UMEÅ UNIVERSITY

Umeå University Medical Dissertations, New Series No 2280

Capability for broader cost-effectiveness in public health and social welfare

Developing, valuing, and applying capability-adjusted life years Sweden (CALY-SWE)

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Akademisk avhandling

som med vederbörligt tillstånd av Rektor vid Umeå universitet
för avläggande av medicine doktorsexamen framläggs till
offentligt försvar i Naturvetarhuset, plan 3. Lokal: NAT.D.380.
Fredagen den 23 februari 2024, kl. 09.00.
Avhandlingen kommer att försvaras på engelska.

För att delta digitalt via Zoom:
https://umu.zoom.us/j/63484096146?pwd=TDlqcnQ1cnl5TzVaN251NXd6cFl3Zz09
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Fakultetsopponent: Professor Aki Tsuchiya,
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Organization
Umeå University
Department of Epidemiology and Global Health,

Document type
Doctoral thesis

Date of publication
2 February 2024

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Title
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Abstract

Spending in social welfare areas such as healthcare, education, and social care consumes large sums. Cost-effectiveness is a moral obligation towards taxpayers and beneficiaries and is after all important for sustaining future prosperity. In health policy, cost-effectiveness using cost per quality-adjusted life years (QALYs) is well established. QALYs allow to compare unrelated interventions on a common scale. However, for actors in broader social welfare, e.g. Swedish municipalities, QALYs may be less useful because they focus on health and comparable measures are sparsely employed; and a Sweden-specific measure is lacking.

The aim was to develop, value, and apply capability-adjusted life years Sweden (CALY-SWE), a QoL measure based on the capability approach.

In study 1, a Delphi panel process selected six attributes – health, social relations, financial situation & housing, security, occupation, and political & civil rights – each with three answer levels. Then, we developed the questionnaire phrasing.

In study 2, we elicited a value set using health economic methodology, namely TTO and DCE hybrid modelling. The value set allows to aggregate the CALY-SWE answers into a single weight that can be used to calculate CALYs for use cost-effectiveness evaluations.

In study 3, we measured the capability distribution in a cross-sectional representative sample. We analysed capability a group comparison framework. Results showed capability inequalities for *disadvantage groups* and for groupings along discriminative factors – for example between lower and higher education.

For study 4, we applied CALY-SWE in a cost-effectiveness application of the 2007 to 2016 payroll tax cut for young workers and the impact on not in employment, education, or training (NEET) occurrence. The tax cut was likely cost-effective from a societal perspective, but only with some probability from a fiscal perspective, although statements about cost-effectiveness are complex because a CALY-SWE threshold is lacking.

I finally discuss CALY-SWE's development and normative choices, the social welfare context, distributive justice, and other cost-effectiveness outcome measures. Areas of important future work include psychometrics, the conceptualization of the 0 to 1 capability scale, and a threshold value. In conclusion, cost-effectiveness evaluations using CALY-SWE are now possible.

Key words: CALY-SWE, Cost-effectiveness, Social-welfare, Capability approach, Public health, Health economics, Delfi panel, TTO, DCE, NEET, Priority setting, Outcome measure, Delphi.

Language
English

ISBN
978-91-8070-257-7 (print)
978-91-8070-258-4 (pdf)

ISSN
0346-6612

Number of pages
143 + 4 papers