Going Global: Insights of Indonesian Policymakers on International Migration of Nurses

Ferry Efendi ^{1,2}Joni Haryanto^{1,2}Retno Indarwati^{1,2}Heri Kuswanto³Elida Ulfiana^{1,2}Eka Mishbahatul Mar'ah Has^{1,2}Mei-Chan Chong⁴

¹Department of Advanced Nursing Care, Faculty of Nursing, Universitas Airlangga, Surabaya, Indonesia; ²Community Health, Geriatric and Family Nursing Research Group, Universitas Airlangga, Surabaya, Indonesia; ³Department of Statistics, Institut Teknologi Sepuluh Nopember (ITS), Surabaya, Indonesia; ⁴Department of Nursing Science, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia

Background: The Indonesian policymakers need to respond to the current challenges, particularly the excess of nurses and the increased demand for nurses in the global market.

Objective: This study aimed to present the perception of policymakers and stakeholders on the management of overseas migration of Indonesian nurses.

Methods: This study is a descriptive qualitative design where data were collected through structured interviews with key stakeholders representing the Indonesian government, namely the Ministry of Health (MOH), the Ministry of Labour (MOL), Ministry of Education (MOE) and the Indonesian Migrant Workers Protection Agency (BP2MI). The in-depth interviews involved participants who were responsible for managing Indonesian nurses' migration. The qualitative data were analyzed thematically using a content analysis approach.

Results: The issues involving nurses' migration policy are quite complex and sectoral. Themes emerging from this study include the move towards global market orientation, addressing challenges on international nurse migration, strengthening coordination among stakeholders and making the most of opportunities. All the themes reflect that the country should work hard to achieve the balance between quantity and quality of nursing resources for the international market.

Conclusion: As regulator and executor of Indonesian nurse migration, various government policies have responded to the low number of Indonesian nurses' migration overseas, emphasizing the three cycles of migration: pre-migration, migration and post-migration. The preparation of resources, regulations and placements for Indonesian nurses abroad open the opportunity to the international nursing labour market. Hence, the policies need to be strengthened from upstream to downstream to make Indonesian nurses more competitive and adaptive in global market.

Keywords: health worker, Indonesian nurses, migration, workforce, active labour market policies, global jobs

Introduction

The World Health Organization (WHO) has assimilated nurse migration as a global issue since it is necessary to meet the demand for nurses worldwide.¹ Since 2006, WHO has stated that there is a shortage of health workers in the world which is predicted to grow every year, especially in nursing human resources.² Globally, the total number of nurses is approximately 27.9 million; however, they are not equitably distributed.³ In the United States, the density of nurses has reached 83.4 per 10,000 people, whereas Africa recorded only 8.7 per 10,000 people.¹ The countries with a density of health workers (doctors, nurses and midwives) below 4.45 per 1000 people are expected to face challenges in achieving Universal

Correspondence: Ferry Efendi
Email ferry-e@fkip.unair.ac.id

Received: 6 July 2021
Accepted: 4 November 2021
Published: 26 November 2021

Health Coverage (UHC).⁴ The lack of nurses is experienced not only by developing countries but also by some developed countries, including Poland, Germany, sub-Saharan Africa and Japan.^{5–9} The COVID-19 pandemic might further affect the shortage of nurses due to a high rise in demand.^{3,10} As UHC may not be achieved due to the shortage of professional nursing personnel, which will lead to problems in patient safety and an increase in high rates of maternal and neonatal mortality.^{11,12} Achieving UHC is one of the Sustainable Development Goals (SDGs) that requires an adequate number of nurses all over the world.¹³ Therefore, it is crucial to promote uptake of professional nurses from the surplus countries to the shortage countries by international migration to strengthen workforce sustainability. Previous data from Indonesia showed that steady high annual production of nurses has resulted in temporary surplus in term of the number.¹⁴ This situation happened as a result of low capacity of domestic labour market to absorb graduates and low demand of health care facilities.¹⁴

International nurse migration has become a concern for many countries, including Indonesia since an excess of nurses has been reported.¹⁵ By mid-2020, the number of nurses receiving registration certificates from the Indonesian Health Workforce Council has cumulatively reached 985,889. This data shows that less than half of Indonesian nurses' report to work in hospitals and public health centres. Consequently, there is an assumption that the remaining nursing graduates may work in other non-health sectors or may possibly be unemployed.¹⁶ Currently, the density of nurses has reached 3.48 nurses per 1000 people, which is higher than the national target of two nurses per 1000 people.¹⁵ Annually, there are more than 100,000 new nurses graduating from 352 nursing programs at the bachelor level and 474 nursing programs at the diploma three-level.¹⁷ Despite this abundant number of nurses' availability, there were 6393 nurses have been placed overseas for both position, nurse and care worker during the period 2015–2020.¹⁵ The most popular destination country of Indonesian nurses is Taiwan, followed by Japan, Saudi Arabia, Singapore, Kuwait, United Arab Emirates, Malaysia and other countries.¹⁵ Study conducted among Indonesian nursing graduates regarding the intention to enter the international nursing market, especially Japan was 91.3%. Among this number, just a half number of respondents having a definite plan to work in Japan.¹⁸ This phenomenon reflected barriers and challenges faced by nurses' graduates existed and need to be solved.

The current excess of nurses is an advantage in the sustainability of the health workforce within the national Indonesian health system. However, the low capacity of the domestic health care labour market to absorb new graduates may contribute to the unemployment of nurses.¹⁹ Support for nurses to participate in international migration would be able to decrease the rate of unemployment.²⁰ Despite the oversupply and the low demand of nursing jobs in Indonesia, migration of Indonesian nurses to overseas has not shown a significant increase within the last decade.¹⁵ It can be seen from the implementation of the Economic Partnership Agreement (EPA) with Japan that Indonesia only exported 2445 nurses, or an average of 222 nurses per year, in the span of 10 years.

The migration process of nurses is influenced by various push and pull factors.^{21–23} The enactment of a comprehensive and systematic policy that regulates nurse migration from upstream to downstream has been one of the pull factors contributing to the success of migration.²⁴ Managing workforce resources for overseas mobility requires a clear strategy and regulation. In line with the Global Code of Practice in the International Recruitment of Health Personnel's statement, Indonesia was issued a ministerial health regulation for the overseas deployment of nurses in 2012, which was updated in 2015.²⁵ In spite of the statute, Indonesia still experiences some challenges related to operational policies which have not been accommodated.²⁴ Generally, nurse migration consists of three stages, namely, pre-migration, migration and post-migration.^{26–28} The stages are ideally arranged in a systematic framework and formulated with integrated policies by key stakeholders, particularly the Ministry of Labour (MOL), the Ministry of Health (MOH) and the Ministry of Education and Culture (MOEC).²⁹ A coherent policy on the international migration of nurses involving these key stakeholders is imperative for promoting fair employment of Indonesian nurses in the global market. Therefore, this study aims to understand the views of policymakers towards the current policies and practices in managing the migration of Indonesian nurses.

Methods

Design and Participants

This study was conducted using a qualitative approach that focuses on clarifying policies regarding nurse migration in Indonesia. Qualitative descriptive approach was used to

provide straightforward descriptions of perceptions on lack of evidence on the specific topic.³⁰ The participants of this study included eight representatives of Indonesian governmental agencies whose roles included regulating and executing nurse migration policies. We recruited participants from the Indonesian MOH, the Indonesian MOL, the BP2MI and the MOE. Data collection was carried out July–September 2020 through online video calls and direct structured in-depth interviews with strict health protocols due to COVID-19 prevention. All of the interviews were recorded, and each interview lasted approximately 45 to 60 minutes. The interviews were conducted in Bahasa Indonesia. The findings were then translated from Bahasa Indonesia to English language by the researchers' team.

Instrument of Interview

The content of the interviews consists of several important aspects related to the migration policy of nurses in Indonesia. Its main aspects include 1) the current situation of the nursing labour market; 2) issues that need to be considered by policymakers in managing nurses who work abroad; 3) several requirements that Indonesian nurses must fulfil in order to be competitive internationally; 4) the status of Indonesian nursing education; 5) the availability of Indonesian nursing human resources; 6) the average nurse's salary and 7) the efforts that have been made to manage nurses abroad. All questions were developed based on an in-depth literature review on migration and the nursing labour market. Follow-up questions may have been asked based on the participants' answers.

Data Analysis

Data analysis was carried out using a qualitative content analysis approach by using the steps of Graneheim & Lundman.³¹ Qualitative content analysis was conducted inductively to identify the content of the verbatim interview results. Then, it was coded to identify the major themes. The process of forming emerging themes developed from each category arisen from the transcript with the help of QSR NVIVO 10 software.

Trustworthiness

The trustworthiness of the study is maintained by confirmability, which provides feedback from policymakers to confirm the findings of this study. Two policymakers have confirmed that the contents represent their perspectives on the management of Indonesian nurses' migration.

Ethical Consideration

This study has passed the ethical approval of the Health Research Ethics Committee of the Faculty of Nursing, Universitas Airlangga, Surabaya, Indonesia (Number 2088-KEPK). Participants were informed that their participation in the research was voluntary, and they had the right to withdraw at any time, even during the interview process. Written consent was obtained from each participant prior to the study and that consent included publication of anonymized responses. This study was conducted in accordance with Helsinki Declaration.

Results

Eight policy makers participated in this study with majority were females who came from various stakeholder in managing nurse migration (Table 1). All policymakers stated and agreed that the nursing workforce is a national asset, and it may need further intervention to compete in the global market. Four themes emerged from this study, as described below:

Theme I: Moving Towards Global Market Orientation

Informants mentioned the need to direct policies following global market orientation. Two informants mentioned on different occasions that there is no specific health labour market policy in place. However, they welcome the growing international demand for nurses. An informant from MoL said that the health sector is among the main focus of the labour market. However, the response to increasing nursing opportunities from overseas employers has not been good, and the outflow of Indonesian nurses remains very low.

Table 1 Characteristics of Participants

Characteristic	n (%)
Gender	
Male	2
Female	6
Age (years)	39–54 years
Stakeholders	
Indonesian Migrant Workers Protection Agency (BP2MI)	2
Ministry of Health	3
Ministry of Labour	2
Ministry of Education	1

The demand of nurses in the international market is remarkably high, the market is big, competitive and obviously need more nurses especially from Indonesia. However, there is no specific policy to accelerate the sending of Indonesian nurses abroad. (MOL_1)

The government's concern priority is to improve the availability and quality of health workers within our National Health Service system. Therefore, only health workers in surplus number are facilitated for the international migration includes nurses. (MOH_1)

Meanwhile, an informant from the MOE explained that data on students and graduates are vital for labour market policy. Therefore, the MOE is instructing universities to conduct tracer studies on the employment of graduates.

The policy is there to track the graduates and how long they will get the first job in the domestic market. (MOE_1)

Another issue is nursing curriculum that need to be adjusted with global market or the curriculum of destination countries. On this issue, several participants held the same perspective:

There is a lot of demand for nurses (abroad), but they cannot fill in because they do not meet the criteria. (BP2MI_1)

To send nurses abroad, the nursing curriculum should be standardized according to the destination country. Netherlands and Germany demand assess whether the Indonesian nursing curriculum corresponds to the European Standard. (MOL_2)

We have many tasks to do if we want our nurses to compete globally, such as certification, academic transcripts. The point is the use of the data-flow from production. (MOL_1)

Some countries require a process of recognition of the curriculum and academic transcripts of Indonesian nurse graduates to evaluate whether there are gaps in nursing education in their countries or not. Those are the things we should take into account in order to examine what competency gaps are between the nursing curriculum in our country and other countries, in which it can open the taps of importing foreign nursing personnel. (MOH_1)

International certification is a priority issue in the management of international migration. The informants understood that every country has various requirements related to certification. Prior to receiving international

certification, Indonesian nursing students are also required to obtain a national certification to register as a nurse.

We need to make road map of the certification requirement of each country and establish an excellent centre to be bridge between the education sphere and the international job market. I do hope universities can prepare prospective nurses with these competency certificates, hence we can know where we should supply it. (BP2MI_2)

Certification for health workers who want to work overseas is different from the National Standard of Job Competency issued by the Government of Indonesia. This is something that we have to deal with. (MOH-4)

Nursing students and graduates are given opportunity to take competency exam three times a year to reduce the waiting list and pending to get their certification for work. (MOE_1)

Theme 2: Addressing Challenges on International Nurse Migration

Participant has evaluated the drawbacks and challenges for Indonesian nurses migrating and working in other countries. Language barriers comprise one of the issues observed by the participant. Language is an essential requirement that must be solved by a comprehensive approach. In spite of the difficulties, the participant advises nurses to be adaptable and meet these various challenges. The participants recalled:

To compete in the global market, our main weakness is our language skills (BP2MI_1)

Indonesian nurses must have a strong will, since the principle of being nurse is able to apply nursing care practices professionally. Besides, they should continue to strive in order to develop their careers. Second, they have an open mindset, seeing career opportunities abroad as opportunities to improve welfare and expertise. Third, the willingness to work hard and work smart, starting from honing foreign language skills, continuing to improve knowledge and skills so that they can pass international certification. (MOH_1)

The challenges are language. Job status must be clear as a nurse or nursing assistant and contract negotiations, because if you are not careful there will be things loose (MOL_2)

Theme 3: Strengthening Coordination Among Stakeholders

Working across sectors seems to be an important point in implementing and managing nurse migration policy. The

various stakeholders involved may need to make stronger arrangements as a result of policy negotiation and communication. For example:

Sometimes the local government make a decision by themselves without coordinating with Indonesian Migrant Workers Protection Agency. For the placement of nurses who will migrate, they must be anticipated. Otherwise, the placement is not appropriate (MOL_1)

A participant from the BP2MI also stated that the rules of the role should be strengthened in a clearly written law.

Many regulators work on the contrary with the executors do, as a Law number 18, the Ministry of Labour is tasked with regulation, while the Indonesian Migrant Workers Protection Agency is the executor. (BP2MI_1)

The participant feels that coordination among government agencies has not been fully implemented in regard to nurse migration. Even the BP2MI suggested that its authority needs to be expanded.

If Indonesian Migrant Workers Protection Agency is given full authority by the president, it will be great! Because the problem is in the communication. It is fragmented ... The red thread (between institutions) is not connected. (BP2MI_2)

It was also revealed that there are different views within the Indonesian MOL regarding the concept of nurse migration.

The goal of the Ministry of Labour is that Indonesian nurse really work according to their competence ... but some parties from the Ministry of Health think that nurses are sufficient in capacity building or internships. Meanwhile, capacity building and working properly are two different things. (MOL_1)

Theme 4: Making the Most of Opportunities

Policymakers aware that the labour market for nurses who deliver nursing care is large and international. Substantial international market for Indonesian nurses should be viewed as strategic opportunities to maximize the benefit of migration from Indonesia. This was revealed by comments such as:

With the demographic bonus era, nurses' resources should not be a problem (for the overseas employment), and the

government plays as the catalysator between supply and demand. (BP2MI_2)

Many other countries reported shortage of nurses, this opportunity should be seen as our market potential market. (MOH_1)

We often heard compliments regarding the positive characters of Indonesian nurses. They are favourable because of friendly, patient and kind-hearted compared to other international nurses. We might be lacking in the international language, but those positive personal characteristics are our valuable human capital. (BP2MI_2)

Why doesn't Indonesia develop post-return tourism? If there is a patient from Japan (to visit a hospital in Indonesia), then the one who handles it is a nurse who has experience from Japan. (MOL_1)

MOH is currently working on policies to provide options for the utilization of returnees. This is to respond to the migration policy of health workers that emphasizes on the brain gain strategy through the transfer of knowledge, skill and experience. (MOH_1)

Discussion

Theme 1: Moving Towards Global Market Orientation

Indonesia has implemented a competency test for licensing in order to standardize nursing; however, it is limited at the national level, while destination countries require internationally recognized platforms, such as NCLEX-RN (National Council of State Boards of Nursing) or Prometric tests. As every country establishes their own requirements, nurses in Indonesia must try to pass the competency tests of destination countries on their own. Moreover, issues related to the regulation of pre-migration need to be addressed. Indeed, the government has revealed that the problems related to educational curriculum, license recognition, language skills and work experience need to be the focus of the training–certification hierarchical process of nurse migration.

Theme 2: Addressing Challenges on International Nurse Migration

The nurse migration policy in Indonesia is mentioned in an MOH regulation (Permenkes RI number 37 of 2015) about the utilization of health workers abroad. This regulation explains the migration process, from pre-migration to post-migration. Although it regulates who is responsible for the

placement mechanism during the pre-migration stage, it does not clearly explain it.³³ For example, the regulation states that nurses who are going to migrate must be registered according to statutory provisions. Unfortunately, the Indonesian nursing license is not recognized internationally, so nurses need to take another exam from the destination country.³⁴ In the end, the demand for nursing labour from abroad has not been optimal due to issues of license recognition.

The Indonesian government seems to need to prepare how the migration of nursing personnel will be arranged while future nurses are still in school, including arranging for the recognition of nursing licenses at the international level. Indonesia can adopt a nursing licensing mechanism from a major source country in Asia, such as the Philippines, where they already have an international licensing system with NCLEX-RN.³⁵ In reality, standardizing an internationally recognized license is not an easy thing to do; there are many considerations that need attention. Canada, which is a developed country with a nursing education system that tends to be better off, only just implemented the NCLEX-RN in 2015.³⁶ Previously, they only applied national licensing standards. Additionally, not all countries require an international nursing license. Indonesia, which often sends nurses to Japan, is actually still required to take the examination of Japanese nurses. But, at least with the existence of an international licensing system, there are more opportunities for Indonesian nurses to work abroad.³⁷ However, Indonesia should still enhance pre-migration regulations by strengthening its nursing education system. This means that, as long as Indonesian nurses have a strong foundation in foreign languages and a global knowledge of nursing, there will be opportunity to work abroad to take a competency test in their destination country.

With regard to strengthening the nursing education system, our study shows that the participant has realized the challenges faced by nurses who migrate abroad include language barriers and the suitability of the educational curriculum they receive at college. Although language training is provided by the MOL through the government-to-government mechanism, not all nurses who migrate have successfully passed the competency test of their destination country. Previous studies have supported that language barrier and low ability to understand the nursing model of destination countries are challenges often experienced by migrant nurses.^{38,39} Thus, adjusting the curriculum at the education level seems to need review by the

MOE and the MOH, because, in the Philippines, the internationalization program for nurses has been carefully thought out by sharpening the nursing education curriculum in the area of foreign language communication and strengthening the concept of cultural diversity.⁴⁰ The MOE and the MOH need to continue to establish effective consolidation and cooperation in drafting policies meant to revitalize the nursing education curriculum for orientation towards global labour market competition. If necessary, the MOL and the BP2MI representatives, who have, so far, had the best understanding of the global nursing labour market situation, should be involved in exploring the curriculum so that they can recommend what should be included in nursing education.

Theme 3: Strengthening Coordination Among Stakeholders

Effective partnership between stakeholders in the government is indeed very important to create policies that may accommodate all the processes of nurse migration. However, our study shows that cooperation between governmental institutions does not always run smoothly. Sometimes miscommunication and different perceptions of migration problems may arise. As a result of inadequate coordination and cooperation among stakeholders, brain drain and brain waste may impact the nurses.^{41,42} The proper management of nurse migration requires focused attention. For example, this study suggests the involvement of local governments, which often do not communicate with the central government, in the placement of nurses abroad so that the risk of misplacement is avoided. A potential solution may be found in a study conducted in the Caribbean.⁴³ The Caribbean government established comprehensive management of international nurse migration, not only addressing the situation when departing and during their stay in destination country, but also the post migration of nurses.⁴⁴

The study explains that in managing the migration of nurses, it is necessary to have a comprehensive matrix at each stage of the migration which reports who is involved and what activities are carried out. This matrix needs to be formed by the central government as a structured algorithm so that efforts can be made to reduce miscommunication. The absence of these policies, might lead to brain drain and brain waste for both sending and receiving countries.^{45,46} Discussion quite clearly shows that the MOH, MOL and the BP2MI do not yet have

a standardized communication algorithm between institutions so that the processes of migration and policymaking on migration are often faced with many challenges.

Another issue that the participant is aware of is the lack of employability of nurses who return to Indonesia because their employment agreement has expired. In the ministry of health decree number 37 of 2015, it is stated that monitoring and evaluation of the utilization of health workers abroad is not limited to pre-migration. However, the utilization of post-migration health workers has not been explained clearly or in more detail. Nurses who return are often faced with downgraded conditions which do not match their competence.⁴⁷ The causes of downgrading may include the experience of the nurses not being trusted, that is, it is not considered suitable for application in Indonesian hospitals, or their positions are deskilled.^{48,49}

The participant has the idea to utilize these nurses by developing what is known as post-return tourism. So, nurses who return from abroad will work in an international hospital or health service under the Ministry of Foreign Affairs, and they will serve patients from countries where they have worked. In addition, participants also considers that Indonesian migrant nurses have insight into the caring behaviours of the country where they worked, which could develop health services in Indonesia. This is in line with previous studies which revealed that nurses who return from migration bring a lot of knowledge, experience, skills and new ideas to the world of nursing in their home countries.⁵⁰ Deskilling would certainly not hold if nurses were properly placed. The participant's idea is an interesting innovation if its policies are properly implemented because the nurse migration program is an effort to reduce the number of unemployed and achieve an even distribution of health workers. It would be odd if the impact of migration (returning nurses) was unemployment or deskilling.

Limitations of this study include the duration of the face-to-face interview were limited and followed the guideline of the government for preventing the spread of COVID-19. However, the participants agreed to be contacted later through mobile phone for further queries.

Implications

Managing human resources for health especially nurses abroad require the support of Indonesian government to work harmoniously in intersectoral. Policies to support language acquisition which is specific to be prepared to the formal language in the country of destination would be great strategy and investment for Indonesian nurses. This

can be prepared by nursing school over Indonesia through the academic phase. Investing in pre-service training which align with the global nursing needs maybe beneficial to utilize Indonesian nurses abroad. In addition, agile and adaptive nursing curriculum to enhance the nurse competency required flexible governance from bottom to top.

Conclusion

The stakeholder of Indonesian nurse migration policies acknowledges that there are various challenges throughout the process of international migration including in the pre-migration, migration and post-migration stages. The participant considers it necessary to strengthen communication between stakeholders, review the nursing education curriculum and innovate policies to support the nurse migration process. Even though the MOH has decreed a mechanism to regulate the management of health workers abroad, there also needs a flexible approach to face the current transformation in international nurses' migration.

Data Sharing Statement

Data sharing is not applicable to this article as no datasets were generated or analyzed during the current study.

Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

Funding

This research obtained a "Hibah Riset Mandat" grant from Universitas Airlangga, Surabaya, Indonesia with contract number 346/UN3/2020.

Disclosure

The authors report no conflicts of interest in this work.

References

1. WHO. *State of the World's Nursing 2020: Investing in Education, Jobs and Leadership*. World Health Organization; 2020.
2. WHO. *Migration of Health Workers: WHO Code of Practice and the Global Economic Crisis*. Siyam A, Poz MRD, eds. World Health Organization; 2014.

3. ICN. *COVID-19 and the International Supply of Nurses*. International Council of Nurses; 2020.
4. WHO. *Health Workforce Requirements for Universal Health Coverage and the Sustainable Development Goals*. World Health Organization; 2016.
5. Brucher BMD, Deufert D. German nursing shortage in hospitals - homemade by profititis? *4open*. 2019;2(3):3. doi:10.1051/fopen/2019007
6. Marć M, Bartosiewicz A, Burzyńska J, Chmiel Z, Januszewicz P. A nursing shortage – a prospect of global and local policies. *Int Nurs Rev*. 2019;66(1):9–16. doi:10.1111/inr.12473
7. Naicker S, Plange-Rhule J, Tutt RC, Eastwood JB. Shortage of healthcare workers in developing countries – Africa. *Ethn Dis*. 2009;19:60.
8. Ochi S, Tsubokura M, Kato S, et al. Hospital staff shortage after the 2011 triple disaster in Fukushima, Japan-an earthquake, tsunamis, and nuclear power plant accident: a case of the Soso district. *PLoS One*. 2016;11(10):10. doi:10.1371/journal.pone.0164952
9. Naicker S, Eastwood JB, Plange-Rhule J, Tutt RC. Shortage of healthcare workers in sub-Saharan Africa: a nephrological perspective. *Clin Nephrol*. 2010;74(SUPPL.1):S129–S133. doi:10.5414/cnp74s129
10. WHO. 2020. *WHO and Partners Call for Urgent Investment in Nurses*. Available from: <https://www.who.int/news/item/07-04-2020-who-and-partners-call-for-urgent-investment-in-nurses>. Accessed May 2, 2021.
11. Gerein N, Green A, Pearson S. The implications of shortages of health professionals for maternal health in Sub-Saharan Africa. *Reprod Health Matters*. 2006;14(27):40–50. doi:10.1016/S0968-8080(06)27225-2
12. Rosenberg K. RN Shortages negatively impact patient safety. *Am J Nurs*. 2019;119(3). doi:10.1097/01.NAJ.0000554040.98991.23
13. ICN. *Nurses' Role in Achieving the Sustainable Development Goals*. International Council of Nurses; 2017.
14. Ministry of Health. *Human Resources for Health Country Profiles: Indonesia*. Kemenkes; 2019.
15. Kurniati A, Astari LD, Efendi F, et al. *Analisis Kebijakan Pemenuhan Pasar Kerja Tenaga Kesehatan Di Tingkat Global*. Kemenkes RI: Badan Pengembangan dan Pemberdayaan SDM; 2020.
16. Efendi F, Kurniati A. *Human Resources for Health Country Profiles of Indonesia*. Kemenkes; 2020.
17. Ministry of Health. *Human Resources for Health Country Profiles: Indonesia*. Kementerian Kesehatan Republik Indonesia; 2019.
18. Efendi F, Oda H, Kurniati A, Hadjo SS, Nadatien I, Ritonga IL. Determinants of nursing students' intention to migrate overseas to work and implications for sustainability: the case of Indonesian students. *Nurs Health Sci*. 2021;23(1):103–112. doi:10.1111/nhs.12757
19. Efendi F, Chen C-M, Kurniati A, Nursalam N, Yusuf A. The situational analysis of nursing education and workforce in Indonesia. *Malaysian J Nurs*. 2018;9(4):21–29.
20. Ortega YY. Learning to fill the labor Niche: Filipino nursing graduates and the risk of the migration trap. *RSF Russell Sage Found J Soc Sci*. 2018;4(1):172–187. doi:10.7758/rsf.2018.4.1.10
21. Dywili S, Bonner A, O'Brien L. Why do nurses migrate? - a review of recent literature. *J Nurs Manag*. 2013;21(3):511–520. doi:10.1111/j.1365-2834.2011.01318.x
22. Adhikari R, Grigulis A. Through the back door: nurse migration to the UK from Malawi and Nepal, a policy critique. *Health Policy Plan*. 2014;29(2):237–245. doi:10.1093/heapol/czt010
23. Kline DS. Push and pull factors in international nurse migration. *J Nurs Scholarsh*. 2003;35(2):107–111. doi:10.1111/j.1547-5069.2003.00107.x
24. Efendi F, Mackey TK, Huang M-C, Chen C-M. IJEPa: gray area for health policy and international nurse migration. *Nurs Ethics*. 2017;24(3):313–328. doi:10.1177/0969733015602052
25. MoH. *PMK RI No. 37 Tahun 2015 Tentang Pendayagunaan Tenaga Kesehatan Ke Luar Negeri*. Vol. 740. Kementerian Kesehatan Republik Indonesia; 2015. doi:10.1093/bioinformatics/btk045
26. Troy PH, Wyness LA, McAuliffe E. Nurses' experiences of recruitment and migration from developing countries: a phenomenological approach. *Hum Resour Health*. 2007;5(1):15. doi:10.1186/1478-4491-5-15
27. Efendi F, Kurniati A, Savage E, Nursalam N, Yusuf AH, Kusnanto K. Return migration of nurses: a concept analysis. *Indian J Public Heal Res Dev*. 2018;9(9):199–203. doi:10.5958/0976-5506.2018.00994.4
28. European University Institute. *Reintegration and Development*. (Cassarino J-P, Ed.). The CRIS Project; 2014.
29. Walton-Roberts M, Runnels V, Rajan SI, et al. Causes, consequences, and policy responses to the migration of health workers: key findings from India. *Hum Resour Health*. 2017;15:1. doi:10.1186/s12960-017-0199-y
30. Sandelowski M. What's in a name? Qualitative description revisited. *Res Nurs Health*. 2010;33(1):77–84. doi:10.1002/nur.20362
31. Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Educ Today*. 2004;24(2):105–112. doi:10.1016/j.nedt.2003.10.001
32. Kemenkes RI. *Peraturan Menteri Kesehatan RI Nomor 37 Tahun 2015 Tentang Pendayagunaan Tenaga Kesehatan Ke Luar Negeri*. 2015.
33. Battistella G. *Circular Migration of Health Professionals*. *Overv Crit Issues by ILO*. International Labor Organization. 2014.
34. Efendi F, Nursalam N, Kurniati A, Gunawan J. Nursing qualification and workforce for the Association of Southeast Asian Nations Economic Community. *Nurs Forum*. 2018;53(2):197–203. doi:10.1111/nuf.12243
35. Matsuno A. *Nurse Migration: The Asian Perspective*. ILO/EU Asian Program Gov Labour Migr; 2009.
36. Singh-Carlson S, May KA. Adoption of NCLEX-RN for licensure in Canada: faculty concerns and implications for nursing education. *J Prof Nurs*. 2020;36:77–82. doi:10.1016/j.profnurs.2019.08.003
37. Aiken LH, Buchan J, Sochalski J, Nichols B, Powell M, Powel M. Trends in international nurse migration. *Health Aff*. 2004;23(2):69–77. doi:10.1377/hlthaff.23.3.69
38. Moyce S, Lash R, de Siantz ML, de Leon Siantz Lou M. Migration experiences of foreign educated nurses: a systematic review of the literature. *J Transcult Nurs*. 2016;27(2):181–188. doi:10.1177/1043659615569538
39. Tangcharoensathien V, Travis P, Tancarino ASS, et al. Managing in- and out-migration of health workforce in selected countries in South East Asia region. *Int J Heal Policy Manag*. 2018;7(2):137–143. doi:10.15171/ijhpm.2017.49
40. Reblando JR, Comparative A. Analysis of the Philippine nursing curriculum from other countries. *Int J Adv Res*. 2018;6(7):526–532. doi:10.21474/IJAR01/7393
41. Alam MLA, Islam MM, Cortijo CZ. International health professional migration and brain waste: a situation of double-Jeopardy. *Open J Prev Med*. 2015;5(03):128. doi:10.4236/ojpm.2015.53015
42. Slote RJ. Pulling the plug on brain-drain: understanding international migration of nurses. *Med Surg Nurs*. 2011;20(4):179–186.
43. Salmon ME, Yan J, Hewitt H, Guisinger V. Managed migration: the Caribbean approach to addressing nursing services capacity. *Health Serv Res*. 2007;42(3 II):1354–1372. doi:10.1111/j.1475-6773.2007.00708.x
44. Brown BDA. Workforce losses and return migration to the Caribbean: a case study of Jamaican nurses. *Cent Migr Stud Spec Issues*. 1996;13(4):197–223. doi:10.1111/j.2050-411X.1996.tb00159.x
45. Thompson R, McConnell ES, Corazzini KN. Factors shaping Caribbean nurse migration and the impact on long-term care. *Innov Aging*. 2017;1(Supplement):1. doi:10.1093/geroni/igx004.4405

46. Dimaya RM, McEwen MK, Curry LA, Bradley EH. Managing health worker migration: a qualitative study of the Philippine response to nurse brain drain. *Hum Resour Health*. 2012;10:47. doi:10.1186/1478-4491-10-47
47. Galbany-Estragués P, Nelson S. Migration of Spanish nurses 2009–2014. Underemployment and surplus production of Spanish nurses and mobility among Spanish registered nurses: a case study. *Int J Nurs Stud*. 2016;63:112–123. doi:10.1016/j.ijnurstu.2016.08.013
48. Kurniati A, Chen C-M, Efendi F, Ogawa R. A deskilling and challenging journey: the lived experience of Indonesian nurse returnees. *Int Nurs Rev*. 2017;64(4):494–501. doi:10.1111/inr.12352
49. Salami B. Migrant nurses and federal caregiver programs in Canada: migration and health human resources paradox. *Can J Nurs Res*. 2016;48(2):35–40. doi:10.1177/0844562116663951
50. Li H, Nie W, Li J. The benefits and caveats of international nurse migration. *Int J Nurs Sci*. 2014;1(3):314–317. doi:10.1016/j.ijnss.2014.07.006

Journal of Multidisciplinary Healthcare

Dovepress

Publish your work in this journal

The Journal of Multidisciplinary Healthcare is an international, peer-reviewed open-access journal that aims to represent and publish research in healthcare areas delivered by practitioners of different disciplines. This includes studies and reviews conducted by multidisciplinary teams as well as research which evaluates the results or conduct of such teams or healthcare processes in general. The journal

covers a very wide range of areas and welcomes submissions from practitioners at all levels, from all over the world. The manuscript management system is completely online and includes a very quick and fair peer-review system. Visit <http://www.dovepress.com/testimonials.php> to read real quotes from published authors.

Submit your manuscript here: <https://www.dovepress.com/journal-of-inflammation-research-journal>