Reviewer’s report

Title: The Implications of Regional and National Demographic Projections for future GMS costs in Ireland through to 2026.

Version: 3 Date: 9 April 2014

Reviewer: Alison Pearce

Reviewer’s report:

This paper describes an example of using administrative data and national population projections to project future costs for the health care system in relation to prescription drugs. This type of study has the potential to inform health care policy decision making. However, there are a number of substantive areas of revision required to both the structure and the content of the paper to clarify the study methods, findings and implications.

These are outlined below as major compulsory revisions. The use of a guideline for best practice reporting of research, such as the STROBE statement for observational research may assist in rewriting the paper, even if some components are not directly applicable. Given the nature of these changes, additional minor or discretionary revisions have not been detailed, but are available from the reviewer on request.

Major Compulsory Revisions

1. Background: The background section requires restructuring to clarify the position of the paper within the literature and provide a structure for the paper overall. The background section contains information which would be better suited to the methods section. For example Paragraph 5 Sentences 3 to 6. The section should conclude with a concise summary of the aims and objectives of the study.

2. Methods: The methods section requires substantive rewriting, with greater focus on clearly and accurately describing the data sources used. In particular, a context section and details of the selection criteria for the sample are required. The details of the data sources should be carefully checked, as a number of errors were identified (eg HSE areas are actually old Health Boards).

3. Results: The results section requires substantive rewriting, as it currently contains text which should be in the methods section. In addition, results are presented (‘statistical analysis’ of main effects) which were not described in the methods section.

4. Discussion: The discussion section would be easier to follow if the same cost drivers were described in the same order throughout the paper. The results other than those for age have not been described – consideration of the effects of gender and area should be given. The discussion should also provide some
implications of the results in terms of policy changes which would either limit expenditure growth or improve expenditure efficiency.

5. Conclusion: This section does not reflect the discussion section, although a number of good points are made.

6. Tables and figures: These are numerous, and should be reduced in number. Tables 1 and 2 could be included as online appendices. Figures 1 to 5 are not required. All tables and figures should be reviewed to ensure they are appropriately titled, labelled and referenced.

7. General comment 1: Care should be taken throughout the paper to ensure that referencing is used appropriately.

Minor Essential Revisions and discretionary revisions have not been detailed, given the major revisions required.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Not suitable for publication unless extensively edited

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests