

PostScript

LETTERS

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Erroneous, blurred, and mistaken—comments on the care need index

Sundquist *et al* present a care need index for allocation of primary health care resources.¹ Unfortunately, their paper rests on an erroneous description of the allocation model presently used in Stockholm, a blurred conception of need, and a mistake in the handling of data.

The model used by Stockholm County Council to distribute funds between areas to purchase health care consists of four different components: (1) hospital based care,² (2) private specialist care, (3) primary health care, and (4) pharmaceutical drugs. The primary health care model gives extra weight to neighbourhoods with high proportions of low income earners, immigrants, and single persons; and according to the proportion under 16 and over 64 years as they use primary health care more.³ This approach is as likely to capture health care needs in the population as the care need index (CNI) model, and it is not based on prior health care utilisation as suggested by Sundquist *et al*.

In the CNI model "need" is defined on the basis of a set of pre-defined indicators that general practitioners have weighted according to their impact on GP work load. Models of health care utilisation usually differentiate between need and demand,⁴⁻⁶ as the probabilities to show up in the GP's waiting room differ between persons and social groups, given the same need. GP's experienced workload, however, is only affected by the patients in the waiting room; thus the theoretical basis for the CNI is demand rather than need.

The empirical analyses are based on the annual surveys of living conditions. In these surveys the number of response alternatives to the self rated health question was changed from three to five in 1996, but the authors seem to treat the data as if there were three response alternatives throughout the period. As a consequence those with "good" health have been counted as ill in a third of the sample. This will cause the illness prevalence for 1996-97 to be overestimated and introduces a bias in the relation between health and other variables.

The main practical consequence of applying the CNI rather than the existing model

would be to "take from the poor to give to the poor". Although the SS area is more deprived than the SW area according to the CNI a re-allocation from the first to the second is suggested. There must be more useful tools for allocation of primary care resources.⁷

Bo Burström

Karolinska Institutet/Stockholm County Council, Sweden

Olle Lundberg

Centre for Health Equity Studies, Stockholm University/Karolinska Institutet, Sweden

Correspondence to: Dr B Burström, Department of Public Health Sciences, Division of Social Medicine, Karolinska Institutet, Stockholm SE-171 76, Sweden

References

- 1 Sundquist K, Malmström M, Johansson SE, *et al*. Care need index, a useful tool for the distribution of primary health care resources. *J Epidemiol Community Health* 2003;57:347-52.
- 2 Andersson PÅ, Varde E, Diderichsen F. Modelling of resource allocation to health care authorities in Stockholm County. *Health Care Management Science* 2000;3:141-9.
- 3 Region Skåne. Kostnader för hälso- och sjukvård för befolkningen i Skåne [Cost of health care in the population of Skåne]. [In Swedish]. Stockholm: Region Skåne, 2000.
- 4 Aday LA, Andersen R, Fleming GV. *Health care in the US: Equitable for whom?* Beverly Hills: Sage, 1980.
- 5 Andersen RM. Revisiting the behavioral model and access to medical care: Does it matter? *J Health Soc Behav* 1995;36:1-10.
- 6 Gillström P, F Care. *Four essays on the allocation and utilization of health care.* [Thesis]. Stockholm: Swedish Institute for Social Research, 2001.
- 7 Gravelle H, Sutton M, Morris S, *et al*. Modelling supply and demand influences on the use of health care: implications for deriving a needs-based capitation formula. *Health Econ* 2003 (<http://www.interscience.wiley.com> DOI:10.1002/hec.830).

Authors' reply

Burström and Lundberg claim that our article¹ rests on (1) an erroneous description of the allocation model presently used in Stockholm, (2) a blurred conception of need, and (3) a mistake in the handling of the data.

We apologise for the somewhat erroneous description of the present Stockholm model, although we believe that the allocation model presently used in Stockholm has several weaknesses. Burström and Lundberg declare that the present Stockholm model gives extra weight to neighbourhoods with high proportions of low income earners and immigrants. However, they define low income earners as men (women are not included) in the three lowest income quartiles and have not justified the reason for this broad definition of low income earners. In addition, immigrants are defined as foreign born people from all other countries in the world in contrast with Swedish born people. However, many immigrants in Sweden were born in western countries and have a similar health status to Swedish born people. Although we agree that the present model is not based on prior health care utilisation it is based on morbidity, defined as proportions of people with long term sick leave >30 days, which we assume have been taken from prior healthcare registers.

They also claim that the conception of need in care need index (CNI) is blurred. We do not agree with that statement. CNI as well as UPA

score include need based items in their modelling of the allocation of healthcare resources. These instruments for allocating resources to primary health care have defined "need" according to the higher need for health care among certain groups in the society. CNI includes weighted neighbourhood proportions of a total seven different demographic and socioeconomic items, such as people with low educational status, foreign born people from non-western countries, and single parents. Our article also shows a strong relation between CNI and self rated health, which is a good proxy for health care need in the population. Previous studies of CNI (13 original articles and two theses) have demonstrated a significant relation between CNI and different health outcomes, all relevant for primary health care.¹⁻¹³ The documentation of the present Stockholm model is not that substantial.

In addition, in their critique, statements about the GPs' experienced workload and the GPs' waiting room are included even though none of them are working as GPs. In contrast, three of the authors of our study are working as specialists in family medicine.

We do not understand what underlies their statement that we were mistaken in the dichotomisation of the outcome variable. We have indeed noticed that the number of response alternatives to the self rated health question was changed from three to five in 1996 and have accounted for this in our study. The dichotomisation was performed as follows: *Before 1996*: Those who answered that their general health was bad or something in between were considered as having poor self rated health. Those who answered that their general health was good were considered as having a good health status. *After 1996*: Those who answered that their general health was very bad, bad, or fair were considered as having a poor self rated health. Those who answered that their general health was good or very good were considered as having good self rated health. If the response alternatives had been dichotomised as they claim, the associations would have been much weaker or even disappeared.

Finally, Burström and Lundberg have referred to an article that was not published when we submitted our article.¹⁴ We agree that there are many other needs based capitation formulas. However, one of the advantages of CNI (or the Swedish UPA score) is the extensive documentation of CNI and different health aspects, such as utilisation of psychiatric hospital care, sales of tranquillisers and analgesics,^{5,7,8} unhealthy lifestyle factors that reflect an increased need for preventive efforts within primary health care¹⁰ and incidence of coronary heart disease.¹³ In addition, every county in Sweden is free to choose an appropriate tool for the allocation of primary healthcare resources. In accordance with our findings we conclude that CNI constitutes one such appropriate tool, based on the health care need in the population.

Kristina Sundquist

Flemingsberg Primary Health Care Centre, Sweden

Marianne Malmström, Sven-Erik Johansson,

Jan Sundquist

Karolinska Institutet, Family Medicine, Stockholm, Sweden

Correspondence to: Dr K Sundquist, Karolinska Institutet, Inst Klinisk Vetenskap, Alfred Nobels allé 12, Huddinge SE-141 83, Sweden; kristina.sundquist@klinvet.ki.se

References

- 1 Sundquist K, Malmstrom M, Johansson SE, et al. Care need index, a useful tool for the distribution of primary health care resources. *J Epidemiol Community Health* 2003;**57**:347–52.
- 2 Sundquist J, Bajekal M, Jarman B, et al. Underprivileged area score, ethnicity, social factors and general mortality in district health authorities in England and Wales. *Scand J Prim Health Care* 1996;**14**:79–85.
- 3 Bajekal M, Sundquist J, Jarman B. The Swedish UPA score: an administrative tool for identification of underprivileged areas. *Scand J Soc Med* 1996;**24**:177–84.
- 4 Sundquist J, Bajekal M, Johansson SE. The UPA (underprivileged area) score and mortality in Swedish municipalities. *Scand J Prim Health Care* 1997;**15**:203–9.
- 5 Sundquist J, Ekedahl A, Johansson SE. Sales of tranquillizers, hypnotics/sedatives and anti-depressants and their relationship with underprivileged area score and mortality and suicide rates. *Eur J Clin Pharmacol* 1996;**51**:105–9.
- 6 Malmström M, Sundquist J, Bajekal M, et al. Indices of need and social deprivation for primary health care. *Scand J Soc Med* 1998;**26**:124–30.
- 7 Malmström M, Sundquist J, Ekedahl A, et al. Prescribing patterns for analgesics in relation to underprivileged area (UPA) score, mortality and suicide in 33 municipalities in the province of Skåne, southern Sweden. *Soc Psychiatry Psychiatr Epidemiol* 1999;**34**:259–64.
- 8 Malmström M, Sundquist J, Johansson SE, et al. The influence of social deprivation as measured by the CNL on psychiatric admissions. *Scand J Public Health* 1999;**27**:189–95.
- 9 Malmström M, Sundquist J, Johansson SE. Neighborhood environment and self-reported health status: a multilevel analysis. *Am J Public Health* 1999;**89**:1181–6.
- 10 Sundquist J, Malmström M, Johansson SE. Cardiovascular risk factors and the neighbourhood environment: a multilevel analysis. *Int J Epidemiol* 1999;**28**:841–5.
- 11 Malmström M, Sundquist J, Bajekal M, et al. Ten-year trends in all-cause mortality and coronary heart disease mortality in socio-economically diverse neighbourhoods. *Public Health* 1999;**113**:279–84.
- 12 Malmström M, Sundquist J, Johansson SE. A hierarchical analysis of long term illness and mortality in socially deprived areas. *Soc Sci Med* 2001;**53**:265–75.
- 13 Sundquist K, Malmström M, Johansson SE. Neighbourhood deprivation and incidence of coronary heart disease: a multilevel study of 2.6 million women and men in Sweden. *J Epidemiol Community Health* 2004;**58**:71–7.
- 14 Gravelle H, Sutton M, Morris S, et al. Modelling supply and demand influences on the use of health care: implications for deriving a needs-based capitation formula. *Health Econ* 2003;**12**:985–1004.

BOOK REVIEWS

An introduction to quality assurance in health care

Avedis Donabedian. Oxford University Press, Oxford, 2003, pp 205, £27.50 (hardback). ISBN 0-19-515809-1

This book is not for experts in quality assurance—in fact it was written with the “student of the subject in my native Armenia” in mind, although not priced with them in mind at a hefty £27.50. It is a conversational and readable book that many beginners everywhere will find to be a comparatively painless introduction to one approach to quality improvement. Donabedian

was one of the first and the most well known of proponents of quality assurance. His “structure, process and outcome” model is part of healthcare language, used beyond those working in the quality field.¹ Two strengths of the book are that it is easy to understand and provides useful practical advice to practitioners and others in both the west and developing countries. Although Donabedian is right that “fundamentals do not often change” and that “the new is ...mostly a continuation of the old”, there are more recent ideas that are missing in this book that would be useful to its readership: particularly the simple improvement models now in common use in the west,² as well as discussion of theories and examples of how to get change—one of the most important issues in quality improvement, but only covered in one chapter of the book.

The book defines quality and quality assurance in health care, and describes the components of quality assurance. The main strength of the book is a practical exposition of how to do and use monitoring of quality and performance, covering pages 29–122, about 80% of the book, with appendices to help. Simple does not mean simplistic and Donabedian has not avoided tackling difficult subjects in this book. One example of this is his clear short presentation of statistical process control—a subject baffling for many beginners, and others. Like many other difficult ideas, it can only be presented well by an expert who has taught it many times yet still understands the difficulties of the beginner.

Readers across the world and especially those needing an easy and practical introduction to the subject will find this an invaluable book. Many experts would also enjoy the read and find in it lessons about how to communicate in an unpretentious way. A fitting posthumous publication from a master in the subject, showing the relevance of quality assurance to all types of health care. A way must be found to publish a version at one third of the price.

John Øvretveit

- 1 Donabedian A. *Exploration in quality assessment and monitoring. Vol 1. Definition of quality and approaches to its assessment.* Ann Arbor: Health Administration Press, University of Michigan, 1980.
- 2 Langly G, Nolan K, Nolan T, et al. *The improvement guide.* San Francisco: Jossey Bass, 1997.

Distributing health care. Economic and ethical issues

P Dolan, J A Olsen. Oxford University Press, Oxford, 2002, pp 153, £26.50. ISBN 0-19-263253-1153

Firstly, a remark on the form: the presentation of this book is very agreeable particularly with a synthetic conclusion at the end of each chapter, which emphasises points related to the distributional aspects. Moreover, the chapters could be read independently, which makes the book a good instrument for work. The objective is to make accessible to a wide audience analyses of the question of how health care could be distributed in a public healthcare system. Despite the difficulty of such an exercise the goal is reached. The main interest of this book is to explore the subject not only in depth but also to clearly show the nature of difficulties an economist is faced when they enter the health field, including recognising that adopting a distributive rule is always a product of a value

judgement (the real question became the underlying justification of this choice). My main reproach is about the exposition of some of the arguments in the current debate among health economists with regard to “welfarism” compared with “extra welfarism”. While I naturally agree with the existence of limits in the application of welfare theory, it has to be recognised that the QALY, which finds its theoretical foundation in welfare economics, shares a number of these limitations and is based on the hypothesis that health interventions only affect health and not other aspects of wellbeing. So I regret that the debate was not more clearly (and impartially) exposed. Whatever, this book represents a good contribution that could be a starting point for reflection in order to move toward a way to elicit preferences to help resources allocation decision in health care. This is a relevant book that I recommend to economics students or general economists who are newly interested by the health field. It should also be of interest to physicians and public health workers as well as our health economics colleagues.

Christel Profiere

Social reinsurance. A new approach to sustainable community health financing

Edited by D M Dror, A S Preker. International Labour Office, and World Bank, 2002, pp 518, US\$50 (paperback). ISBN 92-2-112711-7

Financing the health care needs of rural and informal sector workers in low and middle income countries has always been a great challenge for policy makers in these countries. Because of government and market failures, traditional methods of financing health care do not work well and 1.3 billion poor people must rely on out of pocket expenditures to pay for the little health care that they receive.

This book looks into community based microinsurance schemes to overcome the problems of financing health care for informal workers in these countries. Their central idea is to enhance existing community institutions to organise access to basic health care for the at risk populations along the lines of microinsurance. Because each of these institutions will only cover a small group of people, the authors emphasise the importance of reinsurance to enlarge the risk pool and spread the risks across populations. The role of the government is to subsidise and regulate these microinsurance schemes.

The volume is a compilation of 22 articles by different authors and it comprehensively covers all of the issues related to community based microinsurance schemes in low and middle income countries. The volume is divided into four parts. The first part is devoted to the challenges facing microinsurance schemes in these countries, the second part analyses the theory behind insurance, microinsurance, and reinsurance, the third part is devoted to issues related to the implementation of community based microinsurance mechanisms, and the fourth part describes a pilot programme in the Philippines.

In summary, this volume is a very valuable contribution to the discussion regarding access to health care and financing in poor and middle income countries. I highly recommend this book to any reader interested in health financing policies in developing countries.

Gabriel A Picone