremy; Whitmore, Heidi; Hawkins, Samantha; Fahlman, Cheryl (2004). *Employer Health Benefits: 2004 Annual Survey*. Henry Kaiser Family Foundation; Health Research and Education Trust, Menlo Park/Chicago, ISBN 0-87258-812-2 (<http://www.kff.org/insurance/7148/upload/2004-Employer-Health-Benefits-Survey-Full-Report.pdf>).
- Claxton, Gary; Gil, Isadora; Finder, Benjamin; Gabel, Jon; Pickreign, Jeremy; Whitmore, Heidi; Hawkins, Samantha (2005). *Employer Health Benefits: 2005 Summary of Findings: 2005 Henry Kaiser Family Foundation/Health Research and Education Trust*, Menlo Park/Chicago, ISBN 1-55648-329-5 (<http://www.kff.org/insurance/7315/upload/7315.pdf>).
- Cole, Alexander; Norman, Heather; Weatherby, Lisa; Walker, Alexander (2006). Drug Copayment and Adherence in Chronic Heart Failure: Effect on Cost and Outcomes. *Pharmacotherapy* 26 (8), pp. 1157-1164 (<http://www.atypon-link.com/PPI/doi/pdf/10.1592/phco.26.8.1157>).
- Coleman, Eric; Smith, Jodi; Raha, Devbani; Min, Sung-joon (2006). Posthospital Medication Discrepancies. Prevalence and Contributing Factors. *Arch Int Med* 165 (18), pp. 1842-1847 (<http://archinte.ama-assn.org/cgi/reprint/166/17/1802>).
- Collins, David; Quick, Jonathan; Musau, Stephen; Kraushaar Daniel (1996). *Health Financing Reform in Kenya: The Fall and Rise of Cost Sharing, 1989-94*. Management Sciences for Health, Boston.
- Colombo, Francesca; Tapay, Nicole (2004). *Private Health Insurance in OECD Countries: The Benefits and Costs for Individuals and Health Systems*. OECD Health Working Paper 15 (<http://www.oecd.org/dataoecd/34/56/33698043.pdf>).
- Contoyannis, Paul; Hurley, Jeremiah; Grootendorst, Paul; Jeon, Sung-Hee; Tamblyn, Robyn (2005). Estimating the price elasticity of expenditure for prescription drugs in the presence of non-linear price schedules: an illustration from Quebec, Canada. *H Econ* 14 (9), pp. 909-923 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/111081767/PDFSTART>).
- Coombs, John; Cornish, Laura; Hiller, Paula; Smith, Dean (2002). Compliance and Refill Pattern Behavior With HMG-CoA Reductase Inhibitors After Acute Myocardial Infarction. *Manag Care Interface* 15 (1), pp. 54-58, 60 (<http://www.medicomint.com/Search/SubjectDetails.asp?SUBJECT=Compliance+and+Refill+Pattern+Behavior+With+HMG%2DCoA+Reductase+Inhibitors+After+Acute+Myocardial+Infarction>).
- Cooper, Michael; Culyer, Anthony (Eds.) (1973). *Health Economics*. Penguin Books, Hammondsworth/Baltimore/Rongwood.
- Cornwell, Andrea; Gaventa, John (2001). *From users and choosers to makers and shapers: repositioning participation in social policy*. Institute of Development Studies, IDS Working Paper 127, Brighton.

- Coulson, Edward; Terza, Joseph; Neslusan, Cheryl; Stuart, Bruce (1995). Estimating the Moral-Hazard Effect of Supplemental Medical Insurance in the Demand for Prescription Drugs by the Elderly. *Am Econ Rev* 85 (2) [Papers and Proceedings of the Hundredth and Seventh Annual Meeting of the American Economic Association Washington, DC, January 6-8, 1995], pp. 122-126 (<http://links.jstor.org/sici?sici=00028282%28199505%2985%3A2%3C122%3AETMEO%3E2.O.CO%3B2-Z>).
- Council of the European Union (2007). Joint Report on Social Protection and Social Inclusion 2007. EU Council, Brussels (<http://register.consilium.europa.eu/pdf/en/07/st06/st06694.en07.pdf>).
- Cox, Emily; Jernigan, Cindy; Coons, Stephen; Draugalis, JoLaine (2001). Medicare Beneficiaries' Management of Capped Prescription Benefits. *Med Care* 39 (3), pp. 296-301 (<http://links.jstor.org/sici?sici=00257079%28200103%2939%3A3%3C296%3AMBMOCP%3E2.O.CO%3B2>).
- Crawford, Steven; Ramsey, Christian; Splinter, Garth (2004). It's Health Care, Not Welfare. Final Report Submitted to The Oklahoma Health Care Authority. Health Care Not Welfare Project Team, Primary Care Health Policy Division, Department of Family & Preventive Medicine, University of Oklahoma Health Sciences Center, Oklahoma City (<http://www.statecoverage.net/hrsa/ok.pdf>; <http://www.statecoverage.net/statereports/ok8.pdf>).
- Creese, Andrew (1997). User fees: They don't reduce costs, and they increase inequity. *BMJ* 315 (7102), pp. 202-203 (<http://bmj.bmjournals.com/cgi/content/full/315/7102/202>).
- Creese, Andrew; Kutzin, Joseph (1995). Lessons from cost recovery in health. WHO/SHS/NHP Forum on Health Sector Reform (Discussion Paper No.2). Genf (http://mosquito.who.int/docs/hs95_5.htm).
- Criel, Bart (1998). District-based Health Insurance in sub-Saharan Africa. Part I: From Theory to Practice; *Studies in Health Services Organisation & Policy* 9, ITGPRESS, Antwerpen (<http://www.itg.be/itg/GeneralSite/GeneralPage.asp?Page=Bibliotheek+%26+Publicaties+--+ITGPress&HT=Bibliotheek+%26+Publicaties&ST=ITGPress#stud09>).
- Cross, Margaretann (2003). Will New Benefit Design Harm Some Patients? *Managed Care* Dec 2003 (<http://www.managedcaremag.com/archives/0312/0312.outcomes.html>).
- Crown, William; Berndt, Ernst; Baser, Onur; Finkelstein, Stan; Witt, Whitney (2003). Benefit Plan Design and Prescription Drug Utilization Among Asthmatics: Do Patient Copayments Matter? National Bureau of Economic Research, NBER Working Paper 10738, Cambridge (<http://www.nber.org/papers/w10062.pdf>).
- Crown, William; Berndt, Ernst; Baser, Onur; Finkelstein, Stan; Witt, Whitney; Maguire, Jonathan; Haver, Kenan (2004). Benefit plan design and prescription drug utilization among asthmatics: do patient copayments matter? *Front H Pol Res* 7 (1), pp. 95-127 (<http://www.bepress.com/cgi/viewcontent.cgi?article=1053&context=fhpep>; <http://web.ebscohost.com/ehost/pdf?vid=3&hid=117&sid=da9961f6-3fe4-488c-8627-b1f1f3f2e18e%40sessionmgr9>).

- Crystal, Stephen; Johnson, Richard; Harman, Jeffrey; Sambamoorthi, Usha; Kumar, Rizie (2000). Out-of-pocket health care costs among older Americans. *J Gerontol B Psychol* 55 (1), pp. 51-62 (<http://psychocgerontologyjournals.org/cgi/reprint/55/1/S51>).
- Currie, Gillian; Nielson, Norma (1999). Models for Funding Prescription Drug Program. Working Paper No. 2002-16, Research Report to the Institute of Health Economics, Edmonton (<http://www.ihe.ca/publications/papers/pdf/1999-05paper.pdf>).
- Davidson, Stephen; Connelly, John; Blim, Don; Strain, James; Taylor, Doyl (1980). Consumer Cost-Sharing as a Means to Reduce Health Care Costs. *Pediatrics* 65 (1), pp. 168-170 (<http://pediatrics.aappublications.org/cgi/reprint/65/1/168>).
- Cutler, David (2001). Health Care and the Public Sector. Paper prepared for the Handbook of Public Economics, Harvard University and NBER, Boston (http://post.economics.harvard.edu/faculty/dcutler/papers/cutler_handbook_chapter_3-12-01.pdf).
- Davis, Karen (2004). Consumer Directed Health Care: Will It Improve Health System Performance? *H Serv Res* 39 (4 part 2), pp. 1219-1233 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/118753001/PDFSTART>; <http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=1361064&blobtype=pdf>).
- Davis, Karen; Schoen, Cathy; Schoenbaum, Stephen; Audet, Anne-Marie; Doty, Michelle; Holmgren, Alyssa; Kriss, Jennifer (2006). *Mirror, Mirror on the Wall: An Update on the Quality of American Health Care Through the Patient's Lens*. The Commonwealth Fund, New York (http://www.cmwf.org/usr_doc/Davis_mirrormirror_915.pdf).
- Dawson, Diane (1999). Why charge patients if there are better ways to contain costs, encourage efficiency and reach for equity? *Eurohealth* 5 (3). Geneva: World Health Organization, pp. 29-31 (http://www.euro.who.int/document/obs/EuroHealth5_3.pdf).
- Deber, Raisa; Kraetschmer, Nancy; Irvine, Jane (1996). What role do patients wish to play in treatment decision making? *Arch Int Med* 156 (13), pp. 1414-1420 (<http://archinte.ama-assn.org/cgi/content/reprint/156/13/1414>).
- Deber, Raisa (2000). Getting what we pay for: Myths and Realities about Financing Canada's Health Care System. Background Paper Prepared for the Dialogue on Health Reform. Department of Health Administration, University of Toronto.
- Deber, Raisa; Forget, Evelyn; Roos, Leslie (2004). Medical savings accounts in a universal system: wishful thinking meets evidence. *H Pol* 70 (1), pp. 49-66.
- de Lemos, James; Blazing, Michael; Wiviott, Stephen; Lewis, Eldrin; Fox, Keith; White, Harvey; Rouleau, Jean-Lucien; Pedersen, Terje; Gardner, Laura; Mukherjee, Robin; Ramsey, Karen; Palmisano, Joanne; Bilheimer, David; Pfeffer, Marc; Califf, Robert; Braunwald, Eugene for the A to Z Investigators (2004). Early intensive vs a delayed conservative simvastatin strategy in patients with acute coronary syndromes: phase Z of the A to Z trial. *JAMA* 292 (11), pp. 1307-1316 (<http://jama.ama-assn.org/cgi/reprint/292/11/1307>).
- Delesie, Lucas (1985). Cost-sharing and the patient's choice of provider: M. Susan Marquis Rand Corporation, Health Insurance Experiment Series, Santa Monica, California, 1984. *H Pol* 5 (1), p. 86.

- Delnoij, Diana; Groenewegen, Peter; Roos, C.; Hutten, Jack; Friele, Roland (2000). Die Zahlungsregelungen im niederländischen Krankenkassengesetz: eine Evaluation der Effekte. *Gesundheitswesen* 62 (1), pp. 39-44
(<http://www.thiemeconnect.de/ejournals/pdf/gesu/doi/10.1055/s-2000-10311.pdf>).
- Deppe, Hans-Ulrich (1987). *Krankheit ist ohne Politik nicht heilbar*. Edition suhrkamp, Vol. 391, 1. Ed., Frankfurt.
- Deppe, Hans-Ulrich (2002). *Zur sozialen Anatomie des Gesundheitssystems. Neoliberalismus und Gesundheitspolitik in Deutschland*. Verlag für Akademische Schriften, Frankfurt.
- Deppe, Hans-Ulrich (2003). Weil du arm bist, musst du früher sterben". Die Folgen der Agenda 2010 für die Gesundheitspolitik. *InformationsDienst (ID)*, Ausgabe 152/26. Glienicke/Nordbahn (<http://www.berlinvonunten.net/texte/ivc24-id152-deppe.htm>).
- Deutsche Bank Research (o.J.). *Wieviel Marktwirtschaft verträgt das Gesundheitswesen?* Frankfurt
(http://www.dbresearch.com/PROD/DBR_INTERNET_DEPROD/PRODOOOOOOOOOO047007.pdf).
- Deutsche Morbus Crohn / Colitis ulcerosa Vereinigung (DCCV e.V.) (2004). *Verarmung und Verzicht auf medizinische Versorgung. Erste Ergebnisse einer Befragung über die Gesundheitskosten von Patientinnen und Patienten mit chronisch entzündlichen Darmerkrankungen*. Leverkusen.
- Dezhi, Yu (1992). *Changes in Health Care Financing and Health Status: The Case of China in the 1980s*. Innocenti Occasional Papers EPS Nr. 34. Florenz.
- Dixon, Anna; Mossialos, Elias (2001). *Funding Health Care in Europe: Recent Experiences*. Health Care UK, King's Fund.
- Dixon, Anna; Mossialos, Elias (Eds.) (2002). *Health Care Systems in eight countries: trends and challenges*. The European Observatory on Health Care Systems. London. ISBN 0 7530 1548 X (http://www.hm-treasury.gov.uk/media/70855/observatory_report.pdf).
- Dixon, Anna; McDaid, David; Healey, Andrew; Knapp, Martin (2002a). *Financing Mental Health: Equity and Efficiency Concerns for Low and Middle Income Countries*. LSE Health and Social Care, London School of Economics, London
(<http://www.mentalhealth-econ.org/Documents/dp1734%20WHO%20financing%20MH9%20ro.doc>).
- Dixon, Anna; Langenbrunner, Jack; Mossialos, Elias (2002b). *Facing the Challenges of Health Care Financing*. Background Paper for USAID Conference: Ten Years of Health System Transition in Central and Eastern Europe and Eurasia, 29.-31.7.2002, Washington.
(<http://www.eurasiahealthtransitionconference.org/Healthfinancing.pdf>).
- Dockery, Douglas; Stone, Peter (2007). *Cardiovascular Risks from Fine Particulate Air Pollution*. *N Engl J Med* 356 (5), pp. 511-513
(<http://www.nejm.org/doi/pdf/10.1056/NEJMe068274>).
- Docteur, Elizabeth; Oxley, Howard (2003). *Health-Care Systems: Lessons from the Reform Experience*. OECD Health Working Paper 9, OECD, Paris
(<http://www.oecd.org/dataoecd/5/53/22364122.pdf>;
[http://www.olis.oecd.org/olis/2003doc.nsf/43bb6130e5e86e5fc12569fa005d004c/b64eaf1a3e9cf262c1256df300536279/\\$FILE/JT00155489.DOC](http://www.olis.oecd.org/olis/2003doc.nsf/43bb6130e5e86e5fc12569fa005d004c/b64eaf1a3e9cf262c1256df300536279/$FILE/JT00155489.DOC)).

- Donaldson, Cam, Gerard, Karen, Mitton, Craig, Jan, Stephen and Wiseman, Virginia (2004). Economics of health care financing: the visible hand. Second edition, Basingstoke, Palgrave Macmillan (<http://www.palgrave.com/pdfs/0333984315.pdf>).
- Dong, Hengjin; Bogg, Lennart; Wang, Keli; Rehnberg, Clas; Diwan, Vinod (1999). A description of outpatient drug use in rural China: evidence of differences due to insurance coverage. *Int J H Plan Mgmt* 14 (1), pp. 41-56 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/45002108/PDFSTART>).
- Donges, Juergen; Eekhoff, Wolfgang; Möschel, Wernhard; Neumann, Manfred; Sievert, Olaf (2002). Mehr Eigenverantwortung und Wettbewerb im Gesundheitswesen. Schriftenreihe der Stiftung Marktwirtschaft, Vol. 39. Frankfurt. ISBN 3-89015-086-1 (http://www.insm.de/Downloads/PDF_-_Dateien/Publikationen_Kostenlose_Downloads/Stiftung_Marktwirtschaft/kk39.pdf).
- Dor, Avi; Encinosa, William (2004). Does Cost Sharing Affect Compliance? The Case of Prescription Drugs. Working Paper 10738, National Bureau of Economic Research, Cambridge (<http://www.nber.org/papers/w10738>).
- Dow, William (1997). Health Care Prices, Health and Labor Outcomes: Experimental Evidence, RAND (not published). WHO 1999, p. 10.
- Dow, William; Gertler, Paul; Schoeni, Robert; Strauss, John; Thomas, Duncan (2000). Health care prices, health and labor outcomes: Experimental evidence. RAND, Santa Monica (<http://www-personal.umich.edu/~bschoeni/irms2.pdf>).
- Downs, John; Clearfield, Michael; Weis, Stephen; Whitney, Edwin; Shapiro, Deborah; Beere, Polly; Langendorfer, Alexandra; Stein, Evan; Kruyer, William; Gotto, Antonio Jr for the AFCAPS/TexCAPS Research Group (1998). Primary prevention of acute coronary events with lovastatin in men and women with average cholesterol levels: results of AFCAPS/TexCAPS. Air Force/Texas coronary atherosclerosis prevention study. *JAMA* 279 (20), pp. 1615-22 (<http://jama.ama-assn.org/cgi/reprint/279/20/1615>).
- Drèze, Jacques (2001). Loss reduction and implicit deductibles in Medical Insurance. Université Catholique, Louvain (<http://www.core.ucl.ac.be/services/psfiles/dp02/dp2002-5>).
- Drummond, Michael; Jönsson, Bengt (2003). Moving Beyond the Drug Budget Silo Mentality in Europe. *Value in Health* 6 (s1), pp. S74-S77 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/118801949/PDFSTART>).
- Dührssen, Annemarie; Jorswiek, Eberhard (1965). Eine empirisch-statistische Untersuchung zur Leistungsfähigkeit psychoanalytischer Behandlung (An empirical and statistical inquiry into the therapeutic potential of psychoanalytic treatment) *Der Nervenarzt* 36 (4), pp. 166-169 [Reprint in *Zsch psychosom Med* 44, pp. 311-318].
- Dunn, Jeffrey; Cannon, Eric; Mitchell, Matthew; Curtiss, Frederic (2006). Utilization and drug cost outcomes of a step-therapy edit for generic antidepressants in an HMO in an integrated health system. *J Manag Care Pharm* 12 (4) pp. 294-302 (http://www.amcp.org/data/jmcp/May06_Journal.pdf).
- Dustan, Harriet; Caplan, Louis; Curry, Charles; de Leon, Antonio; Douglas, Frank; Frishman, William; Hill, Martha; Washington, Reginald; Steigerwalt, Susan; Shulman, Neil (1992). Report of the Task Force on the Availability of Cardiovascular Drugs to the Medically Indigent. *Circ* 85 (2), pp. 849-860 (<http://circ.ahajournals.org/cgi/reprint/85/2/849>).

- Eichner, Matthew (1998). The Demand for Medical Care: What People Pay does Matter. *Am Econ Rev* 88 (2), pp. 117-121 (<http://links.jstor.org/sici?sici=0002-8282%28199805%2988%3A2%3C117%3ATDFMCW%3E2.O.CO%3B2-0>).
- Eisenberg; John; Power, Elaine (2000). Transforming Insurance Coverage Into Quality Health Care. Voltage Drops From Potential to Delivered Quality. *JAMA* 284 (16), pp. 2100-2107. (<http://jama.ama-assn.org/cgi/reprint/284/16/2100>).
- Elliott, Catherine (1991). Implications of Uncollectibles for Hospitalization Coinsurance Rates. *J Risk Insur* 58 (4), pp. 616-641+644-645 (<http://links.jstor.org/sici?sici=00224367%28199112%2958%3A4%3C616%3AIOUFHC%3E2.O.CO%3B2-7>).
- Elliott, Rachel; Majumdar, Sumit; Gillick, Muriel; Soumerai, Stephen (2005). Medicare Drug Benefit: Benefits and Consequences for the Poor and the Disabled. *N Engl J Med* 353 (26), pp. 2739-274 (<http://www.nejm.org/doi/pdf/10.1056/NEJMp058242>).
- Elliott, Paul; Shaddick, Gavin; Wakefield, Jonathan; de Hoogh, Cornelis; Briggs, David (2007). Long-term associations of outdoor air pollution with mortality in Great Britain. *Thorax* 62 (12), pp. 1088-1094 (<http://thorax.bmj.com/cgi/content/full/62/12/1088>).
- Ellis, Jeffrey; Erickson, Steven; Stevenson, James; Bernstein, Steven; Stiles, Renee; Fendrick, Mark (2004). Suboptimal Statin Adherence and Discontinuation in Primary and Secondary Prevention Populations Should We Target Patients with the Most to Gain? *J Gen Int Med* 19 (6), pp. 638-645 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/118783874/PDFSTART>).
- Ellis, Randall (1986). Rational Behavior in the Presence of Coverage Ceilings and Deductibles. *RAND J Econ* 17 (2), pp. 158-175 (<http://links.jstor.org/sici?sici=0741-6261%28198622%2917%3A2%3C158%3ARBITPO%3E2.O.CO%3B2-9>).
- Ellis, Randall; McGuire, Thomas (1986). Provider behavior under prospective reimbursement: Cost sharing and supply. *J H Econ* 5 (2), pp. 129-151.
- Elofsson, Stig; Uden, Anna-Lena; Krakau, Ingvar. (1998). Patient charges – A Hindrance to Financially and Psychosocially Disadvantaged Groups Seeking Care. *Soc Sc Med* 46 (10), pp. 1375-1380.
- Ensor, Tim; Duran-Moreno, Antonio (2002). Corruption as a challenge to effective regulation in the health sector. *Saltman, Busse, Mossialos 2002*, pp. 106-124 (<http://www.who.dk/document/OBS/REBC05.pdf>).
- Enthoven, Alain (2004). Perspective: Market Forces And Efficient Health Care Systems. *H Aff* 23 (2), pp. 25-27 (<http://content.healthaffairs.org/cgi/reprint/23/2/25>).
- Entwistle, Vikki (2004). Trust and shared decision-making: an emerging research agenda. *H Expect* 7 (4), pp. 271-273 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/118783874/PDFSTART>).
- Erlinger, Rainer (2006). Unärztliche Käuflichkeit. Heil- oder Marktkräfte? Das Gesundheitswesen ohne Halt. *Süddeutsche Zeitung* 244, 23.10.2006.
- Ernst, Michael; Kelly, Michael; Hoehns, James; Swegle, John; Buys, Lucinda; Logemann, Craig; Ford, Julie; Kautzman, Holli; Sorofman, Bernard; Pretorius, Richard (2000). Prescription Medication Costs. A Study of Physician Familiarity. *Fam Med* 9, pp. 1002-1007 (<http://archfami.ama-assn.org/cgi/reprint/9/10/1002>).

- Esposito, Domenico (2002). You Get What you Copay For. The Influence of Patient Copayment on the Demand for Drugs within a Therapeutic Class: The Case of Statins. Universität Kalifornien, Santa Barbara (<http://www.econ.ucsb.edu/papers/wp16-021.pdf>).
- Ettelt, Stefanie; Nolte, Ellen; Mays, Nicholas; Thomson, Sarah; McKee, Martin; and the International Healthcare Comparisons Network (2006). Policy brief. Health care outside hospital. Accessing generalist and specialist care in eight countries. European Observatory on Health Systems and Policies/World Health Organization, Copenhagen (<http://www.euro.who.int/Document/E89259.pdf>).
- Evans, Robert; Barer, Morris; Stoddart, Greg (1993a). The truth about user fees. *Policy Options* 14 (8), pp. 4-9.
- Evans, Robert; Barer, Morris; Stoddart, Greg; Bhatia, Vandha (1993b). Who are the Zombie Masters, and what do they want? Centre for Health Services and Policy Research, University of British Columbia. HPRU, 93. 13D. Calgary (<http://www.chspr.ubc.ca/hpru/pdf/hpru93-13D.pdf>).
- Evans, Robert; Barer, Morris; Stoddart, Greg; Bhatia, Vandha (1993c). It's not the Money, it's the Principle: Why User Charges for some services and not Others? Centre for Health Services and Policy Research, University of British Columbia. HPRU, 93. 16D. Calgary (<http://www.chspr.ubc.ca/hpru/pdf/hpru93-16D.pdf>).
- Evans, Robert; Barer, Morris; Stoddart, Greg (1993d). Charging Peter to Pay Paul: Accounting for the Financial Effects of User Charges. Centre for Health Services and Policy Research, University of British Columbia. HPRU, 93. 17D. Calgary (<http://www.chspr.ubc.ca/hpru/pdf/hpru93-17D.pdf>).
- Evans, Robert; Barer, Morris; Lewis, Steven; Rachlis, Michael; Stoddart, Greg (1995). User fees for Health Care: Why a Bad Idea Keeps Coming Back (Or, What's Health Got to Do With It?). *Canadian Journal on Aging* 14 (2), pp. 360-390.
- Evans, Robert; Barer, Morris; Lewis, Steven; Rachlis, Michael; Stoddart, Greg (2000). Private Highway, One-Way-Street: The Deklein and Fall of Canadian Medicare? University of British Columbia, Calgary (<http://www.chspr.ubc.ca/hpru/pdf/hpru00-3D.pdf>).
- Evans, Robert (1997). Going for the Gold: The Redistributive Agenda behind Market-Based Health Care Reform. *J H Polit Pol Law* 22 (2), pp. 427-465 (<http://jhpl.dukejournals.org/cgi/reprint/22/2/427>; <http://web.ebscohost.com/ehost/pdf?vid=3&hid=117&sid=b703f69b-1851-4b45-892a-d3bc2e69e4b9%40sessionmgr9>).
- Evans, Robert (2000). Canada. Reconsidering the Role of Competition in Health Care Markets. *J H Polit Pol Law* 25 (5), pp. 889-897 (<http://jhpl.dukejournals.org/cgi/reprint/25/5/889>; http://muse.jhu.edu/journals/journal_of_health_politics_policy_and_law/v025/25.5evans.pdf; <http://web.ebscohost.com/ehost/pdf?vid=3&hid=113&sid=b703f69b-1851-4b45-892a-d3bc2e69e4b9%40sessionmgr9>).
- Evans, Robert (2002). Raising the Money: Options, Consequences, and Objectives for Financing Health Care in Canada. University of British Columbia, Commission on the Future of Health Care in Canada, Discussion Paper No 27, ISBN 0-662-32791-8 (http://collection.nlc-bnc.ca/100/200/301/pco-bcp/commissions-ef/future_health_care-ef/discussion_paper-e/no27/27_e.pdf).

- Fahs, Marianne (1992). Physician response to the United Mine Worker's cost sharing program: the otherside of the coin. *H Serv Res* 27 (1), pp. 25-45 (<http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=1069862&blobtype=pdf;> <http://www.encyclopedia.com/doc/1G1-12414799.html>).
- Fairman, Kathleen; Motheral, Brenda; Teitelbaum, Fred (2001). Effects of Employee Salary and Chronic Disease on Response to a Drug Co-Payment Increase. Office of Research and Development, Tucson (<http://www.expressscripts.com/ourcompany/news/outcomesresearch/onlinepublications/studyfolder4/copaymentIncrease.pdf>).
- Fairman, Kathleen; Motheral, Brenda; Henderson, Rochelle (2003). Retrospective, long-term follow-up study of the effect of a three-tier prescription drug copayment system on pharmaceutical and other medical utilization and costs. *Clin Ther* 25 (12), pp. 3147-3161.
- Families USA (2001). Research Shows the Negative Impact of Out-of-Pocket Costs on Low-Income People. The Voice for Health Care Consumers, Washington DC (www.familiesusa.org/site/DocServer/6_Cost_sharing.pdf?docID=584).
- Families USA (2003a). State Budget Cuts: Increased Premiums and Cost-Sharing. The Voice for Health Care Consumers, Washington DC (www.familiesusa.org/site/DocServer/4a_IncreasedCostSharing.pdf?docID=616).
- Families USA (2003b). Prescription Drug Cost-Sharing and Low-Income People: Five Good Reasons to Keep It Minimal. Health Policy Memo, Washington DC (http://www.familiesusa.org/assets/pdfs/Rx_Cost_Sharing9d2b.pdf).
- Farmer, Andrew; Wade, Alisha; Goyder, Elizabeth; Yudkin, Patricia; French, David; Craven, Anthea; Holman, Rury; Kinmonth, Ann-Louise; Andrew, Neil (2007). Impact of self monitoring of blood glucose in the management of patients with non-insulin treated diabetes: open parallel group randomised trial. *BMJ* 335 (7611), pp. 132-139 (<http://www.bmj.com/cgi/reprint/335/7611/132>).
- Federman, Alex; Adams, Alyce; Ross-Degnan, Dennis; Soumerai, Stephen; Ayanian, John (2001). Supplemental Insurance and Use of Effective Cardiovascular Drugs Among Elderly Medicare Beneficiaries with Coronary Heart Disease. *JAMA* 286 (14), pp. 1732-1739 (<http://jama.ama-assn.org/cgi/reprint/286/14/1732>).
- Federman, Alex (2004). Don't Ask, Don't Tell. The Status of Doctor-Patient Communication About Health Care Costs. *Arch Int Med* 164 (16), pp. 1723-1724 (<http://archinte.ama-assn.org/cgi/content/full/164/16/1723>).
- Federman, Alex; Vladeck, Bruce; Siu Albert (2005). Avoidance Of Health Care Services Because Of Cost: Impact Of The Medicare Savings Program. *H Aff* 24 (1), pp. 263-270 (<http://content.healthaffairs.org/cgi/reprint/24/1/263>).
- Federman, Alex; Halm, Ethan; Zhu, Carolyn; Hochman, Tsvia; Siu, Albert (2006). Association of Income and Prescription Drug Coverage With Generic Medication Use Among Older Adults With Hypertension. *Am J Manag Care* 12 (10), pp. 611-618 (http://www.ajmc.com/files/articlefiles/AJMC_Federman_611to619.pdf).
- Felder, Stefan; Werblow, Andreas (2001). Der Einfluss von Zuzahlungen auf die Nachfrage nach medizinischen Leistungen: Empirische Evidenz aus der Schweiz. *Gesundheitswesen* 63, A74.

- Felder, Stefan; Werblow, Andreas (2006). Anreizwirkungen wählbarer Selbstbehalte. Das Selbstbehaltmodell der Techniker Krankenkasse. Nomos-Verlagsgesellschaft, Baden Baden.
- Feldman, Roger; Sloan, Frank (1989). Peplly from Feldman and Sloan. *J H Polit Pol Law* 14 (3), pp. 621–625 (<http://jhpl.dukejournals.org/cgi/reprint/14/3/621>).
- Feldman, Roger; Dowd, Bryan (1991). A New Estimate of the Welfare Loss of Excess Health Insurance. *Am Econ Rev* 81 (1), pp. 297–301 (<http://links.jstor.org/sici?sici=0002-8282%28199103%2981%3A1%3C297%3AANEOTW%3E2.O.CO%3B2-E>).
- Feldman, Roger; Morrissey, M. (1990). Health Economics: A Report on the Field. *J H Polit Pol Law* 15 (3), pp. 627–646 (<http://jhpl.dukejournals.org/cgi/reprint/15/3/627>;).
- Feldstein, Martin (1970). The Rising Price of Physician's Services. *Rev Econ Stat* 52 (2), pp. 121–133 (<http://links.jstor.org/sici?sici=0034-6535%28197005%2952%3A2%3C121%3ATRPOPS%3E2.O.CO%3B2-S>).
- Feldstein, Martin (1973). The Welfare Loss of Excess Health Insurance. *J Pol Econ* 81 (2, Part 1), pp. 251–280 (<http://links.jstor.org/sici?sici=0022-3808%28197303%2F04%2981%3A2%3C251%3ATWLOEH%3E2.O.CO%3B2-1>).
- Fendrick, Mark; Smith, Dean; Chernew, Michael; Shah, Sonali (2001). A Benefit-Based Copay for Prescription Drugs: Patient Contribution Based on Total Benefits, Not Drug Acquisition Cost. *Am J Man Care* 7 (9), pp. 861–867 (http://www.ajmc.com/files/articlefiles/AJMC2001sepFendrick861_867.pdf).
- Fendrick, Mark; Chernew, Michael (2006). Value-based Insurance Design: A “Clinically Sensitive” Approach to Preserve Quality of Care and Contain Costs. *Am J Manag Care* 12 (1), pp. 18–20 (http://www.ajmc.com/files/articlefiles/AJMC_06janFendrickEdit18to20.pdf).
- Fendrick, Mark; Chernew, Michael (2007). “Fiscally Responsible, Clinically Sensitive” Cost Sharing: Contain Costs While Preserving Quality. *Am J Man Care* 13 (6, Part 2), pp. 325–327 (http://www.ajmc.com/files/articlefiles/AJMC_07junPrt2FendrickIntro325.pdf).
- Fink, Ulf (2002). Gesundheitsreform 2003. Nomos Verlagsgesellschaft, Baden-Baden.
- Finkelstein, Amy (2004). The Aggregate Effects of Health Insurance: Evidence from the Introduction of Medicare. Harvard University and NBER (www2.gsb.columbia.edu/divisions/finance/seminars/micro/fall_04/Finkelstein.pdf).
- Finkelstein, Joel (2004). Firms embrace cost-sharing; sick pay most. *Government & Medicine*. AMNews Jan. 2004 (<http://www.ama-assn.org/amednews/2004/01/12/gvsc0112.htm>).
- Finkelstein, Murray; Jerrett, Michael; DeLuca, Patrick; Finkelstein, Norm; Verma, Dave; Chapman, Kenneth; Sears, Malcolm (2003). Relation between income, air pollution and mortality: a cohort study. *CMAJ* 169 (5), pp. 397–402 (<http://www.cmaj.ca/cgi/reprint/169/5/397>).
- Fischer, Pamela; Strobino, Donna; Pinckney, Carole (1984). Utilization of child health clinics following introduction of a copayment. *Am J Pub H* 74 (12), pp. 1401–1403 (<http://www.ajph.org/cgi/reprint/74/12/1401>).

- Fortess, Eric; Stephen Soumerai, Thomas McLaughlin, Ross-Degnan, Dennis (2001). Utilization of Essential Medications by Vulnerable Older People After a Drug Benefit Cap: Importance of Mental Disorders, Chronic Pain, and Practice Setting. *J Am Geriatr Soc* 49 (6), pp. 793-797
(<http://www3.interscience.wiley.com/cgi-bin/fulltext/118968100/PDFSTART>).
- Foxman, Betsy; Valdez, Robert; Lohr, Kathleen, Goldberg, George; Newhouse, Joseph; Brook, Robert (1987). The Effect Of Cost Sharing On The Use Of Antibiotics In Ambulatory Care: Results From A Population-Based Randomized Controlled Trial. *J Chron Dis* 40 (5), pp. 429-439.
- Frank, Richard (2001). Prescription Drug Prices: Why Do Some Pay More Than Others? *H Aff* 20 (2), pp. 115-128 (<http://content.healthaffairs.org/cgi/reprint/20/2/115.pdf>).
- Fraser-Institute (1999). The Empirical Evidence. Vancouver
(http://oldfraser.lexi.net/publications/critical_issues/1998/msa/evidence.html)
- Fraser-Institute (2002). Which Countries Other than Canada Don't have CostSharing? A Look at Co-insurance and Co-payments. *Canadian Health Care* Aug. 2002, pp. 14-21 (<http://www.fraserinstitute.ca/admin/books/chapterfiles/Part%202-pages14-21.pdf>).
- Freiman, Mark (1984). Cost Sharing Lessons from the Private Sector. *H Aff* 3 (4), pp. 85-93 (<http://content.healthaffairs.org/cgi/reprint/3/4/85.pdf>).
- French, Eric; Bailey Jones, John (2004). On the Distribution and Dynamics of Health Care Costs. *J Appl Econometrics* 19 (6), pp. 705-721
(<http://www3.interscience.wiley.com/cgi-bin/fulltext/109799428/PDFSTART>;
<http://qed.econ.queensu.ca/jae/2004-v19.6/french-jones/>;
www.albany.edu/~jbjones/healc32.pdf).
- Frerich, Johannes; Frey, Matzin (1996). *Handbuch der Geschichte der Sozialpolitik in Deutschland* Bd. 1, 2. Aufl., Oldenbourg Wissenschaftsverlag, München. (p. 208).
- Fronstin, Paul (2004). Health Savings Accounts and Other Savings-Based Health Plans. EBRI Issue Brief 273, Employee Benefit Research Institute, Washington DC
(http://papers.ssrn.com/sol3/papers.cfm?abstract_id=599942).
- Fuchs, Victor; Hahn, Jim (1990). How does Canada do it? A comparison of expenditures for physicians' services in the United States and Canada. *N Engl J Med* 323 (13), pp. 884-890 (<http://www.nejm.org/doi/pdf/10.1056/NEJM199009273231306>).
- Fuchs, Victor (1996). Economics, Values and Health Care Reform. *Am Econ Rev* 86 (1), pp. 1-23 (<http://links.jstor.org/sici?sici=0002-8282%28199603%2986%3A1%3C1%3AEVAHCR%3E2.O.CO%3B2-L>).
- Fuchs, Victor (2002). What's ahead for Health Insurance in the United States? *N Engl J Med* 346 (23), pp. 1822-1824
(<http://www.nejm.org/doi/pdf/10.1056/NEJM200206063462314>).
- Gabel, Jon; Lo Sasso, Anthony; Rice Thomas (2002a). Consumer-Driven Health Plans: Are They More Than Talk Now? *H Aff, Web Excl*, pp. w2 395-W407
(<http://content.healthaffairs.org/cgi/reprint/hlthaff.w2.395v1>).
- Gabel, Jon; Levitt, Larry; Holve, Erin; Pickreign, Jeremy; Whitmore, Heidi; Dhont, Kelley; Hawkins, Samantha; Rowland, Diane (2002b). Jobbased health benefits in 2002: some important trends. *H Aff* 21 (5), pp. 143-151
(<http://content.healthaffairs.org/cgi/reprint/21/5/143>).

- Gabel, Jon; Claxton, Gary; Holve, Erin; Pickreign, Jeremy; Whitmore, Heidi; Dhont, Kelley; Hawkins, Samantha; Rowland, Diane (2003). Health Benefits In 2003: Premiums Reach Thirteen-Year High As Employers Adopt New Forms of Cost Sharing. *H Aff* 22 (5), pp. 117-126 (<http://content.healthaffairs.org/cgi/reprint/22/5/117>).
- Galbraith, Alison; Wong, Sabrina; Kim, Sue; Newacheck, Paul (2005). Out-of-pocket financial burden for low-income families with children: socioeconomic disparities and effects of insurance. *H Serv Res* 40 (6), pp. 1722-1736 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/118968100/PDFSTART>; http://www.findarticles.com/p/articles/mi_m4149/is_6_40/ai_n16015023).
- Garber, Alan (2004). Cost-Effectiveness And Evidence Evaluation As Criteria For Coverage Policy. *H Aff – Web Excl*, pp. w4 284-296 (<http://content.healthaffairs.org/cgi/reprint/hlthaff.w4.284v1>).
- Garfield, Sarah; Smith, Felicity; Francis, Sally-Anne; Chalmers, Colin (2007). Can patients' preferences for involvement in decision-making regarding the use of medicines be predicted? *Pat Educ Counsel* 66 (3), pp. 361-367.
- Garrison, Lou; Towse, Adrian (2003). The Drug Budget Silo Mentality in Europe: An Overview. *Value in Health* 6 (s1), pp. S1-S9 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/118894231/PDFSTART>).
- Gaynor, Martin; Li, Jian; Vogt, William (2005a). Is Drug coverage A Free Lunch? Cross-price Elasticities and the Design of Prescription Drug Benefits. PERC Applied Microeconomics, Department of Economics, Texas A&M University, College Station (<http://econweb.tamu.edu/workshops/PERC%20Applied%20Microeconomics/William%20B.%20Vogt.pdf>).
- Gaynor, Martin; Li, Jian; Vogt, William (2005b). Is Drug coverage A Free Lunch?: Cross-price Elasticities and the Design of Prescription Drug Benefits. Working Paper 12758, National Bureau of Economic Research, Cambridge (<http://www.nber.org/papers/w12758>).
- Gebhardt, Birte (2005). Zwischen Steuerungswirkung und Sozialverträglichkeit – eine Zwischenbilanz zur Praxisgebühr aus Sicht der Versicherten. In: Boecken, Jan; Braun, Bernard; Schnee, Melanie; Amhof, Robert (Hrsg.). *Gesundheitsmonitor 2005. Die ambulante Versorgung aus Sicht von Bevölkerung und Ärzteschaft*. Verlag Bertelsmann Stiftung, Gütersloh, pp. 11-31.
- Gehring, Ulrike; Heinrich, Joachim; Kramer, Ursula; Grote, Veit; Hochadel, Matthias; Sugiri, Dorothea; Kraft, Martin; Rauchfuss, Knut; Eberwein, Hans-Georg; Wichmann, Hans-Erich (2006). Long-Term Exposure to Ambient Air Pollution and Cardiopulmonary Mortality in Women. *Epidemiology* 17 (5), pp. 545-551.
- Geißler, Ulich (1980). Erfahrungen mit der Selbstbeteiligung in der gesetzlichen Krankenversicherung in der Bundesrepublik Deutschland. Selbstbeteiligung im Gesundheitswesen. In: Internationale Gesellschaft für Gesundheitsökonomie, pp. 37-57.
- Gemmill, Marin; Costa-Font, Joan; McGuire, Alistair (2007). In search of a corrected prescription drug Elasticity estimate: a meta-regression approach. *H Econ* 16 (6), pp. 627-643 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/114069729/PDFSTART>).
- Geoffard, Pierre-Yves (2000). Dépenses de santé: l'hypothèse d' „aléa moral“. *Économie et Prévision* 142, pp. 123-135. ISSN 02494744.

- Gericke, Christian; Wismar, Matthias; Busse, Reinhard (2003). Cost-sharing in the German Health Care System. Department of Health Care Management. Technische Universität Berlin/European Observatory on Health Care Systems. Berlin (<http://www.wv.tu-berlin.de/diskussionspapiere/2004/dp04-2004.pdf>).
- Gericke, Christian; Wismar, Matthias; Busse, Reinhard (2004). Finanzielle Selbstbeteiligung der Patienten in Deutschland – Kaum empirische Evidenz. *Gesundheitswesen* 66 (8/9), (Abstract: <http://www.thieme-connect.de/ejournals/abstract/gesu/doi/10.1055/s-2004-833802>).
- Gerken, Lüder; Raddatz, Guido (2002). Deutschland im Reformstau. 3 Maßnahmenkataloge der Stiftung Marktwirtschaft. *Argumente zu Marktwirtschaft und Politik* 69, Stiftung Marktwirtschaft, Berlin (http://www.insm.de/Downloads/PDF_-_Dateien/Publikationen_Kostenlose_Downloads/Stiftung_Marktwirtschaft/argument69.pdf).
- Gerlinger, Thomas (2002). Gesundheitspolitik unter SPD und Bündnis 90/Die Grünen – eine Zwischenbilanz zu Beginn der 2. Legislaturperiode. *Jahrbuch für Kritische Medizin*, Bd. 37, Berlin. pp. 119-147.
- Gerlinger, Thomas (2003). Verlagern statt Sparen. Die Folgen der Schweizer Gesundheitsreform von 1996. *WZB-Mitteilungen* 101, Berlin, pp. 11-16.
- Gerlinger, Thomas (2003). Besserung in Sicht? Anmerkungen zur Gesundheitsreform 2003. *WZB-Mitteilungen* 101, Berlin (<http://www.wz-berlin.de/publikation/pdf/wm101/7.pdf>).
- Gerlinger, Thomas (2003). Das Schweizer Modell der Krankenversicherung. Zu den Auswirkungen der Reform von 1996. Wissenschaftszentrum Berlin, WZB Papers 2003-301, ISSN 0948 048X (<http://skylla.wz-berlin.de/pdf/2003/i03-301.pdf>).
- Gibson, Teresa; McLaughlin, Catherine; Smith, Dean (2001). Cost-Sharing for Prescription Drugs. *JAMA* 285 (18), p. 2328 (<http://jama.ama-assn.org/cgi/reprint/285/18/2328>).
- Gibson, Teresa; McLaughlin, Catherine; Smith, Dean (2005a). A Copayment Increase for Prescription Drugs: The Long-Term and Short-Term Effects on Use and Expenditures. *Inquiry* 42 (3), pp. 293-310 (http://www.inquiryjournalonline.org/inqronline/?request=aclogin&request_type=get-pdf&file=i0046-9580-042-03-0293.pdf).
- Gibson, Teresa; Ozminkowski, Ronald; Goetzel, Ron (2005b). The Effects of Prescription Drug Cost Sharing: A Review of the Evidence. *Am J Manag Care* 11 (11), pp. 730-740 (http://www.ajmc.com/files/articlefiles/AJMC05Nov_Gibson730to740.pdf; <http://www.ajmc.com/Article.cfm?Menu=1&ID=3027>).
- Gibson, Teresa; Mark, Tami; McGuigan, Kimberly; Axelsen, Kirsten; Wang, Shaohung (2006a). The Effects of Prescription Drug Copayments on Statin Adherence. *Am J Manag Care* 12 (9), pp. 509-517 (http://www.ajmc.com/files/articlefiles/AJMC_06sepGibson509to517.pdf).
- Gibson, Teresa; Tami, Mark; Axelsen, Kirsten; Baser, Onur; Rublee, Dale; McGuigan, Kimberly (2006b). Impact of statin copayments on adherence and medical care utilization and expenditures. *Am J Manag Care* 12 (12 Spec. Issue), pp. SP11-SP19 (http://www.ajmc.com/files/articlefiles/AJMC_06DecspeclGibsonSP11.pdf).

- Gilman, Boyd; Kautter, John (2007). Consumer Response to Dual Incentives Under Multitiered Prescription Drug Formularies. *Am J Man Care* 13 (6, Part 2), pp. 353-359 (http://www.ajmc.com/files/articlefiles/AJMC_07junPrt2Gilman353to59.pdf).
- Ginsburg, Paul (2001). Danger Signs Ahead. Presidents Essay, 2000 Annual Report: Analyzing the changing health system: the path taken and the road beyond. Center for Studying Health System Change, Washington DC (<http://www.hschange.org/CONTENT/452/452.pdf>).
- Ginsburg, Paul (2002). Rough Seas Ahead for Purchasers and Consumers. Presidents Essay, 2001 Annual Report: Navigating a Changing Health System: Mapping Today's Markets for Policy Makers. Center for Studying Health System Change, Washington DC (<http://www.hschange.org/CONTENT/335/335.pdf>).
- Ginsburg, Paul (2004). Election 2004. Controlling Health Care Costs. *N Engl J Med* 351 (16), pp. 1591-1593 (<http://www.nejm.org/doi/pdf/10.1056/NEJMp048159>).
- Ginsburg, Marjorie (2006). Rearranging The Deck Chairs. *H Aff, Web Excl* 25 (6), pp. w537-w539 (<http://content.healthaffairs.org/cgi/content/full/hlthaff.25.w537>).
- Gmündner Ersatzkasse (GEK) (2003). Gesundheitsreport 2003. Ergebnisse der Auswertungen zum Schwerpunktthema "Charakterisierung von Hochnutzern im Gesundheitssystem". Gemünden (<http://www.aerzteblatt.de/v4/archiv/zusatz.asp?id=36754>).
- Goldman, Dana; Smith, James (2001). Methodological biases in estimating the burden of out-of-pocket expenses. *H Serv Res* 35 (6), pp. 1357-1365 (<http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=1089195&blobtype=pdf>).
- Goldman, Dana; Zissimopoulos, Julie (2003). High Out-Of-Pocket Health Care Spending By The Elderly. *H Aff* 22 (3), pp. 194-202 (<http://content.healthaffairs.org/cgi/reprint/22/3/194>).
- Goldman, Dana; Joyce, Geoffrey; Escarce, José; Pace, Jennifer; Solomon, Mathew; Laouri, Marianne; Landsman, Pamela; Teutsch, Steven (2004). Pharmacy benefits and the Use of Drugs by the Chronically Ill. *JAMA* 291 (19), pp. 2344-2350 (<http://jama.ama-assn.org/cgi/reprint/291/19/2344>).
- Goldman, Dana; Joyce, Geoffrey; Karaca-Mandic Pinar (2006a). Varying Pharmacy Benefits With Clinical Status: The Case of Cholesterol-lowering Therapy. *Am J Manag Care* 12 (1), pp. 21-28 (http://www.ajmc.com/files/articlefiles/AJMC_06janGoldman21to28.pdf).
- Goldman, Dana; Joyce, Geoffrey; Karaca-Mandic, Pinar (2006b). Cutting Drug Co-Payments for Sicker Patients on Cholesterol-Lowering Drugs Could Save a Billion Dollars Every Year. RAND Health Fact Sheet (http://www.rand.org/pubs/research_briefs/2006/RAND_RB9169.pdf).
- Goldman, Dana; Joyce, Geoffrey; Zheng, Yuhui (2007). Prescription Drug Cost Sharing. Associations With Medication and Medical Utilization and Spending and Health. *JAMA* 298 (1), pp. 61-69 (<http://pubs.ama-assn.org/cgi/reprint/298/1/61>).
- Goldstein, Mary; Lavori, Philip; Coleman, Robert; Advani, Aneel; Hoffman, Brian (2005). Improving Adherence to Guidelines for Hypertension Drug Prescribing: Cluster-randomized Controlled Trial of General Versus Patient-specific Recommendations. *Am J Manag Care* 11 (11), pp. 677-668 (http://www.ajmc.com/files/articlefiles/AJMC05Nov_Goldstein677to685.pdf).

- Goodman, John (2006). What Is Consumer-Directed Health Care?. *H Aff* 25 (6), Web Excl, pp. w540–w543 (<http://content.healthaffairs.org/cgi/content/full/hlthaff.25.w540>)
- Gottlieb, Scott (2000). Medical Bills Account for 40 % of Bankruptcies. *BMJ* 320 (7245), pp. 1295 (bmj.bmjournals.com/cgi/reprint/320/7245/1295/b.pdf).
- Grabka, Markus (2004). Alternative Finanzierungsmodelle einer sozialen Krankenversicherung in Deutschland – Methodische Grundlagen und exemplarische Durchführung einer Mikrosimulationsstudie. Dissertation, Fakultät VIII – Wirtschaft und Management, Technische Universität Berlin (http://edocs.tu-berlin.de/diss/2004/grabka_markus.pdf).
- Grabka, Markus; Schreyögg, Jonas; Busse, Reinhard (2005). Die Einführung der Praxisgebühr und ihre Wirkung auf die Zahl der Arztkontakte und die Kontaktfrequenz – eine empirische Analyse. DIW Diskussionspapier 506, Berlin (<http://www.diw.de/deutsch/produkte/publikationen/diskussionspapiere/docs/papers/dp506.pdf>).
- Greenwald, Howard (1986). Cost Containment and Initiation of Care for Cancer in a Medicare-Eligible Population. *Pub Admin Rev* 46 (6), pp. 651–656 (<http://links.jstor.org/sici?sici=0033-3352%28198611%2F12%2946%3A6%3C651%3ACCAIOC%3E2.O.CO%3B2-M>).
- Greenwald, Howard (1987). HMO membership, copayment, and initiation of care for cancer: a study of working adults. *Am J Pub H* 77 (4), pp. 461–466 (<http://www.ajph.org/cgi/reprint/77/4/461>).
- Grembowski, David; Conrad, Douglas; Milgrom, Peter (1987). Dental Care Demand Among Children with Dental Insurance. *H Serv Res* 21 (6), pp. 755–775 (<http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=1068988&blobtype=pdf>).
- Greß, Stephan (2000). Allokative und distributive Effekte regulierten Wettbewerbs in sozialen Krankenversicherungssystemen "Wirtschaftstheoretische Fundierung, tatsächliche Auswirkungen und Implementationsprobleme am Beispiel der Niederlande". Dissertation am Fachbereich: Wirtschaftswissenschaft, Universität Bremen (http://elib.suub.uni-bremen.de/publications/dissertations/E-Diss115_Gress_S2001.PDF; http://deposit.d-nb.de/cgi-bin/dokserv?idn=962847291&dok_var=d1&dok_ext=pdf&filename=962847291.pdf).
- Greß, Stefan; Niebuhr, Dea; Wasem, Jürgen (2005). Marktzugang und Preisbildung auf Arzneimittelmärkten im internationalen Vergleich. Diskussionsbeiträge aus dem Fachbereich Wirtschaftswissenschaften, Alfried Krupp von Bohlen und Halbach-Stiftungslehrstuhl für Medizinmanagement, Universität Duisburg-Essen, Campus Essen (<http://www.uni-essen.de/fb5/pdf/142.pdf>).
- Gross, David; Alecxih, Lisa; Gibson, Mary; Corea, John; Caplan, Craig; Brangan, Normandy (1999). Out-of-pocket health spending by poor and near-poor elderly Medicare beneficiaries. *H Serv Res* 34(1 Pt 2), pp. 241–254 (<http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=1088998&blobtype=pdf>).
- Gross, Revital; Brammli-Greenberg, Shuli; Rosen, Bruce (2005). Copayment evaluation: Impact on access and equity. The Myers-JDC-Brookdale Institute/Bertelsmann-Stiftung – Health Policy Monitor, Jerusalem/Gütersloh (<http://www.healthpolicymonitor.org/result.pdf>).

- Grootendorst, Paul; O'Brien, Bernie; Anderson, Geoffrey (1997). On Becoming 65 in Ontario: Effects of Drug Plan Eligibility on Use of Prescription Medicines. *Med Care* 35 (4), pp. 386-398, 1997.
- Grootendorst, Paul (2002). Beneficiary cost sharing under Canadian provincial prescription drug benefit programs: history and assessment. *Can J Clin Pharmacol* 9 (2), pp. 79-99 (http://www.pulsus.com/members/clin-pha/09_02/Pdf/groo_ed.pdf).
- Grotendorst, Paul; Marshall, John; Holbrook, Anne; Dolovich, Lisa; O'Brien, Bernie; Levy, Adrian (2005). The impact of reference pricing of nonsteroidal anti-inflammatory agents on the use and costs of analgesic drugs. *H Serv Res* 40 (5 p1), pp. 1297-1317 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/118685429/PDFSTART>; http://www.findarticles.com/p/articles/mi_m4149/is_5_40/ai_n15874894).
- Gruber, Jonathan (2006). The Role of Consumer Copayments for Health Care: Lessons from the RAND Health Insurance Experiment and Beyond. The Henry J. Kaiser Family Foundation, Washington DC (<http://www.kff.org/insurance/upload/7566.pdf>).
- Grudzen, Corita; Brook, Robert (2007). High-Deductible Health Plans and Emergency Department Use. *JAMA* 297 (10), pp. 1126-1127 (<http://jama.ama-assn.org/cgi/content/full/297/10/1126>).
- Gurwitz, Jerry; Field, Terry; Harrold, Leslie; Rothschild, Jeffrey; Debellis, Kristin; Seger, Andrew; Cadoret, Cynthia; Fish, Leslie; Garber, Lawrence; Kelleher, Michael; Bates, David (2003). Incidence and Preventability of Adverse Drug Events Among Older Persons in the Ambulatory Setting. *JAMA* 289 (9), pp. 1107-1116 (<http://jama.ama-assn.org/cgi/reprint/289/9/1107>).
- Hajen, Leonhard; Paetow, Holger; Schumacher, Harald (2000). *Gesundheitsökonomie. Strukturen – Methoden – Praxisbeispiele*. Kohlhammer-Verlag, Stuttgart-Berlin-Köln.
- Hajen, Leonhard (2004). *Steuerung über Preise erfordert Stewardship*. Working Papers on Economic Governance, Arbeitspapier für Staatswissenschaft Nr. 08, Hamburger Universität für Wirtschaft und Politik, Hamburg (http://www.hwp-hamburg.de/fach/fg_vwl/DozentInnen/heise/Materials/WP_StaatsWiss/08-Stewardship.pdf).
- Hall, Charles Jr. (1966). Deductibles in Health Insurance: An Evaluation. *J Risk Ins* 33 (2), pp. 253-263 (<http://links.jstor.org/sici?sici=0022-4367%28196606%2933%3A2%3C253%3ADIIHAE%3E2.O.CO%3B2-K>).
- Halton Social Planning Council & Volunteer Centre (2000). User Fees: A Practice Revisited. *Community Dispatch* 4 (3). Halton SPCVC, Burlington (<http://www.cdhalton.ca/dispatch/cd0403.htm>).
- Han, Xiaoshu (2007). *Measuring the Welfare Cost of Mandatory Employer-provided Health Insurance*. Department of Economics, University of Texas at Austin (<http://www.eco.utexas.edu/~xshan/papers/chap3policy.pdf>).
- Hankin, Janet; Steinwachs, Donald; Elkes, Charmian (1980). The impact on utilization of a copayment increase for ambulatory psychiatric care. *Med Care* 18 (8), pp. 807-815 ([http://links.jstor.org/sici?sici=0025-7079\(198008\)18%3A8%3C807%3ATIIOUA%3E2.O.CO%3B2-N](http://links.jstor.org/sici?sici=0025-7079(198008)18%3A8%3C807%3ATIIOUA%3E2.O.CO%3B2-N)).
- Hardee, James; Platt, Frederic; Kasper, Ilene (2005). Discussing Health Care Costs with Patients. An Opportunity for Empathic Communication. *J Gen Int Med* 20 (7), pp. 666 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/118700819/PDFSTART>).

- Harris, Brian; Stergachis Andy; Ried, Douglas (1990). The effect of drug co-payments on utilization and cost of pharmaceuticals in a health maintenance organization. *Med Care* 28 (10), pp. 907-917.
- Harris, Brittany; West, Donna; Johnson, Jill; Hong, Song-Hee; Stowe, Cindy (2004). Effects on the cost and utilization of proton pump inhibitors from adding over-the-counter omeprazole to drug benefit coverage in a state employee health plan. *J Manag Care Pharm* 10 (5), pp. 449-455 (http://www.amcp.org/data/jmcp/2004_V10_I5.pdf).
- Häusler, Bertram; Berger, Ursula; Mast, Oliver; Thefeld, Wolfgang (2005). Risk and potential risk reduction in diabetes type 2 patients in Germany. *Eur J H Econ* 6 (2), pp. 152-158 (<http://www.springerlink.com/content/x1hq878494582717/fulltext.pdf>).
- Hauff von, Michael; Sauer, Leonore (2003). Die Leistungsfähigkeit des Sozialstaates aus wirtschaftswissenschaftlicher Perspektive. In: Siegfried Blasche, Michael von Hauff (Hg.), pp. 93-115.
- Hauser, Heinz (1984). Verstärkung der Selbstbeteiligung in der Schweiz: Alternativen, Auswirkungen und politische Aussichten einer Realisierung. In: Oberender, Peter, pp. 99-121.
- Hay, Phil; Jackson, Stevan (2002). *Education and Health*. The World Bank, Washington DC.
- Hay, Joel; Leahy, Michael (2005). Cost and Utilization Impacts of Oral Antihistamines in the California Medi-Cal Program. *Value in Health* 8 (4), pp. 506-516 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/119414624/PDFSTART>).
- Hayek, Friedrich von (1945). The Use of Knowledge by Society. *Am Econ Rev* 35 (4), pp. 519-534.
- Haynes, Brian; McDonald, Heather; Garg, Amit (2002). Helping Patients Follow Prescribed Treatment: Clinical Applications. *JAMA* 288 (22), pp. 2880-2883 (<http://jama.ama-assn.org/cgi/reprint/288/22/2880>).
- Health Policy Consensus Group (2003). *Step by Step Reform*. Civitas: The Institute for the Study of Civil Society, London (<http://www.civitas.org.uk/pdf/hpcgMain.pdf>).
- Hearst, Norman; Blas, Erik (2001). Learning from Experience: research on health sector reform in the developing world. *H Pol Plan* 16 (Suppl. 2), pp. 1-3 (http://heapol.oxfordjournals.org/cgi/reprint/16/suppl_2/1).
- Hecht, Robert; Overholt, Catherine; Holmberg, Hopkin (1993). Improving the implementation of cost recovery for health: lessons from Zimbabwe. *H Pol* 25 (3), pp. 213-242.
- Hefford, Martin; Crampton, Peter; Foley, Jon (2005). Reducing health disparities through primary care reform: the New Zealand experiment. *H Pol* 72 (1), pp. 9-23.
- Hegner, Steffen; Wettke, Jürgen (2003). Perspektiven für Apotheken in Deutschland. *McKinsey Health* 2, pp. 6-19 (http://www.mckinsey.de/_downloads/kompetenz/healthcare/Health2_03_Apotheken_Perspektiven.pdf).
- Heisler, Michele; Langa Kenneth; Eby, Elizabeth; Fendrick, Mark; Kabeto, Mohammed; Piette, John (2004). The health effects of restricting prescription medication use because of cost. *Med Care* 42 (7), pp. 626-634.
- Heller, Simon (2007). Self monitoring of blood glucose in type 2 diabetes. Clinicians should Stopp patients doing this if it has no benefit. *BMJ* 335 (7611), pp. 105-106 (<http://www.bmj.com/cgi/reprint/335/7611/105>).

- Helms, Jay; Newhouse, Joseph; Phelps, Charles (1978). Copayments and Demand for Medical Care: The California Medicaid Experience. *Bell J Econ* 9 (1), pp. 192-208 (<http://links.jstor.org/sici?sici=0361-915X%28197821%299%3A1%3C192%3ACADPMC%3E2.O.CO%3B2-H;http://www.rand.org/pubs/reports/2005/R2167.pdf>).
- Henke, Klaus-Dirk; Borchardt, Katja; Schreyögg, Jonas; Farhauer, Oliver (2002). Reformvorschläge zur Finanzierung der Krankenversicherung in Deutschland unter besonderer Berücksichtigung der Kapitaldeckung. *Blaue Reihe 2002-05*, Berliner Zentrum Public Health, Berlin (http://bsph.charite.de/stuff/Blaue_Liste/2002-05_ger.pdf).
- Henke, Klaus-Dirk; Schreyögg, Jonas (2004). Towards sustainable health care systems. Strategies in health insurance schemes in France, Germany, Japan and the Netherlands. A comparative study. International Social Security Association, Genf. ISBN 92-843-1166-7 (<http://www.wm.tu-berlin.de/~mig/papers/index.html>).
- Henry Kaiser Family Foundation (2003). Medicaid and the uninsured. Key facts, Kaiser commission, Washington DC (http://www.medicalredesign.org/pdf/elig_Kaiser_fact_sheet_on_cost-sharing.pdf).
- Hesse, Sebastian; Schlette, Sophia (2005). User charges for physician visits. *Health Policy Monitor*, Survey 6, Bertelsmann Stiftung, Gütersloh (http://www.healthpolicymonitor.org/en/Policy_Survey/Search_for_Policy_Reforms/Survey_Details/User_charges_for_physician_visits.html?content_id=251&language=en).
- Hibbard, Judith; Weeks, Edward (1988). Consumers in a Competition-Based Cost Containment Environment. *J Pub H Pol* 9 (2), pp. 233-249 (<http://links.jstor.org/sici?sici=0197-5897%28198822%299%3A2%3C233%3ACIACCC%3E2.O.CO%3B2-X>).
- Hibbard, Judy (2003). Engaging Health Care Consumers to Improve the Quality of Care. *Med Care* 41 (1, supplement), pp. I61-70.
- Hillman, Alan; Pauly, Mark; Escarce, José; Ripley, Kimberly; Gaynor, Martin; Clouse, Jon; Ross, Richard (1999). Financial Incentives And Drug Spending In Managed Care. *H Aff* 18 (2), pp. 189-200 (<http://content.healthaffairs.org/cgi/reprint/18/2/189>).
- Himmelstein, David; Warren, Elizabeth; Thorne, Deborah; Woolhandler, Steffie (2005). Illness And Injury As Contributors To Bankruptcy. *H Aff, Web Excl* 24 (1), pp. w5 63-73 (<http://content.healthaffairs.org/cgi/reprint/hlthaff.w5.63v1>).
- Himmelstein, David; Woolhandler, Steffie (2005). Hope And Hype: Predicting The Impact Of Electronic Medical Records. *H Aff* 24 (5), pp. 1121-1123 (<http://content.healthaffairs.org/cgi/reprint/24/5/1121>).
- Hitiris, Theodore (2004). Prescription Charges In The United Kingdom: A Critical Review. Discussion Papers in Economics No. 2000/04, Department of Economics and Related Studies, University of York, York (<http://www.york.ac.uk/depts/econ/documents/dp/0004.pdf>).
- Hjertqvist, Johan (2002). User Fees For Health Care In Sweden. A two-tier threat or a tool for solidarity? *Swedish Healthcare in Transition, an AIMS Health Care Commentary*, Atlantic Institute for Market Studies (AIMS), Halifax (<http://www.aims.ca/library/newsletter6.pdf>).

- Ho, Michael; Spertus, John; Masoudi, Frederick; Reid, Kimberly; Peterson, Eric; Magid, David; Krumholz, Harlan; Rumsfeld, John (Ho et al. 2006a). Impact of Medication Therapy Discontinuation on Mortality After Myocardial Infarction. *Arch Intern Med* 166 (17), pp 1842-1847 (<http://archinte.ama-assn.org/cgi/reprint/166/17/1842>).
- Ho, Michael; Rumsfeld, John; Masoudi, Frederick; McClure, David; Plomondon, Mary; Steiner, John; Magid, David (Ho et al. 2006b). Effect of Medication Nonadherence on Hospitalization and Mortality Among Patients With Diabetes Mellitus. *Arch Intern Med* 166 (17), pp. 1836-1841 (<http://archinte.ama-assn.org/cgi/reprint/166/17/1836>).
- Hodgkin, Dominic; Horgan, Constance; Garnick, Deborah; Merrick, Elizabeth (2003). Cost Sharing for Substance Abuse and Mental Health Services in Managed Care Plans. *Med Care Res Rev* 3 (60), pp. 101-116 (<http://mcr.sagepub.com/cgi/reprint/60/1/101>).
- Hoel, Michael (2005). Concerns for Equity and the Optimal Co-Payments for Publicly Provided Health Care. CESIFO Working Paper No. 1620, Category 1: Public Finance, University of Oslo/Ifo-Institut München (http://www.cesifo.de/pls/guestci/download/CESifo%20Working%20Papers%202005/CESifo%20Working%20Papers%20December%202005/cesifo1_wp1620.pdf).
- Hoffman, Sharona (2003). Unmanaged Care: Towards Moral Fairness in Health Care Coverage. *Indiana Law Journal* 78 (2), pp. 659-721 (<http://www.law.indiana.edu/ilj/volumes/v78/no2/hoffman.pdf>).
- Hoffmann, Barbara; Moebus, Susanne; Möhlenkamp, Stefan; Stang, Andreas; Lehmann, Nils; Dragano, Nico; Schmermund, Axel; Memmesheimer, Michael; Mann, Klaus; Erbel, Raimund; Jöckel, Karl-Heinz; Heinz Nixdorf Recall Study Investigative Group (2007). Residential Exposure to Traffic Is Associated With Coronary Atherosclerosis. *Circ* 116 (5), pp. 489-496 (<http://circ.ahajournals.org/cgi/reprint/116/5/489>).
- Hohmann, Jürgen (1998). Gesundheits-, Sozial- und Rehabilitationssysteme in Europa. Gesellschaftliche Solidarität auf dem Prüfstand. Verlag Hans Huber. Bern.
- Höhn, Werner (1986). Selbstbeteiligung – Nicht nur ein gesundheitsökonomisches, sondern auch ein gesundheitspolitisches Thema. *Mensch, Medizin, Gesellschaft* 11 (1), pp. 23-31.
- Holgate, Stephen (2005). Mechanisms by which Air Pollution Injures the Child's Respiratory System. In: Krzyzanowski, Michael; Kuna-Dibbert, Birgit; Schneider, Jürgen: pp. 29-43.
- Holst, Jens (2001). Krankenversicherungen in Chile. Ein Modell für andere Länder? Hans-Jacobs-Verlag, Lage.
- Holst, Jens (2004). Gesundheitswesen in Chile. Selektion und soziale Ausgrenzung. VAS – Verlag für Akademische Schriften, Frankfurt/Main. ISBN 3-88864-387-2.
- Holst, Jens (2004). Modalitäten und Effekte von Zuzahlungen im Gesundheitswesen. Arbeitspapier Nr. 24-2004, Institut für Medizinische Soziologie, Wolfgang-von-Goethe-Universität, Frankfurt (http://www.kgu.de/zgw/medsoz/ArbPap%5CHolst_Modalit_24.pdf; <http://www.gtz.de/de/dokumente/de-eigenbeteiligung-gesundheitswesen.pdf>).
- Holst, Jens; Laaser, Ulrich (2003). Zuzahlungen im Gesundheitswesen. Unsozial, diskriminierend und ineffektiv. *Dt Ärztebl* 100 (51-52), pp. 3358-3361 (<http://www.aerzteblatt.de/v4/archiv/artikel.asp?id=39869>).

- Holst, Jens; Laaser, Ulrich; Hohmann, Jürgen (2004). Chilean health insurance system: a source of inequity and selective social insecurity. *J Publ H* 12, 4, pp. 271-282 (www.springerlink.com/index/M416VUG85EWXGYNQ.pdf; <http://dx.doi.org/10.1007/s10389-004-0026-5>).
- Holst, Jens (2006). Gesundheitsfinanzierung: Risikomischung und soziale Gerechtigkeit. In: Razum, Oliver; Zeeb, Hajo; Laaser, Ulrich. *Globalisierung – Gerechtigkeit – Gesundheit*. Verlag Hans Huber, Bern, pp. 135-149.
- Holst, Jens (2007). Therapietreue: „Auch eine Bringschuld des Versorgungssystems“. *Dt Ärztebl* 104 (15), pp. A-996-998/B-886-888/C-843-845 (<http://www.aerzteblatt.de/v4/archiv/artikel.asp?src=heft&id=55242>).
- Hong, Song, Shepherd, Marvin (1996). Outpatient prescription drug use by children enrolled in five drug benefit plans. *Clin Therapeut* 18 (3), pp. 528-545.
- Horev, Tuvia; Babad Yair (2005). Healthcare reform implementation: stakeholders and their roles – the Israeli experience. *H Pol* 71 (1), pp. 1-21.
- Horgan, Constance; Levy Merrick, Elizabeth; Garnick, Deborah; Hodgkin, Dominic; Cenczyk, Robert; Lusenhop, William; Bhalotra Sarita (2003). *The Provision of Mental Health Services in Managed Care Organizations*. Special Report, US Department of Health and Human Services. Rockville, MD (<http://media.shs.net/ken/pdf/sma03-3797/sma03-3797.pdf>).
- Horn, Susan; Sharkey, Phoebe; Gassaway, Julie (1996a). Managed Care Outcomes Project: Study Design, Baseline Patient characteristics, and Outcome Measure. *Am J Man Care* 2 (3), pp. 237-247 (http://www.ajmc.com/files/articlefiles/AJMC1996MarHorn237_247.pdf).
- Horn, Susan; Sharkey, Phoebe; Tracy, Diane; Horn, Corinne; James, Blair; Goodwin, Frederick (1996b). Intended and Unintended Consequences of HMO Cost-Containment Strategies: Results from the Managed Care Outcomes Project. *Am J Man Care* 2 (3), pp. 253-264 (http://www.ajmc.com/files/articlefiles/AJMC1996MarHorn253_264.pdf; <http://www.npcnow.org/resources/PDFs/P7.PDF>).
- Horn, Susan; Sharkey, Phoebe; Philips-Harris, Cheryl (1998). Formulary Limitations and the Elderly: Results from the Managed Care Outcomes Project. *Am J Man Care* 4 (8), pp. 1105-1113 (http://www.ajmc.com/files/articlefiles/AJMC1998AugHorn1105_1113.pdf).
- Hsu, John; Reed, Mary; Brand, Richard; Fireman, Bruce; Newhouse, Joseph; Selby, Joseph (2004). Cost sharing: Patient knowledge and effects on seeking emergency department care. *Med Care* 42 (3), pp. 290-296.
- Hsu, John; Price, Mary; Huang, Jie; Brand, Richard; Fung, Vicki; Hui, Rita; Fireman, Bruce; Newhouse, Joseph; Selby, Joseph (2006a). Unintended Consequences of Caps on Medicare Drug Benefits. *N Engl J Med* 354 (22), pp. 2349-2359 (<http://www.nejm.org/doi/pdf/10.1056/NEJMsa054436>).
- Hsu, John; Price, Mary; Brand, Richard; Rayjavascript:popRef('a1'), Thomas; Fireman, Bruce; Newhouse, Joseph; Selby, Joseph (2006b). Cost-Sharing for Emergency Care and Unfavorable Clinical Events: Findings from the Safety and Financial Ramifications of ED Copayments Study. *H Serv Res* 41 (5), pp 1801-1820 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/119414624/PDFSTART>).

- Hsu, John; Reed, Mary; Fireman, Bruce; Selby, Joseph (2002). Emergency Department Cost-Sharing: Patient Awareness and Delayed Access. *Abstr Acad H Serv Res Health Policy Meet* 19, p. 17 (<http://gateway.nlm.nih.gov/MeetingAbstracts/102273702.html>).
- Hudman, Julie; O'Malley, Molly (2003). Health insurance premiums and cost-sharing: findings from the research on low-income populations. Report & Fact Sheet, Kaiser Family Foundation, Washington DC (<http://www.kff.org/medicaid/loader.cfm?url=/commonspot/security/getfile.cfm&PageID=14310>).
- Hulten, Eddie; Jackson, Jeffrey; Douglas, Kevin; George, Susan; Villines, Todd (2006). The Effect of Early, Intensive Statin Therapy on Acute Coronary Syndrome. A Meta-analysis of Randomized Controlled Trials. *Arch Intern Med* 166 (17), pp. 1814-1821 (<http://archinte.ama-assn.org/cgi/reprint/166/17/1814>).
- Hunterlink Customer Support. Sydney
http://users.hunterlink.net.au/~ddhrg/econ/moral_hazard.html#6.
- Hummels, Thomas; Jäckers, Andreas (2003). Prozentuale Zuzahlungen bei Arzneimitteln. Ein Weg zu mehr Transparenz und Wettbewerb im Arzneimittelmarkt – Das Konzept des Deutschen Generika-Verbandes. Teil 1. *Pharm Ind* 65 (4), pp. 298-301.
- Huskamp, Haiden; Rosenthal, Meredith; Frank, Richard; Newhouse, Joseph (2000). The Medicare prescription drug benefit: How will the game be played. *H Aff* 19 (2), pp. 8-23 (<http://www.healthaffairs.org/cgi/reprint/19/2/8>).
- Huskamp, Haiden; Epstein, Arnold; Blumenthal, David (2003a). The Impact Of A National Prescription Drug Formulary On Prices, Market Share, And Spending: Lessons For Medicare? *H Aff* 22 (3), pp. 149-158 (<http://content.healthaffairs.org/cgi/reprint/22/3/149>).
- Huskamp, Haiden; Deverka, Patricia; Epstein, Arnold; Epstein, Robert; McGuigan, Kimberly; Frank, Richard (2003b). The Effect of Incentive-Based Formularies on Prescription-Drug Utilization and Spending. *N Engl J Med* 349 (23), pp. 2224-2232 (<http://www.nejm.org/doi/pdf/10.1056/NEJMsa030954>).
- Huskamp, Haiden; Deverka, Patricia; Epstein, Arnold; Epstein, Robert; McGuigan, Kimberly; Muriel, Anna; Frank, Richard (2005). Impact of 3-Tier Formularies on Drug Treatment of Attention-Deficit/Hyperactivity Disorder in Children. *Arch Gen Psych* 62 (4), pp. 435-441 (<http://archpsyc.ama-assn.org/cgi/reprint/62/4/435>).
- Huskamp, Haiden; Deverka, Patricia; Landrum, Mary Beth; Epstein, Robert; McGuigan, Kimberly (2007). The Effect of Three-Tier Formulary Adoption on Medication Continuation and Spending among Elderly Retirees. *H Serv Res* 42 (5), pp. 1926-1942 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/117996639/PDFSTART>).
- Huttin, Christine (1994). The use of prescription charges. *H Pol* 27 (1) pp. 53-73.
- Initiative Neue Soziale Marktwirtschaft (ISNM) (o.J.). Eigeninitiative und Solidarität. Der zukunftssichere Sozialstaat. Themenheft Nr. 5, Köln (http://www.insm.de/Downloads/PDF__Dateien/Publikationen_Kostenlose_Downloads/Soziales_Themenheft5.pdf).
- Internationale Gesellschaft für Gesundheitsökonomie (1980). Selbstbeteiligung im Gesundheitswesen. Bestandsaufnahme – Materialien – Denkanstöße. Gustav Fischer Verlag, Stuttgart.

- Irvine, Benedict; Green, David (2003). International Medical Outcomes: How Does the UK Compare? Civitas (Institute for the Study of Civil Society), London (<http://www.civitas.org.uk/pdf/hpcgOutcomes.pdf>).
- Jackevicius, Cynthia; Mamdani, Muhammad; Tu, Jack (2002). Adherence With Statin Therapy in Elderly Patients With and Without Acute Coronary Syndromes. *JAMA* 288 (4), pp. 462-467 (<http://jama.ama-assn.org/cgi/reprint/288/4/462>).
- Jakobs, Klaus; Langer, Bernhard; Pfaff, Anita; Pfaff, Martin (2003). Bürgerversicherung versus Kopfpauschale. Alternative Finanzierungsgrundlagen für die Gesetzliche Krankenversicherung. Friedrich-Ebert-Stiftung, Bonn (wido.de/fileadmin/wido/downloads/pdf_gesundheitssystem/wido_ges_fes_bv_vs_kp_1104.pdf).
- Jemai, Nadia; Thomson, Sarah; Mossialos, Elias (2004). An overview of cost sharing for health services in the European Union. *Euro Observer* 6 (3) (http://www.euro.who.int/Document/Obs/EuroObserver6_3.pdf).
- Jessen, Jens (1999). Selbstbeteiligung: Noch nicht ausgereizt. *Dt. Ärztebl* 96 (15), pp. B-738 – 738 (<http://www.aerzteblatt.de/v4/archiv/artikel.asp?src=suche&id=16587>).
- Jinnett, Kimberly; Parry, Thomas; Lu, Yifan (2007). A Broader Reach for Pharmacy Plan Design. The Disability Effects of Cost Shifting. Integrated Benefit Institute, San Francisco (<http://www.ibiweb.org/publications/download/637>).
- Johnson, Richard; Penner, Rudolph (2004). Will Health Care Costs Erode Retirement Security? Issue Brief 23, Center for Retirement Research Boston College (www.bc.edu/centers/crr/issues/ib_23.pdf).
- Johnson, Richard; Goodman, Michael; Hornbrook, Mark; Eldredge Michael (1997). The Effect of Increased Prescription Drug Cost-Sharing on Medical Care Utilization and Expenses of Elderly Health Maintenance Organization Members. *Med Care* 35 (11), pp. 1119-1131.
- Jones, Kenneth; Vischi, Thomas (1979). Impact of alcohol, drug abuse and mental health treatment on medical care utilization. A Review of the Research Literature. *Med Care* 17 (Dec suppl), pp. i-ii+iv-vi+1-82 ([http://links.jstor.org/sici?sici=0025-7079\(197912\)17%3A12%3C%3AIOADAA%3E2.0.CO%3B2-2](http://links.jstor.org/sici?sici=0025-7079(197912)17%3A12%3C%3AIOADAA%3E2.0.CO%3B2-2)).
- Jones, David; Kroenke, Kurt; Landry, Frank; Tomich, David; Ferrel, Richard (1996). Cost savings using a stepped-care prescribing protocol for nonsteroidal anti-inflammatory drugs. *JAMA* 275 (12), pp. 926-930 (Abstract: <http://jama.ama-assn.org/cgi/content/abstract/275/12/926>).
- Joseph, Hyman (1972). Hospital Insurance and Moral Hazard. *J Hum Res* 7 (2), pp. 152-161 (<http://links.jstor.org/sici?sici=0022-166X%28197221%297%3A2%3C152%3AHIAMH%3E2.0.CO%3B2-T>).
- Joyce, Geoffrey; Escarce, José; Solomon, Mathew; Goldman, Dana (2002). Employer Drug Benefit Plans and Spending on Prescription Drugs. *JAMA* 288 (14), pp. 1733-1739 (<http://jama.ama-assn.org/cgi/reprint/288/14/1733>).
- Jung, Ki-Taig (1998). Influence of the Introduction of a Per-Visit Copayment on Health Care Use and Expenditures: The Korean Experience. *J Risk Insur* 65 (1), pp. 33-56 (<http://links.jstor.org/sici?sici=0022-4367%28199803%2965%3A1%3C33%3AIOTIOA%3E2.0.CO%3B2-%23>).

- Kaczmarek, Stephen (1999). A Quantitative Analysis of Factors Affecting Formulary Compliance in Prescription Drug Card Programs. Fellowship Credit Research Paper 99-1; pp. 215-250 (<http://www.soa.org/library/research/actuarial-research-clearing-house/2000-09/2000/arch-2/arch00v29.pdf>).
- Kaelble, Hartmut; Schmid, Günther (eds.) (2004). Das europäische Sozialmodell. Auf dem Weg zum transnationalen Sozialstaat. Jahrbuch 2004, Wissenschaftszentrum Berlin.
- Kaiser, Arvid (2003). Finanzielle Selbstbeteiligung in der Gesundheitsversorgung. Untersuchung zur Verteilungswirkung bei der Inanspruchnahme von Gesundheitsleistungen in der EU. Arbeitspapiere für Staatswissenschaften/Working Papers on Economic Governance, Universität für Wirtschaft und Politik, Hamburg (http://www.hwp-hamburg.de/fach/fg_vwl/DozentInnen/heise/Materials/WP_StaatsWiss/06-GesundhVersorgg.pdf).
- Kamal-Bahl, Sachin; Briesacher, Becky (/2004). How Do Incentive-Based Formularies Influence Drug Selection And Spending For Hypertension? *H Aff* 23 (1), pp. 1227-236 (<http://content.healthaffairs.org/cgi/reprint/23/1/227>).
- Karter, Andrew; Ferrara, Assiamira; Darbinian, Jeanne; Ackerson, Lynn; Selby, Joe (2000). Self-monitoring of blood glucose: language and financial barriers in a managed care population with diabetes. *Diabetes Care* 23 (4): pp. 477-483 (<http://care.diabetesjournals.org/content/23/4/477.full.pdf+html>).
- Karter, Andrew; Stevens, Mark; Herman, William, Ettner, Susan; Marrero, David; Engलगau, Michael Curb, David; Brown, Arleen (2003). Out-of-Pocket Costs and Diabetes Preventive Services. *Diab Care* 26 (8), pp. 2294-2299 (<http://care.diabetesjournals.org/cgi/reprint/26/8/2294>).
- Karter, Andrew; Parker, Melissa; Moffet, Howard; Ahmed, Ameena; Chan, James; Spence, Michele; Selby, Joe; Ettner, Susan (2007). Effect of Cost-sharing Changes on Self-monitoring of Blood Glucose. *Am J Man Care* 13 (7), pp. 408-416 (http://www.ajmc.com/files/articlefiles/AJMC_07julyKarter_408to416.pdf).
- Kasje, Willeke; Timmer, J. W.; Boendermaker, Peter; Haaijer-Ruskamp, Flora (2002). Dutch GPs' perceptions: the influence of out-of-pocket costs on prescribing. *Soc Sci Med* 55 (9), pp. 1571-1578.
- Katz, David (2001). A Solution for Rising Drug Costs. Employers may start to move away from fixed co-payments. CFO Publishing Corporation, New York (<http://www.cfo.com/article.cfm/2991456?f=related>).
- Katz, Michael; Rosen, Richard (1994). *Microeconomics*. 2. ed., McGraw-Hill, Irwin, Illinios. ISBN 0-256-17176-9.
- Kaufmann, Franz-Xaver (1997). Herausforderungen des Sozialstaates. Frankfurt a. M.
- Kaufmann, Stephan (2004). Der Problemlöser. *Berliner Zeitung* 6.3.2004, pp. M04/05 (<http://www.berlinonline.de/berliner-zeitung/archiv/.bin/dump.fcgi/2004/0306/magazin/0002/>).
- Kawabata, Kei; Xu, Ke; Carrin, Guy (2002). Preventing impoverishment through protection against catastrophic health expenditure. *Bull World Health Organ* 80 (8), p. 612 ([http://www.who.int/bulletin/archives/80\(8\)612.pdf](http://www.who.int/bulletin/archives/80(8)612.pdf)).
- Keeler, Emmett; Newhouse, Joseph; Phelps, Charles (1974). Deductibles and the Demand for Medical Services. The Theory of the Consumer Facing a Variable Price Schedule Under Uncertainty. R1514 OEO NC, Rand Corporation, Santa Monica (<http://www.rand.org/pubs/reports/2005/R1514.pdf>).

- Keeler, Emmett; Brook, Robert; Goldberg, George; Kamberg, Caren; Newhouse, Joseph (1985). How free care reduced hypertension in the health insurance experiment. *JAMA* 254 (14), pp. 1926-1931 (Abstract: <http://jama.ama-assn.org/cgi/content/abstract/254/14/1926>).
- Keeler, Emmett; Sloss, Elizabeth; Brook, Robert; Operskalski, Belinda; Goldberg, George; Newhouse, Joseph (1987). Effects of Cost Sharing on Physiological Health, Health Practices, and Worry. *H Serv Res* 22 (3), pp. 279-306 (<http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=1065439&blobtype=pdf>).
- Kenagy, John; Berwick, Donald; Shore, Miles (1999). Service Quality in Health Care. *JAMA* 281 (7), pp. 661-665 (<http://jama.ama-assn.org/cgi/reprint/281/7/661>).
- Kennedy, Jae; Erb, Christopher (2002). Prescription Noncompliance due to Cost Among Adults With Disabilities in the United States. *Am J Publ H* 92 (7), pp. 1120-1124 (<http://www.ajph.org/cgi/reprint/92/7/1120>).
- Kephart, George; Skedgel, Chris; Sketris, Ingrid; Grootendorst, Paul; Hoar, John; Sommers, Emily (2003). The Effect of Changes in Co-payment and Premium Policies on the Use of Prescription Drugs in the Nova Scotia Seniors' Pharmacare Program. CHRSF/FCRSS, Ottawa (http://www.chrsf.ca/final_research/ogc/kephart_e.php).
- Kephart, George; Skedgel, Chris; Sketris, Ingrid; Grootendorst, Paul; Hoar, John (2007). Effect of Copayments on Drug Use in the Presence of Annual Payment Limits. *Am J Man Care* 13 (6, Part 2), pp. 328-334 (http://www.ajmc.com/files/articlefiles/AJMC07junPrt2_Kephart328to34.pdf).
- Kern, Axel; Kupsch, Stephan (2002). Internationale Vergleiche von Gesundheitssystemen und die Neubestimmung des Leistungskatalogs in der gesetzlichen Krankenversicherung. Was bringt ein Blick über die Grenzen? Arbeitspapier 217, Wirtschaftswissenschaftliches Institut, Universität Augsburg (<http://www.wiwi.uni-augsburg.de/vwl/institut/paper/217.pdf>).
- Kleinke, JD. (2000). Just what the HMO ordered: the paradox of increasing drug costs. *H Aff* 19 (2), pp. 78-91 (<http://content.healthaffairs.org/cgi/reprint/19/2/78>).
- Kleinke, J.D. (2004a). Re-Naming And Re-Gaming: Medicare's Doomed Attempt To Reform Reimbursement For Injectable Drugs. *H Aff, Web Excl* 23 (6), pp. w4 561-571 (<http://content.healthaffairs.org/cgi/reprint/hlthaff.w4.561v1>).
- Kleinke J.D. (2004b). Access Versus Excess: Value-Based Cost Sharing For Prescription Drugs. *Health Aff* 23 (1), pp. 34-47 (<http://content.healthaffairs.org/cgi/reprint/23/1/34>).
- Klingenberger, David (2005). Steuerungs- und Verteilungswirkungen der Praxisgebühr im Bereich der zahnmedizinischen Versorgung – eine Kosten-Nutzen-Analyse. *Das Gesundheitswesen* 67, pp. 196-203 (<http://www.thieme-connect.de/ejournals/pdf/gesu/doi/10.1055/s-2005-857957.pdf>).
- Klose, Joachim; Schellschmidt, Henner (2001). Finanzierung und Leistungen der Gesetzlichen Krankenversicherung. Einnahmen- und ausgabenbezogene Gestaltungsvorschläge im Überblick. *WIdO-Materialien* 45, Wissenschaftliches Institut der AOK, Bonn.
- Knappe, Eckhard; Fritz, Wilhelm (1984). Direktbeteiligung im Gesundheitswesen – Steuerungswirkungen des Selbstbehalts bei ambulanten medizinischen Leistungen und beim Zahnersatz. *Deutscher Ärzte-Verlag, Köln*.

- Knappe, Eckhard (2003). Selbstbeteiligung der Patienten als Finanzierungs- und Steuerungsinstrument. In: Albring, Manfred; Wille, Eberhard (Hrsg.) (2003). Die GKV zwischen Ausgabendynamik, Einnahmeschwäche und Koordinierungsproblemen. Verlag Peter Lang, Frankfurt/M., Berlin, Bern, Brüssel, New York, Oxford, Wien
- Kozyrskyj, Anita; Mustard, Cameron; Cheang, Mary; Simons, Estelle (2001). Income-based drug benefit policy: impact on receipt of inhaled corticosteroid prescriptions by Manitoba children with asthma. *CMAJ* 165 (7), pp. 897-902 (<http://www.cmaj.ca/cgi/reprint/165/7/897>).
- Kraft, Kornelius; Schulenburg, Matthias Graf von der (1984). Einige empirische Ergebnisse zur Beurteilung der Wirkungen von Selbstbeteiligungsregelungen in der Krankenversicherung. In: Oberender, Peter, pp. 123-147.
- Kravitz, Richard; Epstein, Ronald; Feldman, Mitchell; Franz, Carol; Azari, Rahman; Wilkes, Michael; Hinton, Ladson; Franks, Peter (2005). Influence of Patients' Requests for Direct-to-Consumer Advertised Antidepressants: A Randomized Controlled Trial. *JAMA* 293 (16), pp. 1995-2002 (<http://jama.ama-assn.org/cgi/reprint/293/16/1995>)
- Krohmal, Benjamin; Emanuel, Ezekiel (2007). Access and Ability to Pay: The Ethics of a Tiered Health Care System. *Arch Intern Med* 167 (5), pp. 433-437 (<http://pubs.ama-assn.org/media/controlled/archinte/pdf/433.pdf>).
- Krzyzanowski, Michael, Kuna-Dibbert, Birgit, Schneider, Jürgen (Eds.) (2005). Effects of air pollution on children's health and development – a review of the evidence. WHO Regional Office for Europe, Copenhagen (<http://www.euro.who.int/document/E86575>)
- Kühn, Hagen (2006). Der Ethikbetrieb in der Medizin. Korrektur oder Schmiermittel der Kommerzialisierung? In: Hagemann, Ulrich; Simon, Ingeborg (Hg.), Pharmazie im Gesundheitswesen heute, Berlin Reihe: Berichte und Dokumente zur Zeitgeschichte der Medizin, Charité – Universitätsmedizin Berlin: pp. 11-31 (<http://www.wz-berlin.de/ars/ph/download/ethikbetriebmedizin.pdf>).
- Ku, Leighton (2003). Charging the Poor more for Health Care: Cost-Sharing in Medicaid. Center on Budget and Policy Priorities. Washington DC (<http://www.cbpp.org/5-7-03health.pdf>).
- Ku, Leighton; Broaddus, Mathew (2005). Out-of-Pocket Medical Expenses for Medicaid Beneficiaries are Substantial and Growing. Center on Budget and Policy Priorities, Washington DC (<http://www.cbpp.org/5-31-05health.pdf>).
- Ku, Leighton; Wachino, Victoria (2005). The Effect of Increased Cost-Sharing in Medicaid: A Summary of Research Findings. Center on Budget and Policy Priorities, Washington DC (<http://www.cbpp.org/5-31-05health2.pdf>).
- Kupor, Scott; Liu, Yong-chuan; Lee, Jungwoo; Yoshikawa, Aki (1995). The Effect of Co-payments and Income on the Utilization of Medical Care By Subscribers to Japan's National Health Insurance System. *Int J H Serv* 25 (2), pp. 295-312 (Abstract: <http://baywood.metapress.com/app/home/contribution.asp?referrer=parent&backto=issue,9,11;journal,50,147;linkingpublicationresults,1:300313,1>).
- Kurth, Ann; Bielinski, Lori; Graap, Kris; Conniff, John; Connell, Frederick (2001). Reproductive and Sexual Health Benefits in Private Health Insurance Plans in Washington State. *Fam Plan Persp* 33 (4), pp. 153-160, 179 (<http://www.guttmacher.org/pubs/journals/3315301.html>; <http://www.guttmacher.org/pubs/journals/3315301.pdf>).

- Laaser, Ulrich; Holst, Jens (2004). Unsozial, diskriminierend und ineffektiv. Zuzahlungen im Gesundheitswesen. Frankfurter Rundschau Nr. 5/2, 60. Jg., 7.1.2004, p. 9.
- Laditka, Sarah; Mastanduno, Melanie; Laditka, James (2001). Health Care Use of Individuals With Diabetes in an Employer-Based Insurance Population. *Arch Intern Med* 161 (10), pp. 1301-1308 (<http://archinte.ama-assn.org/cgi/reprint/161/10/1301>).
- Lagoe, Ronald; Aspling, Deborah; Westert, Gert (2005). Current and Future Developments in Managed Care in the United States and Implications for Europe. *H Res Pol Syst* 3 (4) (<http://www.health-policy-systems.com/content/3/1/4>).
- Lamiraud, Karine; Geoffard, Pierre-Yves (2007). Therapeutic Non-Adherence: A Rational Behavior Revealing Patient Preferences? *H Econ* 16 (11), pp. 1185-1205 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/114122877/PDFSTART>).
- Landon, Bruce; Rosenthal, Meredith; Normand, Sharon-Lise; Spettell, Claire; Lessler, Adam; Underwood, Howard; Newhouse, Joseph (2007). Incentive Formularies and Changes in Prescription Drug Spending. *Am J Man Care* 13 (6, Part 2), pp. 360-369 (http://www.ajmc.com/files/articlefiles/AJMC_07junPrt2_Landon360to369.pdf).
- Langa, Kenneth; Fendrick, Mark; Chernew, Michael; Kabeto, Mohammed; Paisley, Kerry; Hayman, James (2004). Out-of-Pocket Health-Care Expenditures among Older Americans with Cancer. *Value in Health* 7 (2), pp. 186-194 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/119414624/PDFSTART>).
- Langer, Bernhard; Pfaff, Anita; Kern, Axel Olaf (2006). Steuerung des GKV-Arzneimittelmarktes – Auswirkungen von Selbstbeteiligungen und Härtefallregelungen. *Volkswirtschaftliche Diskussionsreihe, Wirtschaftswissenschaftliche Fakultät, Universität Augsburg* (<http://www.wiwi.uni-augsburg.de/vwl/institut/paper/285.pdf>).
- Lapsley, Helen; March, Lyn; Tribe, Kate; Cross, Maritta; Courtenay, Brett; Brooks, Peter for the Arthritis Cost and Outcome Project Group (2002). Living with rheumatoid arthritis: expenditures, health status, and social impact on patients. *Ann Rheum Dis* 61 (9), pp. 818-821 (<http://ard.bmj.com/cgi/reprint/61/9/818>).
- LaRosa John; Grundy, Scott; Waters, David; Shear, Charles; Barter, Philip; Fruchart, Jean-Charles; Gotto, Antonio; Greten, Heiner; Kastelein, John; Shepherd, James; Wenger, Nanette (2005). Intensive lipid lowering with atorvastatin in patients with stable coronary disease. *N Engl J Med* 352 (14), pp. 1425-1435 (<http://www.nejm.org/doi/pdf/10.1056/NEJMoa050461>).
- Laufs, Ulrich; Hamm, Christian; Böhm, Michael (2006). Übersicht: Statintherapie bei koronarer Herzkrankheit (Statin treatment in coronary heart disease). *Dt Ärztebl* 103 (41), 13.10.2006, p. A-2714 (<http://www.aerzteblatt.de/v4/archiv/artikel.asp?src=heft&id=53060>; Literatur: <http://www.aerzteblatt.de/v4/archiv/lit.asp?id=53060>).
- Laurent, Olivier; Bard, Denis; Filleul, Laurent; Segala, Claire (2007). Effect of socioeconomic status on the relationship between atmospheric pollution and mortality. *J Epid Comm H* 61 (8), pp. 665-675 (<http://jech.bmj.com/cgi/reprint/61/8/665>).
- Lauterbach, Karl; Gandjour, Afschin; Schnell, Gerald (2000). Zuzahlungen bei Arzneimitteln. *Institut für Gesundheitsökonomie und Klinische Epidemiologie, Universität Köln* (<http://www.medizin.uni-koeln.de/kai/igmg/stellungnahme/zuzahlungen/sld001.htm>).

- Leader, Shelah; Yang, Harry; DeVincenzo, John; Jacobson, Phillip; Marcin, James; Murray, Dennis (2003). Time and Out-of-Pocket Costs Associated with Respiratory Syncytial Virus Hospitalization of Infants. *Value in Health* 6 (2), pp. 100-106 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/118894184/PDFSTART>).
- Lee, Thomas; Zapert, Kinga (2005). Do High-Deductible Health Plans Threaten Quality of Care? *N Engl J Med* 353 (12), pp. 1202-1204 (<http://www.nejm.org/doi/pdf/10.1056/NEJMp058209>).
- Lee, Peter; Hoo, Emma (2006). Beyond Consumer-Driven Health Care: Purchasers' Expectations of all Plans. *H Aff* 25 (6), pp. W544-W548 (<http://content.healthaffairs.org/cgi/content/full/hlthaff.25.w544>).
- Lee, Jeannie; Grace, Karen; Taylor, Allen (2006). Effect of a Pharmacy Care Program on Medication Adherence and Persistence, Blood Pressure, and Low-Density Lipoprotein Cholesterol: A Randomized Controlled Trial. *JAMA* 296 (21), pp. 2563-2571 (<http://jama.ama-assn.org/cgi/reprint/296/21/2563>).
- Leibowitz, Arleen; Manning, Willard; Newhouse, Joseph (1983). The Demand for Prescription of Drug as a Function of Cost Sharing. *Soc Sci Med* 21 (10), pp. 1063-1069.
- Leibowitz, Arleen; Manning, Jr, Willard; Keeler, Emmett; Duan, Naihua; Lohr, Kathleen; Newhouse, Joseph (1985). Effect of Cost-Sharing on the Use of Medical Services by Children: Interim Results from a Randomized Controlled Trial. *Pediatrics* 75 (5), pp. 942-951 (<http://pediatrics.aappublications.org/cgi/reprint/75/5/942>).
- Leslie, Douglas; Rosenheck, Robert (1999). Shifting to Outpatient Care? Mental Health Care Use and Cost Under Private Insurance. *Am J Psych* 156 (8), pp. 1250-1257 (<http://ajp.psychiatryonline.org/cgi/reprint/156/8/1250>).
- Levaggi, Laura; Levaggi, Rosella (2005). Optimal copayment strategies in a public health care system. SSRN Working Paper743823, Social Science Research Network, New York (http://papers.ssrn.com/sol3/papers.cfm?abstract_id=734923#PaperDownload).
- Levinson, Wendy; Kao, Audiey; Kuby, Alma; Thisted, Ronald (2005). Not all patients want to participate in decision making. A national study of patient preferences. *J Gen Intern Med* 20 (6), pp. 531-535 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/118894184/PDFSTART>).
- Levit, Katherine; Cowan, Cathy; Lazenby, Helen; Sensenig, Arthur; McDonnell, Patricia; Stiller, Jean; Martin, Anne (2000). Health spending in 1998: signals of change. The Health Accounts Team. *H Aff* 19 (1), pp. 124-132 (<http://content.healthaffairs.org/cgi/reprint/19/1/124>).
- Lewis, Steven (1998). Still here, still flawed, still wrong: the case against the case for taxing the sick. *CMAJ/JAMC* 159 (5), pp. 497-499 (<http://www.cmaj.ca/cgi/reprint/159/5/497.pdf>).
- Lexchin, Joel (1992). Prescribing and Drug Costs in the Province of Ontario. *Int J H Serv* 22 (3), pp. 471-487 (Abstract: <http://baywood.metapress.com/app/home/contribution.asp?referrer=parent&backto=issue,8,13;journal,61,147;linkingpublicationresults,1:300313,1>).
- Lexchin, Joel; Grootendorst, Paul (2002). The effects of prescription drug user fees on drug and health services use and health status: A review of evidence. Draft. Universität Toronto (<http://www.thecem.net/Downloads/draft.pdf>).

- Lexchin; Joel, Grootendorst, Paul (2004). Effects of Prescription Drug User Fees on Drug and Health Services Use and on Health Status in Vulnerable Populations: A Systematic Review of the Evidence. *Int J H Serv* 34 (1), pp. 101-122 (<http://baywood.metapress.com/media/m5uc84pnnp4qukf91h1k/contributions/4/m/3/e/4m3el0yfw1tdekg0.pdf>).
- Liang, Su-Ying; Phillips, Kathryn; Tye, Sherilyn; Haas, Jennifer; Sakowski, Julie (2004). Does Patient Cost Sharing Matter? Its Impact on Recommended Versus Controversial Cancer Screening Services. *Am J Manag Care* 10 (2), pp. 99-107 (<http://www.ajmc.com/files/articlefiles/AJMC2004febLiang99-107.pdf>).
- LIPID Study Group (The Long-Term Intervention with Pravastatin in Ischaemic Disease) (1998). Prevention of cardiovascular events and death with pravastatin in patients with coronary heart disease and a broad range of initial cholesterol levels. *N Engl J Med* 339 (19), pp. 1349-57 (<http://www.nejm.org/doi/pdf/10.1056/NEJM199811053391902>).
- Lloyd-Sherlock, Peter (2000). Population ageing in developed and developing regions: implications for health policy. *Soc Sc Med* 51 (6), pp. 887-895.
- Lo Sasso, Anthony; Lyons, John (2004). The Sensitivity of Substance Abuse Treatment Intensity to Co-Payment Levels. *J Behav H Serv Res* 31 (1), pp. 50-65.
- Lohr, Kathleen; Brook, Robert; Kamberg, Caren; Goldberg, George; Leibowitz, Arleen; Keesey, Joan; Reboussin, David; Newhouse, Joseph (1986a). Use of medical care in the Rand Health Insurance Experiment: Diagnosis- and Service-specific Analyses in a Randomised Controlled Trial. *Med Care* 24 (Suppl. 9), pp. S1-S87 (<http://www.rand.org/pubs/reports/2006/R3469.pdf>).
- Lohr, Kathleen; Kamberg, Caren; Keeler, Emmett; Goldberg, George; Calabro, Thomas; Brook, Robert (1986b). Chronic Disease in a General Adult Population: Findings from The RAND Health Insurance Experiment. *West J Med* 145 (4), pp. 537-545 (<http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=1307010&blobtype=pdf>).
- López-Bastida, Julio; Mossialos, Elias (2000). Pharmaceutical Expenditure in Spain: Cost and Control. *Int J H Serv* 30 (3), pp. 597-616 (<http://baywood.metapress.com/media/h07c757ywk0vvh95hh1k/contributions/y/l/3/j/y13jqk9b0nmqkmvk.pdf>).
- Lostao, Lourdes; Regidor, Enrique; Geyer, Siegfried; Aiach, Pierre (2007). Patient cost sharing and social inequalities in access to health care in three western European countries. *Soc Sci Med* 65 (2), pp. 367-376.
- Lostao, Lourdes; Regidor, Enrique; Geyer, Siegfried; Aiach, Pierre (2007). Patient cost sharing and physician visits by socioeconomic position: findings in three Western European countries. *J Epidemiol Comm H* 61 (5), pp. 416-420 (<http://jech.bmj.com/cgi/reprint/61/5/416>).
- Lundberg, Lars, Johannesson, Maj-Britt; Isacson, Dag; Borgquist L. (1998). Effects of user charges on the use of prescription medicines in different socio-economic groups. *H Pol* 44 (2), pp. 123-134.
- Lurie, Nicole; Manning, Willard; Peterson, Chris; Goldberg, George; Phelps, Charles; Lillard, Lee (1987). Preventive care: do we practice what we preach? *Am J Publ H* 77 (7), pp. 801-804 (Abstract: <http://www.ajph.org/cgi/content/abstract/77/7/801>).

- Lurie, Nicole; Kamberg, Caren; Brook, Robert; Keeler, Emmett; Newhouse, Joseph (1989). How free care improved vision in the health insurance experiment. *Am J Publ H* 79 (5), pp. 640-642 (<http://www.ajph.org/cgi/content/cgi/reprint/79/5/640>).
- Maarse, Hans (2004). User charges in The Netherlands. *European Observatory on Health Systems and Policies, Euro Observer* 6 (3), pp. 4-5 (http://www.euro.who.int/document/Obs/EuroObserver6_3.pdf).
- Mabasa, Vincent; Ma, Johnny (2006). Effect of a therapeutic maximum allowable cost (MAC) program on the cost and utilization of proton pump inhibitors in an employersponsored drug plan in Canada. *J Manag Care Pharm* 12 (5), pp. 371-376 (http://www.amcp.org/data/jmcp/June_06JMCP.pdf).
- Machinea, José Luis; Titelman, Daniel; Uthoff, Andras (eds.) (2006). *Shaping the Future of Social Protection: Access, Financing and Solidarity*. Economic Commission for Latin America and the Caribbean (ECLAC), Santiago (<http://www.eclac.org/publicaciones/xml/0/24080/lcg2294i.pdf>; Spanish version: <http://www.eclac.cl/publicaciones/SecretariaEjecutiva/3/LCG2294SES313E/lcg2294e.pdf>).
- Magee, Mike (2005). *Tiered Cost Sharing: What Does It Mean for Hospital Use?* Health Politics, Pfizer Medical Humanities Initiative, New York (http://www.healthpolitics.com/media/prog_58/transcript_prog_58.pdf).
- Mager, Douglas; Cox, Emily (2007). Relationship Between Generic and Preferred-brand Prescription Copayment Differentials and Generic Fill Rate. *Am J Man Care* 13 (6, Part 2), pp. 347-352 (http://www.ajmc.com/files/articlefiles/AJMC_07junPrt2Mager347to52.pdf).
- Magid, David; Koepsell, Thomas; Every, Nathan; Martin, Jenny; Siscovick, David; Wagner, Edward; Weaver, Douglas (1997). Absence of Association between Insurance Copayments and Delays in Seeking Emergency Care among Patients with Myocardial Infarction. *N Engl J Med* 336 (24), pp. 1722-1729 (<http://www.nejm.org/doi/pdf/10.1056/NEJM199706123362406>).
- Maior, Vittorio; Pizzi, Laura; Roumm, Adam; Clarke, Janice; Goldfarb, Neil; Nash, David; Chess, David (2005). Pharmacy Utilization and the Medicare Modernization Act. *Milb Quart* 83 (1), pp. 101-130 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/118894184/PDFSTART>).
- Managerkreis der Friedrich-Ebert-Stiftung (2005). *Staatshaushalt, Wachstum, Demographie*. Friedrich-Ebert-Stiftung, Bonn (http://fesportal.fes.de/pls/portal30/docs/FOLDER/STABSABTEILUNG/MANAGERKREIS/THESEN_STAATSHAUSHALT_WACHSTUM.PDF).
- Manning, Willard Jr.; Phelps, Charles (1979). The Demand for Dental Care. *Bell J Econ* 10 (2), pp. 503-525 (<http://links.jstor.org/sici?sici=0361-915X%28197923%2910%3A2%3C503%3ATDFDC%3E2.0.CO%3B2-I>).
- Manning, Willard; Bailit, Benjamin; Newhouse, Joseph (1985). The demand for dental care: evidence from a randomized trial in health insurance. *J Am Dent Assoc* 110 (6), pp. 895-902 (Abstract: <http://jada.ada.org/cgi/content/abstract/110/6/895?ck=nck>).

- Manning, William; Wells, Kenneth; Duan, Naihua; Newhouse, Joseph; Ware, John (1986). How cost sharing affects the use of ambulatory mental health services. *JAMA* 256 (14), pp. 1930-1934 (Abstract: <http://jama.ama-assn.org/cgi/content/abstract/256/14/1930>).
- Manning, Willard; Newhouse, Joseph; Duan, Naihua; Keeler, Emmett; Leibowitz, Arleen; Marquis, Susan (1987). Health Insurance and the Demand for Medical Care: Evidence from a randomized experiment. *Am Econ Rev* 77 (3), pp. 251-277 (<http://links.jstor.org/sici?sici=0002-8282%28198706%2977%3A3%3C251%3AHIATDF%3E2.O.CO%3B2-S>).
- Manning, Willard; Marquis, Susan (1996). Health insurance: The tradeoff between risk pooling and moral hazard. *J H Econ* 15 (5), pp. 609-639.
- Manning, Willard; Marquis, Susan (2001). Health insurance: tradeoffs revisited. *J H Econ* 20 (2), pp. 289-293.
- Manski, Richard; Moeller, John; Maas, William (2001). Dental services. An analysis of utilization over 20 years. *J Am Dent Assoc* 131 (5), pp. 655-664 (<http://jada.ada.org/cgi/reprint/132/5/655>).
- Markus, Anne; Rosenbaum, Sara; Dylan, Roby (1998). CHIP, Health Insurance Premiums and Cost-Sharing: Lessons from the Literature. Health Resources and Services Administration Department of Health and Human Services, Medical Center, George Washington University, Washington DC (http://www.gwhealthpolicy.org/downloads/cost_sharing_litreview_overview.pdf).
- Marmor, Theodore; Mashaw Jerry; Harvey, Philipp (Eds) (1990). *America's Misunderstood Welfare State. Persisting Myths, Enduring Realities*. Basic Books, Calgary.
- Marmot, Michael (2001). Inequalities in Health. *N Engl J Med* 345 (2), pp. 134-136 (<http://www.nejm.org/doi/pdf/10.1056/NEJM200107123450210>; <http://www.mindfully.org/Health/Inequalities-In-Health-Marmot.htm>).
- Marmot, Michael (2003). Self esteem and health. *BMJ* 327 (7415), pp. 574-575 (<http://bmj.com/cgi/content/full/327/7415/574>).
- Marmot, Michael (2005). Social determinants of health inequalities. *Lancet* 365 (9464), pp. 1099-1104 (<http://www.thelancet.com/journals/lancet/article/PIIS0140673605711466/fulltext>; <http://www.upenn.edu/ldi/paper-marmot-one.pdf>).
- Marmot, Michael (2006). Health in an Unequal World. *Lancet* 368 (9552), pp. 2081-2094 (<http://www.thelancet.com/journals/lancet/article/PIIS0140673604168335/fulltext>).
- Marquis, Susan (1985). Cost-sharing and provider choice. *J H Econ* 4 (2), pp. 137-157.
- Marstedt, Gerd (2002). Solidarität und Wahlfreiheit in der GKV. Böcken, Jan; Braun, Bernard; Schnee, Melanie (Hrsg.). *Gesundheitsmonitor*, Bertelsmannstiftung Gütersloh, pp. 112-129.
- Mastilica, Miroslav; Božikov, Jadranka; Štampar, Andrija (1999). Out-of-Pocket Payments for Health Care in Croatia: Implications for Equity. *Croat Med J* 40 (2), pp. 152-159 (www.cmj.hr/1999/40/2/10234056.htm).
- Mastilica, Miroslav; Babič-Bosanac, Sanja (2002). Citizens' views on health insurance in Croatia. *Croat Med J* 43 (4), pp. 417-424 (<http://www.cmjhr/2002/43/4/12187519.pdf>).
- Mastilica, Miroslav; Kusec, Sanja (2005). Croatian healthcare system in transition, from the perspective of users. *BMJ* 331 (7510), pp. 223-226 (<http://bmj.com/cgi/content/full/331/7510/223>).

- Matsumoto, Katsuaki (2003). Erfahrung mit der japanischen Pflegeversicherung. Informationsdienst / Gesellschaft für Versicherungswissenschaft und -gestaltung e.V. – GVG, Köln (http://www.gvg-koeln.de/cgi-bin/deutsch//view.cgi?a_path=http://www.gvg-koeln.de//dokumente/deutsch/164/ID_294.pdf&name=ID_294.pdf&quelle=http://www.gvg-koeln.de/deutsch/publikationen.html).
- Maus, Josef (2005). Praxisgebühren: Draufgezahlt. Dt. Ärztebl 102 (9), p. A537 (<http://www.aerzteblatt.de/v4/archiv/artikel.asp?src=heft&id=45639>).
- McArdle, Frank; Neuman, Patricia; Kitchman, Michelle; Kirland, Kerry; Yamamoto, Dale (2004). Large Firms' Retiree Health Benefits Before Medicare Reform: 2003 Survey Results. H Aff, Web Excl, pp. w4 7-19 (<http://content.healthaffairs.org/cgi/reprint/hlthaff.w4.7v1>).
- McDevitt, Roland; Gabel, Jon; Gandolfo, Laura; Lore, Ryan; Pickreign, Jeremy (2007). Financial Protection Afforded by Employer-Sponsored Health Insurance: Current Plan Designs and High-Deductible Health Plans. Med Care Res Rev 64 (2), pp. 212-228 (<http://mcr.sagepub.com/cgi/reprint/64/2/212>).
- McDonald, Heather; Garg, Amit; Haynes, Brian (2002). Interventions to enhance patient adherence to medication prescriptions: scientific review. JAMA 288 (22), pp. 2868-2879 (<http://jama.ama-assn.org/cgi/reprint/288/22/2868>).
- McGlynn, Elisabeth; Asch, Steven; Adams, John; Keeseey, Joan; Hicks, Jennifer; de Cristofaro, Alison; Kerr, Eve (2003). The Quality of Health Care Delivered to Adults in the United States. N Engl J Med 348 (26), pp. 2635-2645 (<http://www.nejm.org/doi/pdf/10.1056/NEJMsa022615>).
- Mckinstry, Brian (2000). Do patients wish to be involved in decision making in the consultation? A cross sectional survey with video vignettes. BMJ 321(7265), pp. 867-871 (<http://www.bmj.com/cgi/reprint/321/7265/867>).
- McManus, Peter; Donnelly, Neil; Henry, David; Hall, Wayne; Primrose, John; Lindner, Julie (1996). Prescription Drug Utilization Following Patient Co-Payment Changes in Australia. Pharmacoepidem Drug Safety 5 (6), pp. 385-392 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/23832/PDFSTART>).
- McNeill, Dwight (2004). Do Consumer-Directed Health Benefits Favor The Young And Healthy? H Aff 23 (1), pp. 186-193 (<http://content.healthaffairs.org/cgi/reprint/23/1/186>).
- MEDPAC (Medicare Payment Advisory Commission) (2000). Medicare beneficiaries and prescription drug coverage. Report to the Congress: Selected Medicare Issues June 2000 (http://www.medpac.gov/publications/congressional_reports/Jun00%20Ch1.pdf).
- MEDPAC (Medicare Payment Advisory Commission) (2004). Benefit Design and Cost Sharing in Medicare Advantage Plans. Report to the Congress (http://www.medpac.gov/publications/congressional_reports/Dec04_CostSharing.pdf).
- Meessen, Bruno; Zhenzhong, Zhang; van Damme Wim; Devadasan, Narayanan; Criel, Bart; Bloom, Gerald (2003). Editorial: Iatrogenic poverty. Trop Med Int H 8 (7), pp 581-584 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/118851839/PDFSTART>).
- Meiners, Frank (2003a). DAK-Gesundheitsbarometer 10/03: Gesundheitsreform (Forsa-Studie). DAK Presse Server, Hamburg (<http://www.presse.dak.de/ps.nsf/sblArchiv/988037DCD1F4BA74C1256D32002E6648?open>).

- Meiners, Frank (2003b). DAK-Umfrage – jeder Zweite meint: Der Hausarzt ist der Erste. *Der Hausarzt* 14/03, p. 23 (<http://www.medicin-online.de/cda/DisplayContent.do?cid=104075&fid=107664&type=pdf>).
- Mielck, Andreas (2005). *Soziale Ungleichheit und Gesundheit. Empirische Ergebnisse, Erklärungsansätze, Interventionsmöglichkeiten*. Verlag Hans Huber, Bern-Göttingen-Toronto-Seattle.
- Miller, Tony (2006). Getting On The Soapbox: Views Of An Innovator In Consumer-Directed Care. *H Aff* 25 (6), pp. w549–w551 (<http://content.healthaffairs.org/cgi/content/full/hlthaff.25.w549v1/DC1>).
- Miller, Kristin; Siscovick, David; Sheppard, Lianne; Shepherd, Kristen; Sullivan, Jeffrey; Anderson, Garnet; Kaufman, Joel (2007). Long-Term Exposure to Air Pollution and Incidence of Cardiovascular Events in Women. *N Engl J Med* 356 (5), pp. 447–458 (<http://www.nejm.org/doi/pdf/10.1056/NEJMoa054409>).
- Milstein, Arnold; Chassin, Mark (2004). Pro & Con: does patient cost sharing lead to better care? (Opinion). *Intern Med News* 37, p 13.
- Moise, Pierre; Jacobzone, Stéphane, and the ARD-IHD Experts Group (2003). OECD Study of Cross-National Differences in the Treatment, Costs and Outcomes of Ischaemic Heart Disease. OECD Health Working Paper No. 3, Directorate for Employment, Labour and Social Affairs Employment, Labour and Social Affairs Committee, OECD, Paris (<http://www.oecd.org/dataoecd/30/56/2511003.pdf>; [http://www.oilis.oecd.org/olis/2003doc.nsf/3dce6d82b533cf6ec125685d005300b4/c3949eeeb0ba78cec1256d10004aaa95/\\$FILE/JT00143165.PDF](http://www.oilis.oecd.org/olis/2003doc.nsf/3dce6d82b533cf6ec125685d005300b4/c3949eeeb0ba78cec1256d10004aaa95/$FILE/JT00143165.PDF)).
- Mojtabai, Ramin; Olfson Mark (2003). Medication Costs, Adherence, And Health Outcomes Among Medicare Beneficiaries. *H Aff* 22 (4), pp. 220–229 (<http://content.healthaffairs.org/cgi/reprint/22/4/220>).
- Montenegro-Torres, Fernando; Engelhardt, Timothy; Thamer, Mae; Anderson, Gerard (2001). Are Fortune 100 companies responsive to chronically ill workers? *H Aff* 20 (4), pp. 209–219 (<http://content.healthaffairs.org/cgi/reprint/20/4/209>).
- Moran, John; Simon, Kosali (2005). Income and the Use of Prescription Drugs by the Elderly: Evidence from the Notch Cohorts. Department of Economics and Center for Policy Research, Syracuse University/ Department of Policy Analysis and Management, Cornell University, Ithaka (<http://academics.hamilton.edu/economics/home/moran.simon.pdf#search=%22%22International%20Longevity%20Center%22%20%22Merck%20Company%20Foundation%22%22>).
- Mossialos, Elias; Dixon, Anna; Figueras, Josep; Kutzin, Joe (eds.) (2002). *Funding health care: options for Europe*. European Observatory on Health Care Systems. Buckingham, Open University Press (<http://www.euro.who.int/document/e74485.pdf>).
- Mossialos, Elias; Oliver, Adam (2005). An overview of pharmaceutical policy in four countries: France, Germany, the Netherlands and the United Kingdom. *Int J H Plan Mgmt* 20 (4), pp. 291–306 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/112140373/PDFSTART>).
- Motheral, Brenda; Fairman, Kathleen (2001). Effect of a Three-Tier Prescription Copay on Pharmaceutical and Other Medical Utilization. *Med Care* 39 (12), pp. 1293–1304.

- Müller, Edda; Stolterfoht, Barbara; Trauernicht, Gitta; Wiesehügel, Klaus (2003). Solidarisch, leistungsfähig und gerecht. Wege zur Förderung von Solidarität und Nachhaltigkeit in der Finanzierung der sozialen Krankenversicherung. Diskussionspapier für die Kommission zur Sicherung der Nachhaltigkeit in der Finanzierung der Sozialen Sicherungssysteme. Bundesministerium für Arbeit und Soziales, Berlin (<http://www.bmas.bund.de/BMAS/Redaktion/Pdf/Publikationen/Ruerup-Bericht/diskussionspapiere-1,property=pdf,bereich=bmas,sprache=de,rwb=true.pdf>;
<http://pdf.bmas.bund.de/bmas/temp/diskussionspapiere2d12cproperty3dpdf2cbereich3dbmas2csprache3dde2crwb3dtrue2epdf/parse.php?d=0001>).
- Müller, Joachim (1984). GKV-Finanzierung über Zwecksteuern? *Mensch, Medizin, Gesellschaft* 9 (4), pp. 260-265.
- Mullins, Daniel (2003). Rising copayments and the kinked demand curve. *Clin Ther* 25 (12), pp. 3144-3146.
- Mullins, Daniel; Palumbo, Francis; Saba, Mojdeh (2007). Formulary Tier Placement for Commonly Prescribed Branded Drugs: Benchmarking and Creation of a Preferred Placement Index. *Am J Man Care* 13 (6, Part 2), pp. 377-384 (http://www.ajmc.com/files/articlefiles/AJMC_07junPrt2_Mullins377to84.pdf).
- Mumford, Emily; Schlesinger, Herbert; Glass, Gene; Patrick, Cathleen; Cuedon, Timothy (1998). A New Look at Evidence About Reduced Cost of Medical Utilization Following Mental Health Treatment. *J Psychother Pract Res* 7 (1), pp. 67-86 (<http://jppr.psychiatryonline.org/cgi/reprint/7/1/65.pdf>).
- Mundinger, Mary; Thomas, Edwidge; Smolowitz, Janice; Honig, Judy (2004). Essential Health Care: Affordable for All? *Nursing Economics* 22 (5), pp. 239-244 (<http://www.medscape.com/viewarticle/492824>).
- Musil, Antje (2003). Stärkere Eigenverantwortung in der Gesetzlichen Krankenversicherung. Eine agency-theoretische Betrachtung. Deutscher Universitäts-Verlag, Wiesbaden.
- Nair, Kavita; Wolfe, Pamela; Valuck, Robert; McCollum, Marianne; Ganther, Julie; Lewis, Sonya (2003). Effects of a 3-tier pharmacy benefit design on the prescription purchasing behavior of individuals with chronic disease. *J Manag Care Pharm* 9 (2), pp. 123-133 (http://www.amcp.org/data/jmcp/2003_V9_I2.pdf).
- Nakatani, Hiroki; Kondo, Takefumi (2003). Characteristics of a medical care program for specific diseases in Japan in an era of changing cost-sharing. *H Pol* 64 (3), pp. 377-389.
- Nelson, Alan; Reeder, Claiborne; Dickson, Michael (1984). The effect of a Medicaid drug copayment program on the utilization and cost of prescription services. *Med Care* 22 (8), pp. 724-736.
- Neukirch, Benno (2004). Zuzahlung – Verbesserung der Ressourcenallokation. *Dt Ärztebl* 101 (11), p. A702 (<http://www.aerzteblatt.de/v4/archiv/artikeldruck.asp?id=40970>).

- Neuman, Patricia; Rice, Thomas (2003). Medicare Cost-Sharing: Implications for Beneficiaries. Statement Prepared for Hearing on Medicare Cost-Sharing and Medigap, Committee on Ways and Means, Subcommittee on Health, The United States House of Representatives. Washington DC
<http://waysandmeans.house.gov/hearings.asp?formmode=view&id=338>;
<http://www.kff.org/medicare/loader.cfm?url=/commonspot/security/getfile.cfm&pageID=14375>).
- Newbrander, William; Sacca, Stephen (1996). Cost Sharing and Access to Health Care for the Poor: Equity Experiences in Tanzania. World Bank, Human Development 31057, Washington DC
<http://www1.worldbank.org/devoutreach/march04/article.asp?id=237>).
- Newbrander, William; Collins, David; Gilson, Lucy (eds) (2001). User fees for health services: guidelines for protecting the poor. Management Sciences for Health, King Printing Company, Boston. ISBN 0-913723-80-0.
- Newhouse, Joseph; Taylos, Vincent (1970). Medical Costs, Health Insurance, and Public Policy. RAND Corporation, Santa Monica.
- Newhouse, Joseph; Rolph, John; Mori, Bryant; Murphy, Maureen (1978). An Estimate of the Impact of Deductibles on the Demand for Medical Care Services. RAND Corporation, Santa Monica. ISBN 0-8330-0065-9.
- Newhouse, Joseph; Manning, Willard; Morris, Carl; Orr, Larry; Duan, Naihua; Keeler, Emmett; Leibowitz, Arleen; Marquis, Kent; Marquis, Susan; Phelps, Charles; Brook, Robert (1981). Some interim results from a controlled trial of cost sharing in health insurance. *N Engl J Med* 305 (25), pp. 1501-1507
<http://www.nejm.org/doi/pdf/10.1056/NEJM198112173052504>).
- Newhouse, Joseph; Manning, Willard; Morris, Carl; Orr, Larry; Duan, Naihua; Keeler, Emmett; Leibowitz, Arleen; Marquis, Kent; Marquis, Susan; Phelps, Charles; Brook, Robert (1982). Some Interim Results from a Controlled Trial of Cost Sharing in Health Insurance R-2847-HHS. Health Insurance Experiment Series, Rand Corporation, Santa Monica.
- Newhouse, Joseph (1992). Medical Care Costs: How Much Welfare Loss? *J Econ Persp* 6 (3), pp. 3-21 (<http://links.jstor.org/sici?sici=0895-3309%28199222%296%3A3%3C3%3AMCCHMW%3E2.0.CO%3B2-M>).
- Newhouse, Joseph (1993). Free for all? Lessons from the RAND Health Insurance Experiment. A RAND study. RAND, The Insurance Experiment Group/Harvard University Press, Cambridge. ISBN 0-674-31846-3/ 0-674-31914-1.
- Newhouse, Joseph (2004a). How Much Should Medicare Pay for Drugs? *H Aff* 23 (1), pp. 89-102 (<http://content.healthaffairs.org/cgi/reprint/23/1/89>).
- Newhouse, Joseph (2004a). Consumer-directed health plans and the RAND Health Insurance Experiment. *H Aff* 23 (6), pp. 107-113
<http://content.healthaffairs.org/cgi/reprint/23/6/107>).
- Nichols, Len; Ginsburg, Paul; Berenson, Robert; Christianson, Jon; Hurley, Robert (2004). Are Market Forces Strong Enough To Deliver Efficient Health Care Systems? Confidence Is Waning. *H Aff* 23 (2), pp. 8-21 (<http://content.healthaffairs.org/cgi/reprint/23/2/8>).

- Nink, Katrin; Schröder, Helmut (2004a). Ökonomische Aspekte des deutschen Arzneimittelmarktes 2003. In: Schwabe, Ulrich; Paffrath, Dieter (2004). *Arzneiverordnungsreport 2004. Aktuelle Daten, Kosten, Trends und Kommentare*, Springer Verlag, Berlin, pp. 137-175.
- Nink, Katrin; Schröder, Helmut (2004b). Arzneimittelverordnungen nach Alter und Geschlecht. In: Schwabe, Ulrich; Paffrath, Dieter (2004). *Arzneiverordnungsreport 2004. Aktuelle Daten, Kosten, Trends und Kommentare*, Springer Verlag, Berlin, pp. 1099-1111.
- Nissen, Steven; Tuzcu, Murat; Schoenhagen, Paul; Brown, Greg; Ganz, Peter; Vogel, Robert; Crowe, Tim; Howard, Gail; Cooper, Christopher; Brodie, Bruce; Grines, Cindy; DeMaria, Anthony (2004). Effect of intensive compared with moderate lipid-lowering therapy on progression of coronary atherosclerosis: a randomized controlled trial. *JAMA* 291 (3), pp. 1071-1080 (<http://jama.ama-assn.org/cgi/reprint/291/9/1071>).
- Nixon, John; Ulmann, Philippe (2006). The relationship between health care expenditure and health outcomes. Evidence and caveats for a causal link. *Eur J H Econ* 7 (1), pp. 7-18 (<http://www.springerlink.com/content/y00147rq18r72p77/fulltext.pdf>).
- Normand, Charles; Busse, Reinhard (2002). Social health insurance (SHI) financing. In: Mossialos, Elias; Dixon, Anne; Figueras, Josep; Kutzin, Joseph (Eds). *Funding Health Care: Options for Europe*, pp. 59-79. Buckingham: Open University Press (<http://www.euro.who.int/document/e74485.pdf>).
- Norwegian Board of Health (2003). *Quality in Health Care – the Role of Government in Supervision and Monitoring in Norway*. Report 8/2002. ISSN 1503-4798 (http://www.helsetilsynet.no/upload/Publikasjoner/Rapporter2002/quality_health_care_role_government_supervision_monitoring_norway_rapport_082002.pdf).
- Nowack, Nicolas (2004). Zuzahlungen: Sozialhilfeempfänger in Heimen überfordert. *Dt Ärztebl* 101 (3), p. C70 (<http://www.aerzteblatt.de/v4/archiv/artikel.asp?src=heft&id=40100>).
- Nuijten, Mark; Szende, Agota; Kosa, Jozsef; Mogyorosy, Zsolt; Kramberger, Boris; Nemecek, Karel; Tomek, Dominik; Oreskovic, Stjepan; Laskowska, Monika (2003). Health care reform in six Central European countries. A focus on health economic requirements in the drug pricing and reimbursement processes. *Eur J H Econ* 4 (4), pp. 286-29 (<http://www.springerlink.com/content/rapdf9xpnqc7ge6h/fulltext.pdf>).
- Nyman, John (1999a). The value of health insurance: the access motive. *J H Econ* 18 (2), pp. 141-152.
- Nyman, John (1999b). The economics of moral hazard revisited. *J H Econ* 18 (6), pp. 811-824.
- Nyman, John (2003). *Health Insurance Theory: The Case of the Vanishing Welfare Gain*. Division of Health Services Research and Policy, University of Minnesota, Minneapolis (<http://www.econ.umn.edu/workingpapers/Nyman319.pdf>).
- Nyman, John (2004). Is 'Moral Hazard' Inefficient? The Policy Implications Of A New Theory. *H Aff* 23 (5), pp. 194-199 (<http://content.healthaffairs.org/cgi/reprint/23/5/194>).
- Nyman, John (2006). *Health Insurance Theory: The Case of the Missing Welfare Gain*. University of Minnesota, Minneapolis (<http://www.econ.ucsb.edu/seminar/papers/f06/nyman.pdf>).

- Oberender, Peter (1984). *Gesundheitswesen im Wandel. Reihe Gesundheitsökonomie und Sozialrecht Vol. 2*, Verlag René F. Wilfer, Spardorf.
- Oberlander, Jonathan (2003). *The Political Life of Medicare*. The University of Chicago Press, Chicago/London. ISBN 0-226-61595-2.
- O'Brien, Mary Jo; Archdeacon, Meghan; Barrett, Midge; Crow, Sarah; Janicki, Sarah; Rousseau, David; Williams, Claudia (2000). *State Experiences With Cost-Sharing Mechanisms in Children's Health Insurance Expansions*. The Commonwealth Fund, New York (http://www.cmwf.org/usr_doc/lewin_cost_fr_385.pdf).
- O'Connor, Patrick (2006). Improving Medication Adherence. Challenges for Physicians, Payers, and Policy Makers. *Arch Int Med* 165 (18), pp. 1802-1804 (<http://archinte.ama-assn.org/cgi/reprint/166/17/1802>).
- Office of Technology Assessment (OTA) (1993). *Benefit Design in Health Care Reform: Patient Cost-Sharing*. Congress of the United States, Princeton (www.wws.princeton.edu/cgi-bin/byteserv.prl/~ota/disk1/1993/9310/9310.PDF).
- O'Grady, Kevin; Manning, Willard; Newhouse, Joseph; Brook, Robert (1985). The Impact of Cost Sharing on Emergency Department Use. *N Engl J Med* 313 (8), pp. 484-490 (<http://www.nejm.org/doi/pdf/10.1056/NEJM198508223130806>).
- Organisation for Economic Co-operation and Development (OECD)/World Health Organisation (WHO) (2003). *DAC Reference Document on Poverty and Health*. DCD/DAC (2002) 25/REV1. Paris/Genf (<http://www.oecd.org/dataoecd/16/36/33965811.pdf>).
- Organisation for Economic Co-operation and Development (OECD) (2004a). *Towards High-Performing Health Systems*. The OECD Health Project, Paris (<http://skylla.wz-berlin.de/fulltext/buch-vt/2004/DD-90483.pdf>).
- Organisation for Economic Co-operation and Development (OECD) (2004b). *Towards High-Performing Health Systems*. Summary Report. The OECD Health Project, Paris (<http://www.oecd.org/dataoecd/7/58/31785551.pdf>).
- Organisation for Economic Co-operation and Development (OECD) (2004c). *Auf dem Weg zu leistungsstarken Gesundheitssystemen*. Kurzbericht. OECD Gesundheitsprojekt, Paris (<http://www.oecd.org/dataoecd/7/56/31785622.pdf>).
- Organisation for Economic Co-operation and Development (OECD) (2004d). *OECD Economic Survey of Canada 2004: Institutional Changes to Health Care System*. OECD, Paris (<http://www.oecd.org/dataoecd/41/63/33851206.pdf>).
- Organisation for Economic Co-operation and Development (OECD) (2005). *Health at a Glance*. The OECD Health Project, Paris (https://www.oecd.org/secure/pdfDocument/0,2834,en_21571361_33622309_35630037_1_1_1_1,00.pdf).
- Osende, Julio; Ruiz-Ortega, Marta; Blanco-Colio, Luis Miguel; Egido, Jesus (2004). Statins to prevent cardiovascular events in hypertensive patients. The ASCOT-LLA study. *Nephrol Dial Transplant* 19 (3), pp. 528-531 (<http://ndt.oxfordjournals.org/cgi/reprint/19/3/528>).
- O'Shea, Sofie (2004). User charges in Ireland. *European Observatory on Health Systems and Policies, Euro Observer* 6 (3), pp. 6-7 (http://www.euro.who.int/document/Obs/EuroObserver6_3.pdf).

- Osterkamp, Rigmar (2003a). German Public Health Insurance: Higher Co-payments and Everybody is Better off – the Case for Differentiated Co-payment Rates. Ifo Diskussionsbeiträge, ifo-Institut für Wirtschaftsforschung, München (http://gemini.econ.umd.edu/cgi-bin/conference/download.cgi?db_name=IIPF59&paper_id=97).
- Osterkamp, Rigmar (2003b). Public health insurance. Pareto-efficient allocative improvements through differentiated copayment rates. *Eur J H Econ* 4 (2), pp. 79–84 (<http://springerlink.metapress.com/content/91ckpkbOurdeqphg/fulltext.pdf>).
- Östlin, Pirooska (2005). What evidence is there about the effects of health care reforms on gender equity, particularly in health? WHO Regional Office for Europe's Health Evidence Network (HEN), World Health Organization, Copenhagen (<http://www.euro.who.int/Document/E87674.pdf>).
- Ozminkowski, Ronald; Marder, William; Hawkins, Kevin; Wang, Shaohung; Stallings, Sarah; Finkelstein, Stan; Sinskey, Anthony; Wierz, David (2004). The use of disease-modifying new drugs for multiple sclerosis treatment in private-sector health plans. *Clin Ther* 26 (8), pp. 1341–1354.
- Padula, Cynthia (1992). Self-Care and the Elderly: Review and Implications. *Pub Health Nurs* 9 (1), pp. 22–28 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/119331757/PDFSTART>).
- Parakh, Kapil; Bush, David; Ziegelstein, Roy; Thombs, Brett; Fauerbach, James (2007). Mortality and Adherence to Pharmacotherapy After Acute Myocardial Infarction. *JAMA* 297 (17), p. 1877 (<http://jama.ama-assn.org/cgi/reprint/297/17/1877>).
- Parente, Stephen; Feldman, Roger; Christianson, Jon (2004a). Employee Choice of Consumer-Driven Health Insurance in a Multiplan, Multiproduct Setting. *H Serv Res* 39 (4 Part 2), pp. 1091–1112 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/118752992/PDFSTART>); <http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=1361055&blobtype=pdf>).
- Parente, Stephen; Feldman, Roger; Christianson, Jon (2004b). Evaluation of the Effect of a Consumer-Driven Health Plan on Medical Care Expenditures and Utilization. *H Serv Res* 39 (4 Part 2), pp. 1189–1209 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/118752999/PDFSTART>); <http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=1361062&blobtype=pdf>).
- Paris, Valérie (2005). Pharmaceutical regulation in France 1980–2003. *Int J H Plan Mgmt* 20 (4), pp. 307–328 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/112140374/PDFSTART>).
- Pauly, Mark (1968). The Economics of Moral Hazard: Comment. *Am Econ Rev* 58 (3-1), pp. 531–537 (<http://links.jstor.org/sici?sici=0002-8282%28196806%2958%3A3%3C531%3ATEOMHC%3E2.O.CO%3B2-A>).
- Pauly, Mark (1983). More on moral hazard. *J H Econ* 2 (1), pp. 81–86.
- Pauly, Mark (1986). Taxation, Health Insurance, and Market Failure in the Medical Economy. *J Econ Lit* 24 (2), pp. 629–675 (<http://links.jstor.org/sici?sici=0022-0515%28198606%2924%3A2%3C629%3ATHIAMF%3E2.O.CO%3B2-4>).

- Pauly, Mark (1997). Who Was That Straw Man Anyway? A Comment on Evans and Rice. *J H Polit Pol Law* 22 (2), pp. 467-473
<http://jhpl.dukejournals.org/cgi/reprint/22/2/467>;
<http://web.ebscohost.com/ehost/pdf?vid=3&hid=117&sid=9cdebcdb-c06d-47bf-92dc-a6184db93386%40sessionmgr107>).
- Pauly, Mark (2002). Can Insurance Cause Medical Care Spending to Grow too Rapidly? *Vierteljahrshefte zur Wirtschaftsforschung* 71 (4), pp. 468-476
http://www.diw.de/deutsch/produkte/publikationen/vierteljahrshefte/docs/papers/v_02_4_9.pdf).
- Pauly, Mark; Scott Ramsey, (1999). Would you like suspenders to go with that belt? An analysis of optimal combinations of cost sharing and managed care. *J H Econ* 18 (4), pp. 443-458.
- Pauly, Mark; Blavin, Fredric (2007). Value Based Cost Sharing Meets the Theory of Moral Hazard: Medical Effectiveness in Insurance Benefits Design. NBER Working Paper No. 13044, National Bureau of Economic Research Washington DC
<http://www.nber.org/papers/w13044>).
- Pavcnik, Nina (2002). Do Pharmaceutical Prices Respond to Potential Patient Out-of-Pocket Expenses? *RAND J Econ* 33 (3), pp. 469-487
<http://links.jstor.org/sici?sici=0741-6261%28200223%2933%3A3%3C469%3ADPPRTP%3E2.O.CO%3B2-6>).
- Pedan, Alexander; Varasteh, Laleh; Schneeweiss, Sebastian (2007). Analysis of Factors Associated With Statin Adherence in a Hierarchical Model Considering Physician, Pharmacy, Patient, and Prescription Characteristics. *J Man Care Pharm* 13 (6), pp. 487-496 (<http://www.amcp.org/data/jmcp/pages%20487-96.pdf>).
- Petermann, Franz (2004). Non-Compliance: Merkmale, Kosten und Konsequenzen. *Managed Care Zeitschrift* 4, pp. 30-32
<http://www.forummanagedcare.ch/archiv/2004/4/14-non-compliance.neu.pdf>).
- Petty, François (1998). Un français de quatre renonce aux soins faute d'argent. *Impact Quotidien* 2, 2.April.1998.
- Pfaff, Anita; Langer, Bernhard; Mamberer, Florian; Freund, Florian; Kern, Axel; Pfaff, Martin (2003). Zuzahlungen nach dem GKV-Modernisierungsgesetz (GMG) unter Berücksichtigung von Härtefallregelungen. *Volkswirtschaftliche Diskussionsreihe Beitrag Nr. 253*, Institut für Volkswirtschaftslehre, Universität Augsburg/Internationales Institut für Empirische Sozialökonomie (INIFES)
<http://opus.zbw-kiel.de/volltexte/2004/1411/pdf/253.pdf>).
- Pfaff, Anita; Langer, Bernhard; Freund, Florian (2005). Bürgerversicherung vs. Gesundheitsprämie – Vergleich der Reformoptionen zur Finanzierung der Gesetzlichen Krankenversicherung. *Volkswirtschaftliche Diskussionsreihe Beitrag Nr. 277*, Institut für Volkswirtschaftslehre, Universität Augsburg (<http://www.wiwi.uni-augsburg.de/vwl/institut/paper/277.pdf>).
- Pfaff, Martin (1985). Kann die Selbstbeteiligung gleichzeitig "sozial tragbar" und "kostendämpfend" sein? *Sozialer Fortschritt* 34 (12), pp. 272-276.
- Phelps, Charles; Newhouse, Joseph (1972). Effect of Co-insurance: A Multivariate Analysis. *Soc Sec Bull* 35 (6), pp. 20-28.

- Piette, John; Heisler, Michele; Wagner, Todd (2004). Cost-Related Medication Underuse. Do Patients With Chronic Illnesses Tell Their Doctors? *Arch Intern Med* 164, pp. 1749-1755 (<http://archinte.ama-assn.org/cgi/content/full/164/16/1749>).
- Piette, John; Heisler, Michele; Wagner, Todd (2004). Problems Paying Out-of-Pocket Medication Costs Among Older Adults With Diabetes. *Diab Care* 27 (2), pp. 384-391 (<http://care.diabetesjournals.org/cgi/reprint/27/2/384>).
- Piette, John (2005). Medication Cost-Sharing: Helping Chronically Ill Patients Cope. *Med Care* 43 (10), pp. 947-950.
- Pilote, Louise; Beck, Christine; Huhgues, Richard; Eisenberg, Marc (2002). The effects of cost-sharing on essential drug prescriptions, utilization of medical care and outcomes after acute myocardial infarction in elderly patients. *CAMJ* 167 (3), pp. 246-252 (<http://www.cmaj.ca/cgi/reprint/167/3/246>).
- Poisal, John; Chulis, George (2000). Medicare beneficiaries and drug coverage. *H Aff* 19 (2), pp. 248-256 (<http://content.healthaffairs.org/cgi/reprint/19/2/248>).
- Poisal, John; Murray, Lauren (2001). Growing differences between Medicare beneficiaries with and without drug coverage. *H Aff* 20 (2), pp. 74-85 (<http://content.healthaffairs.org/cgi/reprint/20/2/74>).
- Prada, Gabriela; Roberts, Glen; Vail, Stephen; Andersen, Malcolm; Down, Erin; Fooks, Cathy; Howatson, Al; Grimes, Kelly; Morgan, Steve; Parent, Karen; Sinclair, Duncan; Thompson, Vivian; Yalnizyan, Armine (2004). Understand Health Care Cost Drivers and Escalators. Health, Health Care and Wellness, Report March 2004, The Conference Board of Canada, Ottawa (www.conferenceboard.ca).
- Prentice, Julia; Pizer, Steven (2007). Delayed Access to Health Care and Mortality. *H Serv Res* 42 (2), pp. 644-662 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/117996560/PDFSTART>).
- Probst, Josef (2004). Selbstbehalt – Sozialer und gesundheitspolitischer Widerspruch. In: Wurzer et al. 2004, pp. 21-30.
- Provost Peters, Christie (2004). Fundamentals of the Prescription Drug Market. NHPF Background Paper, National Health Policy Forum, George Washington University, Washington DC (http://www.nhpf.org/pdfs_bp/BP_RxIndustry_08-24-04.pdf).
- Pütz, Claudia (2003). Selbstbehalttarife für die gesetzliche Krankenversicherung. 1st ed., Nomos Verlagsgesellschaft, Baden-Baden. ISBN 3-8329-0187-6.
- Rahimi, Ali; Spertus, John; Reid, Kimberly; Bernheim, Susannah; Krumholz, Harlan (2007). Financial Barriers to Health Care and Outcomes After Acute Myocardial Infarction. *JAMA* 297 (10), pp. 1063-1072 (<http://jama.ama-assn.org/cgi/reprint/297/10/1063>).
- Ramsay, Cynthia (1998). Medical Savings Accounts. Universal, Accessible, Portable, Comprehensive Health Care for Canadians. Critical Issues Bulletin, Fraser Institute, Vancouver (<http://www.fraserinstitute.org/admin/books/files/MedicalSavingsAccounts.pdf>).
- Ramsay, Cynthia (2002). A Framework for Determinating the Extent of Public Financing of Programs and Services. Commission on the Future of Health Care in Canada, Discussion Paper No. 16. Vancouver (<http://dsp-psd.communication.gc.ca/Collection/CP32-79-16-2002E.pdf>).

- Ramsay, Cynthia; Esmail, Nadeem (2004). The Alberta Health Care Advantage: An Accessible, High Quality, and Sustainable System. Public Policy Sources, The Fraser Institute/Elm Consulting, Fraser Institute, Vancouver
(<http://www.fraserinstitute.ca/admin/books/files/ABHealth.pdf>).
- RAND (2000). Access to HIV Care – Initial Results from the HIV Cost and Services Utilization Study. Policy Brief. RAND Corporation, Santa Monica
(http://www.rand.org/pubs/research_briefs/RB4530/index1.html).
- Rand Health (2002). Cost Sharing Cuts Employers' Drug Spending—but Employees Don't Get the Savings. Research Highlights. RAND Corporation, Santa Monica
(http://www.rand.org/pubs/research_briefs/RB4553/index1.html).
- Rand Health (2005). How Cost Sharing Affects by the Chronically Ill. Fact Sheet. RAND Corporation, Santa Monica
(http://www.rand.org/pubs/research_briefs/RB9109/RAND_RB9109.pdf).
- Rasell, Edith (1995). Cost Sharing in Health Insurance – a Reexamination. *N Engl J Med* 332 (17), pp. 1164-1168
(<http://www.nejm.org/doi/pdf/10.1056/NEJM199504273321711>).
- Rasell, Edith; Bernstein, Jared; Tang, Kainan (1993). The impact of health care financing on family budgets. Briefing Paper, Economic Policy Institute, Washington DC
(http://www.epinet.org/briefingpapers/1993_bp_impact.pdf).
- Rasell, Edith; Bernstein, Jared; Tang, Kainan (1994). The impact of health care financing on family budgets. *Int J H Serv* 24 (4), pp. 691-714
([http://baywood.metapress.com/\(0vkbmwaqi0yhOgms0fhwbj45\)/app/home/contribution.asp?referrer=parent&backto=issue,9,12;journal,46,141;linkingpublicationresults,1:300313,1](http://baywood.metapress.com/(0vkbmwaqi0yhOgms0fhwbj45)/app/home/contribution.asp?referrer=parent&backto=issue,9,12;journal,46,141;linkingpublicationresults,1:300313,1)).
- Rasmussen, Jeppe; Chong, Alice; Alter, David (2007). Relationship Between Adherence to Evidence-Based Pharmacotherapy and Long-term Mortality After Acute Myocardial Infarction. *JAMA* 297 (2), pp. 177-186
(<http://jama.amaassn.org/cgi/reprint/297/2/177>).
- Ratiopharm (2005). Gesundheitskosten-Monitor. Ulm
(http://www2.ratiopharm.com/de/de/dep/magazin/gesundheitskosten_monitor_2005/gesundheitskosten_monitor__gra.cfm).
- Rau, Ferdinand (1992). Selbstbeteiligungsregelungen im Gesundheitswesen. Empirische Wirksamkeitsanalysen im internationalen Vergleich. Konstanzer Schriften zur Sozialwissenschaft, Hartung-Gorre Verlag, Konstanz.
- Rector, Thomas; Finch, Michael; Danzon, Patricia; Pauly, Mark; Bharati, Manda (2003). Effect of Tiered Prescription Copayments on the Use of Preferred Brand Medications. *Med Care* 41 (3), pp. 398-406.
- Recke, Dieter Baron von der (1980). Die Einstellung der Bevölkerung zur Selbstbeteiligung. In: Internationale Gesellschaft für Gesundheitsökonomie, pp. 79-84.
- Redaktionsbüro Gesundheit (2005a). Die Gesundheitsreform: Neue Zuzahlungs- und Finanzierungsregelungen – die wichtigsten Veränderungen auf einen Blick. BMGS, Bonn/Berlin
(http://www.diegesundheitsreform.de/themen_az/tabellen/pdf/tabelle_zuzahlung_en.pdf?param=u).

- Redaktionsbüro Gesundheit (2005b). Zuzahlungsbefreiung. So berechnen Sie Ihre Belastungsgrenze im Jahr 2006. BMGS, Bonn/Berlin ([http://www.diegesundheitsreform.de/themen_az/gesundheits_kompakt/pdf/gesundheits_kompakt_zuzahlungen.pdf?param=u](http://www.diegesundheitsreform.de/themen_az/gesundheit_kompakt/pdf/gesundheits_kompakt_zuzahlungen.pdf?param=u)).
- Redelmeier, Donald; Fuchs, Victor (1993). Hospital expenditures in the United States and Canada. *N Engl J Med* 328 (11), pp. 772-778 (<http://www.nejm.org/doi/pdf/10.1056/NEJM199303183281107>).
- Reed, Mary; Fung, Vicky; Brand, Richard; Fireman, Bruce; Newhouse, Joseph; Selby, Joseph; Hsu, John (2005). Care-seeking behavior in response to emergency department copayments. *Med Care* 43 (8), pp. 810-816.
- Reggler, Jonathan (1998). User fees would both yield money and encourage more responsible use of NHS. *BMJ* 316 (7124), p. 70 (<http://bmj.bmjournals.com/cgi/content/full/316/7124/70/a>).
- Reichelt, Herbert (1985). Sozial tragbare Selbstbeteiligung oder statistische Artefakte? *Sozialer Fortschritt* 34 (12), pp. 265-271.
- Reichelt, Herbert (1994). Steuerungswirkungen der Selbstbeteiligung im Arzneimittelmarkt. Gustav Fischer Verlag, Stuttgart.
- Reichmann, Gerhard; Sommersguter-Reichmann, Margit (2004). Co-payments in the Austrian social health insurance system. Analysing patient behaviour and patient's views of the effects of co-payments. *H Pol* 67 (1), pp. 75-92.
- Reiners, Hartmut (2006). Der Homo oeconomicus im Gesundheitswesen. WZB Discussion Paper, Berlin, ISSN 1860-8884 (<http://skylla.wz-berlin.de/pdf/2006/i06-305.pdf>).
- Reiners, Hartmut; Schnee, Melanie (2007). Hat die Praxisgebühr eine nachhaltige Steuerungswirkung? Die Praxisgebühr – ein Kernstück des GKV-Modernisierungsgesetzes (GMG). In: Böcken, Jan; Braun, Bernard; Amhof, Robert. *Gesundheitsmonitor 2007*, Bertelsmann-Stiftung, Gütersloh, pp. 133-154.
- Reinhardt, Uwe (1989). Economists in Health Care: Saviors, or Elephants in a Porcelain Shop? *Am Econ Rev* 79 (2), pp. 337-342 (<http://links.jstor.org/sici?sici=0002-8282%28198905%2979%3A2%3C337%3AEIHCSO%3E2.O.CO%3B2-S>).
- Reinhardt, Uwe (2001). Can Efficiency in Health Care Be Left to the Market? *J H Polit Pol Law* 26 (5), pp. 967-992 (<http://jhpl.dukejournals.org/cgi/reprint/26/5/967>; <http://web.ebscohost.com/ehost/pdf?vid=3&hid=115&sid=b703f69b-1851-4b45-892a-d3bc2e69e4b9%40sessionmgr9>).
- Remler, Dahlia; Atherly, Adam (2003). Health status and heterogeneity of cost-sharing responsiveness: how do sick people respond to cost-sharing? *H Econ* 12 (4), pp. 269-280 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/99015409/PDFSTART>).
- Reuveni, Haim; Sheizaf, Boaz; Elhayany, Asher; Sherf, Michael; Limoni, Yehuda; Scharff, S.; Peled, Ronit (2002). The effect of drug co-payment policy on the purchase of prescription drugs for children with infections in the community. *H Pol* 62 (1), pp. 1-13.
- Rice, Thomas (1997). Can Markets Give Us the Health System We Want? *J H Polit Pol Law* 22 (2), pp. 381-426 (<http://jhpl.dukejournals.org/cgi/reprint/22/2/383>; <http://web.ebscohost.com/ehost/pdf?vid=3&hid=115&sid=b703f69b-1851-4b45-892a-d3bc2e69e4b9%40sessionmgr9>).

- Rice, Thomas; Labelle, Roberta (1989). Do physicians induce demand for medical services? *J H Polit Pol Law* 14 (3), pp. 587-600 (<http://jhpl.dukejournals.org/cgi/reprint/14/3/587>).
- Rice, Thomas; Thorpe, Keneth (1993). Income-related Cost Sharing in Health Insurance. *H Aff* 12 (1), pp. 21-39 (<http://content.healthaffairs.org/cgi/reprint/12/1/21>).
- Rice, Thomas (2004). *Stichwort: Gesundheitsökonomie. Eine kritische Auseinandersetzung*. KomPart Verlagsgesellschaft, Bonn.
- Rice, Thomas; Matsuoka, Karen (2004). Book Review: The Impact of Cost-Sharing on Appropriate Utilization and Health Status: A Review of the Literature on Seniors. *Med Care Res Rev* 61 (4), pp. 415-452 (<http://mcr.sagepub.com/cgi/reprint/61/4/415>).
- Richardson, Jeff (1991). The Effects of Consumer Co-payments in Medical Care. National Health Strategy Background Paper No 5. Australian Government, Calgary (<http://www.health.gov.au/archive/nhs/documents/nhs6.pdf>).
- Richardson, Jeff (2005). Priorities of health policy: cost shifting or population health. *Austr N ZealH Pol* 2 (1) (<http://www.anzhealthpolicy.com/content/2/1/1>).
- Rieser, Sabine (2004). GKV-Modernisierungsgesetz: Praxisgebühr im Praxistest. *Dt Ärztebl* 101 (3), p. A-79/B-69/C-69 (<http://www.aerzteblatt.de/v4/archiv/artikel.asp?src=suche&id=40099>).
- Robbins, Brett (2005). Patients with Chronic Illnesses Underuse Medications Because of Cost. *American Association of Pediatrics, AAP Grand Rounds* 13 (1), p. 6 (<http://aapgrandrounds.aappublications.org/cgi/reprint/13/1/6>).
- Robinson, James (2002). Renewed Emphasis On Consumer Cost Sharing In Health Insurance Benefit Design. *H Aff, Web Excl*, pp. W2 139-154 (<http://content.healthaffairs.org/cgi/reprint/hlthaff.w2.139v1>; <http://www.chcf.org/documents/insurance/HAmarch2002Robinson.pdf>).
- Robinson, James (2003). Hospital Tiers In Health Insurance: Balancing Consumer Choice With Financial Incentives. *H Aff, Web Excl*, pp. w3 135-146 (<http://content.healthaffairs.org/cgi/reprint/hlthaff.w3.135v1>).
- Robinson, James (2004). Reinvention of Health Insurance in the Consumer Era. *JAMA* 291 (15), pp. 1880-1886 (<http://jama.ama-assn.org/cgi/reprint/291/15/1880.pdf>).
- Robinson, Ray (1999). Perspectives on Cost Sharing. *Eurohealth* 5 (3). Geneva: World Health Organization, p. 24 (http://www.euro.who.int/document/obs/EuroHealth5_3.pdf).
- Robinson, Ray (2002). User charges for health care. In: Mossialos, Elias; Dixon, Anne; Figueras, Josep; Kutzin, Joseph (Eds). *Funding Health Care: Options for Europe*, pp. 161-183 (<http://www.euro.who.int/document/e74485.pdf>).
- Roblin, Douglas; Platt, Richard; Goodman, Michael; Hsu, John; Nelson, Winnie; Smith, David; Andrade, Susan; Soumerai, Stephen (2005). Effect of Increased Cost-Sharing on Oral Hypoglycemic Use in Five Managed Care Organizations: How Much Is Too Much? *Med Care* 43 (10), pp. 951-959.
- Roddy, Paul; Wallen, John; Meyers, Sanford (1986). Cost sharing and use of health services. The United Mine Workers of America Health Plan. *Med Care* 24 (9), pp. 873-876 (<http://links.jstor.org/sici?sici=0025-7079%28198609%2924%3A9%3C873%3ACSAUOH%3E2.O.CO%3B2-2>).

- Rodwin, Victor; Le Pen, Claude (2004). Health Care Reform in France – The Birth of State-Led Managed Care. *N Engl J Med* 351 (22), pp. 2259-2262 (<http://www.nejm.org/doi/pdf/10.1056/NEJMp048210>).
- Roemer, Milton; Hopkins, Carl; Carr, Lockwood; Gartside, Foline (1975). Copayments for Ambulatory Care: Penny-Wise and Pound-Foolish. *Med Care* 13 (6), pp. 457-466.
- Roos, Noralou; Forget, Evelyn; Walld, Randy; MacWilliam, Leonard (2004). Does universal comprehensive insurance encourage unnecessary use? Evidence from Manitoba says “no” *CMAJ* 170 (21), pp. 209-214 (<http://www.cmaj.ca/cgi/reprint/170/2/209>)
- Ros, Corina; Groenewegen, Peter; Delnoij, Diana (2000). All rights reserved, or can we just copy? Cost sharing arrangements and characteristics of health care systems. *H Pol* 52 (1), pp. 1-13.
- Rosen, Bruce (2003). In: Thomson, Sarah; Mossialos, Elias (Ed.). Health care systems in transition: Israel. *European Observatory on Health Care Systems* 5 (1), Copenhagen (<http://www.euro.who.int/document/E81826.pdf>).
- Rosen, Bruce; Gross, Revital; Brammli-Greenberg, Shuli; Feldman, Roger; Manning, Willard; Zwanziger, Jack (2003). Co-Payments for Physician Visits: How Large is the Burden and Who Bears Its Brunt? Presentation IHEA, JDC-Brookdale Institute Jerusalem.
- Rosen, Allison; Hamel, Mary Beth; Weinstein, Milton; Cutler, David; Fendrick, Mark; Vijan, Sandeep (2005). Cost-Effectiveness of Full Medicare Coverage of Angiotensin-Converting Enzyme Inhibitors for Beneficiaries with Diabetes. *Ann Intern Med* 143 (2), pp. 89-99 (<http://www.annals.org/cgi/reprint/143/2/89.pdf>).
- Rosenbrock, Rolf (1979). Staatliche Reformpolitik im Gesundheitswesen am Beispiel der Arzneimittelversorgung. In: Haug, Wolfgang Fritz (Hrsg.). *Argumente für eine soziale Medizin. Argument Sonderband AS 30*, Argument-Verlag, Berlin, ISBN 3-920037-46-4, pp. 59-87.
- Rosenthal, Meredith; Milstein, Arnold (2004). Awakening Consumer Stewardship of Health Benefits: Prevalence and Differentiation of New Health Plan Models. *H Serv Res* 39 (4, Part 2), pp. 1055-1070 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/118752990/PDFSTART>;
<http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=1361053&blobtype=pdf>).
- Rosian, Ingrid; Mildschuh, Stephan; Vogler, Sabine; Winkler, Petra (2002). Selbstbeteiligung. Internationaler Vergleich und Implikationen für Österreich. Österreichisches Bundesinstitut für Gesundheitswesen (ÖBIG), Wien.
- Ross, Murray (2006). Consumer-Directed Health Care: It’s Not Whether The Glass Is Half-Empty, But Why. *H Aff* 25 (6), pp. w552-w554 (<http://content.healthaffairs.org/cgi/content/full/hlthaff.25.w552>).
- Rothman, Max (1992). Cost-Sharing and the Future of Fees for Service for Frail Elders in State Programs. *J Appl Geront* 11 (4), pp. 441-456 (<http://jag.sagepub.com/cgi/reprint/11/4/441>).

- Rouleau, Jean; Moye, Lemuel; Pfeffer, Marc; Arnold, Malcolm; Bernstein, Victoria; Cuddy, Thomas; Dagenais, Gilles; Geltman, Edward; Goldman, Steven; Gordon, David; Hamm, Peggy; Klein, Marc; Lamas, Gervasio; McCans, John; McEwan, Patricia; Menapace, Francis; Parker, John; Sestier, François; Sussex, Bruce; Braunwald, Eugene (1993). A comparison of management patterns after acute myocardial infarction in Canada and the United States. *N Engl J Med* 328 (11), pp. 779-784 (<http://www.nejm.org/doi/pdf/10.1056/NEJM199303183281108>).
- Rubin, Robert; Mendelson, Daniel (1995). A framework for cost sharing policy analysis. Mattison, Nancy (Hrsg.) (1995). *Sharing the costs of health: A multi-country perspective*. Pharmaceutical Partners for Better Health. Basel.
- Ruf, Thomas (1982). Zur Selbstbeteiligung der Versicherten. Eine Studie zu ihren Grenzen und Möglichkeiten. *PKV-Dokumentation* 8, Verband der privaten Krankenversicherung e.V., Köln.
- Russel, Stephen (1996). Ability to pay for health care: concepts and evidence. *H Pol Plan* 11 (3), pp. 219-237 (<http://heapol.oxfordjournals.org/cgi/reprint/11/3/219>).
- Saaddine, Jinan; Cadwell, Betsy; Gregg, Edward; Engelgau, Michael; Vinicor, Frank; Imperatore, Giuseppina; Narayan, Venkat (2006). Improvements in Diabetes Processes of Care and Intermediate Outcomes: United States, 1988–2002. *Ann Int Med* 144 (7), pp. 465-474 (<http://www.annals.org/cgi/content/full/144/7/465>).
- Sachs, Jeffrey (Ed.) (2001). *Macroeconomics and Health: Investing in Health for Economic Developing*. WHO, Genf (<http://www.cmhealth.org>, <http://www.un.org/esa/coordination/ecosoc/docs/RT.K.MacroeconomicsHealth.pdf>)
- Sachverständigenrat für die konzertierte Aktion im Gesundheitswesen (SVR) (2003b). *Finanzierung, Nutzerorientierung und Qualität. Vol. I: Finanzierung und Nutzerorientierung*. Nomos Verlag, Baden-Baden, ISBN: 3-8329-0408-5.
- Sachverständigenrat für die konzertierte Aktion im Gesundheitswesen (SVR) (2003c). *Finanzierung, Nutzerorientierung und Qualität Vol. II: Qualität und Versorgungsstrukturen*. Nomos Verlag, Baden-Baden, ISBN: 3-8329-0409-3 (SVR 2003c).
- Sacks, Frank; Pfeffer, Marc; Moye, Lemuel; Rouleau, Jean; Rutherford, John; Cole, Thomas; Brown, Lisa; Warnica, Wayne; Arnold, Malcolm; Chuan-Chuan, Wun; Davis, Barry; Braunwald, Eugene (1996). The effect of pravastatin on coronary events after myocardial infarction in patients with average cholesterol levels. Cholesterol and Recurrent Events Trial investigators. *N Engl J Med* 335 (14), pp. 1001-1009 (<http://www.nejm.org/doi/pdf/10.1056/NEJM199610033351401>).
- Saltman, Richard; Figueras, Josep (1996). *European Health Care Reforms. The Ljubljana Charter on Reforming Health Care*. World Health Organisation, Regional Office for Europe, Kopenhagen.
- Saltman, Richard; Figueras, Josep (1998). *Analyzing The Evidence On European Health Care Reforms*. *H Aff* 17 (2), pp. 85-108 (<http://content.healthaffairs.org/cgi/reprint/17/2/85>).
- Saltman, Richard; Busse, Reinhard; Mossialos, Elias (2002). *Regulating Entrepreneurial Behaviour in European Health Care Systems*. Open University Press, Buckingham. (<http://www.who.dk/document/OBS/REBC01.pdf> - .../REBC11.pdf).
- Saltman, Richard (2002). *The Western European Experience with Health Care Reform*. World Health Organisation, Regionalbüro Europa, Kopenhagen (http://www.euro.who.int/observatory/Studies/20021223_2).

- Sapelli, Claudio; Vial, Bernadita (1998). Utilización de prestaciones de salud en Chile: ¿Es diferente entre grupos de ingreso? Cuadernos de Trabajo No 106, pp. 343-382 (http://www.economia.puc.cl/index/paginas_profesor.asp?id_subsecciones=117&id_seccion=4&id_profesor=19&id_pagina=64).
- Sapelli, Claudio; Torche, Aristides (1998). El Seguro Previsional de Salud: Determinantes de la Elección entre Seguro Público y Privado, 1990-1994. Cuadernos de Economía 35 (106), pp. 383-406. Santiago.
- Sapelli, Claudio; Vial, Bernadita (2001). Self-selection and moral hazard in Chilean health insurance. Documento de Trabajo No 195, Instituto de Economía, Pöpstliche Katholische Universität Chile, Santiago (http://www.economia.puc.cl/index/paginas_profesor.asp?id_subsecciones=117&id_seccion=4&id_profesor=19&id_pagina=64; http://www.economia.puc.cl/index/detalle_publica.asp?id_publicacion=928&id_subsecciones=123&id_seccion=3).
- Sapelli, Claudio; Vial, Bernadita (2003). Self-selection and moral hazard in Chilean health insurance. *J H Econ* 22 (3), pp. 459-476.
- Sari, Nazmi, Langenbrunner, John; Lewis, Maureen (2000). Affording Out-of-Pocket Payments for Health Care Services: Evidence from Kazakhstan. *Eurohealth* 6 (2), Special Spring 2000. Geneva: World Health Organization, pp. 37-39 (<http://www.lse.ac.uk/collections/LSEHealthAndSocialCare/pdf/eurohealth/vol6no2.pdf>).
- Sari, Nazmi; Langenbrunner, John (2001). Consumer out-of-pocket spending for pharmaceuticals in Kazakhstan: Implications for sectoral reform. *H Pol Plan* 16 (4), pp. 428-434 (<http://dcc2.bumc.bu.edu/richardl/DPIO2/Additional%20Mats/Richard/Kazhak%20Pharms.pdf>).
- Saver, Barry; Doescher, Mark; Jackson, Elizabeth; Fishman, Paul (2004). Seniors with Chronic Health Conditions and Prescription Drugs: Benefits, Wealth, and Health. *Value in Health* 7 (2), pp. 133-143 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/118752990/PDFSTART>).
- Sax, Philip (2001). Changes in Drug Economy in Israel's Health Maintenance Organizations in the Wake of the National Health Insurance Law. *Isr Med Ass J* 3 (8), pp. 605-609 (<http://www.ima.org.il/imag/ar01aug-13.pdf>).
- Schachenhofer, Barbara (1997). Gesundheitsbewußtsein versus Selbstbeteiligung. Über die Notwendigkeit einer Bewußtseinserweiterung hinsichtlich unserer Gesundheit. *Schriften der Johannes-Keßler-Universität Linz, Reihe B – Wirtschafts- und Sozialwissenschaften*, Nr. 23. Universitätsverlag Rudolf Trauner, Linz.
- Schaffenberger, Eva (1989). Der Spitalskostenbeitrag. Einhebungspraxis, Soziale Aspekte und Akzeptanz. *Sozialwissenschaftliche Abteilung, Kammer für Arbeiter und Angestellte für Wien*. Wien.
- Schafheutle, Ellen; Hassell, Karen; Noyce, Peter; Weiss, Marjorie (2002). Access to medicines: cost as an influence on the views and behaviour of patients. *H Soc Care Comm* 10 (3), pp. 187-195 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/118958198/PDFSTART>).

- Schauffler, Helen Halpin; McMenamin, Sara (2001). Assessing PPO Performance on Prevention and Population Health. *Med Care Res Rev* 12 (58), pp. 112-136 (http://mcr.sagepub.com/cgi/reprint/58/suppl_1/112).
- Schellhorn, Martin (2001). The effect of variable health insurance deductibles on the demand for physician visits. *H Econ* 10 (5), pp. 441-456 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/85005213/PDFSTART>).
- Schellhorn, Martin (2002). Auswirkungen wählbarer Selbstbehalte in der Krankenversicherung: Lehren aus der Schweiz? *Vierteljahreshefte zur Wirtschaftsforschung* 71 (4), pp. 411-426 (http://www.diw.de/deutsch/produkte/publikationen/vierteljahrshefte/docs/papers/v_02_4_2.pdf).
- Schlander, Michael (2005). Kosteneffektivität und Ressourcenallokation: Gibt es einen normativen Anspruch der Gesundheitsökonomie? In: Kick, Hermes Andreas; Tautpitz, Jochen: *Gesundheitswesen zwischen Wirtschaftlichkeit und Menschlichkeit*. LIT-Verlag, Münster (http://www.michaelschlander.com/ofnote/docs/Schlander-Normativer_Anspruch-2005.pdf).
- Schlesinger, Herbert; Mumford, Emily; Glass, Gene; Patrick, Cathleen; Sharfstein, Steven (1983). Mental health treatment and medical care utilization in a fee-for-service system: outpatient mental health treatment following the onset of a chronic disease. *Am J Pub H* 73 (4), pp. 422-429 (<http://www.ajph.org/cgi/reprint/73/4/422>).
- Schmid, Heinz (1980). Selbstbeteiligung in der Schweizerischen Krankenversicherung. In: *Internationale Gesellschaft für Gesundheitsökonomie*, pp. 61-66.
- Schneeweiss, Sebastian; Schöffski, Oliver; Selke, Gisbert (1998). What is Germany's experience on reference based drug pricing and the etiology of adverse health outcomes or substitution? *H Pol* 44 (3), pp. 253-260.
- Schneeweiss, Sebastian; Maclure, Malcolm; Walker, Alexander; Grootendorst, Paul; Soumerai, Stephen (2001). On the evaluation of drug benefits policy changes with longitudinal claims data: the policy maker's versus the clinician's perspective. *H Pol* 55 (2), pp. 97-109.
- Schneeweiss, Sebastian; Walker, Alexander; Lynn, Robert; Maclure, Malcolm; Dormuth, Colin; Soumerai, Stephen (2002a). Outcomes of Reference Pricing for Angiotensin-Converting-Enzyme Inhibitors. *N Engl J Med* 346 (11), pp. 822-829 (<http://www.nejm.org/doi/pdf/10.1056/NEJMsa003087>).
- Schneeweiss, Sebastian; Maclure, Malcolm; Soumerai, Stephen (2002b). Prescription duration after drug copay changes in older people: Methodological aspects. *J Am Ger Soc* 50 (3), pp. 521-525 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/118936624/PDFSTART>).
- Schneeweiss, Sebastian; Patrick, Amanda; Maclure, Malcolm; Dormuth, Colin; Glynn, Robert (2007). Adherence to Statin Therapy Under Drug Cost Sharing in Patients With and Without Acute Myocardial Infarction: A Population-Based Natural Experiment. *Circ* 115 (16), pp. 2128-2135 (<http://circ.ahajournals.org/cgi/reprint/115/16/2128>).
- Schneider, Markus (1988). Möglichkeiten und Auswirkungen der Förderung der Zahnprophylaxe und Zahnerhaltung durch Bonussysteme. *Materialienreihe, Vol. 5, Institut der Deutschen Zahnärzte (IZK), Deutscher Ärzteverlag, Köln.*

- Schneider, Pia; Hanson, Kara (2006). Horizontal equity in utilisation of care and fairness of health financing: a comparison of micro-health insurance and user fees in Rwanda. *H Econ* 15 (1), pp. 19-31 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/111089543/PDFSTART>).
- Schnell, Gerald (2002). *Zuzahlung für Arzneimittel*. Josef Eul Verlag, Lohmar/Köln. ISBN 3-89012-960-9.
- Schoen, Cathy; Osborn, Robin; Huynh, Phuong Trang; Doty, Michelle; Zapert, Kinga; Peugh, Jordon; Davis, Karen (2005). Taking The Pulse Of Health Care Systems: Experiences Of Patients With Health Problems In Six Countries. *H Aff, Web Excl* 24 (6), pp. W5 509-525 (<http://content.healthaffairs.org/cgi/reprint/hlthaff.w5.509>).
- Schoen, Cathy; Doty, Michelle (2004). Inequities in Acces to Medical Care in Five Countries. Pub. #733, The Commonwealth Fund, New York / *H Pol* 67 (3), pp. 309-22 (http://www.commonwealthfund.org/usr_doc/733_Schoen_Doty_inequities_ITL.pdf?section=4039).
- Schoen, Cathy; Osborn, Robin; How, Sabrina; Doty, Michelle; Peugh, Jordon (2009). In Chronic Condition: Experiences Of Patients With Complex Health Care Needs, In Eight Countries, 2008. *Health Aff* 28(1) (Web Excl.), pp. w1-w16 (<http://content.healthaffairs.org/cgi/reprint/28/1/w1>).
- Schokkaert, Erik; van de Voorde, Carine (2005). Health care reformin Belgium. *H Econ* 14 (Suppl. 1), pp. S25-39 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/111090724/PDFSTART>).
- Schreyer, Christoph; Maibach, Markus; Sutter, Daniel; Doll, Claus; Bickel, Peter (2007). Externe Kosten des Verkehrs in Deutschland, Aufdatierung 2005. Schlussbericht, INFRAS, Zürich (Kurzfassung: http://www.allianz-pro-schiene.de/cms/upload/pdf-Dateien/Publikationen/070300_Externe-Kosten_Management_Summary.pdf).
- Schroeder, Steven; Cantor, Joel (1991). On Squeezing Balloons: Cost Control Fails. *N Engl J Med* 325 (15), pp. 1099-1100.
- Schulenburg, Johann-Matthias Graf von der (1984a). Möglichkeiten und Probleme der Steuerung der Nachfrage nach Gesundheitsleistungen. *Medizin, Mensch, Gesellschaft* 9 (4), pp. 251-259.
- Schulenburg, Johann-Matthias Graf von der (1984b). Economic Aspects of Cost-Sharing in Medical Insurance. A Theoretical and Empirical Investigation. In: Eimeren, W. van; Engelbrecht, R., Flaggie Ch. D. (Hrsg.). *Third International Conference on System Science in Health Care*. Springer Berlin, pp. 1278-1281.
- Schulenburg, Johann-Matthias Graf von der (1984c). Deregulation of Statutory Health Insurance. The Effects of Increased Cost-Sharing Arrangements. *Forschungsbericht, Wissenschaftszentrum für Sozialforschung, Berlin*.
- Schulenburg, Johann-Matthias Graf von der (1984d). Deregulation of Statutory Health Insurance. The Effects of Increased Cost-Sharing Arrangements. *Forschungsbericht, Wissenschaftszentrum für Sozialforschung, Berlin*.
- Schulenburg, Johann-Matthias Graf von der (1987). *Selbstbeteiligung. Theoretische und empirische Konzepte für die Analyse ihrer Allokations- und Verteilungswirkungen*. Schriften zur angewandten Wirtschaftsforschung Nr. 51, Mohr-Verlag, Tübingen.
- Schulenburg, Matthias Graf von der (2007). *Leuchttürme einer rationalen Gesundheitspolitik*. Institut für Versicherungsbetriebslehre, Leibniz Universität Hannover

- Schulenburg, Johann-Matthias von der; Frommknecht, Heinrich (1984). *Versicherungsschutz und Selbstbeteiligung in der Individualversicherung aus der Sicht der ökonomischen Theorie. Formen der Selbstbeteiligung in der Personenversicherung. Erfahrungen und Perspektiven. Frankfurter Vorträge zum Versicherungswesen Nr. 9, Verlagsgesellschaft Versicherungswirtschaft, Karlsruhe.*
- Schulenburg, Johann-Matthias Graf von der; Wieland, Klaus (1984). *Selbstbeteiligung in der Krankenversicherung. Rhein Ärztebl (13), pp. 630-634.*
- Schultz, Jennifer; O'Donnell, John; McDonough, Ken; Sasane, Rahul; Meyer, Jay (2005). *Determinants of compliance with statin therapy and low-density lipoprotein cholesterol goal attainment in a managed care population. Am J Manag Care 11 (5), pp.306-312*
(http://www.ajmc.com/files/articlefiles/AJMC05May_Schultz306to312.pdf).
- Schwartz, Gregory; Olsson, Anders; Ezekowitz, Michael; Ganz, Peter; Oliver, Michael; Waters, David; Zeiher, Andreas; Chaitman, Bernard; Leslie, Sally; Stern, Theresa for the Myocardial Ischemia Reduction with Aggressive Cholesterol Lowering Study Investigators (2001). *Effects of atorvastatin on early recurrent ischemic events in acute coronary syndromes: the MIRACL study: a randomized controlled trial. JAMA 285 (13), pp. 1711-1718* (<http://jama.ama-assn.org/cgi/reprint/285/13/1711>).
- Schwarz, Eli (1996). *Changes in Utilization and Cost Sharing within the Danish Health Insurance Dental Program 1975-90. Acta Odontol Scand 54 (1), pp. 29-35.*
- Schwartz, Gregory; Olsson, Anders; Ezekowitz, Michael; Ganz, Peter; Oliver, Michael; Waters, David; Zeiher, Andreas; Chaitman, Bernard; Leslie, Sally; Stern, Theresa for the Myocardial Ischemia Reduction with Aggressive Cholesterol Lowering Study Investigators (2001). *Effects of atorvastatin on early recurrent ischemic events in acute coronary syndromes: the MIRACL study: a randomized controlled trial. JAMA 285 (13), pp. 1711-1718* (<http://jama.ama-assn.org/cgi/reprint/285/13/1711>).
- Schwermann, Tim; Greiner, Wolfgang; Schulenburg, J.M. Graf v.d. (2003). *Using Disease Management and Market Reforms to Address the Adverse Economic Effects of Drug Budgets and Price and Reimbursement Regulations in Germany. Value in Health 6 (s1), pp. S20-S30* (<http://www3.interscience.wiley.com/cgi-bin/fulltext/118894233/PDFSTART>).
- Scitovsky, Anne; Snyder, Nelda (1972). *The effects of coinsurance on the use of physician services. Soc Sec Bull 35 (6), pp. 3-19.*
- Selby, Joseph; Fireman, Bruce; Swain, Bix (1996). *Effect of Copayment on Use of the Emergency Department in a Health Maintenance Organization. N Engl J Med 334 (10), pp. 635-640* (<http://www.nejm.org/doi/pdf/10.1056/NEJM199603073341006>).
- Selby, Joseph (1997). *Cost Sharing in the Emergency Department — Is It Safe? Is It Needed? N Engl J Med 336 (24), pp: 1750-1751*
(<http://www.nejm.org/doi/pdf/10.1056/NEJM199706123362411>).
- Selby, Jow; Fireman, Bruce; Swain, Bix (1996). *Effect of a Copayment on Use of the Emergency Department in a Health Maintenance Organization. N Engl J Med 334 (10), pp. 635-641* (<http://www.nejm.org/doi/pdf/10.1056/NEJM199603073341006>).
- Sen, Amartya (1982). *Choice, Welfare, and Measurement. Basil Blackwell, Oxford.*
- Shang, Baoping (2005). *The Cost and Health Effects of Prescription Drug Coverage and Utilization in the Medicare Population. Dissertation, Pardee RAND Graduate School* (www.rand.org/pubs/rgs_dissertations/2005/RAND_RGSD197.pdf).

- Shapiro, Martin; Ware John, Sherbourne, Cathy (1986). Effects of cost sharing on seeking care for serious and minor symptoms: results of a randomized controlled trial. *Ann Intern Med* 104 (4), pp. 246-51.
- Shapiro, Martin; Hayward, Rodney; Freeman, Howard; Sudman, Seymour; Corey, Christopher (1989). Out-of-pocket payments and use of care for serious and minor symptoms. Results of a national survey. *Arch Int Med* 149 (7), pp. 1645-1648 (Abstract: <http://archinte.ama-assn.org/cgi/content/abstract/149/7/1645>).
- Shapiro, Martin, Morton, Sally, McCaffrey, Daniel; Senterfitt, Walton; Fleishman, John; Perlman, Juduth Athey; Leslie; Keeseey, Joan; Goldman, Dana; Berry, Sandra; Bozzette, Samuel (2000). Access to HIV Care: Initial Results from the HIV Cost and Services Utilization Study.
- Shapiro, Robert (2003). Premium Blend. Why is it so difficult to provide universal health care? *Slate, The Dismail Science* (<http://www.slate.com/id/2082988/>).
- Sharkey, Joseph; Ory, Marcia; Browne, Barry (2005). Determinants of Self-Management Strategies to Reduce Out-of-Pocket Prescription Medication Expense in Homebound Older people. *J Am Ger Soc* 53 (4), pp. 666-674 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/118681177/PDFSTART>).
- Shea, Dennis; Terza, Joseph; Stuart, Bruce; Briesacher, Becky (2007). Estimating the Effects of Prescription Drug Coverage for Medicare Beneficiaries. *H Serv Res* 42 (3p1), pp. 933-949 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/117996588/PDFSTART>).
- Sheehan, Pete (2006). Charities helping seniors navigate rivers of bureaucratic paperwork. *Long Island Catholic* 45 (18) (<http://www.licatholic.org/archive/072606/Charities%20Helping%20Seniors.htm>).
- Shekelle, Paul; Rogers, William; Newhouse, Joseph (1996). The Effect of Cost Sharing on the Use of Chiropractic Services. *Med Care* 34 (9), pp. 863-872.
- Shen, Yu-Chu; McFeeters, Joshua (2006). Out-of-Pocket Health Spending Between Low- and Higher-Income Populations: Who is at Risk of Having High Expenses and High Burdens? *Med Care* 44 (3), pp. 200-209.
- Shepherd, James; Cobbe, Stuart; Ford, Ian; Isles, Christopher; Lorimer, Ross; Macfarlane, Peter; McKillop, James; Packard, Christopher (1995). Prevention of coronary heart disease with pravastatin in men with hypercholesterolemia. West of Scotland Coronary Prevention Study Group. *N Engl J Med* 333 (20), pp.1301-1307 (<http://www.nejm.org/doi/pdf/10.1056/NEJM199511163332001>).
- Shih, Ya-chen (1999). Effect of insurance on Prescription Drug Use by ESRD beneficiaries. *H Care Finan Rev* 20 (3), pp. 39-54 (<http://www.cms.hhs.gov/review/99Spring/99Springpg39.pdf>).
- Shrank, William (2004). Effect of Incentive-Based Formularies on Drug Utilization and Spending. *N Engl J Med* 350 (10), p. 1057 (<http://www.nejm.org/doi/pdf/10.1056/NEJM200403043501020>).
- Shrank, William; Joseph, George; Choudhry, Niteesh; Young, Henry; Ettner, Susan; Glassman, Peter; Asch, Steven; Kravitz, Richard (2006). Physicians' Perceptions of Relevant Prescription Drug Costs: Do Costs to the Individual Patient or to the Population Matter Most? *Am J Manag Care* 12 (10), pp. 545-551 (http://www.ajmc.com/files/articlefiles/AJMC_06sepShrank545to551.pdf).

- Silverman, Ed (2006). Copayments: Too much, not yet Enough? *Biotechnology Healthcare*, April 2006, pp. 21-26
(<http://www.biotechnologyhealthcare.com/journal/fulltext/3/2/BH0302020.pdf>).
- Simon, Gregory; Korff, Michael von; Durham, Mary (1994). Predictors of outpatient mental health utilization by primary health care patients in a health maintenance organization. *Am J Psych* 151 (6), pp. 908-913
(<http://ajp.psychiatryonline.org/cgi/reprint/151/6/908>).
- Simon, Gregory; Grothaus, Louis; Durham, Mary; Korff, Michael von; Pabiniak, Chester (1996). Impact of visit copayments on outpatient mental health utilization by members of a health maintenance organization. *Am J Psych* 153 (3), pp. 331-338
(<http://ajp.psychiatryonline.org/cgi/reprint/153/3/331>).
- Simonet, Daniel (2005). Where does the US experience of managed care currently stand? *Int J H Plan Mgmt* 20 (2), pp. 137-157 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/110528954/PDFSTART>).
- Simpson, Scot; Eurich, Dean; Majumdar, Sumit; Padwal, Rajdeep Tsuyuki, Ross; Varney, Janice; Johnson Jeffrey (2006). A meta-analysis of the association between adherence to drug therapy and mortality. *BMJ* 333 (7557), pp. 15-18
(http://bmj.bmjournals.com/cgi/reprint_abr/333/7557/15.pdf).
- Simpson, Ross (2006). Challenges for Improving Medication Adherence. *JAMA* 296 (21), pp. 2614-2615 (<http://jama.ama-assn.org/cgi/reprint/296/21/2614>).
- Sipkoff, Martin (2004). Not So Much of a Reach: Let Sick Pay Less for Drugs. *Man Care* 13 (10), pp. 22-24
(<http://www.managedcaremag.com/archives/0410/0410.benefitbased.html>).
- Siu, Albert; Sonnenberg, Frank; Manning, Willard; Goldberg, George; Bloomfield, Ellyn; Newhouse, Joseph; Brook Robert (1986). Inappropriate use of hospitals in a randomized trial of health insurance plans. *N Engl J Med* 315 (18), pp.1259-1266 (Abstract: <http://171.66.123.143/cgi/content/abstract/315/20/1259>).
- Skinner, Brett (2002). Improving Canadian Health Care. Better Ways to finance Medicare. Health Care Reform, Background Paper No. 12, Atlantic Institute for Medical Studies, Halifax (<http://www.aims.ca/Publications/improving/improving.pdf>).
- Slade, Eric; Salkever, David; Rosenheck, Robert; Swanson, Jeffrey; Swartz, Marvin; Shern, David; Gallucci, Gerard; Harding, Courtenay; Palmer, Liisa; Russo, Patricia (2005). Cost-Sharing Requirements and Access to Mental Health Care Among Medicare Enrollees With Schizophrenia. *Psychiatr Serv* 56:960-966
(<http://psychservices.psychiatryonline.org/cgi/content/full/56/8/960>).
- Smith, Cynthia; Cowan, Cathy; Sensenig, Art; Catlin, Aaron; Health Accounts Team (2005). Health Spending Growth Slows In 2003. *H Aff* 24 (1), pp. 185-194
(<http://content.healthaffairs.org/cgi/reprint/24/1/185>).
- Smith, Dennis (1993). The effects of co-payments and generic substitution on the use and costs of prescription drugs. *Inquiry* 30 (2), pp. 189-198.
- Smith, Peter; Witter, Sophie (2001). Risk Pooling in Health Care Finance. Report Prepared für the Worldbank Workshop „Resource Allocation and Purchasing in health: Value for Money, Reaching the Poor.“ University of York, York/Washington D.C.
(<http://www.york.ac.uk/inst/che/pooling.pdf>).
- Smith, Peter (2005). User charges and priority setting in health care: balancing equity and efficiency. *J H Econ* 24 (5), pp. 1018-1029.

- Smith-Conway, Karen; Kutinova, Andrea (2006). Maternal health: does prenatal care make a difference?. *H Econ* 15 (5), pp. 461–488 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/112471134/PDFSTART>).
- Smithson, Paul; Asamoah-Baah, A; Mills, Anne (1997). The case of the health sector in Ghana. *The Role of Government in Adjusting Economies Research Programme, Paper 26*, Development Administration Group, University of Birmingham (http://www.idd.bham.ac.uk/research/Projects/Role_of_gov/workingpapers/paper26.htm).
- Sokol, Michael; McGuigan, Kimberly; Verbrugge, Robert; Epstein, Robert (2005). Impact of Medication Adherence on Hospitalization Risk and Healthcare Cost. *Med Care* 43 (6), pp. 521–530.
- Solanki, Geetesh; Schaffler, Helen (1999). Cost-sharing and the utilization of clinical preventive services. *Am J Prev Med* 17 (2), pp. 127–133 (<http://www.ajpm-online.net/article/PIIS0749379799000574/pdf>; http://chpps.berkeley.edu/publications/Schaffler%20papers/Cost_Sharing_&_Utilization.pdf).
- Solanki, Geetesh; Schaffler, Helen; Miller, Leonard (2000). The Direct and Indirect Effects of Cost-Sharing on the Use of Preventive Services. *H Serv Res* 34 (6), pp. 1331–1350 (<http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=1089084&blobtype=pdf>; http://www.findarticles.com/p/articles/mi_m4149/is_6_34/ai_59629770).
- Solomon, Matthew (2005). *The Effect of Cost-Sharing on the Utilization of Prescription Drugs for Chronically Ill Patients*. Dissertation, Pardee RAND Graduate School (PRGS), Santa Monica (https://rand.org/pubs/rgs_dissertations/2005/RAND_RGSD193.pdf).
- Somkin, Carol; McPhee, Stephen; Nguyen, Tung; Stewart, Susan; Shema, Sarah; Nguyen, Bang; Pasick, Rena (2004). The Effect of Access and Satisfaction on Regular Mammogram and Papanicolaou Test Screening in a Multiethnic Population. *Med Care* 42 (9), pp. 914–926.
- Soumerai, Stephen; Ross-Degnan, Dennis; Avorn, Jerry; McLaughlin, Thomas; Chodnovskiy, Igor (1991). Effects of Medicaid Drug-Payment Limits on Admission to Hospitals and Nursing Homes. *N Engl J Med* 325 (15), pp. 1072–1077 (<http://www.nejm.org/doi/pdf/10.1056/NEJM199110103251505>).
- Soumerai, Stephen; McLaughlin, Thomas; Ross-Degnan, Dennis; Casteris, Christina; Bollini, Paola (1994). Effects of Limiting Medicaid Drug-Reimbursement Benefits on the Use of Psychotropic Agents and Acute Mental Health Services by Patients with Schizophrenia. *N Engl J Med* 331 (10), pp. 650–655 (<http://www.nejm.org/doi/pdf/10.1056/NEJM199409083311006>).
- Soumerai, Steven; McLaughlin, Thomas; Spiegelman, Donna; Hertzmark, Ellen; Thibault, George; Goldman, Lee (1997). Adverse Outcomes of Underuse of β -Blockers in Elderly Survivors of Acute Myocardial Infarction. *JAMA* 277 (2), pp. 115–121 (Abstract: <http://jama.ama-assn.org/cgi/content/abstract/277/2/115>).
- Soumerai, Stephen; Ross-Degnan, Dennis (1999). Inadequate Prescription-Drug Coverage for Medicare Enrollees — A Call to Action. *N Engl J Med* 340 (9), pp. 722–728 (<http://www.nejm.org/doi/pdf/10.1056/NEJM199903043400909>).

- Soumerai, Stephen (2004). Benefits And Risks Of Increasing Restrictions On Access To Costly Drugs In Medicaid. *H Aff* 23 (1), pp. 135-146 (<http://content.healthaffairs.org/cgi/reprint/23/1/135>).
- Soumerai, Stephen; Pierre-Jacques, Marsha; Zhang, Fang; Ross-Degnan, Dennis; Adams, Alyce; Gurwitz, Jerry; Adler, Gerald; Safran, Dana (2006). Cost-Related Medication Nonadherence Among Elderly and Disabled Medicare Beneficiaries. A National Survey 1 Year Before the Medicare Drug Benefit. *Arch Intern Med* 166 (17), pp. 1829-1835 (<http://archinte.ama-assn.org/cgi/reprint/166/17/1829>).
- Spiegel online (2006a). Gesundheit: Arbeitgeber fordern Fünf-Euro-Gebühr pro Arztbesuch. Spiegel online 8.5.2006 (www.spiegel.de/wirtschaft/0,1518,414937,00.html).
- Spiegel online (2006b). Gesundheit: Haushalte bezahlen 14 Prozent der Kosten selbst. Spiegel online 16.8.2006 (www.spiegel.de/wirtschaft/0,1518,432018,00.html).
- Standing, Hillary (1997). Gender and equity in health sector reform programmes: a review. *H Pol Plan* 12 (1), pp. 1-18 (<http://heapol.oxfordjournals.org/cgi/reprint/12/1/1>).
- Standing, Hillary (2000a). Gender Impacts of Health Reforms – The Current State of Policy and Implementation. Institute of Development Studies, Universität Sussex, Brighton. Beitrag zum ALAMES-Treffen 3.-7. Juli 2000 in Havanna (<http://www.eldis.org/cache/DOC8307.pdf>).
- Standing, Hillary (2000b). Gender Impacts of Health Reforms – The Current State of Policy and Implementation. *Women's Health Journal* 3-4, Latin American and Caribbean Women's Health Network, Santiago (http://www.reddesalud.org/english/datos/ftp/standing_eng.pdf).
- Standing, Hillary (2004). Understanding the 'demand side' in service delivery. Definitions, frameworks and tools from the health sector. Issues Paper Private Sector, DFID Health Systems Resource Centre, London (http://www.dfidhealthrc.org/Shared/publications/Issues_papers/private-sector/Standing.pdf).
- Starfield, Barbara; Dutton, Diana (1985). Care, Costs, and Health: Reactions to and Reinterpretation of the Rand Findings. *Pediatrics* 76 (4), pp. 614-621 (<http://pediatrics.aappublications.org/cgi/reprint/76/4/614>).
- Stanton, Bonita; Clemens, John (1989). User Fees for Health Care in Developing Countries: a Case Study of Bangladesh. *Soc Sc Med* 29 (10), pp. 1199-1205.
- Stanton, Mark; Rutherford, Margaret (2002). Reducing costs in the health care system: learning from what has been done. *Research in Action* 9, AHRQ Pub. No. 02-0046. Agency for Healthcare Research and Quality, Rockville (www.ahrq.gov/research/costsria/costsria.pdf).
- Statistisches Bundesamt (Hrsg.) (2006). Datenreport 2006. Schriftenreihe Vol. 544, Bundeszentrale für Politische Bildung. Köln (<http://www.wz-berlin.de/wzb/pdf/dr06/datenreport-2006.pdf>).
- Ståhl, Ingemar (1980). Kostenbeteiligung im Schwedischen Gesundheitswesen. In: *Internationale Gesellschaft für Gesundheitsökonomie*, pp. 67-74.
- Steffen, Wolfgang; Tempka, Almut; Klute, Gesine (2007). Falsche Patientenreize in der Ersten Hilfe der Krankenhäuser (Unhelpful incentives in hospital emergency departments). *Dt Ärztebl* 104 (16), pp. A-1088-1091/B-969-972/C-921-924 (<http://www.aerzteblatt.de/v4/archiv/artikel.asp?src=heft&id=55340>).

- Stein, Bradley (2003). Drug and Alcohol Treatment Services Among Privately Insured Individuals in Managed Behavioral Health Care. RAND Graduate School, Santa Monica (<http://www.rand.org/publications/RGSD/RGSD170/RGSD170.pdf>).
- Steinbach, Kerstin; Oorschot, Birgitt van; Anselm, Rainer; Leppert, Karena; Schweitzer, Susanne; Hausmann, Christopher; Köhler, Norbert. (2004). Patienten als Partner: Wer soll entscheiden? Dt Ärztebl 101 (41), pp. A-2741/B-2309/ C-2216 (<http://www.aerzteblatt.de/v4/archiv/ao.asp?id=43750>; Online-Langfassung 08.10.2004: (<http://www.aerzteblatt.de/v4/archiv/artikel.asp?id=43699>; www.aerzteblatt.de/aufsaeetze/0403).
- Steinbrook, Robert (2002). The Prescription-Drug Problem. *N Engl J Med* 346 (11), p. 790 (<http://www.nejm.org/doi/pdf/10.1056/NEJM200203143461102>).
- Steinbrook, Robert (2004). The Cost of Admission – Tiered Copayments for Hospital Use. *N Engl J Med* 350 (25), pp.2539-2542 (<http://www.nejm.org/doi/pdf/10.1056/NEJMp048107>)
- Steinman, Michael; Sands, Laura; Covinsky, Kenneth (2001). Self-restriction of Medications Due to Cost in Seniors without Prescription Coverage. *J Gen Intern Med* 16, pp. 793-799 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/118978648/PDFSTART>).
- Stierle, Friedeger (1998). Financing Health Care in Poor Countries – Issues and Lessons Learned. Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH. Eschborn.
- Stiggelbout, Anne; Kiebert, Gwendoline (1997). Patient preferences regarding information and participation in clinical decision-making. *Can Med Assoc J* 157 (4), pp. 383-389 (<http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=1243812&blobtype=pdf>).
- Stoddart, Greg; Barer, Morris; Evans, Robert; Bhatia, Vandha (1993). Why Not Users Charges? The real issues. HPRU, 93. 12D, Centre for Health Services and Policy Research, University of British Columbia, Vancouver (<http://www.chspr.ubc.ca/hpru/pdf/hpru93-12D.pdf>).
- Stone, Erin; Morton, Sally; Hulscher, Marlies; Maglione, Margaret; Roth, Elizabeth; Grimshaw, Jeremy; Mittman, Brian; Rubenstein, Lisa; Rubenstein, Laurence; Shekelle, Paul (2002). Interventions That Increase Use of Adult Immunization and Cancer Screening Services: A Meta-Analysis. *Ann Int Med* 136, pp. 641-651 (<http://www.annals.org/cgi/reprint/136/9/641.pdf>).
- Street, Andrew; Jones, Andrew; Furuta, Aya (1999). Cost-sharing and pharmaceutical utilisation and expenditure in Russia. *J H Econ* 18 (4) pp. 459-472.
- Strunk, Bradley; Ginsburg, Paul; Gabel, Jon (2002). Tracking Health Care Costs: Growth Accelerates Again In 2001. *H Aff, Web Excl*, pp. w2 299-310 (<http://content.healthaffairs.org/cgi/reprint/hlthaff.w2.299v1>).
- Stuart, Bruce; Stockton, Ronald (1973). Control over the Utilization of Medical Services. *Milbank Mem Fund Quarterly. Health and Society* 51 (3), pp. 341-394 (<http://links.jstor.org/sici?sici=0160-1997%28197322%2951%3A3%3C341%3ACOTUOM%3E2.0.CO%3B2-1>).
- Stuart, Bruce; Grana, James (1995). Are prescribed and over-the-counter medicines economic substitutes? A study of the effects of health insurance on medicine choices by the elderly. *Med Care* 33 (5), pp. 487-501.

- Stuart, Bruce; Grana, James (1998). Ability to Pay and the Decision to Medicate. *Med Care* 36 (2), pp. 202-211.
- Stuart, Bruce; Grana, James (1999). Who bears the burden of Medicaid drug copayment policies? *H Aff* 18 (2), pp. 201-212 (<http://content.healthaffairs.org/cgi/reprint/18/2/201>).
- Stuart, Bruce; Briesacher, Becky (2002). Medication Decisions – Right and Wrong. *Med Care Res Rev* 6 (59), pp. 123-145 (<http://mcr.sagepub.com/cgi/reprint/59/2/123>).
- Su, Tin Tin; Pokhrel, Subhash; Gbangou, Adjima; Flessa, Steffen (2006). Determinants of household health expenditure on western institutional health care. *Eur J H Econ* 7 (3), pp. 199-207 (<http://www.springerlink.com/content/050870g56x414583/fulltext.pdf>).
- Sugden, Robert (1993). Welfare, Resources and Capabilities.: A review of Inequality Reexamined by Amartya Sen. *J Econ Lit* 31, pp. 1947-1962 (<http://links.jstor.org/sici?sici=0022-0515%28199312%2931%3A4%3C1947%3AWRACAR%3E2.O.CO%3B2-C>).
- Suk Danik, Jacqueline; Rifai, Nader; Buring, Julie; Ridker, Paul (2006). Lipoprotein(a), Measured With an Assay Independent of Apolipoprotein(a) Isoform Size, and Risk of Future Cardiovascular Events Among Initially Healthy Women. *JAMA* 296 (11), pp. 1363-1370 (<http://jama.ama-assn.org/cgi/reprint/296/11/1363>).
- Szilagyi, Peter; Humiston, Sharon; Shone, Laura Pollard; Kolasa, Maureen; Rodewald, Lance (2000). Decline in physician referrals to health department clinics for immunizations: The role of vaccine financing. *Am J Prev Med* 18 (4), pp. 318-324.
- Taira, Deborah; Wong, Ken; Frech-Tamas, Feride; Chung, Richard (2006). Copayment Level and Compliance With Antihypertensive Medication: Analysis and Policy Implications for Managed Care. *Am J Man Care* 12 (11), pp. 678-683 (http://www.ajmc.com/files/articlefiles/AJMC_06novTaira678to683.pdf).
- Tamblyn, Robyn; Laprise, Rejean; Hanley, James; Abrahamowicz, Michael; Scott, Susan; Mayo, Nancy; Hurley, Jerry; Grad, Roland; Latimer, Eric; Perreault, Robert; McLeod, Peter; Huang, Allen; Larochelle, Pierre; Mallet, Louise (2001). Adverse Events Associated with Prescription Drug Cost-Sharing Among Poor and Elderly Persons. *JAMA* 285 (4), pp. 421-429 (<http://jama.ama-assn.org/cgi/reprint/285/4/421>).
- Tanner, Michael (1995). What's Wrong With the Present System. In: Arnett, Grace-Marie. Empowering Health Care Consumers Through Tax Reform, Chapter 2. University of Michigan Press/Galen-Institute, Flint/Alexandria (<http://www.galen.org/bookcontent.asp?p=6#10>).
- Tanner, Michael (1995). Medical Savings Accounts: Answering the Critics. *Cato Policy Analysis* No. 228, Cato Institute, Washington DC (<http://www.cato.org/pubs/pas/pa228.html>).
- Tarn, Derjung; Heritage, John; Paterniti, Debora; Hays, Ron; Kravitz, Richard; Wenger, Neil (2006a). Physician Communication When Prescribing New Medications. *Arch Intern Med* 166 (17), pp. 1855-1862 (<http://pubs.ama-assn.org/media/controlled/archinte/pdf/1855.pdf>).
- Tarn, Derjung; Paterniti, Debora; Heritage, John; Hays, Ron; Kravitz, Richard; Wenger, Neil (2006b). Physician Communication About the Cost and Acquisition of Newly Prescribed Medications. *Am J Man Care* 12 (11), pp. 657-664 (http://www.ajmc.com/files/articlefiles/AJMC_06novTarn657to664.pdf).

- Tatar, Mehtap; Özgen, Hacer; Sahin, Bayram; Belli, Paolo; Berman, Peter (2007). Informal Payments In The Health Sector: A Case Study From Turkey. *H Aff* 26 (4), pp. 1029-1039 (<http://content.healthaffairs.org/cgi/reprint/26/4/1029>).
- Taylor, Humphrey; Leitman, Robert (Eds.) (2001). Out-of-Pocket Costs are a Substantial Barrier to Prescription Drug Compliance. HarrisInteractive, *Health Care News* 1 (32) (http://www.harrisinteractive.com/news/newsletters/healthnews/HI_HealthCareNews2001Vol1_iss32.pdf).
- Taylor, Humphrey; Leitman, Robert (Eds.) (2002). Higher out-of-pocket costs cause massive non-compliance in the use of prescription drugs, and this is likely to grow. Harris Interactive, *Health Care News* 2 (22) (December 6, 2002) (http://www.harrisinteractive.com/news/newsletters/healthnews/HI_HealthCareNews2002Vol2_Iss22.pdf).
- Tervonen-Gonçalves, Leena; Jehto, Juhani (2004). Transfer of Health for All policy – What, how and in which direction? A two-case study. *Health Res Pol Syst* 2 (8) (<http://www.health-policy-systems.com/content/pdf/1478-4505-2-8.pdf>).
- The Coalition for Health and Education Rights (CHER) (2002). User fees: the right to education and health denied. A policy brief for the UN Special Session on Children, CHER, New York (http://www.campaignforeducation.org/resources/May2002/CHER_Fees0502.pdf).
- The Diabetes Control and Complications Trial/Epidemiology of Diabetes Interventions and Complications (DCCT/EDIC) Study Research Group (2005). Intensive Diabetes Treatment and Cardiovascular Disease in Patients with Type 1 Diabetes. *N Engl J Med* 353 (25), pp. 2643-2653 (<http://www.nejm.org/doi/pdf/10.1056/NEJMoa052187>).
- The Economist (1995). An Insurers Worst Nightmare. *The Economist* 336, p. 66.
- Thiebaud, Patrick; Patel, Bimal; Nichol, Michael (2007). The demand for statin: the effect of copay on utilization and compliance. *H Econ* 17 (1), pp. 83-97 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/114282002/PDFSTART>).
- Thomas, Cindy; Wallack, Stanley; Lee, Sue; Ritter, Grant (2002). Impact Of Health Plan Design And Management On Retirees' Prescription Drug Use And Spending, 2001. *H Aff, Web Excl*, pp. w2 408-419 (<http://content.healthaffairs.org/cgi/reprint/hlthaff.w2.408v1>).
- Thorpe, Kenneth (2006). Cost sharing, caps on benefits, and the chronically ill – a policy mismatch. *N Engl J Med* 354 (22), pp. 2385-2386 (<http://www.nejm.org/doi/pdf/10.1056/NEJMe068106>).
- Thomas, Merlin; Mann, Jim (1998). Increased thrombotic vascular events after change of statin. *Lancet* 352 (9143), pp. 1830-1831.
- Topol, Eric (2004). Intensive Statin Therapy — A Sea Change in Cardiovascular Prevention. *N Engl J Med* 350 (15), pp. 1562-1564 (<http://www.nejm.org/doi/pdf/10.1056/NEJMe048061>).
- Torrey, Barbara; Jacobs, Eva (1993). More Than Loose Change: Household Health Spending In The United States And Canada. *H Aff* 12 (1), pp. 126-131 (<http://content.healthaffairs.org/cgi/reprint/12/1/126>).
- Towse, Adrian (1999). Could charging patients fill the cash gap in Europe's health care systems? *Eurohealth* 5 (3). Geneva: World Health Organization, pp. 27-28 (http://www.euro.who.int/document/obs/EuroHealth5_3.pdf).

- Traynor, Kate (2002). Drug costs for 2003 may rise 20%. American Society of Health-System Pharmacists, Bethesda
(www.safemedication.com/meds/ShowArticle.cfm?id=3188).
- Tretter, Felix; Erbas, Beate; Sonntag, Gert (2003). *Ökonomie der Sucht und Suchttherapie*. Pabst Science Publishers, Lengerich. ISBN 3-89967-100-7.
- Tretter, Felix (2005). Krankes Gesundheitswesen und die Reformen. *Dt. Ärztebl* 102 (9), pp. 446-447 (<http://www.aerzteblatt.de/v4/archiv/artikel.asp?src=heft&id=45666>).
- Trude, Sally; Christianson, Jon; Lesser, Cara; Watts, Carolyn; Benoit, Andrea (2002). Employer-Sponsored Health Insurance: Pressing Problems, Incremental Changes. *H Aff* 21 (1), pp. 66-75 (<http://content.healthaffairs.org/cgi/reprint/21/1/66f>).
- Trude, Sally (2003). Patient Cost Sharing: How Much is Too Much? Issue Brief No. 72, Center for Studying Health System Change, Washington DC
(<http://hschange.org/CONTENT/630/>).
- Trude, Sally, Grossman, Joy (2004). Patient cost-sharing innovations: promises and pitfalls. Issue Brief Report No. 75, Center for Studying Health System Change, Washington DC (<http://www.hschange.com/CONTENT/643/643.pdf>).
- Tscheulin, Dieter; Helmig, Bernd (2001). On the acceptability of excess models in the German statutory health insurance (GKV). *Freiburger Betriebswirtschaftliche Diskussionsbeiträge Nr. 39/01*, Freiburg im Breisgau. ISBN 3-931416-32-1.
- Tseng, Chien-Wen; Brook, Robert; Keeler, Emmett; Mangione, Carol (2003). Impact of an Annual Dollar Limit or „Cap“ on Prescription Drug Benefits for Medicine Patients. *JAMA* 290 (8), pp. 222-227 (<http://jama.ama-assn.org/cgi/reprint/290/2/222.pdf>).
- Tseng, Chien-Wen; Brook, Robert; Keeler, Emmett; Steers, Neil; Mangione, Carol (2004). Cost-Lowering Strategies Used by Medicare Beneficiaries Who Exceed Drug Benefit Caps and Have a Gap in Drug Coverage. *JAMA* 292 (8), pp. 952-960.
(<http://jama.ama-assn.org/cgi/reprint/292/8/952.pdf>).
- Tu, Ha; May, Jessica (2007). Self-Pay Markets In Health Care: Consumer Nirvana Or Caveat Emptor? *Market Watch, H Aff, Web Excl*, pp. w2 217-226
(<http://content.healthaffairs.org/cgi/reprint/hlthaff.26.2.w217v1>).
- Tu, Feng; Anan, Makato; Kiyohara, Yukata; Okada, Yasushi; Nobutomo, Koichi (2003). Analysis of hospital charges for ischemic stroke in Fukuoka, Japan. *H Pol* 66 (3), pp. 239-246.
- Tu, Jack; Gong, Yanyan (2003). Trends in Treatment and Outcomes for Acute Stroke Patients in Ontario, 1992-1998. *Arch Int Med* 163 (3), pp. 293-297
(<http://archinte.ama-assn.org/cgi/reprint/163/3/293>).
- Tu, Shin-Ping; Taplin, Stephen; Barlow, William; Boyko, Edward (1999). Breast cancer screening by Asian-American women in a managed care environment. *Am J Prev Med* 17 (1), pp. 55-61.
- Tuffs, Annette (2007). German doctors accused of boosting pay by offering patients “unnecessary extras”. *BMJ* 335 (7611), pp. 116
(<http://www.bmj.com/cgi/reprint/335/7611/114-a>).
- Tye, Sherilyn; Phillips, Kathryn; Liang, Su-Ying; Haas, Jennifer (2004). Moving beyond the Typologies of Managed Care: The Example of Health Plan Predictors of Screening Mammography. *H Serv Res* 39 (1), pp. 179-206
(<http://www3.interscience.wiley.com/cgi-bin/fulltext/118752934/PDFSTART>).

- USA Today/Kaiser Family Foundation/Harvard School of Public Health (2006). National Survey of Households Affected by Cancer. Kaiser Family Foundation, Washington DC (<http://www.kff.org/kaiserpolls/pomr112006pkg.cfm>; Summary: <http://www.kff.org/kaiserpolls/upload/7591.pdf>).
- Valdez, Burciaga; Brook, Robert; Rogers, William; Ware, John Jr; Keeler, Emmett; Sherbourne, Cathy; Lohr, Kathleen; Goldberg, George; Camp, Patricia; Newhouse, Joseph (1985). Consequences of Cost-Sharing for Children's Health. *Pediatrics* 75 (5), pp. 952-961 (<http://pediatrics.aappublications.org/cgi/reprint/75/5/952>).
- van Beusekom, Ineke; Tönshoff, Silke; de Vries, Han; Spreng, Connor; Keeler, Emmett (2004). Possibility or Utopia? Consumer Choice in Health Care: A Literature Review. Technical Report, RAND Europe/Bertelsmann-Stiftung, Santa Monica/Gütersloh (http://www.rand.org/pubs/technical_reports/2005/RAND_TR105.pdf).
- van de Voorde, Carine; van Doorslaer, Eddy; Schokkaert, Erik (2001). Effects of cost sharing on physician utilization under favourable conditions for supplier-induced demand. *H Econ* 10, pp. 457-471 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/85005211/PDFSTART>).
- van Doorslaer, Eddy; Wagstaff Adam (1992). Equity in the Delivery of Health Care: Some International Comparisons. *J H Econ* 11 (4), pp. 389-411.
- van Doorslaer, Eddy; Wagstaff, Adam; van der Burg, Hattem; Christiansen, Terkel; Citoni, Guido; Biase, Rita di, Gerdtham, Ulf; Gerfin, Mike; Gross, Lorna; Häkinnen, Unto; John, Jürgen; Johnson, Paul; Klavus, Jan; Lachaud, Claire; Lauritsen, Jørgen; Leu, Robert; Nolan, Brian; Pereira, João, Propper, Carol; Puffer, Frank, Rochaix, Lise; Schellhorn, Martin; Sundberg, Gun; Winkelhake, Olaf (1999). The redistributive effect of health care finance in twelve OECD countries. *J H Econ* 18 (3), pp. 291-313.
- van Doorslaer, Eddy; Wagstaff, Adam; van der Burg, Hattem; Terkel; Christiansen; de Graeve, Diana; Duchesne, Inge; Gerdtham Ulf; Gerfin, Michael; Geurts, Jose; Gross, Lorna (2000). Equity in the delivery of health care in Europe and the US. *J H Econ* 19 (5), pp. 553-84.
- van Doorslaer, Eddy; Koolman, Xander; Puffer, Frank (2002). Equity in the Use of Physicians Visits in OECD Countries: Has Equal Treatment for Equal Need Been Achieved. Chapter 11, pp. 225-248 In: OECD (Hrsg.) (2002). *Measuring Up: Improving health systems performance in OECD countries*. Paris, France, Chapter 11, pp. 225-248 (<http://www.econ.ubc.ca/evans/384physic.pdf>).
- van Doorslaer, Eddy; O'Donnell, Owen; Rannan-Eliya, Ravi; Somanathan, Aparnaa, et al. (2005). Paying out-of-pocket for health care in Asia: Catastrophic and poverty impact. Working Paper No. 2, EQUITAP Project, Colombo/Rotterdam/Dhaka (<http://www.equitap.org/publications/wps/EquitapWP2.pdf>).
- van Vliet, Jan (2004). Deductibles and Health Care Expenditures: Empirical Estimates of Price Sensitivity Based on Administrative Data. *Int J H Care Fin Econ* 4 (4), pp. 283-305 (<http://www.springerlink.com/content/n22ux27j932168r3/fulltext.pdf>).
- Vardy, Daniel; Freud, Tami; Shvartzman, Pesach; Sherf, Michael; Spilberg, Ofer; Goldfarb, Dan; Mor-Yosef, Shlomo (2006). Introducing Co-payment for Consultant Specialist Services. *Isr Med Ass J* 8 (8), pp. 558-562 (<http://www.ima.org.il/imaj/ar06aug-9.pdf>).

- Vogel, Rüdiger; Häßner, Konrad (Hrsg.) (1999). Selbstbeteiligung im deutschen Gesundheitswesen. Sachstand, Ausblick und internationaler Vergleich. Georg Thieme Verlag, Stuttgart-New York.
- Vogt, Albrecht; Bonzel, Tassilo; Harmjanz, Dietrich; von Leitner, Enz-Rüdiger; Pfafferott, Conrad; Engel, Hans-Jürgen; Niederer, Walter; Schuster, Peter; Glunz, Hans-Georg; Neuhaus, Karl-Ludwig für die Arbeitsgemeinschaft Leitender Kardiologischer Krankenhausärzte (ALKK) study group (1997). PTCA registry of German community hospitals. *Eur Heart J* 18 (7), pp. 1110-1114 (<http://eurheartj.oxfordjournals.org/cgi/reprint/18/7/1110>).
- Voss, Jens-Uwe; Hassauer, Martin (2004). Vorbeugender Gesundheitsschutz durch Mobilisierung der Minderungspotentiale bei Straßenverkehrslärm und Luftschadstoffen. Teilprojekt „Risikoberechnung zum Einfluss verkehrsbedingter Luftschadstoffe und Straßenverkehrslärm auf die Gesundheit exponierter Personen“. Endbericht. Aktionsprogramm Umwelt und Gesundheit Nordrhein-Westfalen, Düsseldorf (http://www.apug.nrw.de/pdf/minderungspotential2_verkehr.pdf).
- Wagstaff, Adam; Doorslaer, Eddy van (1992). Equity in the Finance of Health Care: Some International Comparisons. *J H Econ* 11 (4), pp. 361-387.
- Wagstaff, Adam; Doorslaer, Eddy van; Burg, Hattem van den; Calonge, Samuel; Christiansen, Terkel; Citoni, Guido; Gerdtham, Ulf; Gerfin, Michael; Gross, Lorna; Häkkinnen, Unto; Johnson, Paul; John, Jürgen; Klavus, Jan; Lachaud, Claire; Lauritsen, Jørgen; Leu, Robert; Nolan, Brian; Perán, Encarna; Pereira, João; Propper, Carol; Puffer, Frank; Rochaix, Lise; Rodríguez, Marisol; Schellhorn, Martin; Sundberg, Gun; Winkelhake, Olaf (1999). Equity in the Finance of health Care: some further International Comparisons. *J H Econ* 18 (3), pp. 263-290.
- Wagstaff, Adam; Doorslaer, Eddy van (2001). Paying for Health Care: Quantifying Fairness, Catastrophe, and Impoverishment, with Applications to Vietnam, 1993-98. Policy Research Working Paper Series 2715, World Bank, Washington DC (http://econ.worldbank.org/files/2601_wps2715.pdf).
- Wagstaff, Adam; Pradhan, Menno (2005). Health Insurance Impacts on Health and Non-medical Consumption in a Developing Country. WPS 3565, World Bank, Washington DC (http://www.wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2005/04/19/000012009_20050419132636/Rendered/PDF/wps3563.pdf).
- Waitzkin, Howard (2003). Report of the WHO Commission on Macroeconomics and health: a summary and critique. *Lancet* 361 (9367), pp. 523-526 (<http://www.thelancet.com/journals/lancet/article/PIIS0140673603131236/fulltext> ; http://www.deza.ch/ressources/product_22_es_1242.pdf).
- Wallen, John; Roddy, Paul; Fahs, Michael (1982). Cost Sharing, Mental Health Benefits, and Physical Complaints in Retired Miners and Their Families. American Public Health Association, Washington DC.
- Wallen, Jacqueline; Roddy, Pamela; Meyers, Samuel (1986). Male-female differences in mental health visits under cost-sharing. *H Serv Res* 21 (2, Part 2), pp. 341-350 (<http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=1068955&blobtype=pdf>).
- Walley, Tom (1998). Prescription charges: change overdue? Britain can learn from systems of copayments based on drugs' effectiveness. *BMJ* 317 (7157), pp. 487-488 (<http://www.bmj.com/cgi/content/full/317/7157/487>).

- Walley, Tom; Mrazek, Monique; Mossialos, Elias (2005). Regulating pharmaceutical markets: improving efficiency and controlling costs in the UK. *Int J H Plan Mgmt* 20 (4), pp. 375-398 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/112140377/PDFSTART>).
- Wanless, Derek (2001). *Securing our Future Health: Taking a Long-Term View*. HM Treasury, London (<http://www.hm-treasury.gov.uk>).
- Wanless, Derek (2002). *Securing our Health Future: Taking a Long Term View*. HM Treasury, London (<http://www.hm-treasury.gov.uk/wanless>).
- Ward, Paul; Noyce, Peter; St. Leger, Antony (2007). How equitable are GP practice prescribing rates for statins?: an ecological study in four primary care trusts in North West England. *Int J Equ H* 6 (2), doi:10.1186/1475-9276-6-2 (<http://www.equityhealthj.com/content/pdf/1475-9276-6-2.pdf>).
- Wasem, Jürgen (1999). *Das Gesundheitswesen in Deutschland: Einstellungen und Erwartungen in der Bevölkerung*. Janssen-Cilag GmbH, Neuss.
- Waters, Hugh; Morlock, Laura; Hatt, Laurel (2004). Quality-based purchasing in health care. *Int J H Plan Mgmt* 19 (4), pp. 365-381 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/109855894/PDFSTART>).
- Wedig, Gerald (1988). Health status and the demand for Health: results on price elasticities. *J H Econ* 7 (2), pp. 151-163.
- Wedig, Gerard; Mitchell, Janet; Cromwell, Jerry (1989). Can Price Controls Induce Optimal Physician Behavior? *J H Polit Pol Law* 14 (3), pp. 601- 620 (<http://jhpl.dukejournals.org/cgi/reprint/14/3/601>).
- Wehkamp, Karl-Heinz (2004). Ethik der Heilberufe: Brücke zwischen Qualität und Ökonomie. *Dt Ärztebl* 101 (36), pp. A-2374 / B-1995 / C-1923 (<http://www.aerzteblatt.de/v4/archiv/artikel.asp?src=suche&id=43184>).
- Wei, Li; Wang, Jixian; Thompson, Philip; Wong, Suzanne; Struthers, Allan; MacDonald, Thomas (2002). Adherence to statin treatment and readmission of patients after myocardial infarction: a six year follow up study. *Heart* 88 (3), pp. 229-233 (<http://heart.bmjournals.com/cgi/reprint/88/3/229>).
- Weinick, Robin; Beauregard, Karen (1997). Women's Use of Preventive Screening Services: A Comparison of HMO versus Fee-for-Service Enrollees. *Med Care Res Rev* 6 (54), pp. 176-199 (<http://mcr.sagepub.com/cgi/reprint/54/2/176>).
- Weinick, Robin; Byron, Sepheen; Bierman, Arlene (2005). Who can't pay for health care? *J Gen Int Med* 20 (6), pp. 504-509 (<http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=1490134&blobtype=pdf>; <http://www3.interscience.wiley.com/cgi-bin/fulltext/118700797/PDFSTART>).
- Weissman, Joel (2005). The Trouble with Uncompensated Hospital Care. *N Engl J Med* 352 (12), pp. 1171-1173 (<http://www.nejm.org/doi/pdf/10.1056/NEJMp048280>).
- Wells, Rebecca; Banaszak-Holl, Jane (2000). A critical review of recent US market level health care strategy literature. *Soc Sc Med* 51 (5), pp. 639-656.
- Wells, Kenneth; Manning, Willard; Duan, Naihua; Newhouse, Joseph; Ware, John (1987). Cost-Sharing and the Use of General Medical Physicians for Outpatient Mental Health Care. *H Serv Res* 22 (1), pp. 1-17 (<http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=1065420&blobtype=pdf>).

- Werblow, Andreas (2002). Alles nur Selektion? Der Einfluss von Selbstbehalten in der Gesetzlichen Krankenversicherung. Vierteljahreshefte zur Wirtschaftsforschung 71 (4), pp. 427-436.
- Werblow, Andreas; Felder, Stefan (2003). Der Einfluss von freiwilligen Selbstbehalten in der Gesetzlichen Krankenversicherung: Evidenz aus der Schweiz. Schmoller's Jahrbuch 123, pp. 235-264. Duncker & Humblot, Berlin.
- West, Donna; Johnson, Jill; Hong, Song-Hee (2006). A 30-month evaluation of the effects on the cost and utilization of proton pump inhibitors from adding omeprazole OTC to drug benefit coverage in a state employee health plan. J Manag Care Pharm 12 (1), pp. 25-32 (<http://www.amcp.org/data/jmcp/JanFebjournal06.pdf.pdf>).
- Wharam, Frank; Landon, Bruce; Galbraith, Alison; Kleinman, Ken; Soumerai, Stephen; Ross-Degnan, Dennis (2007). Emergency Department Use and Subsequent Hospitalizations Among Members of a High-Deductible Health Plan. JAMA 297 (10), pp. 1093-1102 (<http://jama.ama-assn.org/cgi/reprint/297/10/1093>).
- Wheeler, Benedict; Ben-Shlomo, Yoav (2005). Environmental equity, air quality, socio-economic status, and respiratory health: a linkage analysis of routine data from the Health Survey for England. J Epid Comm H 59 (11), pp. 948-954 (<http://jech.bmj.com/cgi/reprint/59/11/948>).
- Whincup, Peter; Emberson, Jonathan; Lennon, Lucy; Walker, Mary; Papacosta, Olia; Thomson, A (2002). Low prevalence of lipid lowering drug use in older men with established coronary heart disease. Heart 88 (1), pp. 25-29 (<http://heart.bmj.com/cgi/content/full/88/1/25>).
- White, Jeffrey; Chang, Eunice; Leslie, Scott; Gilderman, Alex; Berenbeim, David; Dezii, Christopher; Melikian, Caron (2002). Patient adherence with HMG reductase inhibitor therapy among users of two types of prescription services. J Manag Care Pharm 8 (3), pp.186-191 (<http://www.amcp.org/data/jmcp/Research-186-191.pdf>).
- Whitehead, Margaret; Evandrou, Maria; Haglund, Bengt; Diederrichsen, Finn (1997). As the health divide widens in Sweden and Britain, what's happening to access to care? BMJ 315 (7114), pp. 1006-1009 (<http://bmj.bmjournals.com/cgi/content/full/315/7114/1006>).
- Whitehead, Margaret; Dahlgren, Göran; Evans, Timothy (2001). Equity and health sector reforms: can low-income countries escape the medical poverty trap? Lancet 358 (9284), pp. 833-836 (<http://www.thelancet.com/journals/lancet/article/PIIS014067360105975X/fulltext>; http://www.deza.ch/ressources/product_22_es_1242.pdf; <http://www.healthp.org/article.php?sid=64&mode=thread&order=0&thold=0>).
- Wickizer, Thomas; Schulman, Beryl; Schwartz, Sheryl; Drylie, Diana (1998). Occupational health Services Project. Final Report. Department of Health Services, University of Washington, Seattle (www.lni.wa.gov/ClaimsIns/Files/Providers/ohs/Historical/OhsProjectFinalRpt.pdf).
- Wilkinson, Richard; Marmot, Michael (2004a). Social Determinants of Health: The Facts. 2. Edition, WHO Regional Office for Europe, Kopenhagen. ISBN 92 890 3370 3 (<http://www.euro.who.int/document/e81384.pdf>).
- Wilkinson, Richard; Marmot, Michael (2004b). Soziale Determinanten von Gesundheit: Die Fakten. 2. Ausgabe, WHO Regional Office for Europe, Kopenhagen. ISBN 92 890 3370 3 (<http://www.euro.who.int/document/e81384g.pdf>).

- Williams, Flora; Hagler, Amy; Martin, Marshall; Pritchard, Mary; Bailey, William (1991). Predictors of Out-of-Pocket Medical Expenditures in Low-Income Households. *J Fam Econ* 12 (1), pp. 43-62
(<http://www.springerlink.de/content/m367n7851h727062/fulltext.pdf>).
- Williams, Robert (1996). The Costs of Visits to Emergency Departments. *N Engl J Med* 334 (10), pp. 642-646 (<http://www.nejm.org/doi/pdf/10.1056/NEJM199603073341007>).
- Willison, Donald; Miktorowicz, Mary; Grootendorst, Paul; O'Brien, Bernie; Levien, Mitchell; Deber, Raisa; Hurley, Jeremiah (2001). International Experience with Pharmaceutical Policy: Common Challenges and Lessons for Canada. Research Working Paper 01-08, Centre for Health Economics and Policy Analysis (CHEPA), McMaster University, Hamilton (<http://www.chepa.org/research/01-08.pdf>).
- Wilson, Marcia; Levi, Jeffrey; Owen, Aimee (2002). Mitigating Financial Risk with HIV/AIDS Patients. Center for Health Services Research and Policy. Washington DC (<http://www.gwumc.edu/sphhs/healthpolicy/chsrp/downloads/MitigatingHIV.pdf>).
- Wilson, Ira; Rogers, William; Chang, Hong; Safran, Dana (2005). Cost-related skipping of medications and other treatments among Medicare beneficiaries between 1998 and 2000. *J Gen Int Med* 20 (8), pp. 715-720
(<http://www3.interscience.wiley.com/cgi-bin/fulltext/118700846/PDFSTART>;
<http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=1490185&blobtype=pdf>).
- Wilson, Ira; Schoen, Cathy; Neuman, Patricia; Kitchman Strollo, Michelle; Rogers, William; Chang, Hong; Safran, Dana (2007). Physician-Patient Communication About Prescription Medication. Nonadherence: A 50-State Study of America's Seniors. *J Gen Int Med* 22 (1), pp. 6-12
(<http://www.springerlink.com/content/f88n482w643p1477/fulltext.pdf>;
<http://www.pubmedcentral.nih.gov/picrender.fcgi?artid=1824770&blobtype=pdf>).
- Windeler, Jürgen (2006). Individuelle Gesundheitsleistungen – Spagat zwischen Markt und Medizin. *G+G Wissenschaft* 2/2006, pp. 17-27. Wissenschaftliches Institut der AOK, Bonn, pp. 17-27
(http://wido.de/fileadmin/wido/downloads/pdf_ggw/wido_ggw_aufs2_0406.pdf).
- Winkelmann, Rainer (2004). Co-payments for prescription drugs and the demand for doctor visits – evidence from a natural experiment. *H Econ* 13 (11), pp. 1081-1089
(<http://www3.interscience.wiley.com/cgi-bin/fulltext/107628897/PDFSTART>).
- Winkelmann, Rainer (2004). Health Care Reform and the Number of Doctor Visits – An Econometric Analysis. *J Appl Econ* 19 (4), pp. 455-472
(<http://www3.interscience.wiley.com/cgi-bin/fulltext/109581132/PDFSTART>).
- Wolf, Peter de; Brouwer, Werner; Rutten, Frans; (2005). Regulating the Dutch pharmaceutical market: improving efficiency or controlling costs? *Int J H Plan Mgmt* 20 (4), pp. 351-374 (<http://www3.interscience.wiley.com/cgi-bin/fulltext/112140376/PDFSTART>).
- Wong, Mitchell; Andersen, Ronald; Sherbourne, Cathy; Hays, Ron; Shapiro, Martin (2001). Effects of Cost Sharing on Care Seeking and Health Status: Results From the Medical Outcomes Study. *Am J Pub H* 91 (11), pp. 1889-1894
(<http://www.ajph.org/cgi/reprint/91/11/1889>).
- Woolhandler, Steffie; Himmelstein, David; Lewontin, James (1993). Administrative Costs in U.S. Hospitals. *N Engl J Med* 329 (6), pp. 400-403
(<http://www.nejm.org/doi/pdf/10.1056/NEJM199308053290606>).

- Woolhandler, Steffie; Himmelstein, David (1997). Costs of Care and Administration at For-Profit and Other Hospitals in the United States. *N Engl J Med* 336 (11), pp. 769-774 (<http://www.nejm.org/doi/pdf/10.1056/NEJM199703133361106>).
- Woolhandler, Steffie; Campbell, Terry; Himmelstein, David (2003). Costs of Health Care Administration in the United States and Canada. *N Engl J Med* 349 (8), pp. 768-775 (<http://www.nejm.org/doi/pdf/10.1056/NEJMsa022033>).
- World Health Organisation (1996). European Health Care Reforms. Analysis of Current Strategies. Kopenhagen (WHO 1996) Regionalbüro für Europa, Kopenhagen.
- World Health Organisation (2000a). World Health Report 2000 - Health Systems: Improving Performance. WHO, Genf (<http://www.who.int/whr/2000/en/>)
- World Health Organisation (2004). Ottawa-Charta zur Gesundheitsförderung. WHO- autorisierte Übersetzung: Hildebrandt/Kickbusch auf der Basis von Entwürfen aus der DDR und von Badura sowie Milz. Regionalbüro für Europa, Kopenhagen (http://www.cvl-a.tum.de/Download/WHO_Ottawa.pdf).
- Wortley, Pascale; Levy, Paul; Quick, Linda; Shoemaker, Trevor; Dahlke, Melissa; Evans, Brian; Burke, Brian; Schwartz, Benjamin (2007). Predictors of Smallpox Vaccination Among Healthcare Workers and Other First Responders. *Am J Prev Med* 32 (6), pp. 538-541.
- Wurzer, Alfred; Robinig, Roswitha; Rodler, Josef (2004). Selbstbehalte. Eine Bestandsaufnahme zur Orientierungshilfe. Kärntner Gebietskrankenkasse, Klagenfurt.
- Xu, Ke; Evans, David; Kawabata, Kei; Zeramdini, Riyadh; Klavus, Jan; Murray, Christopher (2003). Household catastrophic health expenditure: a multicountry analysis. *Lancet* 362 (9378), pp. 111-117 (<http://www.thelancet.com/journals/lancet/article/PIIS0140673603138615/fulltext> http://www.who.int/health_financing/Lancet%20paper-catastrophic%20expenditure.pdf).
- Xu, Ke; Evans, David; Kadama, Patrick; Nabyonga, Juliet; Ogwang Ogwai, Peter; Aguilar, Ana M. (2005). The elimination of user fees in Uganda: impact on utilization and catastrophic health expenditures. WHO, Genf (http://www.who.int/health_financing/The%20elimination%20of%20user%20fees%20in%20Uganda%20%20ODP.05.4.pdf; http://www.who.int/health_financing/Understanding%20the%20impact%20of%20eliminating%20user%20fees.pdf).
- Yang, Zhou, Gilleskie, Donna; Norton, Edward (2004). Prescription Drugs, Medical Care, And Health Outcomes: A Model of Elderly Health Dynamics. NBER Working Paper 10964, National Bureau for Economic Research, Washington DC (<http://www.nber.org/papers/w10964>).
- Yang, Bong-min; Holst, Jens (2007). Implementation of Health Insurance in Developing Countries: Experience from Selected Asian Countries. In: GTZ/ILO/WHO. Extending Social Protection in Health. Developing Countries' experiences, Lessons Learnt and Recommendations. Berlin Conference Documentation. VAS-Verlag, Frankfurt/Eschborn (http://www.socialhealthprotection.org/pdf/SHIConfReader_Druckkomprimiert.pdf).
- Yang, Zhou; Olomu, Ade; Corser, William; Rovner, David; Holmes-Rovner, Margaret (2006). Outpatient Medication Use and Health Outcomes in Post-Acute Coronary Syndrome Patients. *Am J Manag Care* 12 (10), pp. 581-587 (http://www.ajmc.com/files/articlefiles/AJMC06_Yang581to587.pdf).

- Ye, Xin; Gross, Cynthia; Schommer, Jon; Cline, Richard; St. Peter, Wendy (2007). Association between copayment and adherence to statin treatment initiated after coronary heart disease hospitalization: A longitudinal, retrospective, cohort study. *Clin Ther* 29 (12), pp. 2748-2757.
- Yegian, Mathews (2006). Coordinated Care In A 'Consumer-Driven' Health System. *H Aff* 25 (6), pp. w531-w536 (<http://content.healthaffairs.org/cgi/content/full/hlthaff.25.w531v1/DC1>).
- Zahnforum (2004). Gesundheitsreform bringt Einsparungen bei Patienten ärgern sich über Zuzahlungen. Kassenzahnärztliche Vereinigung Baden-Württemberg, Freiburg).
- Zeber, John; Grazier, Kyle; Valenstein, Marcia; Blow, Frederic; Lantz, Paula (2007). Effect of a Medication Copayment Increase in Veterans With Schizophrenia. *Am J Man Care* 13 (6, Part 2), pp. 335-346 (http://www.ajmc.com/files/articlefiles/AJMC_07junPrt2_Zeber_335to46.pdf).
- Zeckhauser, Richard (1970). Medical Insurance: A Case Study of the Tradeoff Between Risk Spreading and Appropriate Incentives. *J Econ Theory* 2 (1), pp. 10-26.
- Zentner, Annette; Busse, Reinhard (2004). Das Ausland in aller Munde: Eine systematische Analyse zum Einfluss anderer Gesundheitssysteme auf die deutsche Reformdebatte. *Gesundheits- und Sozialpolitik* 9-10/2004, pp. 24-34 (<http://www.wm.tu-berlin.de/~mig/papers/index.html>).
- Zimmermann, Gerd (2004). Praxisgebühr seit dem 1.1.2004. Verwaltungstechnischer Schwachsinn! *Der Hausarzt* 1/04, p. 1 (<http://www.hausarzt-online.de/sys/pdf.php?rubrik=ha&url=0104/01.pdf>; <http://www.medicinonline.de/cda/DisplayContent.do?cid=103475&fid=107664&type=pdf>).
- Zimmermann, Gerd (2005). Budgetkontrollen verhindern? Kassen regeln pauschale Zuzahlung selbst. *Der Hausarzt* 3/05, p. 1 (<http://www.hausarzt-online.de/sys/pdf.php?rubrik=ha&url=0104/01.pdf>; <http://www.medicinonline.de/cda/DisplayContent.do?cid=149616&fid=107664&type=pdf>).
- Ziniel, Georg (2004). Finanzielle Selbstbeteiligung im Gesundheitswesen. In: Wurzer et al. 2004, pp. 31-47.
- Zok, Klaus (2005a). Das Inanspruchnahmeverhalten der Versicherten nach Einführung der Praxisgebühr. Ergebnisse aus zwei Repräsentativumfragen unter 3.000 GKV-Versicherten. *WidO-Monitor* 2 (2), pp. 1-7 (http://wido.de/uploads/media/wido_mon_praxisgeb_3108.pdf).
- Zok, Klaus; Schuldzinski, Wolfgang (2005b). Private Zusatzleistungen in der Arztpraxis – Ergebnisse aus Patientenbefragungen. Wissenschaftliches Institut der AOK, Bonn
- Zok, Klaus (2006). Arzneimittelmarkt: Selbstmedikation im Fokus. *WiDO-Monitor* 3 (1), pp. 1-7 (http://wido.de/uploads/media/wido_mon_selbstmed_0506.pdf).
- Zuckerman, Stephen; McFeeters, Joshua; Cunningham, Peter; Nichols, Len (2004). Trends: Changes In Medicaid Physician Fees, 1998-2003: Implications For Physician Participation. *H Aff, Web Excl* 23 (3), pp. w4 372-384 (<http://content.healthaffairs.org/cgi/reprint/hlthaff.w4.374v1>).
- Zurn, Pascal; Dal Poz, Mario; Stilwell, Barbara; Adams, Orvill (2002). Imbalances in the health workforce. Briefing paper. WHO, Genf (http://www.who.int/hrh/documents/en/imbalances_briefing.pdf).

- Zuvekas, Samuel; Cohen, Joel (2007). Prescription Drugs And The Changing Concentration Of Health Care Expenditures. *H Aff* 26 (1), pp. 249-257 (<http://content.healthaffairs.org/cgi/reprint/26/1/249>).
- Zweifel, Peter (1987). Bonus systems in health insurance: a microeconomic analysis. *H Pol* 7 (2), pp. 273-288.

Forschungsgruppe Public Health

Public Health ist Theorie und Praxis der auf Gruppen bzw. Bevölkerungen bezogenen Maßnahmen und Strategien der Verminderung von Erkrankungs- und Sterbewahrscheinlichkeiten durch Senkung von (pathogenen) Belastungen und Förderung von (salutogenen) Ressourcen. Public Health untersucht und beeinflusst epidemiologisch fassbare Verursachungszusammenhänge und Bewältigungsmöglichkeiten. Solche Interventionen sind sowohl vor als auch nach Eintritt von Erkrankungen bzw. Behinderungen von gesundheitlichem Nutzen. Insofern erstreckt sich der Gegenstandsbereich von Public Health sowohl auf Prävention als auch auf Krankenversorgung. Wissenschaftlich ist Public Health eine Multidisziplin, politisch-praktisch sollen die daraus herleitbaren Wahrnehmungsmuster, Entscheidungskriterien und Handlungspostulate in nahezu alle gesellschaftlichen Gestaltungsbereiche und Politikfelder integriert werden. Im Vergleich zum dominanten Umgang des Medizinsystems mit gesundheitlichen Risiken und Problemen beinhaltet Public Health tiefgreifende Veränderungen der Wahrnehmungs-, Handlungs- und Steuerungslogik für die daran beteiligten Professionen und Institutionen. Die Forschungsgruppe untersucht fördernde und hemmende Bedingungen für Entstehung, Entwicklung und Wirkungen der mit Public Health intendierten sozialen Innovation.

Unter diesem Gesichtswinkel konzentrieren sich die überwiegend qualitativ ansetzenden und zum Teil international vergleichenden Arbeiten der Gruppe gegenwärtig auf Prävention und Gesundheitsförderung durch Organisationsentwicklung und Organisationslernen (z. B. in Betrieben Stadtteilen und Institutionen) sowie durch zielgruppenspezifische Kampagnen (v. a. HIV/Aids) und auf Veränderungen im Bereich der Krankenversorgung (an den Beispielen Integrierte Versorgung und Krankenhaussteuerung).

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