

PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

TITLE (PROVISIONAL)	Regional disparities in hospital utilization in Indonesia: an analysis of cross-sectional data from the 2018 Indonesian Basic Health Survey
AUTHORS	Wulandari, Ratna Dwi; Laksono, Agung; Rohmah, Nikmatur; Rukmini, Rukmini; Tumaji, Tumaji

VERSION 1 – REVIEW

REVIEWER	I.T. Peres Pontifical Catholic University of Rio de Janeiro
REVIEW RETURNED	22-Aug-2022

GENERAL COMMENTS	<p>The authors analyzed socio-demographic factors related to hospital utilization in Indonesia using a large cohort of adult individuals. The results indicate a lower use of resources for the poorest people, with low education, no insurance, and living in rural regions. However, the text is more focused on exposing regional disparities. I suggest focusing more on the other socio-demographic factors related to hospital utilization, indicating that socially vulnerable individuals tend to have worse access to health facilities in Indonesia. The discussion should be revised, including other articles that investigated socio-demographic factors related to hospital utilization.</p> <p>Other comments:</p> <ul style="list-style-type: none">- The abstract should be revised. The results should resume the main results of the article and not just show the AOR of each region. It should summarize the important results of the socio-demographic factors.- The title could be more related to "socio-demographic factors" and not just the regional disparities.
-------------------------	--

REVIEWER	Juan Gervas Camacho Equipo CESCA - Madrid, Sp
REVIEW RETURNED	09-Oct-2022

GENERAL COMMENTS	<p>The text describes a reality that is true in all countries as health resources are inequitably distributed.</p> <p>The needs of remote, rural and sparsely populated areas are always poorly met.</p> <p>The text should be reduced in length and made more specific. It would be key to describe access to primary and hospital care according to cost (e.g. co-payment).</p> <p>The possible demand induced by hospitals should also be mentioned. It is not just a question of receiving hospital services, but also of whether they are necessary. We do not know the optimal volume of care, and we are unable to say whether or not the additional care provided was in the best interest of the patients. See:</p>
-------------------------	--

	<p>Evans, R. G. (1974). Supplier-induced demand: Some empirical evidence and implications." Chapter 10. In M. Perlman (Ed.), The economics of health and medical care. New York: Macmillan.</p> <p>The theory of physician-induced demand: reflections after a decade https://www.sciencedirect.com/science/article/abs/pii/0167629685900086?via%3Dihub</p> <p>Competition and physician-induced demand in a healthcare market with regulated price: evidence from Ghana. https://link.springer.com/article/10.1007/s10754-021-09320-7</p> <p>Un saludo Juan Gervas, MD, PhD, retired rural general practitioner, ex-professor public health Johns Hopkins Universtiy. Equipo CESCA, Madrid, Spain</p>
--	---

VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

I.T. Peres , Pontifical Catholic University of Rio de Janeiro

Comments to the Author:

The authors analyzed socio-demographic factors related to hospital utilization in Indonesia using a large cohort of adult individuals. The results indicate a lower use of resources for the poorest people, with low education, no insurance, and living in rural regions. However, the text is more focused on exposing regional disparities. I suggest focusing more on the other socio-demographic factors related to hospital utilization, indicating that socially vulnerable individuals tend to have worse access to health facilities in Indonesia. The discussion should be revised, including other articles that investigated socio-demographic factors related to hospital utilization.

Response: The author already included the socio-demography factors in the discussion.

Other comments:

- The abstract should be revised. The results should resume the main results of the article and not just show the AOR of each region. It should summarize the important results of the socio-demographic factors.

Response: In this manuscript, the author focuses on regional disparities in hospital utilization in Indonesia.

- The title could be more related to "socio-demographic factors" and not just the regional disparities.

Response: In this manuscript, the author aims to analyze regional disparities in hospital utilization in Indonesia, but by still including socio-demographic factors as a control variable so that it does not lose its core substance.

Reviewer: 2

Juan Gervas Camacho, Equipo CESCA - Madrid, Sp

Comments to the Author:

The text describes a reality that is true in all countries as health resources are inequitably distributed.

The needs of remote, rural and sparsely populated areas are always poorly met.

The text should be reduced in length and made more specific.

It would be key to describe access to primary and hospital care according to cost (e.g. co-payment).

The possible demand induced by hospitals should also be mentioned. It is not just a question of receiving hospital services, but also of whether they are necessary. We do not know the optimal

volume of care, and we are unable to say whether or not the additional care provided was in the best interest of the patients.

Response: The author agrees with the opinion of the reviewer. However, because this article utilizes secondary data as an analysis material, the processed variables are limited to those that the Ministry of Health provides. The author adds the narrative to the study's limitation.

See:

Evans, R. G. (1974). Supplier-induced demand: Some empirical evidence and implications." Chapter 10. In M. Perlman (Ed.), The economics of health and medical care. New York: Macmillan.

The theory of physician-induced demand: reflections after a decade <https://www.sciencedirect.com/science/article/abs/pii/0167629685900086?via%3Dihub>

Competition and physician-induced demand in a healthcare market with regulated price: evidence from Ghana. <https://link.springer.com/article/10.1007/s10754-021-09320-7>

Un saludo Juan Gérvas, MD, PhD, retired rural general practitioner, ex-professor public health Johns Hopkins Universty. Equipo CESCA, Madrid, Spain

VERSION 2 – REVIEW

REVIEWER	I.T. Peres Pontifical Catholic University of Rio de Janeiro
REVIEW RETURNED	28-Oct-2022

GENERAL COMMENTS	<p>The authors made the requested revisions, and the article is almost ready for publication. Although they did not send a letter explaining the revisions made, it was possible to assess from the revised article that the necessary changes were implemented.</p> <p>I have small issues that can be addressed for the final version of the paper:</p> <ul style="list-style-type: none"> - Figure 1 is not in the text. Please include. - Table 2 could be better formatted. It could have a new column with the variable name separately and the other would be the variable class. - Rephase the following text ("provided to provide"): "Frequency weights are provided to provide numbers that reflect the actual population nationally. Finally, the survey collected data with a response rate of 93.20% for individual targets and 95.58% for household targets." - The discussion should be improved with more socio-demographic references.
-------------------------	--

REVIEWER	Juan Gervas Camacho Equipo CESCA - Madrid, Sp
REVIEW RETURNED	18-Oct-2022

GENERAL COMMENTS	<p>The paper is now better.</p> <p>Perhaps you could synthesise the results of the summary as: The results show that someone in the Sumatra, the Java-Bali, the Nusa Tenggara and the Sulawesi region is more than 1.000 times more likely than someone in the Papua region to use the hospital (95% CI 1.002-1.014). Someone in the Kalimantan region is 1.212 times more likely than someone in the Papua region to use the hospital (95% CI 1.205-1.219).</p>
-------------------------	--

	Un saludo Juan Gérvas, MD, PhD, retired rural general practitioner, ex professor public health Johns Hopkins School (USA) and Escuela Nacional de Sanidad (Spain). Equipo CESCA, Madrid Spain
--	---

VERSION 2 – AUTHOR RESPONSE

Reviewer: 2

Juan Gervas Camacho, Equipo CESCA - Madrid, Sp

Comments to the Author:

The paper is now better.

Perhaps you could synthesise the results of the summary as:

The results show that someone in the Sumatra, the Java-Bali, the Nusa Tenggara and the Sulawesi region is more than 1.000 times more likely than someone in the Papua region to use the hospital (95% CI 1.002-1.014). Someone in the Kalimantan region is 1.212 times more likely than someone in the Papua region to use the hospital (95% CI 1.205-1.219). [NOTE FROM THE EDITORS: We are unsure about the suggested wording, as "more than 1.000 times more likely" is a confusing phrase, since more than 1 times is just the definition of an increase. Please consider this in responding to this comment and ensure your edits are appropriate and clear (please also refer to the editors' comments above, which should help to address the same issue)]

Response: The author improved the results.

Reviewer: 1

I.T. Peres , Pontifical Catholic University of Rio de Janeiro

Comments to the Author:

The authors made the requested revisions, and the article is almost ready for publication. Although they did not send a letter explaining the revisions made, it was possible to assess from the revised article that the necessary changes were implemented.

I have small issues that can be addressed for the final version of the paper:

- Figure 1 is not in the text. Please include. [Note from the editors: please rebut this comment - we require figures be provided in separate files only, not included in the main manuscript document]

Response: the figure is provided in separate files, as the journal required

- Table 2 could be better formatted. It could have a new column with the variable name separately and the other would be the variable class.

Response: the table was revised as suggested.

- Rephrase the following text ("provided to provide"): "Frequency weights are provided to provide numbers that reflect the actual population nationally. Finally, the survey collected data with a response rate of 93.20% for individual targets and 95.58% for household targets."

Response: the sentence was revised as suggested.

"The study used frequency weights to generate values that accurately reflect the national population."

- The discussion should be improved with more socio-demographic references.

Response: the author added more references as suggested.