Reviewer's report

Title: Health Care Utilization for Acute Illnesses in an Urban Setting with a Refugee Population in Nairobi, Kenya: A Cross-Sectional Survey

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Reviewer: Myriam Ruiz-Rodriguez

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General comments

To seek and to use health services are important indicators of population health. This study extends the knowledge of this aspect in populations living in areas receiving refugees, and provides relevant to planning and organization of public health policies. They are potentially useful for other contexts with similar situations.

The article is very descriptive. However authors are interested in "Factors Influencing Health Care Utilization" (results section). For this reason a good option is to include a multiple analysis with regressions. It would be more interesting to international readers if it includes multiple analyses (regressions) with different outcomes: find services (yes/no), medical diagnoses and treatment received (yes/no or adequate/non-adequate). Possible independent variables are sanitary conditions, demographics (country of origin, language and education level). In the current version is possible cofounding.

Specific commentaries

Title

The manuscript focuses on the seeking of health services and related factors. Title could be modified to this topic.

Introduction

Manuscript would be more interesting to readers if authors do a brief theoretical review on utilization of health services and related factors/determinants, both seeking and use of health services. Experiences from other countries with similar populations would be included in this. A good option is to use the model developed by Andersen (1995). "Revisiting the behavioral model and access to medical care: does it matter?". J Health Soc Behav 36 (1): 1–10 or a more modern version of this model.

Methods

Why the study was conducted in the North of Eastleigh? Why in the region 2 of Eastleigh? According to the manuscript this region has local business, thus is it possible that households are few in this region?
Participants live in the area during three months or more during the last year, but the time to explore pneumonia was one year. Why these times are different? Is it possible that newcomers found health attention before arrive to Eastleigh (in other city or country)? If these facts occurred is not possible to relate this with local health system.

Which are the definitions of standard cases of fever, diarrhea and ARI? Are they based on definitions of any medical society, Ministry of Health, or the World Health Organization?

Since the “seeking health services” was the dependent variable, is required to include a detailed description of methodology used to ascertain about it. For example, the construct “search services” implies that an individual was treated for services where he sought attention?

Authors report that conducted a multiple analysis, but they do not specify what type of analysis were used (which regressions?). In fact, these analyses were not presented in the results.

Authors did a stratified analysis according to country of origin and this decrease the statistical power. In this sense with a multiple regression it is possible to explore factors related with seeking health services. Inclusion of variables language and country origin as proxy variables of refugee status and to test interactions with demographic and health variables could help to explain use of health services.

Inclusion of a scheme or figure to explain different sample sizes used in the analyses could be a good option to understand the methodology. With different sample sizes in tables is very difficult to understand.

Language is a proxy of migratory status; why it was not included in the analysis? I think that this variable could change results.

Results

It is not clear why the final sample was n=673. What did happen with the 785 participants? According with methods section when a household did not accept participate, caregiver was not in household or inclusion criteria were not fulfill, the household was replace. Is it correct?

What percentage of participants over 18 answered questionnaires about themselves? Of 566 individuals with disease there were 434 respondents to find health services. Why 132 individuals were not interviewed?

What is the meaning of "appropriate health services for each disease studied"? It was not defined in the methods section.

Why variable age was grouped for analysis in younger and older than five years? International evidence suggests that factors associated with children’s utilization of health services are related with characteristics of caregiver or parent. Do you
have this information?

Table 3. The variable "overall" is unnecessary; really is the "n" of each category. Please remove it or change with the title "n" without "n" and "95%CI".

There are not data on multiple analyses indicated in methods section.

Discussion

Authors did emphasis in types of seeking health services, and forgot the opportunity of discuss on types of investigations and received treatments. Manuscript needs a deeper discussion on causes of not-seeking of health services.

In the manuscript is the sentence: “We found no difference regarding use of government facilities between the Kenyan and non-Kenyan residents”, but data related with this topic is not included in the results section.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

'I declare that I have no competing interests'