

FUTURE COSTS INCLUSION IN PUBLISHED ECONOMIC EVALUATIONS: WHAT IS THE CURRENT SITUATION?

Gros, B¹; Soto J²; Casado MA¹

¹Pharmacoeconomics & Outcomes Research Iberia, Madrid, Spain; ²Carlos III University, Madrid, Spain

BACKGROUND

- Nowadays, there is a general agreement about the need of including future related medical costs in life years gained when performing economic analysis while no consensus has been achieved about future unrelated medical costs (indirect medical costs) and future non-medical costs (production & consumption) (1).
- Depending on the inclusion or not of future costs in economic analysis, results may be very different. Omitting future costs may favour therapeutic options aimed at older age groups, whereas the inclusion of future costs can significantly improve the results of options that decrease mortality among young adults (2,3).
- The aim of this study was to assess the extension of published economic evaluations (EE) that incorporated future costs and what types of future cost were included.

METHODS

- Three general health economic journals (Pharmacoeconomics, Value in Health and European Journal of Health economics-HEPAC) were reviewed to identify economic evaluations from 2008 to 2012.
- Only complete economic evaluations were accepted for this research.
- From each selected article, future cost inclusion was evaluated along with the type of future costs included.

RESULTS

- The total number of articles found and the percentage of different types of future costs included are shown in Table 1 (none article included future non-medical costs).

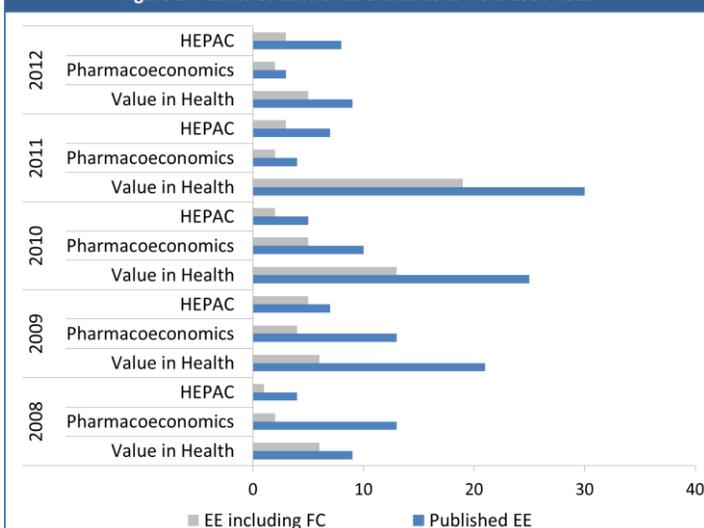
Table 1. Future costs inclusion in published EE in the journals analyzed

	EE published	% EE including related future costs	% EE including unrelated future costs
2008	26	30.8%	3.8%
2009	41	36.6%	2.4%
2010	40	50.0%	7.5%
2011	41	58.5%	4.9%
2012	20	50.0%	0%
TOTAL	168	45.3%	4.2%

EE: Economic Evaluation; FC: Future Cost

- Percentage of articles including future costs increased from 2008 (33%) to 2011 (57%) and no differences were detected between the three journals in the proportion of economic evaluations incorporating future costs (Figure 1).
- Percentage in 2012 was lower due to a higher number of articles published during this year about methodology, positioning and systematic reviews of economic analysis in the three journals.

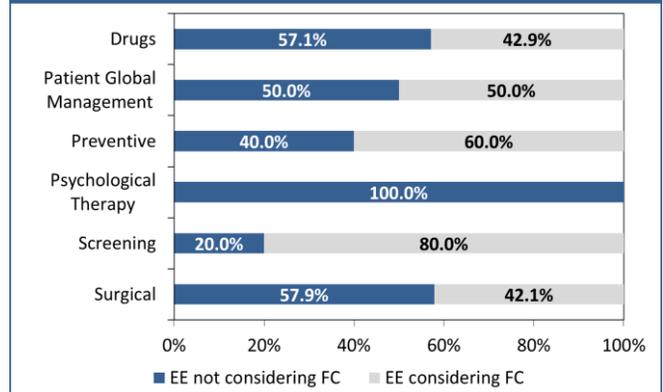
Figure 1. Published Economic evaluations from 2008-2011



EE: Economic Evaluation; FC: Future Cost

- Considering the intervention evaluated, EE about screening and preventive interventions were more likely to include future costs (related and unrelated) (Figure 2).

Figure 2. Future costs inclusion according to the intervention evaluated



EE: Economic Evaluation; FC: Future Cost

DISCUSSION

- There have been continuous disagreement over the management of future costs in economic evaluations over years. Whereas most authors have proposed to include only future medical costs for related illnesses, some have argued that future medical costs for unrelated illnesses that arise because the intervention in study extends life expectancy should also be included (4). Others have suggested that the production and consumption of non medical resources during added years of life should also be included (5), although there are other authors that defend that neither future consumption nor future production should be included as these components are not included when measuring quality-adjusted life years (6,7).
- The inclusion or not of future costs in economic analysis is really relevant from a practical point of view as it has been demonstrated that the incorporation of these type of costs may have important impact in their results in practice (8,9).
- The results of this study are fairly consistent with the opinion of most researchers working in the discipline of health economics as we have found that less than 50% of economic evaluations published included future costs, most of them future related medical costs, whereas the inclusion of future unrelated medical costs was much lower. No article was found including future non medical costs.
- Results of economic evaluations can change dramatically depending on future costs inclusions. It is necessary to change the current practice and include systematically future related medical costs in the base case of economic evaluations and future unrelated medical costs and future non medical costs at least in sensitivity analysis.

REFERENCES

- 1.- Meltzer D. Future costs in medical cost-effectiveness analysis. In: The Elgar Companion to Health Economics, 2nd Edition. Ed: Andrew M. Jones, 2012 (www.elgaronline.com)
- 2.- Kruse M, Sorensen J, Gyrd-Hansen D. Future costs in cost-effectiveness analysis: an empirical assessment. Eur J Health Econ 2012; 39: 10-16.
- 3.- Meltzer D, Egleston B, Stoffel D, et al. Effect of future costs on cost-effectiveness of medical interventions among young adults: the example of intensive therapy for type I diabetes mellitus. Med Care 2000; 38: 679-685.
- 4.- Rappange DR, van Baal PHM, van Evel JA, et al. Unrelated medical costs in life-years gained. Should they be included in economic evaluations of healthcare interventions? Pharmacoeconomics 2008; 26: 815-830.
- 5.- Maltzer D. Accounting for future costs in medical cost-effectiveness analysis. J Health Econ 1997; 16: 33-64.
- 6.- Nyman JA. More on survival consumption costs in cost-utility analysis. Health Econ 2006; 15: 319-322.
- 7.- Liljas B, Karlsson GS, Stalhammar NO. On future non-medical costs in economic evaluations. Health Econ 2008; 17: 579-591.
- 8.- Johannesson M, Meltzer D, O'Conor RM. Incorporating future costs in medical cost-effectiveness analysis: Implications for the cost-effectiveness of the treatment of hypertension. Med Decis Making 1997; 17: 382-389.
- 9.- Manns B, Meltzer D, Taub K, et al. Illustrating the impact of including future costs in economic evaluations: an application to end-stage renal disease care. Health Econ 2003; 12: 949-958.