Reviewer's report

Title: Patterns of Prescription Drug Expenditures and Medication Adherence Among Medicare Part D Beneficiaries with and without the Low-Income Supplement

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Reviewer: Joseph E Couto

Reviewer's report:

Overall, this manuscript is very easy to understand and follow. While it uses data that is nearly 10 years old, conclusions re: gap coverage are important to consider. My main concerns lie in the discussion section of the manuscript. While limited in scope, I consider these to be Major Compulsory Revisions.

I believe that beginning in paragraph 2 and up through the limitations, the following points should be incorporated into the discussion:

1) The LIS population used in this study is quite small, and thus some general trends related to their medication adherence and utilization may not be representative of national trends. Namely since at least 2010 (and likely earlier), the higher adherence rates observed in the LIS population vs. the non-LIS population are not typically seen. Looking at national PDP data from CMS, a lower proportion of LIS beneficiaries are adherent in the classes associated with PDP star metrics D11-D13. There are not a lot of studies highlighting this issue, but more information can be obtained here http://www.pharmacy.umaryland.edu/mwg-internal/de5fs23hu73ds/progress?id=J5NhRPTkFK or in a recent publication http://www.amcp.org/WorkArea/DownloadAsset.aspx?id=18373. Also CMS may offer this data for reference.

2) Only including those with LIS throughout the year is not an issue, however in CMS reporting typically an individual is classified as LIS if they qualified even for a portion of the year. It is important to note this distinction.

3) While higher utilization of medications may be a result of a richer benefit as postulated in paragraph 2, the cost per RX in the LIS group is slightly lower than in the non-LIS group, and while an adjustment for chronic conditions was done, unless severity was included it would be difficult to conclude that this higher rate of use of medications was driven by severity and lack of control and not a richer benefit.

4) Recognition that the branded/generic mix of medications in the target therapy areas has changed considerably since 2006, and thus some of what is reported here re: costs and brand/generic mix may not be representative of current utilization patterns.
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

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.