Complementary Therapies in Medicine 27 (2016) 137–138

Contents lists available at ScienceDirect

Complementary Therapies in Medicine

journal homepage: www.elsevierhealth.com/journals/ctim

Editorial

Time to stand up and be counted: The need for an economic case for investment

Health systems around the world continually have to contend with the dual challenge of rising public expectations on the services they provide and the health-related outcomes that can be achieved, whilst at the same time having to work with limited levels of financial and capital resource. In most high income countries, expenditure on health is a key element of government expenditure, accounting for at least 20% of total government expenditure in 2013 in Germany, Japan, the Netherlands, New Zealand, Switzerland and the USA.[1] These funding challenges have been particularly great in recent years as health systems have come under renewed pressure; several European countries have experienced substantial real terms budget cuts since the 2008 global economic downturn,[2] while growth in spending on health more generally has slowed down.[3]

Policy makers are inevitably faced with many competing claims as to how they should prioritise available funds for health and other concerns. They have taken different actions to meet these challenges and contain costs. For example, in the Netherlands measures have been taken to shift more health system treatment away from hospitals to primary care, and also to task-shift activities away from more expensive doctors to practice-supporting care professionals, such as nurses and psychologists. There has also been a continued strengthening of systems assessing both the effectiveness and value for money of different health promotion, treatment and support interventions to determine whether they should be made available and reimbursed by publicly funded health care systems.

In England, for example, the National Institute for Health and Care Excellence (NICE) always systematically reviews effectiveness and economic evidence when developing public health and clinical care recommendations. These recommendations always include the development of a formal economic model weighing up the costs and benefits of interventions against appropriate alternative care options; interventions that do not have an economic return below a specified threshold – in this case no more than £30,000 per year of life in full quality gained – are much less likely to be recommended for reimbursement.

Yet despite the importance of these economic arguments, it remains the case that there has been relatively modest use of economic arguments for complementary therapies in medicine CIM. CIM need not only to demonstrate their efficacy but they also need, as a routine, to present an economic case for investment.[4,5] One key reason for this may be a low level of recognition of the importance of economic arguments among those that evaluate CIM, but health economists and policymakers have also to a large extent ignored the possible contribution of CIM.

Although there is some promising evidence that CIM can be cost-effective, and therefore contribute to healthcare expenditures policies, results are inconsistent. One review of economic evaluation of CIM, demonstrated that in 29% of comparisons made in 56 higher quality studies reviewed, health improvement was found with cost savings for the CIM therapy versus usual, conventional care.[6] Two studies in the Netherlands[7,8] report lower health care costs of €225 per patient per year compared to conventional patients, but other studies report an association between CIM treatment and higher costs[9] and increased length of hospitalization.[10]

An argument to take the possible contribution of CIM in reducing annual healthcare expenditure more seriously and to study CIM cost-effects is that CIM content-wise might moderate the current developments in healthcare towards an emphasis on health promotion, self-management of patients, personalized healthcare, and lifestyle interventions. All these developments are expected to lower healthcare expenditures. Although evidence is promising, more rigorous studies providing better quality evidence are needed in order to allow CIM to be extensively considered in health care decision-making. In particular, CIM has to expand its evidence-base to foster the inclusion of economic evaluation into a broader health services research agenda.[4]

There are several fundamental questions that economics can help with:

- What are the costs of not taking action to address a health problem?
- What resources and required and what are the costs of delivering CIM to address a health concern?
- What are the costs and benefits within and beyond health care systems of investing in a CIM intervention compared to usual care or no intervention?
- To what extent can differences in costs and effectiveness be explained by differences in the populations treated using CIM compared to populations only using conventional therapies?
- For which indications are the cost differences the largest?
- How can economic incentives be used to help promote appropriate access to and uptake of CIM and how do different levels of out of pocket costs impact on uptake?

http://dx.doi.org/10.1016/j.ctim.2016.06.008

All of these questions are important, but the most critical concerns the overall assessment of economic value, i.e. the cost effectiveness, of CIM. Several different approaches for economic evaluation are available; all measure costs in the same way, but they differ in how they measure outcomes. The majority of health economic evaluations report a specific impact on health outcome measure, e.g. reduction in pain or symptoms of depression alongside impacts on cost—these are known as cost-effectiveness analyses. Cost-utility analyses measure outcomes in terms of quality of life, making it possible for instance to compare investment in acupuncture for pain relief with a very different area, such as drug treatments for the management of cardiovascular health problems. We have noted for instance that NICE uses Quality Adjusted Life Years (QALYs) which weights each additional year of life gained to take account of the quality enjoyed during that year of life. Another approach, cost benefit analysis, values both costs and benefits in monetary terms. There is no need to make trade-offs using this approach; there is a case for investment if net benefits outweigh net costs. Regardless of the evaluation technique used, service commissioners need information on return on investment: that is not only knowing what works and for what populations, but at what cost and with what budgetary implications. Failure to make such an argument places CIM at a disadvantage with health care options that can make this case.

While it is important to build economic evaluation prospectively into trial based evaluation, there is also a powerful role for economic modelling as an aid to the decision making process. Such modelling techniques, synthesising data on the effectiveness of CIM interventions with data on resource use and costs, can aid decision making by identifying the potential cost effectiveness of CIM interventions within different scenarios which can include very conservative assumptions around costs, uptake and benefits. These modelling approaches can also be used to look at the potential economic and health impacts of scaling up access to interventions. From the perspective of personalized medicine this raises the question as to whether patient views should be incorporated in these economic models. Although this may entail some risks it might generate several benefits i.e. a better understanding of economic decision making.[11]

Finally, methodological questions should also be taken into the focus when appraising the quality of economic evaluations in CIM. According to one systematic review, 90% of health economic studies in CIM are using the piggy back approach, meaning that costs are determined alongside a conventional clinical trial.[12] However, as sample size usually is based only on the power needed to detect differences in outcome, this may lead to underpowered situations, as the sample size is not sufficient to detect differences in costs. Thus health economic considerations should be considered in an early planning stage. This should also be taken into account when combining the results of health economic evaluations within meta-analyses. Separate cost and effectiveness meta-analyses might not be sufficient for appropriate decision making. In this respect methodological frameworks like the comparative efficiency research approach (COMER)[13] might be a promising future approach to collate available evidence in the field of health economic evaluations in CIM.

This special issue will look in more detail at how CIM research is addressing these key questions; what is clear is that it is time to be counted so that CIM actions can be considered on a level playing field with alternative potential ways of investing in health.

References

1. World Health Organization. *Health Financing. Global Health Observatory Data*. Geneva: WHO; 2016 http://apps.who.int/gho/data/node.main.484?lang=en.
2. Quaglio G, Karapiperis T, Arnold E, McDaid D. Austerity and health in Europe. *Health Policy*. 2013;113(1–2):13–19.
3. OECD. *Slow Growth in Health Spending but Europe Lags Behind*. Paris: OECD; 2015 http://www.oecd.org/health/slow-growth-in-health-spending-but-europe-lags-behind.htm.
4. Ford E, Solomon D, Adams J, Graves N. The use of economic evaluation in CAM: an introductory framework. *BMC Complement Altern Med*. 2010;10(November):66.
5. Taw MB. Integrative medicine, or not integrative medicine: that is the question. *J Integr Med*. 2015;13(November (6)):350–352.
6. Herman P, Poindexter B, Witt C, Eisenberg D. Are complementary therapies and integrative care cost-effective? A systematic review of economic evaluations. *BMJ Open*. 2012;(5).
7. Kooreman P, Baars EW. Patients whose GP knows complementary medicine tend to have lower costs and live longer. *Eur J Health Econ*. 2012;13:769–776.
8. Baars EW, Kooreman P. A 6-year comparative economic evaluation of healthcare costs and mortality rates of Dutch patients from conventional and CAM GPs. *BMJ Open*. 2014;4:e005332.
9. Ostermann JK, Reinhold T, Witt CM. Can additional homeopathic treatment save costs? A retrospective cost-analysis based on 44500 insured persons. *PLoS One*. 2015;10(July (7)):e0134657.
10. Heinz J, Fiori W, Heusser P, Ostermann T. Cost analysis of integrative inpatient treatment based on DRG data: the example of anthroposophic medicine. *Evid Based Complement Altern Med*. 2013;2013:748932.
11. van Voorn G, Vemer P, Hamerlijnck D, et al. The missing stakeholder group: why patients should be involved in health economic modelling. *Appl Health Econ Health Policy*. 2016;14(April (2)):129–133.
12. Ostermann T, Krummenauer F, Heusser P, Boehm K. Health economic evaluation in complementary medicine: development within the last decades concerning local origin and quality. *Complement Ther Med*. 2011;19(December (6)):289–302.
13. Crespo C, Monleon A, Díaz W, Ríos M. Comparative efficiency research (COMER): meta-analysis of cost-effectiveness studies. *BMC Med Res Methodol*. 2014;14:139.

Thomas Ostermann*
Department of Psychology and Psychotherapy, University of Witten/Herdecke, 58448 Witten, Germany

Erik Baars[a,b]
[a] *University of Applied Sciences, 2333 CK Leiden, Netherlands*
[b] *Department of Healthcare and Nutrition, Louis Bolk Institute, 3972 LA Driebergen, Netherlands*

David McDaid
Personal Social Services Research Unit, London School of Economics and Political Science, London WC2A 2AE, UK

* Corresponding author.
E-mail addresses: thomas.ostermann@uni-wh.de (T. Ostermann), D.Mcdaid@lse.ac.uk (D. McDaid).
URL: http://mailto:thomas.ostermann@uni-wh.de (T. Ostermann)

Available online 1 July 2016