Reviewer's report

Title: Genetic Discrimination and Life Insurance: A Systematic Review of the Evidence

Version: 3 Date: 19 August 2012

Reviewer: Mark Rothstein

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Discretionary Revisions

The authors have performed a valuable review of a topic that remains important on both sides of the Atlantic -- and beyond. I have 3 suggestions that the authors might want to consider.

1. The on-line search might have been too narrow. For example, it did not find the survey research on genetics and life insurance done by Rothstein & Hornung that was published in the book, Genetics and Life Insurance: Medical Underwriting and Social Policy (MIT Press 2004). Also, there was no mention of any studies in the insurance industry or economics literature. I suggest that you try to make sure you have covered all bases, not just the usual ELSI publications.

2. As the authors observed, fear of genetic discrimination in insurance is more of a factor than actual discrimination. Therefore, finding few cases of documented genotype-based discrimination should not be considered surprising. GINA and similar laws were designed to allay fears of discrimination, not provide redress in numerous cases.

3. The amount of genetic information in the typical individual's medical record is likely to increase tremendously in the next few years as whole-genome sequencing costs are reduced and genetic information becomes common in clinical settings. More genetic information available to individuals increases the risk that insurers also will want to obtain and use genetic information in underwriting, as they will worry about adverse selection.

Quality of written English: Acceptable

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

Declaration of competing interests:

I have no competing interests.