

Author's response to reviews

Title: Age at disability onset and self-reported health status

Authors:

Eric W Jamoom (jamoom@phhp.ufl.edu)

Willi Horner-Johnson (hornerjo@ohsu.edu)

Rie Suzuki (suzukir@ohsu.edu)

Elena M Andresen (eandresen@phhp.ufl.edu)

Vincent A Campbell (vbc6@cdc.gov)

R.R.T.C. Experiment Panel on Health Status Measurement
(wingenfe@ohsu.edu)

Version: 4 **Date:** 24 October 2007

Author's response to reviews: see over

October 24th, 2007

Melissa Norton, MD
BioMed Central Ltd., Middlesex House
34-42 Cleveland Street
London W1T 4LB, UK

RE: MS: 1298858595120503 “Age at disability onset and health-related quality of life.”

Dear Dr. Norton:

Thank you for the second opportunity to revise our manuscript entitled, “Age at disability onset and health-related quality of life”. The manuscript has been edited in general terms for issues of clarity and consistency of language, as well as for specific issues raised by Denis Evans. Please find below a detailed response to reviewer Denis Evans and a list of edits made to the manuscript. All authors have reviewed and commented on this revision. If you need further information or have any concerns, please do not hesitate to contact me.

Best Wishes,

Eric W. Jamoom, M.S.
University of Florida
Department of Health Services Research, Management, and Policy
PO Box 100195
Gainesville, FL 32610
e-mail: jamoom@php.ufl.edu
Telephone: 352-273-5286

Reviewer Denis Evans:

1. Major Compulsory Revisions

The first major problem was “That the manuscript is fundamentally concerned with the onset of disability is strongly emphasized throughout the manuscript from the Title to the Abstract and throughout the text. A major challenge in addressing this concept, however, is that the data available are not longitudinal, but cross-sectional...”

This problem is acknowledged, but not adequately addressed. The manuscript continues to express the tone of a longitudinal analysis in all sections. The Discussion Section does not mention the severe limitations on the quality of inferences that can be made from these data. The degree of confidence expressed in the findings is much too strong for the design used and data available. An overly confident tone risks severely misleading your readers. Terms and

expressions appropriate to a longitudinal, not a cross-sectional, analysis should be removed from all sections of a paper and the Discussion Section should prominently (in the first paragraph, perhaps) explicitly and clearly acknowledge the limitations of these data in addressing the issues of interest in the manuscript. I do not think the use of the phrase “retrospective cohort” clarifies these issues.

While the BRFSS is a cross-sectional survey, the information used to assess age at disability onset reflects a historic exposure, occurring prior to the interview. Thus, disability predated the outcome (despite what method was used for data collection). The exposure (age at disability onset) and outcome (global health status) are not both corresponding to the same point in time despite being reported at the same time. We acknowledge, however, that the exposure is based on respondent recall data reported some time after the actual onset of disability. As suggested by the reviewer, we have added language specifying this, along with limitations to the inferences that can be drawn, to the first paragraph of the Discussion Section. Specifically, we added to the first paragraph of the Discussion Section on page 10:

“While the BRFSS is a cross-sectional survey, this study contains information about a past “exposure” (disability onset) calculated from information reported at the time of the interview. The potential for recall bias regarding disability duration and ultimately our measure of age at disability onset is an inherent limitation of the data available. Given the cross-sectional nature of the survey data and analyses, as well as the reconstruction of disability onset, the causal inference of our findings is limited.”

We have also eliminated the phrase “retrospective cohort”, as it did not address the concerns raised by the reviewer. In addition, we have removed from all sections phrases referring to the “impact” of age at onset on health status and instead have taken care to use terminology referring to the association between the variables, eliminating the assumption of a cause-effect relationship. We appreciate the reviewer focusing our attention on these issues. While clarifying the cross-sectional nature of the data and the analyses, we believe the study makes an important contribution regarding the relationship between age at disability onset and self-reported general health – a relationship that should be further examined in future research, including true longitudinal studies.

2. Minor Essential Revisions:

The first minor problem was briefly describing “participation in random-digit-dialing” that was used to recruit the study subjects. The added sentences about random digit dialing have nothing to do with participation. It would be useful to supply this information about participation or clearly state that participation cannot be estimated and discuss the consequent limitations to study findings prominently in the Discussion Section.

We appear to have misunderstood the reviewer’s previous comment, and appreciate his calling our attention to the fact that we had overlooked inclusion of response rate

information. We have now provided the range of CASRO response rates for the states used in our study for each of the three years in question. We also provided a web address for more detailed information, which can be accessed from the CDC site.

We added to the Methods Section on page 6:

“For the eight sites used in the study, response rates ranged from 52.2% (New York) to 75.1% (Kansas) with a median of 61.3% in 1998; in 1999, the range was 45.0% (New York) to 66.3% (Kansas) with a median of 48.7; in 2000, response rates ranged from 32.9% (New York) to 59.3% (North Carolina) with a median of 40.8% (see <ftp://ftp.cdc.gov/pub/Data/Brfss/2000SummaryDataQualityReport.pdf> for response rates for each state in each year).”

See Table 1, below which provides information on the 8 sites we used for our study which we obtained from the 2000 BRFSS Summary Data Quality Report site above:

<u>State</u>	<u>1998</u> <u>Rate</u>	<u>1999</u> <u>Rate</u>	<u>2000</u> <u>Rate</u>
AR	65.0	46.8	44.1
DC	60.9	47.8	37.5
IA	66.2	60.6	57.8
KS	75.1	66.3	47.6
NC	61.7	60.3	59.3
NY	52.2	45.0	32.9
RI	55.5	47.4	35.4
SC	59.2	49.6	35.5
Median	61.3	48.7	40.8
Minimum	52.2	45.0	32.9
Maximum	75.1	66.3	59.3