PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	EFFECTS OF THE EXPANSION OF DOCTORS' OFFICES ADJACENT TO PRIVATE PHARMACIES IN MEXICO: SECONDARY DATA ANALYSIS OF A NATIONAL SURVEY
AUTHORS	Pérez-Cuevas, Ricardo; Doubova, Svetlana; Wirtz, Veronika; Serván-Mori, Edson; Dreser, Anahí; Hernández-Ávila, Mauricio

VERSION 1 - REVIEW

REVIEWER	Michael R. Reich Harvard School of Public Health Boston, MA, USA
REVIEW RETURNED	06-Mar-2014

GENERAL COMMENTS	The conclusions need to be restated in a more careful manner. P.7: "almost 50% of the revenues of medical doctors and pharmacists came from pharmaceuticals"; it is not clear which countries this statement applies to; please check the reference for the statement, and where it applies. p. 10, top: Not clear what this sentence means: "Two groups integrated the study population"; what does "integrated" mean here? p. 19: How can 98% of the population be "affiliated with a public healthcare system" and one-third of DAPPs users state that they are not affiliated with a public healthcare system? pp. 19-20: Are the reasons for using DAPPs derived from the survey and its analysis? pp. 20-21: this paragraph on regulation could explain the situation more clearly. What are the "current norms"? What does "direct communication" mean? p. 22, middle: should be "physician's prescription" rather than "medical prescription"? pp. 22-23: This discussion of market "distortions" could be improved, and should take into account market failures (in the economist's sense) that exist in pharmaceutical markets (asymmetry of information. p. 23, middle: I wonder if "elephant in the room" is the right metaphor here for the DAPPS. p. 23, middle: the "dissatisfaction" with public health services, and the evidence for it, needs to be considered carefully. Is this based on direct evidence, or inference? Similarly the conclusions about impact

	on financial protection and on quality of care need to be phrased more carefully. There is not direct evidence of either effect. This is phrased as “raise questions about its impact on” – but it still could be phrased somewhat more carefully. The abstract, for example, states, “DAPPs have a negative impact on the financial protection policies due to out-of-pocket spending” – the “negative impact” needs to be carefully defined in terms of what “financial protection” usually means (catastrophic spending as a portion of income?)

REVIEWER	Yue-Chune Lee Institute of Health and Welfare Policy National Yang-Ming University Taiwan
REVIEW RETURNED	21-Mar-2014

GENERAL COMMENTS	This article compared the Socio-demographic factors, reasons for attending services, perception of quality, and out-of-pocket expenditures of doctor’s offices adjacent to private pharmacies (DAPPs) with users of other public services using 2012 National Survey of Health and Nutrition data. The results indicated that DAPP users spend more money on medicines than users of their public services. The topic of this paper is interesting, the research methods are in general appropriate. However there are some minor points in the writing need to be revised: 1. Wrong number: in Page 9 figure 1: under the random sample of ambulatory health services users, the number with incomplete information is 388 rather than 302. In page 14 line four, 26% had SSPH coverage rather than 29%. 2. Page 8, line 42-43: the last sentence is incomplete. 3. Page 9: need to explain why random sample of ambulatory health services users (13187 out of 16529) is necessary. 4. P11 second line: please explain why use the term of “degree of marginalization” rather than family income. In second paragraph, the description of independent and control variable seems to be incomplete. 5. The numbers in table is better to transform into percentage. 6. In page 24, second paragraph, “most DAPPs users (89%) live in urban and metropolitan areas with low level of deprivation” is not clear. In fact, it’s 89% for the former and 81% for the latter. Last paragraph, description of table 2 is incomplete.

	7. Page 18 line 5, “the lowest probability was for users affiliated with the SS (12%)” should be “…with SS (0.02% and 12% respectively)”. 8. The discussion is not balance; more emphasis is put on the discussion of “conflict of interest” which is fine, little discussion on the implications of the findings that DAPPs and private doctors, except for higher number of prescriptions, had better quality of care; also lack of appropriate description regarding quality of care findings in the results section of the abstract. 9. Reference 13 , the original title is “Impact of separating drug prescribing and dispensing on provider behaviour: Taiwan’s experience”, rather than “Taiwan (China)’s experience”, please remove the word “China”.

VERSION 1 – AUTHOR RESPONSE

Reviewer #1

Reviewer #1: There are some minor grammatical errors in English in the paper that should be corrected.
Response: The paper was proof edited to correct the grammatical errors.

Reviewer #1: P.7: “almost 50% of the revenues of medical doctors and pharmacists came from pharmaceuticals”; it is not clear which countries this statement applies to; please check the reference for the statement, and where it applies.
Response: In the paragraph, we included the country (China) this statement applies. “in China almost 50% of the revenues of medical doctors and pharmacists came from pharmaceuticals.”

Reviewer #1: p. 10, top: Not clear what this sentence means: “Two groups integrated the study population”; what does “integrated” mean here?
Response: We meant that the study population comprised two groups. The introductory phrase of the paragraph was changed.

Reviewer #1: p. 19: How can 98% of the population be “affiliated with a public healthcare system” and one-third of DAPPs users state that they are not affiliated with a public healthcare system?
Response: The paragraph was rewritten to provide further clarity. The 2013-2018 National Health Plan issued by the Ministry of Health states that nearly 80% is affiliated with a public medical insurance (The reference was modified as well for a most recent one). We changed the figure 98% for 80%. The average of non-MI in the present study was 22%. Table 1 presents the percentages of non-MI in each group.

Reviewer #1: pp. 19-20: Are the reasons for using DAPPs derived from the survey and its analysis?
Response: Yes, these were results derived from the survey. Table 3 in the results section shows the reasons and the percentages of each one.

Reviewer #1: pp. 20-21: this paragraph on regulation could explain the situation more clearly. What are the “current norms”? What does “direct communication” mean?
Response: The paragraph refers to the regulations for drugstores. The General Health Law determines that pharmacies should function accordingly with what is established in the “Supplement of the Pharmacopoeia for establishments oriented to medicines sales and dispensing” (Reference

26). This regulatory document forbids the physical communication (through windows, doors or aisles) between the pharmacy and the doctors' offices.
We transcribed the text from the regulatory document to illustrate that it can be subject of diverse interpretations.

Reviewer #1: p. 22, middle: should be "physician's prescription" rather than "medical prescription"?
Response: The term "medical prescription" was changed for "physician's prescription" on pages 6 and 22.

Reviewer #1: pp. 22-23: This discussion of market "distortions" could be improved, and should take into account market failures (in the economist's sense) that exist in pharmaceutical markets (asymmetry of information).
Response: The paragraph about market distortion was rewritten. It elaborates on three assumptions, first, is the effect of the supplier-induced demand of current health policies issued by the government; although in the present situation the supply does not equate the demand. The second assumption is the asymmetry of information between consumers and providers in which the former are not fully able to make informed choices based on the effectiveness and quality of healthcare; the third assumption is the potential conflict of the the public sector between reinforcing the regulation, promoting high quality care and proper use of medications vs. allowing the growing supply of this type of ambulatory care providers to absorb the spill-over of the demand for consultations and medicines, regardless of the quality and cost.

Reviewer #1: p. 23, middle: I wonder if "elephant in the room" is the right metaphor here for the DAPPS.
Response: we use the metaphor of the elephant in the room as an obvious fact that is either being ignored, or goes on unaddressed. This is because even when DAPPs have been functioning in the country for more than a decade, and their number in the country is approximately 10,000 providing 250,000 medical visits every day, their functioning and regulation has been unaddressed by health policies. It was very recently (late 2013), that COFEPRIS (Spanish acronym for the Federal Commission for Protection against Sanitary Risks) issued "Guidelines for good practices" for pharmacies with doctor's offices. These guidelines compile a list of current regulations for pharmacies, on the one hand, and for ambulatory services, on the other, but do not address the central issues of preventing conflict of interest or assessing quality of care (http://www.cofepris.gob.mx/Paginas/Inicio.aspx) .

Reviewer #1: p. 23, middle: the "dissatisfaction" with public health services, and the evidence for it, needs to be considered carefully. Is this based on direct evidence, or inference? Similarly the conclusions about impact on financial protection and on quality of care need to be phrased more carefully. There is no direct evidence of either effect. This is phrased as "raise questions about its impact on" – but it still could be phrased somewhat more carefully. The abstract, for example, states, "DAPPs have a negative impact on the financial protection policies due to out-of-pocket spending" – the "negative impact" needs to be carefully defined in terms of what "financial protection" usually means (catastrophic spending as a portion of income?)
Response: We rewrote the paragraph of the conclusion and in the abstract. We tried to be more concise, the conclusion states that the findings of the study support the notion that DAPPs counteract current financial protection policies since a significant percentage of users were affiliated with a public institution and reported higher out-of-pocket spending and higher number of medicines prescribed than users of other providers. Additionally, these results should prompt to learn more about the quality of care of DAPPs, which may arise from the conflict of interest implicit in the linkage of prescribing and dispensing processes. Addressing these aspects through rigorous studies can provide evidence pertinent to improve the current pharmaceutical policies in Mexico.

Reviewer: 2

Reviewer #2: 1. Wrong number: in Page 9 figure 1: under the random sample of ambulatory health services users, the number with incomplete information is 388 rather than 302. In page 14 line four, 26% had SSPH coverage rather than 29%.
Response: The identified errors were corrected.

Reviewer #2: 2. Page 8, line 42-43: the last sentence is incomplete.
Response: We rephrased the sentence to make it clearer. The interviewers used the 5 questionnaires that were applied in ENSANUT 2000 and 2006: household, health services use, children, adolescents and adults questionnaires.

Reviewer #2: 3. Page 9: need to explain why random sample of ambulatory health services users (13187 out of 16529) is necessary.
Response: This random sample of ambulatory health services users is part of the original survey design. Details of the survey design can be obtained from the methodological manuscript cited in Reference 14.
Reference to the original study design manuscript was introduced in the text.

Reviewer #2: 4. P11 second line: please explain why use the term of “degree of marginalization” rather than family income. In second paragraph, the description of independent and control variable seems to be incomplete.
Response: The marginalization or deprivation index is a compound index that goes beyond family income; it is used as a proxy for locality development and as contextual control variable.
Following the recommendations of reviewer we have modified the paragraph: Degree of marginalization (very low/low, middle, high/very high) following the 2010 marginalization index (based on access to basic infrastructure services, housing conditions, education attainment, and wage earnings) at locality level; [20].
We clarified in the text which are the dependent and independent variables.

Reviewer #2: 5. The numbers in table is better to transform into percentage.
Response: Following the recommendations of the reviewer we have modified tables 1 and 3.

Reviewer #2: 6. In page 14, second paragraph, “most DAPPs users (89%) live in urban and metropolitan areas with low level of deprivation” is not clear. In fact, it’s 89% for the former and 81% for the latter. Last paragraph, description of table 2 is incomplete.
Response: The requested changes were made.

Reviewer #2: 7. Page 18 line 5, “the lowest probability was for users affiliated with the SS (12%)” should be “…with SS (0.02% and 12% respectively)”.
Response: The requested change was made.

Reviewer #2: 8. The discussion is not balance; more emphasis is put on the discussion of “conflict of interest” which is fine, little discussion on the implications of the findings that DAPPs and private doctors, except for higher number of prescriptions, had better quality of care; also lack of appropriate description regarding quality of care findings in the results section of the abstract.
Response: Our argument is that the fact that DAPPs’ users receive more medications (≥3) than users of other private and public institution signals poor quality of care; we also recognize that further information is needed to evaluate the actual quality of care these services provide. Unfortunately we did not collected additional information on this topic. In the conclusion section we mention that overprescribing might point out poor quality of care and conflict of interest, and we recognize the need to run in-depth studies to learn more about the quality of care in these facilities.

Reviewer #2: 9. Reference 13 , the original title is “Impact of separating drug prescribing and dispensing on provider behaviour: Taiwan’s experience”, rather than “Taiwan (China)’s experience”, please remove the word “China”.
Response: The word China was removed