PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Healthcare for migrant workers in destination countries: a comparative qualitative study of China and Malaysia
AUTHORS	Loganathan, Tharani; Rui, Deng; Pocock, Nicola S.

VERSION 1 – REVIEW

REVIEWER	Shazeen Suleman University of Toronto, Canada
REVIEW RETURNED	26-May-2020

GENERAL COMMENTS	Thank you for a very interesting paper! I enjoyed reading it and I liked the combination of the policy document review with the qualitative interviews. I did think the methods and results need some re-organizing to help make it easier for the reader. Some questions/comments for you to consider, by section: Methods: - you did not talk about your approach for identifying policy documents and how these were analysed; please indicate your search strategy and how documents were included/included for your policy review Interviews: - please indicate your inclusion/exclusion criteria for participants; it was not clear to me until I saw your Table 2 that I realized you were interviewing people other than migrant workers. - please indicate what type of qualitative methodology you are using and how you justified your sample size. It seems like you are using phenomenology. Did you stop recruiting participants when you reached saturation of themes? - for your interviews, did you need interpreters? You say they were conducted in local languages - are these different from the languages of the researchers? If so, please indicate how interpreters were used for transcription and how this may influence your results. - please give more information about how your data analysis was done (how your codes were identifieid; did you do group or individual thematic analysis; was it interative; did you have multiple people coding and how did you determine good inter-rater reliability) - you may want to add some further thought to the reflexivity section: are there any other factors that may lead to power imbalances (gender, race, language, class) and how did you account for these - did the migrants receive any token of appreciation for participating?

	Results: I find this section quite hard to read and follow. I may suggest re-organizing by methods 1. Policy document review (how many documents were found, and then describing hte findings, like the table you have at the beginning about the different declarations countries have signed onto). You may want to consider putting in a table to compare Malaysia and China directly on the various subheadings 2. Interviews - you may want a table that summarizes the demographics of all participants in more detail (Table 2). - I find it disappointing that you have such low numbers of migrant worker participants, but mostly other stakeholders. Could you explain why this occurred? Would it be possible to obtain further interviews of migrant workers? In Malaysia, for example, you only have 4. - You may also want a table to help explain your major themes more clearly. - It appears you write the name of the speaker after the quotation (ie. Dr. Nazirah, Dr. Lucy) - please remove these as these are no longer anonymous! Limitations: - I think your lack of migrant worker participation is a significant limitation to your study; I think it would be important to recognize that. You may want to consider the limitation of looking at these two countries in particular; would it be different if you interviewed more individuals in different cities?

REVIEWER	Nicola Mucci Department of Experimental and Clinical Medicine, University of Florence, Italy
REVIEW RETURNED	31-May-2020

GENERAL COMMENTS	Dear Authors I carefully evaluated the study, finding it overall well written and well presented. The theme is interesting and there is a need to investigate these aspects, but some concerns have to be solved before re-evaluating the manuscript and possibly considering it for publication. Introduction: The introduction is of more than discreet quality. I suggest to better explain literature gap in a more explicit way. The analysis of the literature can be improved, especially in view the topicality of the theme. In this way, I advise you to consider and comment some recent publications of interest for your research. For example, I suggest you refer, at least, to the following publications: Hargreaves S, Rustage K, Nellums LB, McAlpine A, Pocock N, Devakumar D, Aldridge RW, Abubakar I, Kristensen KL, Himmels JW, Friedland JS, Zimmerman C. Occupational health outcomes among international migrant workers: a systematic review and meta-analysis. Lancet Glob Health. 2019 Jul;7(7):e872-e882. doi: 10.1016/S2214-109X(19)30204-9. Giorgi, G.; Lecca, L.I.; Ariza-Montes, A.; Di Massimo, C.; Campagna, M.; Finstad, G.L.; Arcangeli, G.; Mucci, N. The Dark and the Light Side of the Expatriate's Cross-Cultural Adjustment: A Novel Framework Including Perceived Organizational Support,

	Work Related Stress and Innovation. Sustainability 2020, 12, 2969. Simkhada PP, Regmi PR, van Teijlingen E, Aryal N. Identifying the gaps in Nepalese migrant workers' health and well-being: a review of the literature. J Travel Med. 2017 Jul 1;24(4). doi: 10.1093/jtm/tax021 Methods: The Chinese sample was double than Malaysian sample. Why the two subgroups were not equalized? Can this discrepancy affect the results of the study? Motivate appropriately this choice. Methods section appears of a sufficient quality, but the assessment methodologies that you have used are not sufficiently illustrated: provide the questionnaire you administered, to evaluate appropriateness of the key questions you used. Results section is of a sufficient quality. Despite the results are interesting, they lack on the comparisons between the two countries. It is difficult to guess similarities and differences on the key outcomes. I suggest to provide a summary of the key differences and similarities to better understand what aspects should cause major difficulties for migrant people. The language, specifically the grammar, is of sufficient quality. The discussion section is otherwise enough.

REVIEWER	Silvia Wojczewski Université de Lausanne, Switzerland
REVIEW RETURNED	02-Sep-2020

GENERAL COMMENTS	**Abstract** 1. *To explore policies addressing migrant worker's health and barriers to healthcare access in two middle-income, destination countries in Asia with cross-border migration to Yunnan province, China and international migration to Malaysia.* *This paper explores policies that address migrant workers' health and the barriers to healthcare access in two middle-income, destination countries in Asia with cross-border migration to Yunnan province, China and international migration to Malaysia.* 2. Sampling. Why much more in Malaysia than China? **Methods** 3. Why so fast in China and so much longer in Malaysia? And why so much more interviewees in Malaysia? Explain shortly 4. here again very big differences, why only 4 migrant workers in Malaysia? **Results: China** *5. 'Specific health programmes for migrants in Yunnan province include maternal and child health services for non-citizen*

	women and infectious disease prevention programmes at border areas.' Also for undocumented migrants? *Specific health programmes for documented migrants in Yunnan province include maternal and child health services for non-citizen women and infectious disease prevention programmes at border areas.* 6. *'HIV testing is compulsory for migrant workers entering China.'* Is it for free or do they have to pay for themselves? *HIV testing is compulsory for migrant workers entering China. To obtain a Health Certificate for International Travel, migrant workers must complete a post-arrival medical screening, which includes blood tests, urine tests, chest X-rays and mandatory HIV testing, within three days of arrival into China. Since the health certificate is only valid for a year, migrant workers must be screened annually for infectious diseases including HIV. These tests cost around 20 USD and are paid for by the migrant worker.* 7. *"Myanmar friends who come to work will usually go back to Myanmar to see the doctor, mainly because of the lack of language and the cost of Chinese hospitals"* **Results: Malaysia** 8. *'All documented migrant workers are mandatorily tested for …'* and they have to pay for these or are they paid by state? *These medical examinations are paid for by employers, and all documented migrant workers are mandatorily tested for tuberculosis, HIV, syphilis, hepatitis B, malaria, leprosy, pregnancy (for women), drug abuse, hypertension, diabetes mellitus, cancer, epilepsy and psychiatric illness* 9. *'Female migrant workers are prohibited from marrying or becoming pregnant in Malaysia. Those testing positive for pregnancy will not be granted work permits and are subject to deportation'* *Due to immigration requirements, female migrant workers are prohibited from marrying or becoming pregnant in Malaysia. Those testing positive for pregnancy will not be granted work permits and are subject to deportation. While there are no specific public antenatal or delivery services offered for migrant workers in Malaysia, in practice women do give birth in healthcare facilities, often at private facilities and at high cost. While public healthcare facilities will not deny patients necessary medical care, healthcare providers are obliged to report undocumented workers to the police and immigration authorities. This physician*

explains the situation at public Maternal and Child Health Clinics.

Other CSO interviewees informed of incidents of undocumented migrant women being taken to immigration detention centres immediately after delivery at public hospitals.

10. Maternal Child Health Services linked to immigration enforcement
    Confidentiality?

11. *"They usually come in emergency, like ectopic[pregnancy] with abdominal pain. My colleagues, they will say, 'Bila dah almost deliver baru datang?' (Sarcastic: You only come to hospital when you're about to deliver?). Because they didn't follow up during the antenatal stage. Because of financial and other reasons, they only come at the late stage […]" Dr Nazirah, female, physician*

    Due to immigration restrictions at public facilities and the expense of antenatal care at private facilities, non-citizens tend to present late for booking and default follow-up.

12. too many citations, delete this one

13. one x is enough

14. *'Thailand has successful bilateral agreements with neighbouring Myanmar, allowing for cooperation via the Nationality Verification and One Stop Service Centre regularisation processes for migrants arriving through irregular channels'*
    Some more best-case examples would be good.

References

1. Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative research in psychology* 2006;3(2):77-101.
2. United Nations. International Migration Report 2017-Highlights: United Nations, 2018.
3. Popova N, Özel MH. ILO Global Estimates on International Migrant Workers: Results and methodology. 2nd ed. Geneva: International Labour Office 2018.
4. Hargreaves S, Rustage K, Nellums LB, et al. Occupational health outcomes among international migrant workers: a systematic review and meta-analysis. *The Lancet Global Health* 2019;7(7):e872-e82. doi: 10.1016/S2214-109X(19)30204-9
5. Sweileh WM, Wickramage K, Pottie K, et al. Bibliometric analysis of global migration health research in peer-reviewed literature (2000–2016). *BMC Public Health* 2018;18(1):777. doi: 10.1186/s12889-018-5689-x
6. Rebekah Smith, Farah Hani. Labor Mobility Partnerships: Expanding Opportunity with a Globally Mobile Workforce. Final report of the Connecting International Labor Markets

Working Group. Washington: Centre for Global Development, 2020.
7. Ang JW, Chia C, Koh CJ, et al. Healthcare-seeking behaviour, barriers and mental health of non-domestic migrant workers in Singapore. *BMJ Global Health* 2017;2(2):e000213. doi: 10.1136/bmjgh-2016-000213
8. Benach J, Muntaner C, Delclos C, et al. Migration and" low-skilled" workers in destination countries. *PLoS medicine* 2011;8(6):e1001043.
9. Simkhada PP, Regmi PR, van Teijlingen E, et al. Identifying the gaps in Nepalese migrant workers' health and well-being: a review of the literature. *J Travel Med* 2017;24(4) doi: 10.1093/jtm/tax021 [published Online First: 2017/04/21]

VERSION 1 – AUTHOR RESPONSE

Reviewer 1

Methods:

1. you did not talk about your approach for identifying policy documents and how these were analysed; please indicate your search strategy and how documents were included/included for your policy review

   This study used mainly qualitative methodology. Policy documents were reviewed purely to contextualise and triangulate findings.
   Page 12, Line 207-209:

   Desk review of policy documents including circulars, legal documents and memos, served to contextualise and triangulate qualitative findings.

   We modified the study design section of the Materials and Methods section to clarify this point.
   Page 9, Line 130-132:

   Qualitative methods were used in an exploratory, iterative design to describe and compare available healthcare policies and determine barriers in accessing healthcare experienced by migrant workers in Yunnan province, China and Malaysia.

2. please indicate your inclusion/exclusion criteria for participants; it was not clear to me until I saw your Table 2 that I realized you were interviewing people other than migrant workers.

   We aimed to capture the viewpoints of different stakeholders to better triangulate the barriers faced by migrant workers in accessing healthcare.
   We edited the following in Page 10, Line 156 -167.

   The health and welfare of migrant workers are contentious. As such, we did not specifically target migrant workers only for interviews. We aimed to capture the viewpoints of different stakeholders with expertise in migrant issues to obtain a broader understanding different policies and access to healthcare for this population. We interviewed stakeholders including representatives from international organisations (IOs), local civil society organisations (CSOs), government agencies, medical professionals, academia, trade unions and others.

3. please indicate what type of qualitative methodology you are using and how you justified your sample size. It seems like you are using phenomenology. Did you stop recruiting participants when you reached saturation of themes?

   Thank you for the query. We have now included clarifying text in Methods > Data analysis on our use of thematic analysis, Page 11, Line 190 - 207:

   > *We conducted thematic analysis as described by Braun and Clarke, where themes or patterns of meaning within data were identified and reported using six phases: becoming familiar with the data, generating initial codes, searching for themes, reviewing themes, defining themes and producing the report[1].*
   > *Data analysis was conducted in an immersive, exploratory, iterative and inductive manner, initially separately in each country. Researchers in country teams reviewed and analysed transcripts independently, with regular discussions between researchers to refine codes and identify new themes. Transcripts were coded into emerging themes using NVivo 12 Pro software and Microsoft Excel across research teams. Following initial analysis in both countries, selected quotations were extracted and were translated into English. Subsequently, the authors examined codes to identify the broader pattern of themes and subthemes across both countries. Desk review of policy documents including circulars, legal documents and memos, served to contextualise and triangulate qualitative findings.*

   We stopped interviews when the research team agreed that thematic saturation was reached.
   We edited the following in Page 10, Line 173 -177.

   > *Researchers purposefully recruited and interviewed migrant workers and key informants working closely with migrant workers. Further snowball sampling was conducted in each study site until the research teams agreed that additional interviews would not yield new information, as thematic saturation was reached.*

4. for your interviews, did you need interpreters? You say they were conducted in local languages - are these different from the languages of the researchers? If so, please indicate how interpreters were used for transcription and how this may influence your results.
   We did not use interpreters for our interviews.
   We removed this sentence. Page 10, Line 174-175:

   > *Individual interviews were conducted in local languages.*

   In China, interviews were conducted in either Mandarin or the Myanmar language, by two researchers, one of whom is fluent in Myanmar language.
   Malaysia is a multilingual country, with most people fluent in the Malay language and English, and other native languages (Tamil and Mandarin). We found that migrant workers and representatives interviewed were more comfortable conversing in Malay than in English.
   While interview guides were prepared in English, our research team was multilingual, and we conducted interviews in the language that study participants were most comfortable in.

   We provided more detail in these edits
   Page 11, Line 180-184:

   > *In China, individual interviews were conducted either in Mandarin or Myanmar language by two researchers (one researcher was able to speak the Myanmar language.) In Malaysia, individual interviews were conducted either in English or Bahasa Malaysia (Malay language)*

depending on the participants' preference, by the multi-lingual research team. No interpreters were used.

5. Please give more information about how your data analysis was done (how your codes were identified; did you do group or individual thematic analysis; was it interative; did you have multiple people coding and how did you determine good inter-rater reliability)
   We analysed data separately in individual countries. Each team had a minimum of 2 people doing coding separately, with regular discussions ensuring inter-rater reliability. The analysis was iterative. We inserted additional information on analysis in the Materials and Methods section. Page 11, Line 190-207

   We conducted thematic analysis as described by Braun and Clarke, where themes or patterns of meaning within data were identified and reported using six phases: becoming familiar with the data, generating initial codes, searching for themes, reviewing themes, defining themes and producing the report [1].

   Data analysis was conducted in an immersive, exploratory, iterative and inductive manner, initially separately in each country. Researchers in country teams reviewed and analysed transcripts independently, with regular discussions between researchers to refine codes and identify new themes. Transcripts were coded into emerging themes using NVivo 12 Pro software and Microsoft Excel across research teams. Following initial analysis in both countries, selected quotations were extracted and were translated into English. Subsequently, the authors examined codes to identify the broader pattern of themes and subthemes across both countries.

6. you may want to add some further thought to the reflexivity section: are there any other factors that may lead to power imbalances (gender, race, language, class) and how did you account for these
   In China, two female researchers conducted individual interviews. One of them has public health background and experienced in the migrants' health issues over the last ten years. MCH related topics were easily discussed with female migrants. Another researcher is from local NGO. She has more than 10 years working experiences with cross-border migrants.
   In Malaysia, our team consisted of two female and one male researchers. Interviews were conducted individually or with two interviewers, with one leading. As such, we were able to discuss frankly on sensitive issues including gender and health.
   We inserted the following in the Reflexivity subsection of the Materials and Methods section. Page 12, Line 212-219:

   Interviews in both countries were conducted by teams of academic researchers and medical doctors, that could be perceived as trusted authority figures. To minimize potential effects of social distance and power imbalances between researchers and participants, most interviews were conducted locations of the participants' choosing, in a space they were comfortable in and at a time convenient to them. Migrant participants, in particular, were assured that they could refuse to answer questions or could choose to end the interview at any time. In doing so, we hoped that participants felt that they could exert a degree of control over the interview process.

7. did the migrants receive any token of appreciation for participating?

In China, towels costing 2-3 USD were given as a small gift to interviewees. In Malaysia, a souvenir mug, costing around 5 USD, was given to interviewees. We included the token of appreciation in our ethics applications.

We inserted the following in the Ethics subsection of the Materials and Methods section.
Page 13, Line 227-228

We gave small gifts costing less than 5 USD as tokens of appreciation for interviewees at both study sites.

Results:

8. I find this section quite hard to read and follow. I may suggest re-organizing by methods
As we explained earlier, our study used qualitative methods and policy documents were only reviewed to contextualise findings.
We organised the results section by country and then following the major themes identified (policy setting, maternal and child health services, infectious disease and migrant workers, Financial and Language barriers to healthcare, Healthcare in Detention).
Knowing that we had a lot of information to convey from two different settings, we deliberately chose the most pertinent issues and presented our findings so direct comparisons could be made.
We have now included a table of the main study findings (Table 3). We have also added this paragraph at the beginning of the Results section to better orientate the reader.
Page 14, Line 236-239.

Study findings are presented by country and organised into major themes: policy setting, maternal and child health services, infectious disease and migrant workers, financial and language barriers to healthcare, and health in detention. Table 3 summarises major study findings.

CHINA	**MALAYSIA**
Policy setting • China lacks a cohesive national healthcare policy for international migrant workers, however Yunnan province, a major border province, has several programmes for the management of cross-border migrants.	**Policy setting** • Malaysia has several national healthcare policies for documented migrant workers including predeparture, pre-employment and annual medical examinations, and a government-mandated insurance scheme
Maternal and child health services • Safe motherhood packages are provided for migrant women and foreign spouses with legal documents • Rigid administrative requirements including requirements for antenatal records at the facility are a barrier to hospital delivery	**Maternal and child health services** • Migrant workers found pregnant are subject to termination from employment and deportation • Pregnant migrant workers tend to avoid healthcare due to financial barriers and immigration restrictions, possibly resulting in poor obstetric outcomes
Infectious diseases and migrant workers • In addition to mandatory medical screenings by the immigration office, targeted infectious disease surveillance of non-citizens is common • Excessive attention on infectious disease control programmes targeted at migrant workers has resulted in stigmatisation	**Infectious diseases and migrant workers** • Migrant workers are obliged to undergo mandatory infectious disease screenings several times as an immigration requirement • Migrant workers failing medical examinations are denied work permits and are subject to deportation. Failing medical examinations is a possible reason for 'undocumented' status.

• Language barriers and the lack of cultural sensitivity may have exacerbated migrants' distrust of healthcare providers • Free anti-retroviral treatment is provided conditionally to HIV infected non-citizens; however, these policies were designed to discourage cross-border travel specifically for HIV treatment **Financial and language barriers to healthcare** • Medical treatment is unaffordable to migrant workers, since they are not covered by the Chinese health insurance • Migrants face difficulties in communicating and navigating the healthcare system and often bring informal interpreters to accompany them to hospital	• Concerns were raised on the quality of informed consent for HIV testing, proper explanation and confidentiality of infectious disease test results **Financial and language barriers to healthcare** • SPIKPA insurance is inadequate in compensating the high fees charged to non-citizens at public hospitals, and does not cover outpatient care • As there are no interpreter service in the healthcare system, the common expectation is for migrant workers to learn the Malay language or to bring a companion to act as an informal interpreter **Health in detention** • Undocumented workers are sent to immigration detention centres, often for lengthy periods, to await deportation • Conditions at immigration detention camps have been described as overcrowded, with limited available healthcare facilities

SPIKPA - Hospitalisation and Surgical Scheme for Foreign Workers

9. Policy document review (how many documents were found, and then describing the findings, like the table you have at the beginning about the different declarations countries have signed onto). You may want to consider putting in a table to compare Malaysia and China directly on the various subheadings

   As explained earlier, policy documents were reviewed to contextualise findings. A comprehensive policy analysis of both countries is beyond the scope of this paper, as language barriers between the Chinese and Malaysian teams did not allow teams to study the different countries documents. As such, we described the country context in a narrative manner in the 'policy settings' section. This section described the health systems and available health policies for migrants in both settings.

10. Interviews

    - you may want a table that summarizes the demographics of all participants in more detail (Table 2).

      We purposively selected participants based on organisations (civil society organisations, trade unions, academia, international organisations, medical professionals and migrant workers) for the migrant specific knowledge they could offer.

      In other words, the sample was not selected on the characteristics of age, gender, marital status and years in current work. As such we do not think it useful to report our participants using those descriptors.

    - I find it disappointing that you have such low numbers of migrant worker participants, but mostly other stakeholders. Could you explain why this occurred? Would it be possible to obtain further interviews of migrant workers? In Malaysia, for example, you only have 4.

      The health and welfare of migrant workers is a contentious issue and we felt this especially in Malaysia. In Malaysia, we made the decision to interview migrant representatives and key stakeholders rather than migrant workers alone. We interviewed members of civil society and trade unions in Malaysia that represented the interests of migrant workers and were able to speak broadly on migrant workers' experiences with healthcare in Malaysia. Migrant workers in Malaysia are a heterogenous group. We found that migrant workers organise themselves

in groups based on country of origin rather than occupational groups (construction, manufacturing, plantation etc.). Thus, we interviewed representatives of workers from major migrant-sending countries to Malaysia including Indonesia, the Philippines, Nepal and Bangladesh.

- You may also want a table to help explain your major themes more clearly.
  We have now included a table of the main study findings (Table 3).

- It appears you write the name of the speaker after the quotation (ie. Dr. Nazirah, Dr. Lucy) - please remove these as these are no longer anonymous!

  All data in this study is anonymised and there is no identifying patient data in the paper. The names mentioned after quotations are pseudonyms.
  We have explained this in the ethical statement (page 13, Line 224 - 225)

  > *Data was anonymised by using pseudonyms and general descriptors without including identifying information*

Limitations:

11. I think your lack of migrant worker participation is a significant limitation to your study; I think it would be important to recognize that. You may want to consider the limitation of looking at these two countries in particular; would it be different if you interviewed more individuals in different cities?

    We acknowledge the lack of migrant worker participation as a study limitation.
    Page 34, Line 672-676.

    > *Due to the sensitive nature of this study, we had difficulties obtaining interviews with migrant workers. Nevertheless, we were able to triangulate study findings by interviewing diverse key informants including representatives of civil society and international organisations, trade unions and academia, medical doctors and government officials.*

    We acknowledge that the qualitative nature of our study does not allow for generalisation beyond the specific context and populations of Yunnan Province, China and Malaysia.
    Page 34, Line 676-678.

    > *As qualitative approaches were used in this study, findings are grounded to specific contexts and populations, and this precludes generalisation. Nevertheless, the experience gained by examining different perspectives gives us insights into health policy and barriers accessing healthcare in different settings.*

    When using the qualitative methodology, we were less concerned about the sample number, but in assuring that sufficient data was collected to meaningfully answer our research questions, and achieve thematic saturation. Thus, we do not consider it a limitation that our sample size was 'small'.

Reviewer: 2

Introduction:

1. The introduction is of more than discreet quality. I suggest to better explain literature gap in a more explicit way. The analysis of the literature can be improved, especially in view the topicality

of the theme. In this way, I advise you to consider and comment some recent publications of interest for your research. For example, I suggest you refer, at least, to the following publications:

Hargreaves S, Rustage K, Nellums LB, McAlpine A, Pocock N, Devakumar D, Aldridge RW, Abubakar I, Kristensen KL, Himmels JW, Friedland JS, Zimmerman C. Occupational health outcomes among international migrant workers: a systematic review and meta-analysis. Lancet Glob Health. 2019 Jul;7(7):e872-e882. doi: 10.1016/S2214-109X(19)30204-9.
Giorgi, G.; Lecca, L.I.; Ariza-Montes, A.; Di Massimo, C.; Campagna, M.; Finstad, G.L.; Arcangeli, G.; Mucci, N. The Dark and the Light Side of the Expatriate's Cross-Cultural Adjustment: A Novel Framework Including Perceived Organizational Support, Work Related Stress and Innovation. Sustainability 2020, 12, 2969.
Simkhada PP, Regmi PR, van Teijlingen E, Aryal N. Identifying the gaps in Nepalese migrant workers' health and well-being: a review of the literature. J Travel Med. 2017 Jul 1;24(4). doi: 10.1093/jtm/tax021

Thank you for the suggestions – we have now included more citations with accompanying text in the Introduction situating our paper within the current evidence base on migration health:
Page 5, Line 76- 86.

International migration is an inevitable feature of today's globalized world and is critical for the economic development of many nations. In 2017, 258 million international migrants were estimated worldwide, with 80 million residing in Asia[2]. There are an estimated 164 million international migrant workers globally[3], many of whom face significant health risks from workplace accidents and poor working conditions, leading to physical and psychological morbidities[4]. Despite these risks, just 6% of the global migration health literature focusses on migrant workers, relative to 25% on refugees and asylum seekers[5]. By recent estimates, there will be close to 1.4 billion new working-age people in developing countries by 2050, of whom around 40% are unlikely to find meaningful employment in their home countries[6]. This massive movement of people for work highlights the inevitability of economic growth and exchange, and yet international migrant workers are often considered a liability by destination countries despite their contributions to the economy.

Page 6, Line 118- 121.

In destination countries, migrant workers often fill undesirable low-skill, labour-intensive jobs in potentially health-damaging work environments and face numerous challenges including poor housing, discrimination, violence and exploitation, with restricted healthcare access[7-9].

Methods:

2. The Chinese sample was double than Malaysian sample. Why the two subgroups were not equalized? Can this discrepancy affect the results of the study? Motivate appropriately this choice.

The initial data collection was conducted from July to September 2018, at both study sites. After the initial comparative data analysis, it was found that more data was needed from Malaysia. More interviews were needed from Malaysia, to fit in with specific major themes identified in China e.g. maternal and child health services and infectious diseases and migrant workers.

3. Methods section appears of a sufficient quality, but the assessment methodologies that you have used are not sufficiently illustrated: provide the questionnaire you administered, to evaluate appropriateness of the key questions you used.

We have now included the interview guide used in both countries in the Supplementary File.

Page 9, Line 170- 171.

Semi-structured interview guides were developed to seek participants' perspective on barriers to healthcare access for migrant workers. These guides were further customised to suit the organisational background of participants and were applied to both countries. Please see the interview guide in the Supplementary File.

4. Results section is of a sufficient quality. Despite the results are interesting, they lack on the comparisons between the two countries. It is difficult to guess similarities and differences on the key outcomes. I suggest to provide a summary of the key differences and similarities to better understand what aspects should cause major difficulties for migrant people.

We have now included a results table (Table 3) that would allow readers to compare findings in both study settings

Reviewer: 3

Abstract

15. *To explore policies addressing migrant worker's health and barriers to healthcare access in two middle-income, destination countries in Asia with cross-border migration to Yunnan province, China and international migration to Malaysia.*
Change into a real sentence.
We have edited the objectives. Page 2, Line 24-26
This paper explores policies that address migrant workers' health and the barriers to healthcare access in two middle-income, destination countries in Asia with cross-border migration to Yunnan province, China and international migration to Malaysia.

16. Sampling. Why much more in Malaysia than China?
The initial data collection was conducted from July to September 2018, at both study sites. After the initial comparative data analysis, it was found that more data was needed from Malaysia. More interviews were needed from Malaysia, to fit in with specific major themes identified in China e.g. maternal and child health services and infectious diseases and migrant workers. As such, we continued data collection into 2019.

Methods

17. Why so fast in China and so much longer in Malaysia? And why so much more interviewees in Malaysia? Explain shortly
We decided to extend data collection in Malaysia to collect information on specific themes that were identified in the Chinese data. As such the data collection time period and samples in Malaysia differed.

18. here again very big differences, why only 4 migrant workers in Malaysia?
The health and welfare of migrant workers is a contentious issue and we felt this especially in Malaysia. In Malaysia, we made the decision to interview migrant representatives and key stakeholders rather than migrant workers alone. We interviewed members of civil society and trade unions in Malaysia that represented the interests of migrant workers and were able to speak broadly on migrant workers' experiences with healthcare in Malaysia. Migrant workers in Malaysia

are a heterogenous group. We found that migrant workers organise themselves in groups based on country of origin rather than occupational groups (construction, manufacturing, plantation etc.). Thus, we interviewed representatives of workers from major migrant-sending countries to Malaysia including Indonesia, the Philippines, Nepal and Bangladesh.

Results: China

19. *'Specific health programmes for migrants in Yunnan province include maternal and child health services for non-citizen women and infectious disease prevention programmes at border areas.'*
Also for undocumented migrants?
In China, MCH and infectious disease prevention is not provided for undocumented migrants. Health services are only for those with legal identification documents and valid work permits.
We have modified the following: Page 17, Line 272- 273

    Specific health programmes for documented migrants in Yunnan province include maternal and child health services for non-citizen women and infectious disease prevention programmes at border areas.

20. *'HIV testing is compulsory for migrant workers entering China.'*
Is it for free or do they have to pay for themselves?

    Migrant workers are requested to apply for a health certificate after arriving China for work. In doing so, they are required to undergo a series of health screenings, including blood testing, urine testing, X-ray, etc. The total cost for these services is about 20 USD, which is very cheap and affordable. The cost of the HIV test is included in this and is paid for by the worker.

    We have inserted the following in Page 18, Line 303 – 308

    HIV testing is compulsory for migrant workers entering China. To obtain a Health Certificate for International Travel, migrant workers must complete a post-arrival medical screening, which includes blood tests, urine tests, chest X-rays and mandatory HIV testing, within three days of arrival into China. Since the health certificate is only valid for a year, migrant workers must be screened annually for infectious diseases including HIV. These tests cost around 20 USD and are paid for by the migrant worker.

21. *"Myanmar friends who come to work will usually go back to Myanmar to see the doctor, mainly because of the lack of language and the cost of Chinese hospitals"*
Delete first sentence. The citations are often quite long. Think to shorten
We have made those edits. Page 21, Line 380 - 381.

Results: Malaysia

22. *'All documented migrant workers are mandatorily tested for …'*
and they have to pay for these or are they paid by state?
Medical screenings are paid for by employers. We have edited Page 23, Line 409.

    These medical examinations are paid for by employers, and all documented migrant workers are mandatorily tested for tuberculosis, HIV, syphilis, hepatitis B, malaria, leprosy, pregnancy (for women), drug abuse, hypertension, diabetes mellitus, cancer, epilepsy and psychiatric illness

23. *'Female migrant workers are prohibited from marrying or becoming pregnant in Malaysia. Those testing positive for pregnancy will not be granted work permits and are subject to deportation'*

OK I am a bit confused. So it is prohibited and if women are caught to be pregnant they will be deported? Which is why they only come to the hospital at a very late stage, is that correct? And once they delivered, do they still face deportation?

Yes. Migrant workers in Malaysia are not allowed to get married or become pregnant in Malaysia. Pregnancy test is part of the mandatory medical examinations (pre-departure, pre-employment and annual) to obtain and renew work permits. If test results are positive, workers will not get their work permits and are subject for deportation due to immigration regulation.
Pregnant migrant workers avoid healthcare treatment at public healthcare facilities due to the need to present identity documents (valid passports and work permits) at registration. It has been known that undocumented migrant women delivering at public hospital are taken to immigration detention centres post-delivery.

We have edited this section for clarity.

Page 24, Line 422-429.

Due to immigration requirements, female migrant workers are prohibited from marrying or becoming pregnant in Malaysia. Those testing positive for pregnancy will not be granted work permits and are subject to deportation. While there are no specific public antenatal or delivery services offered for migrant workers in Malaysia, in practice women do give birth in healthcare facilities, often at private facilities and at high cost. While public healthcare facilities will not deny patients necessary medical care, healthcare providers are obliged to report undocumented workers to the police and immigration authorities. This physician explains the situation at public Maternal and Child Health Clinics.

Page 24, Line 437-438.

Other CSO interviewees informed of incidents of undocumented migrant women being taken to immigration detention centres immediately after delivery at public hospitals.

24. Maternal Child Health Services linked to immigration enforcement
    Confidentiality?
    The lack of confidentiality though relevant, is the secondary issue here. Mandatory reporting of undocumented workers at healthcare facilities to the police and immigration officers severely restricts access to healthcare. Those who are sick, injured, or pregnant and in need of care will avoid seeking care to the detriment of their well-being.
    Lack of confidentiality is brought up in the 'Infectious disease and the migrant worker' section with regards to HIV test results informed to employers.

25. *"They usually come in emergency, like ectopic[pregnancy] with abdominal pain. My colleagues, they will say, 'Bila dah almost deliver baru datang?' (Sarcastic: You only come to hospital when you're about to deliver?). Because they didn't follow up during the antenatal stage. Because of financial and other reasons, they only come at the late stage […]" Dr Nazirah, female, physician*

    Well, the other reason is that it is criminalized right? They are not allowed to be pregnant?
    We edited this sentence to better explain this.
    Page 24, Line 439.
    Due to immigration restrictions at public facilities and the expense of antenatal care at private facilities, non-citizens tend to present late for booking and default follow-up.

26. too many citations, delete this one
    Done
27. one x is enough
    Done

28. *'Thailand has successful bilateral agreements with neighbouring Myanmar, allowing for cooperation via the Nationality Verification and One Stop Service Centre regularisation processes for migrants arriving through irregular channels'*
Some more best-case examples would be good.

Sadly, in the region (and globally), Thailand is the only example of where migrant regularisation processes are explicitly tied to healthcare and a benefits package almost on par with Thai citizens. We prefer not to expand the discussion to case examples for regular migration in the Discussion, as much of the movement we discuss in the paper is irregular.

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VERSION 2 – REVIEW

REVIEWER	Nicola Mucci Department of Experimental and Clinical Medicine - University of Florence - Italy
REVIEW RETURNED	03-Oct-2020

GENERAL COMMENTS	Dear Authors The paper has been substantially improved with respect to the first version. All my concerns have been solved. I think the paper is now suitable for publication. Best Regards