

Author's response to reviews

Title: National trends of physician assistant workforce: 1980 to 2007 U.S. Surveys

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Author's response to reviews: see over

August 22, 2009

Managing Editor: Janet Clevenstine
Human Resources for Health
World Health Organization
Switzerland

RE: *manuscript ID* 1604289222698899

Dear Dr. Clevenstine:

Thank you for your willingness to consider a revised version of our manuscript “National trends of physician assistant workforce: 1980 to 2007 U.S. Surveys.” We appreciate the thorough and thoughtful comments from the reviewers.

The major concern is related to the coding of Census data or the higher estimated numbers of PA than those of AAPA annual survey. Both surveys have methodological issues in terms of the estimates. We can not change the collected data, but do objective analysis and reasonable report. We have noted the different sources of estimates in the discussions.

Please let us know at your earliest convenience whether HRH would like to accept or reject this manuscript. If you have any questions, please contact me at: Department of Health Sciences, Cleveland State University, 2121 Euclid Avenue HS 122, Cleveland, OH 44115. Phone: 267-687-5447, Fax: 267-687-9316, E-mail: xiaoxing.he@jhsph.edu

Sincerely,

Xiaoxing He, MD, MPH
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Review Comments

COMMENTS FROM REVIEWER #1

The authors provide a comprehensive analysis of the PA profession with supporting data. The data is pertinent with clear explanation and appropriate analyses and conclusions. I have no recommended revisions.

Thank you for excellent review and kind words.

COMMENTS FROM REVIEWER #2

1. The coding of the occupations in the Census database could lead to overestimate of PA in practice

Here is a paper on how the Census occupation codes are matched over time

http://usa.ipums.org/usa/chapter4/OCCBLS_paper.pdf. The IPUMS

can not account for every change since some occupations split into multiple occupation the following period. <http://usa.ipums.org/usa-action/variableDescription.do?mnemonic=OCC1990> has a link to the crosswalks from the Census and how they would be split. For example, the 1990 Physician's assistants would be split into the following 2000 categories:

106 Physicians' assistants 25,569

311 Physician assistants

35.417 9,056

340 Emergency medical technicians and paramedics

41.667 10,654

365 Medical assistants and other healthcare support occupations

22.917 5,860

IPUMS matches 106 in 1990 to only 311 in 2000 in their data.

The purpose of this analysis is to objectively report the trends, estimated numbers of PAs, and PA-to-population relationship in Census data during a 27-year period from 1980-2007. No one has done it before. We described the trends and discussed the possible implications for PA education, resource allocation, and health policy. We can not expect to have the same estimated numbers as the previous observations from AAPA or NCCPA data. For example, membership organization will usually include about 70% of the professionals who practice in the field. Despite the surveys methodological issues, it appears that AAPA's estimate of "trained PAs" is close to the estimated numbers of employed PAs from the Census data, according to the reviewer's information.

2. self-report could lead to mis-identification error

We have discussed potential response bias in the study limitations.

3. several instances of grammatical errors

Please specify, so that we can make changes.

COMMENTS FROM REVIEWER #3

The coding of the occupations in the Census database could lead to overestimate of PA

See the above response to reviewer #2 - comment #1.

COMMENTS FROM REVIEWER #4

1. Present many of the trend analysis alongside data on the general US population or as comparisons to other professions.

This study is the first analysis of Census data with a focus on the PA profession. We used GIS mapping to present the PA-to-population relationship, will have follow-up analyses on many of the trends in other categories of health care professions in order to compare/discuss the trends among different professions.

2. Rank states not alphabetically, but in the order of PA/pop rates

We thought about this suggestion. However, the rank order of PA/pop rates has been changing during the 27-year study period, not the same order through out, therefore, we kept the alphabetical order of the states in Table 3 for easy reference to the text.