

EDITORIAL

Advancing and Inspiring Health Economics: A Special Issue in Honor of Tor Iversen

1 Introduction to the special issue

Professor Tor Iversen is a distinguished and highly respected health economist who has made significant contributions to the field of health economics. With this special issue, we celebrate his work.

Tor began his career as a research assistant at the Department of Economics at the University of Oslo, where he focused on the effects of inflation on the economy. Later, he worked as a lecturer at Norwegian School of Public Administration and Social Work before joining the Group for Health Services Research at the National Institute of Public Health in 1985. His research position in the group marked the beginning of his journey towards becoming a health economist.

The Center for Health Administration - the predecessor of today's Department of Health Management and Health Economics at the University of Oslo, was established in 1986. Here, Tor taught health economics from 1987 and became a key person in the development of the Center, especially its pioneering health economics research program. He became an associate professor in health economics in 1993 and a full professor in 2002.

The Center was established to give an executive master's program in health administration (understood as management). To become a viable university center, the first three lecturers understood that the Center needed to become a research organization. Tor was the key person in developing this part of the Center. Towards the end of the 1990s the moderately expanded staff realized that to stay viable the Center needed a broader teaching program basis and started to plan a three-year bachelor's program (started 2002) and a two-year international master's program (started 2005) in health management and health economics. Tor was an important person behind these programs. With the new programs, the Center was elevated to the Department of Health Management and Health Economics (HELED) from 2004.

Tor's pioneering work has had a significant impact on modernizing Norwegian health policy making and hospital management. His pedagogical approach was novel in emphasizing the inherently intertwined nature of clinical and economic considerations in making informed clinical decisions.

Tor is recognized for his entrepreneurial efforts. Tor's ability to bring people together and build research communities was also crucial in building the extensive research network known today as the Health Economics Research Network (HERO) at the University of Oslo. This collaboration between HELED, the Department of Economics and the Frisch Centre was funded by the Research Council of Norway from 1998 to 2011, in parallel with Health Economics Bergen (HEB). Tor was the Scientific Director of HERO through most of this period. HERO received great evaluations and was instrumental in establishing health economics as a major field within academic economics in Norway. With no basic funding, HERO remains a network with a working paper series, research seminars and common projects. Tor continues to play a leading role in the Norwegian health

economics community and successfully chaired the 2022 conference of the European Health Economics Association organized by HELED and the Frisch Centre.

Tor has been a key initiator and implementer of the practice in several international comparative projects including EuroHOPE (European Health Care Outcomes, Performance and Efficiency) 2010-2014; BRIDGE (Bridging Information and Data Generation for Evidence-based Health Policy and Research) 2015-2017; and NORCHER (Norwegian Centre for Health Services Research) 2019-2024. These projects have developed research infrastructure and methods for register based comparative analysis on health care performance as well as described variations between and within European countries, explored the reasons behind the performance differences between countries, regions, and providers and evaluated the relationship between outcomes and costs.

Tor's extensive knowledge in the field of health economics is a great asset to his colleagues and to PhD students who are under his supervision. Tor has a humble style. His feedback and guidance are often provided through carefully formulated and illuminating questions. His style of supervision helps students to develop critical thinking and independent problem-solving skills in the field.

Tor has influenced healthcare policy in Norway through his research, policy evaluation, and advisory work. Early in his career, he conducted research on privatization, hospital waiting times, and applied economic theory to understand the mechanisms behind observed waiting times. General medical practice has been a central theme in Tor's research. He contributed to evaluating the Regular GP scheme pilot in four municipalities in the 1990s and played a key role in the scientific evaluation of the scheme after its introduction in all Norwegian municipalities in 2001. Currently, he is heading the evaluation of a pilot with primary health care teams and is a member of an expert group on general practitioners' services appointed by the Ministry of Health.

Tor has made significant contributions to a wide range of topics and methods in health economics, and, as described in the bibliometric analysis by Hammarfelt and Karlsson in this special issue, his research has contributed to several of the most prevalent topics in Nordic and international health economics research. Tor's research includes theoretical and empirical work on waiting times (Iversen, 1993, 1997; Iversen and Lurås, 2002; Iversen and Siciliani, 2011). With econometric analysis of linked panel data, he has contributed to the literature on hospitals (Biørn *et al.*, 2003, 2010; Häkkinen *et al.*, 2015) and general practice (Iversen and Lurås, 2000, 2011; Iversen, 2004; Iversen and Ma, 2011, 2022). Tor has contributed to novel studies on social capital and health (Iversen, 2008; Folland and Iversen, 2014; Iversen and Sommeno, 2018), and incentivized laboratory experiments (Godager, Hennig-Schmidt and Iversen, 2016; Wang *et al.*, 2020). His diverse research interests are reflected in the breadth of health economic topics covered in the papers included in this special issue.

On occasion of Tor's 70th birthday, a half-day workshop and the Iversen Seminar were organized in Oslo. They attracted a large audience who have crossed paths with Tor during his long and accomplished career: distinguished Norwegian economists, policymakers, former students, colleagues, and a host of international partners who have collaborated with Tor were in attendance. This special issue was announced at the workshop, and some of the papers included were presented. It is with great pleasure that we now present it as a tribute to Tor's invaluable contributions.

2 Included papers

The paper by Aas et al. (2023) investigates the influence of health status and social capital on cancer mortality and severity by modelling them as unobserved latent variables in a generalized structural equation model.

The study by Bjørnelv et al. (2023) utilizes a natural experiment in Norway to investigate how excess demand for municipal elderly care affects resource use and patient outcomes.

Godager et al. (2023) study the impact of gender on medical treatment choices using an incentivized choice experiment where doctors and medical students participated. The study contributes nuanced insights to the existing literature on gender effects in medical practice.

In a theory paper, Grepperud (2023) uses a principal-agent model to investigate the relationship between ex-ante and ex-post regulation on accident risks, specifically medical errors. The paper's research question is whether the joint use of standards and fines for firms and workers improves social welfare, and the study focuses on decisions made by both the firm and employees.

Häkkinen et al. (2023) presents the methodological foundations and results of Nordic comparative health economic research, which is known for its access to excellent patient data and rigorous analyses. The authors focus on two types of performance analyses: comparative analyses of health care outcomes and costs at both the hospital and the disease levels. They discuss the strengths and weaknesses of Nordic comparative analyses and suggest ways to develop the field further.

Hammarfelt and Karlsson (2023) contribute with a bibliometric analysis that investigates the Nordic contribution to health economics research over the past 30 years by analyzing publications from five prominent health economics journals. The study examines the topics covered, co-authorship relationships, and trends in Nordic publications.

The paper by Kinge et al. (2023) explores the projected increase in health spending due to the expected growth in the elderly population in Norway. Using population forecasts and disease burden data, the authors investigate the effect of changes in population count, aging, and health on future health spending.

The study by Melberg and Sørensen (2023) utilizes National Patient Registries in Denmark and Norway to study average spending on individuals who die and individuals who survive in different age groups in two countries that are relatively similar in many respects except for the distinct difference in life expectancies.

Moger et al. (2023) discuss the INOREG project, which aims to fill knowledge gaps on how health care pathways influence patients' work participation, hospital admissions, disability and quality of life. The paper provides an introduction to the project's novel database created by linking national health and welfare registries, allowing for the construction of individual-level care pathways from 2008 to 2019.

The paper by Olsen et al. (2023) utilizes panel data from Danish general practice to investigate whether general practitioners having larger lists than they prefer underprovide services. The study builds on Iversen (2004), a study where Tor theoretically and empirically assesses the effect of patient shortage on in general practitioners' income and list size. Hence, instead of focusing on patient shortage the study by Olsen et al, investigate the effects of physician shortage.

Siciliani et al. (2023) explores policies aimed at reducing waiting times for health services in OECD countries, including specialist consultations, elective treatments, primary care, cancer care, and mental health services. The study reviews policies and their

objectives, actions, and evaluation methods for these different areas, using a policy questionnaire sent to 33 countries in May 2019.

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References

- Aas, E., Thorjussen, C.B.H. and Godager, G. (2023) "The Role of Health Status and Social Capital in Cancer Mortality: Insights from Matched Register and Survey Data," *Nordic Journal of Health Economics*, This issue. doi:10.5617/njhe.10304
- Biørn, E. *et al.* (2003) "The Effect of Activity-Based Financing on Hospital Efficiency: A Panel Data Analysis of DEA Efficiency Scores 1992–2000," *Health Care Management Science* 2003 6:4, 6(4), pp. 271–283. doi:10.1023/A:1026212820367.
- Biørn, E. *et al.* (2010) "How different are hospitals' responses to a financial reform? The impact on efficiency of activity-based financing," *Health Care Management Science*, 13(1), pp. 1–16. doi:10.1007/S10729-009-9106-Y/TABLES/8.
- Bjørnelv, G.W. *et al.* (2023) "Mortality and subsequent health care use among older patients discharged to a municipality with excess demand for elderly care," *Nordic Journal of Health Economics*, This issue. doi:10.5617/njhe.10145
- Folland, S. and Iversen, T. (2014) "Chapter 5: How Does Social Capital Arise in Populations?," in *The Economics of Social Capital and Health: A Conceptual and Empirical Roadmap*. World Scientific, pp. 45–66.
- Godager, G. *et al.* (2023) "Does gender affect medical decisions? Results from a behavioral experiment with physicians and medical students," *Nordic Journal of Health Economics*, This issue. doi:10.5617/njhe.10135
- Godager, G., Hennig-Schmidt, H. and Iversen, T. (2016) "Does performance disclosure influence physicians' medical decisions? An experimental study," *Journal of Economic Behavior & Organization*, 131, pp. 36–46. doi:10.1016/j.jebo.2015.10.005.
- Grepperud, S. (2023) "Ex-ante and ex-post regulation: Does the joint use improve on social welfare?," *Nordic Journal of Health Economics*, This issue. doi:10.5617/njhe.9986
- Häkkinen, U. *et al.* (2015) "Outcome, use of resources and their relationship in the treatment of AMI, stroke and hip fracture at European hospitals," *Health Economics*, 24, pp. 116–139.
- Häkkinen, U., Hagen, T.P. and Kittelsen, S. (2023) "20 years of Nordic comparative health economics research," *Nordic Journal of Health Economics*, This issue. doi:10.5617/njhe.10133
- Hammarfelt, B. and Karlsson, M. (2023) "Nordic Academic Publishing in Health Economics," *Nordic Journal of Health Economics*, This issue. doi:10.5617/njhe.10189
- Iversen, T. (1993) "A theory of hospital waiting lists," *Journal of Health Economics*, 12(1), pp. 55–71.

- Iversen, T. (1997) "The effect of a private sector on the waiting time in a national health service," *Journal of Health Economics*, 16(4), pp. 381–396.
- Iversen, T. (2004) "The effects of a patient shortage on general practitioners' future income and list of patients," *Journal of Health Economics*, 23(4), pp. 673–694.
- Iversen, T. (2008) "An exploratory study of associations between social capital and self-assessed health in Norway," *Health Economics, Policy and Law*, 3(4), pp. 349–364.
- Iversen, T. and Lurås, H. (2000) "Economic motives and professional norms: the case of general medical practice," *Journal of Economic Behavior & Organization*, 43(4), pp. 447–470.
- Iversen, T. and Lurås, H. (2002) "Waiting time as a competitive device: an example from general medical practice," *International Journal of Health Care Finance and Economics*, 2(3), pp. 189–204.
- Iversen, T. and Lurås, H. (2011) "Patient switching in general practice," *Journal of Health Economics*, 30(5), pp. 894–903.
- Iversen, T. and Ma, C. to A. (2022) "Technology adoption by primary care physicians," *Health Economics (United Kingdom)*, 31(3), pp. 443–465. doi:10.1002/HEC.4447.
- Iversen, T. and Ma, C.A. (2011) "Market conditions and general practitioners' referrals," *International Journal of Health Care Finance and Economics*, 11(4), p. 245.
- Iversen, T. and Siciliani, L. (2011) "Non-price rationing and waiting times," in *The Oxford Handbook of Health Economics*. Oxford University Press.
- Iversen, T. and Sommeno, T.W. (2018) "How social capital arises in areas," in *Elgar Companion to Social Capital and Health*. Edward Elgar Publishing, pp. 29–44.
- Kinge, J.M., Klitkou, S.T. and Henning, Ø. (2023) "Future disease-specific health spending and burden of disease in Norway, 2019 to 2040," *Nordic Journal of Health Economics*, This issue. doi:10.5617/njhe.10188
- Melberg, H.O. and Sørensen, J. (2023) "Healthy ageing and future health spending," *Nordic Journal of Health Economics*, This issue. doi:10.5617/njhe.10295
- Moger, T.A. et al. (2023) "Innovations in use of registry data (INOREG) - Design of a registry-based study analyzing care pathways and outcomes for chronic patients," *Nordic Journal of Health Economics*, This issue. doi:10.5617/njhe.10097
- Olsen, K.R. et al. (2023) "List size disequilibria and service provision in general practice," *Nordic Journal of Health Economics*, This issue. doi:10.5617/njhe.10196
- Siciliani, L. et al. (2023) "A Review of Policies to Reduce Waiting Times for Health Services across OECD Countries," *Nordic Journal of Health Economics*, This issue. doi:10.5617/njhe.10214
- Wang, J. et al. (2020) "Are patient-regarding preferences stable? Evidence from a laboratory experiment with physicians and medical students from different countries," *European Economic Review*, 125, p. 103411. doi:10.1016/j.eurocorev.2020.103411.