

## PEER REVIEW HISTORY

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### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Changing incidence of reported viral hepatitis in China from 2004 to 2016: an observational study
<b>AUTHORS</b>	Zhang, Mingyuan; Wu, Ruihong; Xu, Hongqin; Uhanova, Julia; Gish, Robert; Wen, Xiaoyu; Jin, Qinglong; Gerald, Minuk; Nguyen, M; Gao, Yanhang; Niu, J

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Hui Nian Department of Biostatistics Vanderbilt University Medical Center USA
<b>REVIEW RETURNED</b>	31-May-2019

<b>GENERAL COMMENTS</b>	<p>Based on a national centralized web-reporting system for notifiable infectious disease established in 2004, Zhang et al. reported annual incidence rates of different types of viral hepatitis for the following 12 years and analyzed temporal trends, overall and stratified by age or province. The results have been clearly presented and limitations of the study have been adequately discussed. I'd like just to point out a few minor issues for the authors to consider.</p> <ol style="list-style-type: none"><li>1. For the purposes of completeness, it would be better to include the values of the denominators for the annual incidence rates, i.e. the population size, either in Figure 1 or in a supplemental table. In addition, sources of information on population size are preferably to be mentioned in Materials and Methods.</li><li>2. As discussed in the manuscript, one of the potential reasons for the increased trends between 2004 and 2007 is the increased insurance coverage and patient reimbursement in China, resulting in increased exposure of large segments of the population to the health care system. I just wonder if the percentage of population that have access to the health care system is known, which can be used to calculate incidence rate.</li><li>3. On page 3, "Participants: In this system, 16,927,233 patients with viral hepatitis during 1995-2015 were identified", this is quite confusing.</li></ol>
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## VERSION 1 – AUTHOR RESPONSE

Reply to the reviewer:

Dear reviewer:

Thank you for your comment. We have carefully read your suggestions and has made changes accordingly.

1. We added an appendix Table 3 to describe the total population, definite number of reported viral hepatitis in total and different categories were provided. For sources of information on population size. We made an explanation in Materials and Methods: "In this system, the reported cases number and the rate among total population were provided, we calculated the total population number each year accordingly". (Page 5)

2. We found the reference which was quoted here, in this research, the authors have provided the percentage of population which have access to the health care system:

Trends in access to health services and financial protection in China between 2003 and 2011: a cross-sectional study.

Meng Q, Xu L, Zhang Y, et al. Lancet 2012;379(9818):805-14

doi: 10.1016/S0140-6736(12)60278-5[published Online First: Epub Date].

Results: The number of households interviewed was 57,023 in 2003, 56,456 in 2008, and 18,822 in 2011. Response rates were 98.3%, 95.0%, and 95.5%, respectively. The number of individuals interviewed was 193,689 in 2003, 177,501 in 2008, and 59,835 in 2011. Between 2003 and 2011, insurance coverage increased from 29.7% (57,526 of 193,689) to 95.7% (57,262 of 59,835,  $p < 0.0001$ ). The average share of inpatient costs reimbursed from insurance increased from 14.4 (13.7-15.1) in 2003 to 46.9 (44.7-49.1) in 2011 ( $p < 0.0001$ ). Hospital delivery rates averaged 95.8% (1219 of 1272) in 2011. Hospital admissions increased 2.5 times to 8.8% (5288 of 59,835,  $p < 0.0001$ ) in 2011 from 3.6% (6981 of 193,689) in 2003. 12.9% of households (2425 of 18,800) had catastrophic health expenses in 2011. Caesarean section rates increased from 19.2% (736 of 3835) to 36.3% (443 of 1221,  $p < 0.0001$ ) between 2003 and 2011.

3. For the last question, the period should be "In this system, 16,927,233 reported viral hepatitis cases occurring during 2004-2016 were identified", (Page 3) thanks for your suggestion again.

## VERSION 2 – REVIEW

<b>REVIEWER</b>	Hui Nian Department of Biostatistics Vanderbilt University Medical Center
<b>REVIEW RETURNED</b>	19-Jun-2019
<b>GENERAL COMMENTS</b>	All the concerns have been addressed, and I have no further comments.