Reviewer’s report

Title: Trajectories of seasonal influenza vaccine uptake among French people with diabetes: a nationwide retrospective cohort study, 2006-2015

Version: 0 Date: 27 Dec 2018

Reviewer: Daniel Nagin

Reviewer's report:

This study uses group-based trajectory modeling to identify trajectories of SIV uptake among diabetics. While I do not have substantive expertise in this domain, the study strikes me as a useful and generally well conducted application of GBTM. I do, however, have several questions/suggestions:

1) What is/are the orders of the polynomials used in the specifications of the trajectories reported in Figure 1?

2) More detail on the model selection should be reported. Did the 8 group model maximize BIC or was it selected based on substantive considerations?

3) The risk factor analysis is not conducted in a statistically optimal fashion. The GBTM specification can be generalized to include predictors of probability of trajectory group membership. Under this generalization trajectories and predictors of the probability of trajectory group membership are estimated jointly not sequentially. The two stage procedure used by the authors does not account for uncertainty in trajectory group membership.

4) I do not understand how comorbidities can be used as predictors of trajectory group membership because they evolve over time along with the SIV trajectories themselves.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
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