Reviewer's report

Title: Correlates of unequal access to preventive care in China: a multilevel analysis of national data from the 2011 China Health and Nutrition Survey

Version: 3 Date: 21 January 2016

Reviewer: Peter Goldblatt

Reviewer's report:

Major Compulsory Revisions

1) The authors have dealt successfully with my comments and the paper does not, in my view, require further major revisions.

Minor Essential Revisions

2) While I agree with the authors that the 5% of the population with no medical insurance cannot be analysed in the same depth as those belonging to one of the three big schemes, some univariate evidence is required to illustrate that this group do not differ in a major way from the insured by being more disadvantaged or less healthy.

3) Although I accept the authors argument that a full analysis of preventative services by those with no current health problems requires a separate paper, the authors should include more discussion of the potential bias introduced by the inclusion of those with a current health problem. For example, on page 26 lines 415 to 418, no mention is made of the potential impact on the analyses. In particular, the paradox that utilisation is greater among the better off, illness is greater among the less-well off but utilisation is greatest among those with an existing illness. This paradox might suggest that the gradient in utilisation by the better off is understated by not adequately controlling for pre-existing illness.

4) The scientific meaning of the paper is impaired in places by errors in English. Specific examples include (but are not limited to):

Line 206 - "they were financially dependent to their parents" should be "on their parents"

Line 253 Sentence "According to socioeconomic development ......, there were four regions......" is unclear - perhaps it should be should be "These were grouped according to socioeconomic development......into four regions...."

Line 395/6 "those who did not report use of preventative care might receive it if.." should perhaps be "those who did not report use of preventative care might have reported receiving it if.." since reporting cannot alter the reality of what happened.

Line 418 Replace "consumed" by "used" or "utilised"
Line 488 "socioeconomic resources purchase a health advantage" is unclear. Perhaps it should read "those able to use their socioeconomic resources to achieve a health advantage". The term socioeconomic refers to social factors such as education, skills and values as well as income and wealth. Hence it does not necessarily require the purchase of specific goods and services. The authors should consider the framework developed by the WHO Commission on the Social Determinants of Health, which would help to clarify the language used here. See both:

http://www.who.int/social_determinants/resources/csdh_framework_action_05_07.pdf
and Figure 4.1 in the full report

http://www.who.int/social_determinants/thecommission/finalreport/en/

Line 511 "associated with both health needs and socioeconomic characteristics". As drafted without qualification, this implies a gradient in the same direction. But the gradients were in opposite directions - see earlier my earlier comments on the paradox. The authors could also refer to the "inverse care law" - J Tudor Hart Lancet 1971.

Discretionary Revisions

None required

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

'I declare that I have no competing interests'