Reviewer’s report

Title: Evaluating Components of Dental Utilization among Adults with Diabetes and Matched Controls via Hurdle Models

Version: 1 Date: 2 December 2011

Reviewer: Ira B Lamster

Reviewer’s report:

A potentially important report that addresses an essential question in the study of the relationship of diabetes mellitus and oral health. My comments are restricted to the variables that are part of the model, and other issues related to interpretation of their findings. No comments about the model are provided.

The literature used to support the statement that "...one-third of people with diabetes have oral complications..." should be current, and published in peer-reviewed journals.

The medications that were included in the model are ACE-inhibitors and statins. Other medications should be included, such as antibiotics and anti-inflammatory drugs including NSAIDs and corticosteroids. These medications can certainly affect the presentation of oral diseases.

Further clarification is needed of the coding used to define "prophylaxis" versus "periodontal maintenance". Essentially the same services are provided. Why and how are each of these codes used? Since this is a significant matter as related to the interpretation of the findings, a broader explanation is needed (see Discussion page 20).

Minor issues/comments:

It is interesting to note that the prevalence of diabetes mellitus is this population was 8.24%, which closely approximates the CDC-stated prevalence in the United States.

The authors cite a 2004 review by Taylor that summarized the studies examining the relationship of periodontal disease in diabetes mellitus (page 19). A more recent, updated review was published in 2008, and this paper should be cited.

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

Not applicable