Author's response to reviews

Title: Place of death and health care utilization for people in the last 6 months of life in Switzerland: a retrospective analysis using administrative data

Authors:

Oliver Reich (oliver.reich@helsana.ch)
Andri Signorell (andri.signorell@helsana.ch)
André Busato (abusato@ispm.unibe.ch)

Version: 3  Date: 13 February 2013

Author's response to reviews: see over
February 13, 2013

Oliver Reich, PhD MAS
Department of Health Sciences
Helsana Group
P.O. Box
8081 Zürich, Switzerland

Dear Dr. Christine Urquhart
Associate Editor, *BMC Health Services Research*

We thank the reviewers for their positive comments and strong support. As requested, we address the remaining concerns and queries below.

We hope that we have addressed each of the comments adequately. Thank you for your interest in our work.

We look forward to hear from you soon.

Yours sincerely,

Oliver Reich
Reviewer: Steffen T Simon

Many thanks for the opportunity to review the comments and the manuscript again.

Most comments are fine with me.

However, I am still not convinced about the last one - definition of PoD by last claim. I do not understand how to get accurate information about the real PoD by extrapolating the place by the origin of the last claim. This needs further explanation because the last claim might not be from the same origin where the patient die. Or do I understand it wrong?

Thanks for more information about this.

And I still think that this limitation needs more discussion re risk of bias.

The date of death of each individual is available in our data. Knowing this, we can accurately determine the place of death due to the comparison of the date of death with the treatment date (or treatment period). If these two dates correspond with each other, the PoD can be derived accordingly. As we already have mentioned in the limitation section, specific situations can occur where several claims covering the date of death are available, e.g. physician claim and hospital claim. In these cases we defined hospital as PoD due to the high probability of an acute case and therefore hospital stay as a last resort at the end-of-life. However, in order to include this point as a limitation, we have extended the last sentence in the limitation section accordingly.

“To conclude, the place of death is specified by means of the last claim received. The claims contain the date and the duration of the specific treatment, which allows us to compare it with the date of death. The origin of the last claim then defines the place of death. If there are several claims covering the date of death, hospital is taken as place of death. This process makes our data vulnerable to inaccuracies resulting from administrative processes and might lead to a possible overestimation of hospital deaths.”
Reviewer: Marylou Cardenas-Turanzas

I agree with the majority of the modifications and explanations given by the authors with exception of the point described below.

REVIEWER COMMENT 1st

4. Regardless of claims data. These data usually is a list of charges from the provider to the insurer and not a list of the costs of the services rendered. Costs and charges are well defined in the health care services literature. If you converted charges to costs, you need to declare this in the Methods Section including information on the formula or ratio used for the adjustment.

RESPONSE FROM AUTHORS: We did not perform any conversions to this variable. The stated costs are the total of patients' health care costs, which were derived from claims by the providers and covered by the compulsory health insurance.

REVIEWER COMMENT 2ND: The authors present data derived from claims as health care costs in: a) Results Section, subheading of health care utilization in the last six months of life (last paragraph of page 7), and b) the first row of Table 3. Nevertheless in the Discussion Section they correctly refer to this data as health care expenditures (HCE) : “Concomitantly and consistent with high expenditures for hospital stays, last six-month HCE are significantly affected by place of death. The mean HCE for hospital deaths, at CHF 23,193.70, is more than twice the mean amount for those dying at home (CHF 11,194.30) and 40% greater than the mean amount for nursing homes (CHF 16,579.0).”

Costs tend to represent the value of production of a good or service while claims are more close to represent the price of the good or service provided (the bill or the expenditure in health). This distinction is not superficial because claims
(charges/invoices) overestimate the value of the service when compared to the value assigned by using costs. I am just asking for consistency in the use of terms to avoid confusion. If you prefer to use the word costs, be prepared to deliberate on the implications of presenting the total amount of invoices/charges as the costs of care. Maybe these invoices represent costs of care for the Helsana Group if they are reimbursed at 100% to the provider of the service (i.e. hospital, nursing home, health professional). If this is the case, they would represent the cost of care from the perspective of the insurance group.

Remember not all readers of this journal are familiar with the health care organization and reimbursement practices of your country. Further explanation of these issues will be always welcomed. Find attached a couple of references that may help you to clarify my points.

Thank you for the opportunity to review your work.

This is an important observation and we thank the reviewer for providing the relevant literature. Having read the two references, we have decided to use the term health care expenditures. We have now altered the term costs consistently to expenditures in the mentioned sections of the manuscript.

Nevertheless, we would like to point out that the distinction between cost and charge in the compulsory Swiss health care system is not that essential. The system is generally founded on cost-based reimbursements as tariffs paid by the health insurers. Even the costs of expansion and replacement of equipment and facilities are included in the tariffs. Only the costs of research and teaching at public hospitals are not included since these costs are covered by the cantons. Against this background, we might have not been sensitive enough in regard of this distinction. Thank you for pointing this out to us. We will now consider this more in our future work.