

Workshop on Access, Financing and Utilisation of Health Care

Barcelona, April 23rd-24th, 2009
XREPP-LSE Health Workshop

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Fundació
Bosch i Gimpera
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de Referència
d'Innovació en Economia
i Polítiques Públiques

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Paper Abstracts

1. Inequalities in Health Outcomes: why do we care, how do we care, and what can we do about them by Cristina Hernández-Quevedo & Joan Costa-Font.

We begin with a motivation for the need of inequality targets in health outcomes. Then we explore the conceptual rationale for the study of inequalities in health outcomes. The chapter examines the main competing theories behind along with the limitations that appear in the data analysis. We devote some attention to the influence of health measures being objective and subjective. We explore the extent to which studying inequalities in morbidities and unhealthy behaviours provides an explanation for current findings. Then the chapter focuses on the existing econometric and statistical techniques to measure inequalities and discusses the main advantages. The chapter briefly scrutinizes the existing empirical evidence from public shed studies in different disciplines including economics, health policy and epidemiology. Finally, we draw some policy implications for policy and practice.

2. A Million Years of Waiting: Competing Accounts and Comparative Experiences of Hospital Waiting Time Policy in the UK by A Morton and R G Bevan.

Time waiting for care is one of the most easily measured dimensions of performance of a healthcare system, and in many countries waiting times are a sensitive topic in health policy. Commentators often take one of two stances on waiting times: a miserabilist stance that improvement is impossible or prohibitively expensive, and a meliorist stance that improvement is possible and may even save money. Understanding what lies behind these stances requires exploring the various accounts of the mechanisms underlying waiting can be found in the literature dealing with this topic. In this paper, we outline four stylised accounts, a Production Account in which waiting is viewed as a signal of inadequate resource input, a Patient Behaviour Account which stresses the role of patient behaviour in generating waits, a Process Account which focusses on the importance of appropriate work design, and a Producer Incentive Account which views provider capture as the main determinant of

waiting times. We review some of the key messages and questions from these often conflicting accounts, and consider the evidence from a natural experiment between UK countries through this lens. We also discuss whether and in what sense the English experience has been value for money.

3. Hospitalizations for ambulatory care sensitive conditions as a measure of access by Lucia Kossarova.

Ambulatory care sensitive conditions (ACSCs) are generally defined as conditions where access to appropriate or effective ambulatory care may prevent or reduce the need for hospitalization. The burden of chronic diseases is rising worldwide and results in increasing health expenditures in health care. Some of these chronic conditions can be effectively managed in outpatient care in order to avoid expensive hospital care. A number of countries including Canada, US, UK, Italy and Australia have already carried out work in monitoring hospitalizations for these conditions for more than three decades. However, while this measure is usually used to evaluate *access* to primary care, more attempts should be made to link it to the actual quality, appropriateness and effectiveness of outpatient care provided. This paper will review the existing work in this area to identify how best to use hospitalizations for ACSCs as an indicator for measuring the quality of outpatient care.

4. Innovation and Health Care Expenditure by Maria Riakou & Alistair McGuire

Health care expenditure has been growing faster than GDP in most developed countries. There have been various explanations forwarded as to why this is the case: including increasing demographic pressures, movements to insurance based funding, supplier inducement and higher price rises in the sector relative to other sectors. The evidence on these pressures will be reviewed in the light of an historical tracking of health care expenditure. Similarities across countries will be analysed and assessed. The role of health care technology has been highlighted as a major common causal factor in increasing health care expenditure and the role of this factor will also be analysed. The chapter will review the existing literature, then give an overview

of increasing health care expenditure patterns, causal factors and predictive future patterns of health expenditure in the developed nations.

5. Economic determinants of access and utilisation: comparative evidence from Egypt and Lebanon by Heba Elgazzar.

The objective of this paper is to compare the economic determinants of the probability and the intensity of care in contrasting funding systems found in two Middle Eastern countries, Egypt and Lebanon. The cases of physician services and hospital inpatient care are used to examine the topic. Data were obtained from the 2001 World Health Organization Multi-Country Survey Study, a cross-sectional, multi-national household survey. The analysis is based on multivariate binary and count regression analyses. Results suggest that the relationship between economic status and utilisation is stronger in the case of physician care than hospital care. This effect was more pronounced in the case of Lebanon as compared to Egypt. In addition, the effect is more pronounced regarding the probability of accessing care as compared to the intensity of services, as indicated by the number of visits to providers. These results suggest that demand-side factors such as income and health insurance coverage impact the decision to seek care by the individual. This study highlights the role of the public sector in alleviating inequality in access to health services, particularly preventative care.

6. UK health care: countdown to a cost explosion? by Julian Le Grand and Zack Cooper.

The UK has put in place a number of market-oriented health policy reforms that are now beginning to bed in. They include offering patients choice of provider, fostering competition between public hospitals, encouraging new types of entrants into both the primary and secondary sectors, including ones operated by private sector companies, and instituting a fee-for-service system for hospital re-imbursment. Although these offer many of the right incentives for improving the quality, efficiency and even equity of health care delivery, they also offer both strong incentives and great opportunities for supplier-induced demand. And, if that does materialise, it will generate considerable and perhaps irresistible cost pressures, putting an enormous strain on the

public finances and perhaps making the publicly funded National Health Service unsustainable. It will therefore be of crucial importance for the UK, as indeed it is for other market-oriented health systems, to have in place effective instruments for demand management. This chapter will review the options for doing this, including practice-based commissioning, other forms of commissioning, referral guidelines, referral centres, utilisation reviews and user charges. It will examine the incentive structures involved in the instruments concerned and, drawing on such evidence as exists both within and outside the UK, attempt a preliminary assessment of their likely effectiveness.

7. Medicine markets in low- and middle-income economies: A country-by-country glance at procurement efficiency, supply chain mark-ups, and patient affordability through a secondary analysis of WHO/HAI data by Chantal M Morel[§], Marin Gemmill-Toyama, Divya Srivastava, Elias Mossialos.

This study is a compilation of survey findings and includes some analysis in an attempt to shed light on global trends. In publishing findings of numerous countries together, it is hoped that cross-country information sharing can be enhanced. We presents a secondary analysis of findings from 49 surveys conducted by survey teams in 36 different countries, collected between 2001 and 2006 using WHO/HAI-standardized methodology. It uses basic statistical analysis to describe possible trends in medicine prices across countries. Specifically it examines procurement efficiency through comparison with international reference prices, public sector supply chain mark-ups, price variation between sectors and across different medicine categories: on- and off-patent, chronic and acute treatments. Procurement of LPG medicines appears to be more efficient than procurement of originator brand medicines (procurement prices are closer to international reference prices). Some public procurers are making inefficient choices in their medicine purchases through over-purchasing of originator brand medicines when generics are available. Public sector mark-ups are extremely high in some countries—especially in sub-Saharan Africa—thereby negating any benefits reaped through efficient procurement. The price of individual medicines varies significantly between public and private sector outlets, more so for lowest-priced generics than for

originator brand medicines. Many medicines remain largely unaffordable for patients, even those with a relatively good income. Lack of affordability is especially a problem for patients needing treatment for chronic illnesses.

8. Enhancing the impact of HTA in health policy-making by Mike Drummond, David M and Corine Sorenson.

The paper examines the methodological challenges (e.g., use of QALYs, evidence difficulties, stakeholder involvement) and solutions; Harmonization across countries (e.g., international standards, transferability, accounting for local needs/considerations); Mechanisms/strategies to improve the use of HTA in decision-making on access/financing/utilization. Our paper will take a comprehensive approach by examining the three themes across pharmaceuticals, devices, and public health (and other complex) interventions. Moreover, where applicable, we will employ a multidisciplinary perspective to these issues.

9. The impact of patent expiry on the use of new medicines by Sotiris Vadoros.

This paper examines whether there is a switch in consumption (therapeutic substitution) at the point of generic entry from drugs that go off-patent to other drugs of the same therapeutic class which are still in-patent. We use empirical data from France, Germany, the Netherlands, Sweden and the UK over the 1992-2006 period on proton pump inhibitors, ace inhibitors and statins. We use panel data econometrics in order to estimate the impact of generic entry on sales of the in-patent products and the total sales of the off-patent molecule (considering branded and generic products). We find strong empirical evidence that patent expiry in the market of a branded product leads to an upward shift in sales of products from the same therapeutic class that remain in-patent and a downward shift in total sales of molecules which go off-patent. The analysis shows that there is a switch in consumption from products whose patent expires towards products of the same class which are still on-patent. The importance of this issue is underlined by the fact that in-patent products do not have generic alternatives, thus the branded originator would have to be prescribed and dispensed. This would lead to an increase in health

costs, as the in-patent drug has no generic alternatives. If this switch did not take place, there would be a generic alternative which would lead to significant savings for health insurance, as generics are cheaper than branded products.

10. International comparisons of pharmaceutical prices and impact of innovation and regulation by Sotiris Vandoros & Panos Kanavos.

This study uses a large sample of top selling drugs for 15 countries for 2004 and 2007. Panel data econometric methods are applied in order to examine the determinants of drug prices. We find empirical evidence that public pharmaceutical prices in the US are not as higher as perceived, compared to European and OECD countries. Large differences are mainly observed at the ex-factory level, but these are not the prices that consumers pay. In order to compare prices which patients (or their insurers) pay, public prices must be considered. Differences in public prices are actually not as high as expected. A product's age has a significant effect on prices, as newer products are on average more expensive after having controlled for other price determinants. Further, when taking regulation into consideration empirical evidence indicates that if similar regulatory measures were in place in the United States, prices would be lower than in other OECD countries.

11. Technology diffusion in health care: conceptual aspects and evidence by Victoria Serra-Sastre & Alistair McGuire

The increase in health care expenditure and the identification of technological change as the main determinant of the medical spending growth have boosted the interest in the analysis of medical innovation diffusion. Some studies have estimated that the association between technological change and medical expenditure represents half of the increase in expenditure (Newhouse, 1992; Cutler, 1995). This raises the question of the mechanisms which allow new medical innovations to penetrate the health care market and how these innovations become part of common practice. Technological change involves different steps, from the development of the technology to the placement of the technology in the market. New technologies contribute to economic growth because of their superior competitive advantage generating more efficient production processes. Consequently, it is only through the adoption and

diffusion of these technologies that benefits for the consumers will be materialised.

Technological change in the health care market over the past decades has been rapid, broadening the capacity of patient treatment. However, the introduction of such innovations does not necessarily lead to instantaneous widespread diffusion and there is usually a lapse between an innovation introduction and its extensive use. The analysis of the diffusion process of medical innovations in the health care market remains preliminary. The aim of this chapter is twofold. First, it examines technology diffusion in the health care market providing an overview of those aspects that characterise this context and presenting competing analytical structures. The conceptual and definitional aspects considered in this chapter refer to the different approaches that can be used to examine diffusion and the different types of innovations. The diffusion process plays a key role in that it represents a change in preferences which will then modify the provision of health care services. This discussion will therefore consider the conceptual underpinnings of how diffusion affects the health production function. Secondly, this chapter presents a review of the literature on the theoretical and empirical sides of technology diffusion in health markets. The objective is to identify those elements of market structure, institutional aspects and technology characteristics that shape diffusion in health care. Given the limited research in this topic, the theoretical and empirical literature review will allow the identification of potential areas of research in diffusion analysis that remain unexplored.

12. Providing financial incentives for improved quality and efficiency. A literature review of the effects of payment for performance (P4P) policies. By Irene Papanicolas.

Economists generally support that health care providers respond to financial incentives, and indeed a great deal of empirical evidence collected over the years exists to support this claim. Once this claim is taken as a given, the interesting question emerges of how to design payment mechanisms to create financial incentives that will lead to the 'best' provision of health care. Increasingly, policy makers have started to incentivise clinical quality improvements through direct payment mechanisms, the most obvious example

being recent payment for performance (P4P) initiatives being undertaken by various programmes in the United States (such as the Leapfrog Group and Med-Vantage), and being adopted in the United Kingdom as part of the new General Practitioner (GP) contract in 2004. While economic theory predicts that financial incentives will work, these policies are still quite young and results are mixed. It is of great importance to determine the effects such financing mechanisms will have on clinical quality in order to guide and improve policy making in the future. This paper aims to provide an in depth review of the literature examining the results payment for performance initiatives have had on improving the clinical quality of health care.

13. Cash and near cash payments to users of healthcare in developing countries: context and critique by Susan F Murray and Emma Pitchforth

Schemes utilising cash or near-cash payments to targeted users of healthcare are enjoying increased popularity with international development agencies, and with some Ministries of Health, in the run-up to deadlines for the Millennium Development Goals. A review of the related policy literature indicates the objectives of such schemes: articulated variously as reduction of financial barriers to accessing care, facilitating choice of provision, incentivising performance, and tying state-funded welfare to desirable behaviours in poor populations. This paper considers the context, historical development and implications of the policy turn to such 'stand alone' financial fixes within healthcare systems in low and middle income countries. Based on a comprehensive review of literature, we critically examine the manner in which the schemes are currently framed in policy documentation and evaluation studies and syntheses. The available information on actual enactment of such initiatives at national and local level, and the types of evidence that are sought to assess the impact and process of the schemes are reviewed. The paper presents a typology representing the different frameworks within which cash or near-cash payments have been considered across different disciplines and perspectives and discusses the tensions that may exist between these. In conclusion, we suggest that such schemes can be understood as symptoms of an approach to 'global health' that is increasingly defined by short term pragmatism and the belief that 'what is counted counts' (Kurunmaki & Miller

2008). Specific case studies of schemes are used in the paper as illustration of the argument we develop

14. Health and health care divide by Cate Henderson & David McDaid.

Debates over the extent, causes and consequences of the "health and social care divide" have raged in England and elsewhere over the past thirty years. Central governments have attempted to remove the "Berlin wall" or "bridge the divide" between social care and health many times over this period, with only limited success; but in recent years appear to have intensified their efforts. This chapter will examine recent developments in the four countries of the United Kingdom reflecting on what theories and evidence have been used to support changes in policy and practice. Advantages and disadvantages of incremental vs structural solutions will be made drawing on comparisons with selected high income countries; these will include addressing micro-level strategies such as devolving budgets previously held by health and social care agencies directly to the user; and meso-level reforms in the structures of local government, as well as voluntary partnership and joint-working arrangements that incorporate some or all health functions. We will also draw on the limited evidence available on the productivity of joint health and social care services to reflect on whether efficiency and/or other gains such as equity, responsiveness and appropriateness can be realised. Finally we consider, in the light of this evidence, to what extent is it possible and appropriate to seek to eradicate the "silo mentality" created by maintaining separate funding arrangements for health and social care; and consider what can reasonably be done to minimise the most problematic aspects of this process.

15. Deaths from dementia and related causes among older people in England and Wales 1900-2030: past trends and future forecasts by M Di Cesare and M Murphy.

Developed countries have experienced a substantial increase in life expectancy due to decrease in levels of mortality in the last decades characterized by a shift from dying at younger ages to dying at older ages (Janssen and Kunst, 2005). This shift has been both a cause and a consequence of a changing

pattern in causes of death from communicable diseases to chronic and degenerative diseases (Omran, 1971).

The increasing importance of overall and cause specific mortality patterns among older people has gained interest of researchers especially for the impact – in terms of costs, policies and actions- on the health and social system. The group of cause of deaths – senility, dementia and Alzheimer’s disease (ICD10 codes: F01, F03, G30, G31.1, R54) - are particularly relevant considering their strong age-dependence which means that the social and economic costs from this group of diseases/deaths will increase in the next years (Lowin, Knapp and McCrone, 2001). The analysis of past and future mortality trends are important for defining policies, estimating costs, and planning actions which can better meet needs of individuals, their families and the health care system. Lowin et al. (2001) show that Alzheimer’s disease led to use more direct health, social care resources, and informal care than other diseases like cancer or heart diseases. This study analyzes trends in Senility, dementia, and Alzheimer’s deaths throughout the past century in England and Wales (1900-2005) and forecasts mortality rates to estimate the contribution of these causes of death in the future years and the future burden of disease. Alternative methods of forecasting will be used such as Bayesian models (King and Girosi, 2008), Lee-Carter model (1992), Booth et al. variation of Lee-Carter model (2002), with particular emphasis on the estimation of uncertainty of the forecast to provide probabilistic prediction intervals.

16. A stochastic frontier approach to assess the efficiency of English councils with social services responsibility (CSSRs) By Francesco D’Amico and Jose-Luis Fernandez.

There is wide variability in per capita levels of expenditure on social care services among English local authorities. Controlling for demand, supply and other local characteristics, the aim of this work is to estimate whether variations in expenditure respond to differences in local levels of efficiency. Using local authority level panel data for the period 2001-2006, the analysis estimates stochastic frontier models linking levels of expenditure to volumes of community and residential care services. The analysis adopts a semi-theoretical model, expanding on the Cobb-Douglas specification, to estimate indicators of price/output elasticities, scale economies and levels of economic inefficiency. Ours econometric

specifications allow for the parameterization of the cost inefficiency mean and of the variances of both the error terms (Battese & Coelli, 1995 and Wang & Schmidt, 2002). These approaches are more flexible than the classical version and fit particularly well in the face of significant heterogeneity in the production units, like in our case.

17. Forgone health care among older Europeans by Sarah Alin and Cristina Maseria.

This paper analyses SHARE data of the 50+ population in 12 countries to explore the drivers of foregone care in the different countries, and to empirically assess the link between reporting foregone care and prior health care contacts (GP, specialist, hospitals, and home care services). Previous studies of unmet need and foregone care in Europe has presumed that it represents access problems, and therefore of concern to policy makers seeking to improve access to health care in line with equity objectives. However, previous work that we conducted in Canada showed that a small proportion of those reporting unmet need for health care signals a system-related access problem, the remainder is related to personal characteristics and choices. This paper seeks to apply similar methodological techniques that disaggregate the foregone care by the stated reasons (e.g. cost, availability) and assess the association between foregone care and health care utilisation. Specifically, we address the question: Are those that report foregone care using more or less than an expected level of health services on the basis of their estimated needs, and how does this association differ across countries, and by the stated reason for forgoing care?

18. The State of the Art of Long Term care Policy by Adelina Comas and Raphael Wittenberg.

This chapter will review recent developments in long-term care financing. It will focus on recent reforms in Spain and Germany and will review some of the options being debated in England. Different financing models will be appraised using the criteria of:

- Equity
- Promotion of dignity, choice and independence
- Efficiency and effectiveness

- Economic and political sustainability

The chapter will build on previous papers such as Wittenberg and Malley (2006) and Glendinning et al. (2004).

19. Physicians' behaviour: A review of the theory and policy implications. By C.Stavropoulou.

Physicians' behaviour has been of central importance for health economists and policy makers. A number of different models have been explored and analysed to explain the motivation and behaviour of physicians' and how they respond to incentives. These models include among others, profit maximisation in the context of a competitive or monopolistic market, the theory of target income, and the supply-induced demand. The special nature of the profession is widely recognised. Apart from financial considerations, social norms and ethics are extremely important and they dictated special attitudes and considerations. This has opened up a new area of investigation in an attempt to understand better the health care market. The aim of this paper is to provide a review of the literature on the topic, consider the impact of physicians' behaviour on patients' decisions, and emphasise the policy implications these models have for health care systems and organisations.

20. Risk perceptions and adolescents: the case of smoking by Caroline Rudisill.

An individual's setting, especially at the time of likely exposure to new information, proves consequential to preference-setting when it comes to the propensity to take risks. In order to capture a group with incompletely developed preferences, this review examines how adolescents respond to risk, in particular with regards to smoking. In spite of the popular identification of smoking's epidemiological risks, the behavioural preference to smoke clearly persists, and even appears to be on the rise among the young. The paper focuses on what kinds of information sources and actors play the most influential role in adolescents' risk perception formulation. Particular attention is paid to how the Bayesian learning frameworks and spatial proximity theory apply to adolescents and risk-taking scenarios. Findings from this review point

to existing gaps in understanding what drives adolescents' perceptions of smoking risks.