

Chapter 3

Nurse Migration and Career Development: The Indonesian Case

Aswatini Raharto and Mita Noveria

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Nurse Migration and Career Development: The Indonesian Case

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Aswatini Raharto and Mita Noveria

Abstract

Indonesia is known as an important origin country of labour migration, mainly to some countries in Asia (Malaysia, Taiwan, Hong Kong, and Singapore) and to the Middle East, especially Saudi Arabia. However, the healthcare workforce, including nurses, has not been a major constituent of Indonesian migrant workers abroad.

National data show that Indonesia did not achieve the target ratio of 180 nurses for 100,000 population in 2019, based on the number of nurses working at health facilities. However, some provinces have already reached over the target. Therefore, the nurse workforce distribution within Indonesia in the context of nurse internal migration is an important issue. International nurse migration is also increasingly important (mainly work as caregivers from Indonesia to work abroad), referring to the increasing number of those deployed to work overseas. In addition, the ASEAN Economic Community (AEC), which was established at the end of 2015 is facilitating the free movement of skilled labour within ASEAN Member States, including nurses, and will increase the opportunity for Indonesian nurses to migrate and work in other ASEAN countries.

The survey conducted in Jakarta and the surrounding areas mainly focussed on the analysis of Indonesia's nurse migration, both internal and international. The survey shows that nurses as international migrant workers from Indonesia have been working in some Asian, Middle Eastern, European, and even African countries, with Japan as the main destination amongst Asian countries. The reasons for working abroad, the pull factors of the destination countries, are mainly for getting more experience, skill improvement, and better career advancement. Amongst the nurses who did not have any experience working abroad, most of them were

also not interested in working abroad mainly due to family constraints. Regarding the push factors in the country, problems that the nurses experienced in their job might have had a positive influence on their intention to work abroad. Career development seems to be a problem amongst nurses. Although they have fulfilled several requirements needed as nurses, some stated difficulties and a lack of satisfaction with career development in Indonesia. Nevertheless, this was not a prime factor pushing them to migrate and look for a job abroad.

Keywords: nurse, international migration, internal migration, career development, Indonesia.

1. Introduction

Indonesia has a long history of sending labour to work overseas, and it is also known as an important origin country of labour migration, mainly to countries in Asia (Malaysia, Taiwan, Hong Kong, and Singapore) and to the Gulf countries, especially Saudi Arabia (Aswatini, 2017a; Aswatini, 2017b). International labour migration from Indonesia increased substantially in the 1970s in response to growing demand from the Gulf countries, especially for male migrant labour from Asian countries, including Indonesia, to work in infrastructure projects. This was followed by increasing demand for female domestic workers that resulted in the phenomenon called the 'feminisation of migration', as large numbers of female migrant workers, especially from Indonesia and Sri Lanka, entered the domestic labour market in the Gulf countries (Asis, 2005).

The healthcare workforce, including nurses, has not been a major occupation source amongst Indonesian migrant workers abroad, but Indonesia has a history of sending nurses to the Netherlands. This programme was developed at the request of the Dutch government for sending Indonesian nurses to join the healthcare sector in the Netherlands. The first batch of Indonesian nurses arrived in 1969 but, unfortunately, this programme was suspended in 1974 for several reasons (Hosen and Raharto, 2013: 393). Even after the cessation of the programme with the Netherlands, there has been a growing demand for nurses in the global labour market of the healthcare workforce, and this can be a pull factor for motivating Indonesian nurses to work abroad.

The shortage of nurses is rampant all over the world irrespective of development status (Matsuno, 2009; NurSearch, 2017; Marc et al., 2018; World Health Organization, 2018). The World Health Organization (WHO) estimated that the world would need an additional 9

million nurses and midwives by the year 2030, and Southeast Asia and Africa are the areas which have the greatest demand. Looking at developed countries, such as the United States, the United Kingdom, and some European countries, 77% of the countries are facing a nursing staff shortage, and nearly all of the countries rely on the supply of nurses from abroad, especially from developing countries (Rutter, 2001: 1172; Li, Nie, and Li, 2014). Matsuno (2009), Miyamoto and Seoka (2015), Marc et al. (2018), Nagaya (2018) and Hadad and Toney-Butler (2019) also showed that some developed countries, such as the United States, Japan, and some European countries such as the United Kingdom and Germany, have experienced shortages of nurses. Shortages have also been seen in some developing countries in Africa, such as Somalia, Niger, and Burundi (NurSearch, 2017)

Miyamoto and Seoka (2015), Marc et al. (2018), Nagaya (2018), and Hadad and Toney-Butler (2019) explain that there are some important factors causing the nurse shortages in developed countries, such as ageing populations (which increase the need for health services); ageing workforces, including the nursing workforce; and the withdrawal of nurses from the labour market due to both pecuniary and non-pecuniary factors, such as family-related reasons and working conditions. In developing countries, the significant loss and shortage of the nursing workforce are caused by the low quality of nursing school education, which does not meet needs (mismatch between production and demand), and high nurse out-migration, mainly from low- and middle-income countries to high-income countries (Ross, Polsky, and Sochalski, 2005; Li, Nie, and Li, 2014; Roskam and Kurniati, 2014; Tangcharoensathien et al., 2018; Efendi et al., 2018).

Within ASEAN member countries, the movement of nurses from one country to other ASEAN member countries was facilitated by the establishment of the ASEAN Economic Community. Its 2025 Blueprint facilitates the free movement of skilled labour within ASEAN for eight occupations, including nursing (ASEAN Secretariat, 2015). This might be a factor that positively influences the movement of nurses, causing them to work outside their countries in other ASEAN Member States.

1.1. The Indonesian nurse workforce

In 2017, a total of 345,276 nurses worked at health facilities in Indonesia, and the ratio of nurses to the total population was 131 for every 100,000 people (Kurniawan et al., 2018). The total number of nurses registered for membership of Indonesia's National Nurse Association (*Persatuan Perawat Nasional Indonesia/PPMI*) was 359,339 in 2017 (Ministry of Health, 2017:

4). These data indicate that not all of the nursing workforce (about 14,063 nurses) is being utilised in Indonesia's health facilities. The government's target ratio for 2019 was 180 nurses for every 100,000 population. To achieve this target ratio, Indonesia had 137,258 vacancies for nurses in health facilities as of 2019, based on the 2017 data. There is also an uneven distribution of nurses in Indonesia. If we look at the differences in the nurse-to-population ratio by province in Indonesia, only 16 of 34 provinces have more than 180 nurses per 100,000 population.

Nurses represent the largest proportion of the health workforce in Indonesia (29.66% in 2016). However, there is no exact data available on the total number of nursing school graduates that can indicate the available nursing workforce (supply of the nursing workforce) due to the lack of a human resources information system in Indonesia (Efendi et al., 2018). A WHO report in 2009 showed that 682 schools offered nursing education in Indonesia and produced 34,000 nurses per year. The number of nursing schools/institutions increased to 889 in 2014, offering mainly bachelor's degrees and Diploma III (Ministry of Education and Culture in Efendi et al., 2019).

Referring to the increase in the number of nursing schools/institutions and the approximate number of graduates, it can be supposed that Indonesia no longer has the problem of a nursing workforce shortage. The problem is the imbalanced distribution of the nurse workforce. As a result, there are surpluses in some provinces (Jakarta Capital Region, East Kalimantan Province, and Bangka Belitung Islands Province) and shortages in some other provinces (Ministry of Health, 2017). Indonesia also has potential resources for sending nurses to work abroad if the quality of graduates and qualifications are fulfilled by the potential nurse migrant workers. Referring to the situation above, the internal as well as international migration of nurses are important issues to be explored in Indonesia.

1.2. The study

This study, entitled 'International Migration of Indonesian Nurses', was carried out in Indonesia with the Special Capital Region of Jakarta as the basis of the study area. Because of the ageing population in the world, including Indonesia in the future, the need for care workers (nurses and caregivers) in the countries experiencing ageing population problems will be one factor influencing the international migration of care workers. In Indonesia, this will also influence the internal migration of care workers amongst provinces due to the uneven distribution of qualified care workers throughout the country. The main objective of

the study is, therefore, to investigate nurse migration and the career development of nurses in Indonesia. The specific objectives of the study are:

1. To analyse factors related to nurse migration in Indonesia
2. To analyse factors related to nurses' career development

The study utilised both a quantitative and qualitative approach in data collection. A quantitative approach was used to collect data from 313 samples of nursing school graduates using a semi-structured questionnaire covering information on educational history, family background, work history, current working condition, and internal and international migration experiences.

Interviews were conducted from September to December 2018. The respondents in the qualitative data collection were nursing school directors and lecturers, and related government officials of the Ministry of Manpower and the National Board of Placement and Protection on Indonesian Workers (*Badan Nasional Penempatan dan Perlindungan Tenaga Kerja Indonesia/BNP2TKI*). Based on Indonesia Presidential Decree, No. 90 2019, the BNP2TKI was renamed/replaced to the Agency of Placement and Protection of Indonesian Migrant Workers (*Badan Perlindungan Pekerja Migran Indonesia/BP2MI*). The information was collected in the interview using an in-depth interview guide covering issues related to the recruitment system for Indonesian nurses working abroad and their protection and on the nursing school system in Indonesia.

a) Sampling

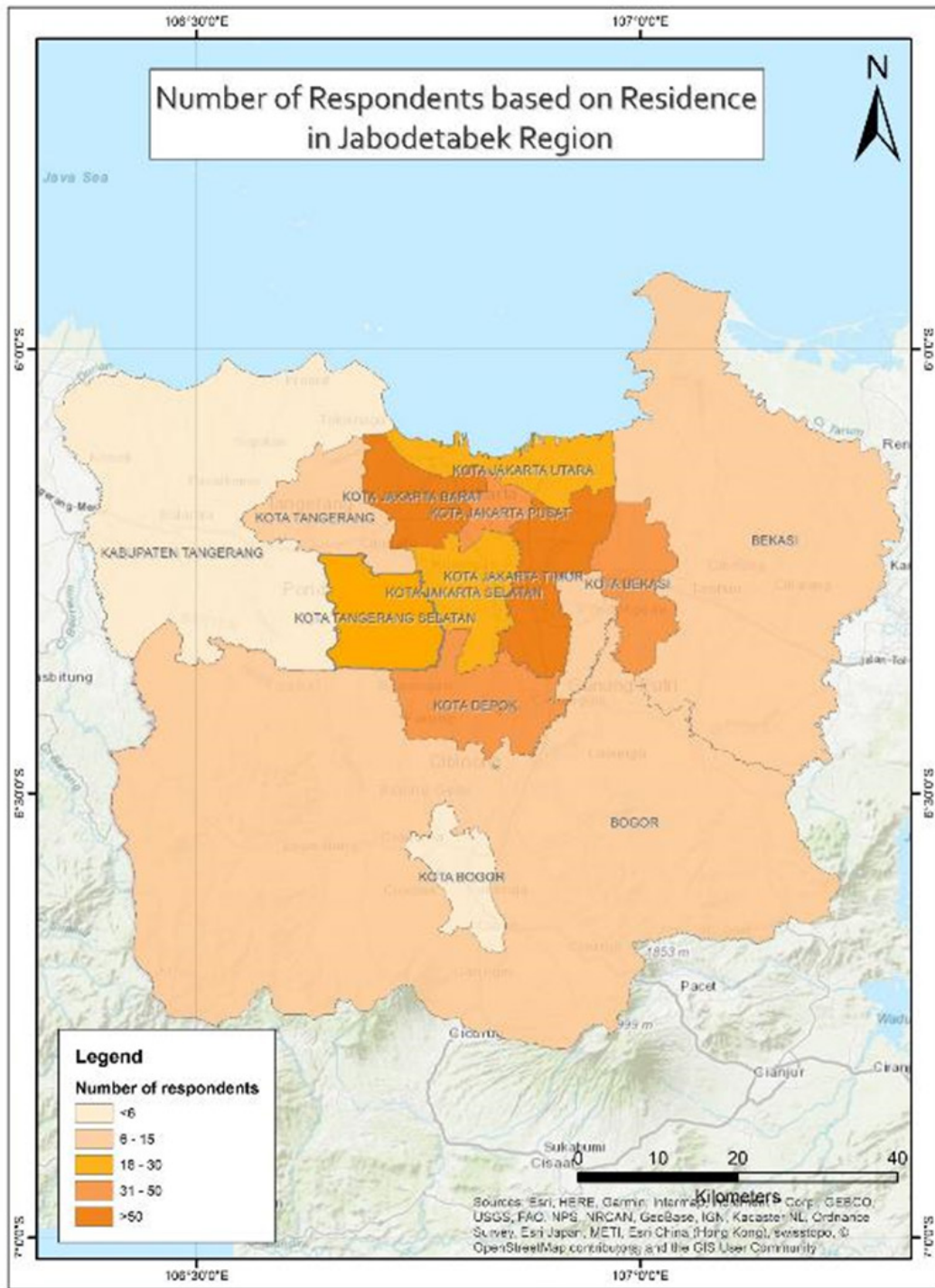
Five nursing schools were selected as the schools' sampling base, and these schools provided data on the graduates and their working places. These schools consist of three government schools and two private schools. Amongst the government schools, two schools are under the management of the Ministry of Health and one under the management of the Ministry of Research, Technology and Higher Education. For the two private schools, one is under the management of *Yayasan Pendidikan Kesehatan Carolus* (Carolus Health Education Foundation) and another one is under the management of *Yayasan Kesehatan PGI Cikini* (Cikini Indonesian Church Health Foundation). The information on these five nursing schools can be seen in Table 3.1. The nurses graduated, reside, and work in the hospitals located in DKI Jakarta and the surrounding areas (Jabodetabek: Jakarta-Bogor-Depok-Tangerang-Bekasi; see Figure 3.1 and 3.2).

Table 3.1: Information About the Nursing School Samples

| Nursing school samples | Established year | Type | Location | Study programme |
|------------------------|------------------|------------|--------------------|---|
| 1. School Sample 1 | 2001 | Government | Jakarta | Nursing (Diploma III) Midwifery (Diploma III) Dental nursing (Diploma III) Prosthetic orthotics (Diploma IV) |
| 2. School Sample 2 | 2001 | Government | Bekasi, Jawa Barat | Nursing (Diploma III) Nursing (profession) Midwifery (Diploma III) Midwifery (Profession) Midwifery (Diploma IV) Medical laboratory techniques (Diploma III) Medical laboratory techniques (Diploma IV) Physiotherapy (Diploma IV) |
| 3. School Sample 3 | 1947 | Private | Jakarta | Midwifery (Diploma III) Science of nutrition (Bachelor) Nursing (Bachelor) Nursing (Master) Nursing (Profession) |
| 4. School Sample 4 | 1969 | Private | Jakarta | Nursing (Diploma III) |
| 5. School Sample 5 | 1985 | Government | Depok, Jawa Barat | Nursing (Bachelor) Nursing (Master) Nursing (Doctoral) Nursing (Profession) - Nursing Leadership and Management - Medical Surgical Nursing - Maternity Nursing - Paediatric Nursing - Mental Health Nursing - Community Health Nursing |

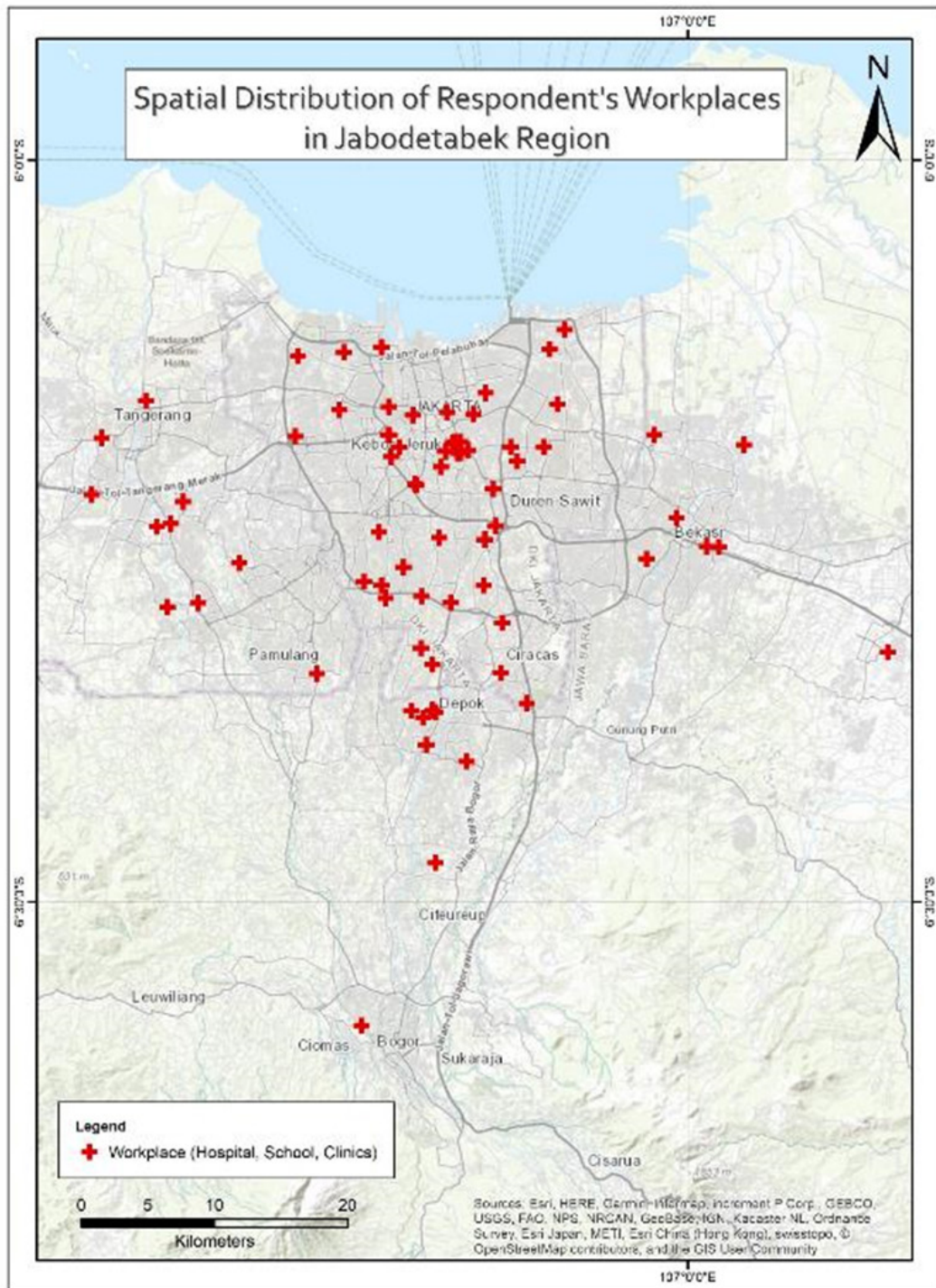
Source: Information is gathered from nursing school samples.

**Figure 3.1: Number of Respondents Based on Residence
in Jabodetabek Region**



Source: For basic map: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBASE, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hongkong), swisstopo, © OpenStreetMap contributors, and the GIS User Community.
Respondents' place of residence in PPK-LIPI, IDEA-JETRO, ERIA Survey (2018).

Figure 3.2: Spatial Distribution of Respondents' Workplaces in Jabodetabek Region



Source: For Basic map: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, Geo-BASE, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community.
Respondents' working place in PPK-LIPI, IDEA-JETRO, ERIA Survey (2018).

To find the respondents for the study, a list of nursing school graduates and their current working places was developed based on information provided by five nursing schools. This is the list of the prospective respondents of the study. The nurse samples in the study were selected based on a purposive method (interviews were carried out with the nurses that we could contact and who agreed to be interviewed/participate in the study). Since not all nursing school graduates could be traced based on these procedures, a snowball sampling method was applied to find the potential respondents. Before the interviews, the interviewers contacted the prospective respondents by phone, WhatsApp, email, and other forms of communication to arrange the interview place and time. Finally, 313 respondents were enrolled as the respondents of this study. Their attributes are the following:

- 36 male respondents.
- 10 respondents started working in 2017, and they are not included in the analysis since they are just started work and were considered to have less working experience.
- 11 respondents had experience of working abroad (seven females and four males).
- seven respondents were currently working abroad (four females and three males).
- one respondent had experience of working abroad but had stopped working currently (female, stopped working in Indonesia in 2018).
- Female respondents who were currently working in Indonesia and had work experience of more than two years but did not have experience of working abroad totalled 255 respondents.
- Male respondents who were currently working in Indonesia and had work experience of more than two years but no experience working abroad totalled 29 respondents.

Although the study is entitled 'International Migration of Indonesian Nurse', the analysis also covers nurse internal migration, since this will also have an impact on their career development.

2. Current situation of Indonesian nurses

Indonesian Law No. 36/2009 on Health states that a health provider constitutes anybody devoting his/her life to the health sector and having knowledge and/or skills obtained through education on health or any certain skill that requires authorisation to carry out health services (Article 1 paragraph 6). Nurses are considered as health providers who carry out nursing activities that are an integral part of health services.¹ The recognition of nurses as a group of health professionals has been formally declared, Government Regulation No. 32/1996 states that nurses are one of six groups of health professions in Indonesia. This is strengthened by Indonesian Law No. 38/2014 on Nursing, which that declares nursing services are a form of professional services that is based on nursing knowledge for serving individual persons, families, groups, or communities whether they are unhealthy or healthy (article 1, paragraph 3). Nursing services are delivered by nurses who have graduated from higher education in nursing in Indonesia or overseas as recognised by the government according to existing laws and regulations (article 1, paragraph 2 and paragraph 4).

In conducting their duties, nurses have to increase their skills and capabilities in order to develop their careers. The enhancement of skills and capabilities could be managed by an expansion of formal education or engaging in various courses that are relevant to their tasks as health providers. Courses can be undertaken as on-the-job training or outside the workplace. All the efforts facilitate them to upgrade their skills and capabilities in order to deliver adequate health services to those who are in need.

This part discusses the current situation of Indonesian nurses in three sections. The first section discusses government policies on the career development of Indonesian nurses. The second section focuses on the nursing education system, and the last section discusses the current number and distribution of Indonesian nurses. The analysis is based on available secondary data and is expected to present a general description of the nursing situation in Indonesia.

¹ In the document 'Development Planning of Health Provider 2011-2025', there are 13 occupations that are considered as health providers. These are medical specialist, general practitioner, dentist, nurse, midwife, dental nurse, pharmacist, assistant to pharmacist, sanitarian, nutritionist, community health personnel, therapist, and medical technique personnel.

2.1. Policy related to nurses' career development

Someone who intends to carry out a job in nursing has to undertake nursing education. After the completion of their nursing education, they are allowed to commence their nursing career in any type of health service institution. The Indonesian government has been managing the profession and career development of nurses by launching Indonesian Law No. 38/2014 on Nursing. The act covers the regulation of all aspects of nursing, including the education levels and skills that have to be possessed by the nurses, the services they deliver to those who are in need, and their code of conduct, and promotes efforts to enhance nursing capabilities. The management of nursing services by the government aims to improve the quality of nurses and nursing services, to provide protection and legal certainty for nurses and their clients, and to improve the level of community health (article 3).

According to Law No. 38/2014, nursing encompasses two categories, namely profession nurses and vocational nurses. The categorisation of nurses is in line with the level of education they have attained. Profession nurses are a group of nurses whose degrees are a bachelor, master, or doctor in nursing education, while vocational nurse is a category for those who attended a vocational college/school for nursing. Profession nurses also include two groups; 'nurse' and 'specialist nurse' (article 4). 'Nurse' refers to those who have completed higher education (university level) in nursing, as stated in the explanatory document of Law No. 38/2014. 'Specialist nurse' refers to those who have undertaken specialist education in nursing, for example paediatric and geriatric nursing.

Similar to education, the career development of nurses is also regulated by the government. It starts from satisfying the requirements that must be met by nurses before they commence nursing practice. Nursing school graduates who intend to carry out nursing services must be registered, proven by *Surat Tanda Registrasi* (STR; Letter of Registration). According to the Regulation of Ministry of Health of Republic of Indonesia No. 1796/Menkes/Per/VIII/2011 on Health Provider Registration (article 2), some prerequisites should be fulfilled by nursing school graduates to obtain the STR, such as holding a certificate of competence, besides a nursing school/college diploma. The possession of a certificate of competence is particularly compulsory for nursing school graduates from 2012 and onward. Those who graduated from nursing school before 2012 are not required to take a competence test in order to obtain an STR. Graduates from 2012 and onwards may possess a certificate of competence if he/she passes the

competence examination based on her/his level of education. A certificate of competence is issued by the Ministry of Education and Culture (formerly Ministry of Research and Higher Education), while an STR is issued by the Council of Health Provider of Indonesia (*Majelis Tenaga Kesehatan Indonesia*; MTKI). The council was established by the Ministry of Health and consists of representatives of the Ministry of Health, profession organisations related to health providers, and schools of health. The STR is effective for five years and should be re-registered in every five years.

As mentioned previously, nurses have to advance their skills and capabilities over time. This can be done through various efforts, such as undertaking training, courses, and non-formal education on skills related to their chores. Law No. 38/2014 on Nursing mentions that owners or management teams of health facilities that employ nurses have to facilitate them to undergo continuous education (article 53, paragraph 4). This aims to enhance their skills and capabilities in order to provide optimal services to patients or clients.

In Indonesia, nurses are classified into four categories. These are clinical nurses, management nurses, teaching nurses, and researcher nurses.² Clinical nurses directly provide nursing services to clients, such as individuals, families, groups, and communities. Clinical nurse work in health facilities, such as hospitals and clinics, and other facilities in the community as necessary. Management nurses manage nursing services in health facilities and range from front line managers and middle managers to top managers. Teaching nurses are those who work as lecturers at nursing schools (formal education) or trainers for non-formal nurse education. Lastly, researcher nurses carry out research on nursing and health issues, for example research on effective nursing practices for patients with special needs. Each nurse category consists of five levels, such as clinical nurse I, clinical nurse II, clinical nurse III, clinical nurse IV, and clinical nurse V according to the skill levels. Clinical nurses may shift to manager nurse, teaching nurse, or research nurse as long as they meet the requirements.

² http://hukor.kemkes.go.id/uploads/produk_hukum/PMK_No._40_ttg_Pengembangan_Jenjang_Karir_Profesional_Perawat_Klinis_.pdf.

2.2. Nursing education systems

Nursing education in Indonesia was initiated during the pre-independence period. As time has gone on, nursing education has been adjusted several times in accordance with the changing and expanding demand for nursing services, aiming to supply qualified nurses who are able to provide optimal services for clients, which in turn allows the government to achieve their health development goals.

Nursing education used to be recognised as secondary education, specifically the senior high school level. However, nowadays it is categorised as a higher level of education (tertiary education). Indonesian Law No. 20/2003 on National Education System states that a higher education level is an education level following senior and junior high school (article 19 paragraph 1). The higher education level is convened by tertiary education institutions, which have several categories, such as 'academy', 'polytechnic', 'higher school', 'institute', and 'university'.

Referring to Law No. 20/2003 on National Education System and Law No. 38/2014 on Nursing, nursing education comprises three various types of education, namely vocational education, academic education, and professional education. Further explanation of each type of education is as follow:

1. Vocational education is known as D III (Diploma III) and D IV (Diploma IV) on nursing. Vocational education focuses more on applied skills to create graduates who have mastered practical skills. D III is a three-year education in nursing. After completion, graduates receive the degree of Amd. Kep., an abbreviation of *Ahli Madya Keperawatan* (middle expert in nursing). D III graduates are eligible to title themselves with 'Amd. Kep' following their names. D IV requires four years to complete the course and a graduate gets the degree of S. ST., an acronym for *Sarjana Sains Terapan* (Bachelor of Applied Science). Graduates of the D IV education are entitled to use 'S.ST' following their names.
2. Academic education covers the three educational levels of bachelor, magister, and PhD on nursing, which in Indonesia are known as S1, S2, and S3. Those who complete a bachelor course receive the title of S. Kep. (*Sarjana Keperawatan*; Bachelor of Nursing) and are allowed to use the title 'S. Kep.' after their names. A bachelor programme can be accomplished in four years, while completing a magister programme needs another two years. The title of a magister for a nursing

graduate is M. Kep. (*Magister Keperawatan*; Magister of Nursing). For these graduates, 'M. Kep.' can be added after their names.

3. Professional education refers to any type of further nursing education that can be undertaken by graduates of bachelor course and magister levels. Professional education consists of two types of education. One is the nurse profession, which can be undertaken by those who have accomplished four years of education in a bachelor course. This education course requires one year to complete and is designed to provide further education aimed at creating professional nurses. Those who complete this education receive a title of Ns. (Ners), which can be used before his/her name. Hence, a professional nursing education graduate is entitled to write 'Ns.' before his/her name and 'S. Kep' after his/her name. Another type is advanced education for nurse specialists. This type of education is one year of further training after completion of a master's degree in nursing. Recently, there are five fields available for nurse specialists, namely community nursing, maternity, surgery, psychiatry, and paediatrics.

Nursing education is managed by nursing schools owned by government and private institutions. On the government side, the schools are run under the coordination of two ministries, namely the Ministry of Education and Culture and the Ministry of Health. Nursing schools under the Ministry of Education and Culture are operated by universities in many provinces in Indonesia. Some universities have a faculty of nursing, and some place the nursing school under the faculty of medicine or the faculty of public health in their organisation structures. Besides these, there are other facilities that provide nursing education under the jurisdiction of the Ministry of Health. Polytechnics of health can be found in several provinces. Data show that in 2017, there were 70 Diploma III programmes operated by the Ministry of Health in Indonesia. The total number of students was 21,017 (Ministry of Health, 2018), and the number is increasing. In 2015, for instance, there were 17,779 students enrolled in existing nursing schools. The number increased to 19,058 and 21,017 in 2016 and 2017, respectively. The private sector also takes part in carrying out nursing education. Like government institutions, private nursing schools are also established under universities, academies, and polytechnics.

After completing nursing education at all levels (D III, D IV, bachelor, magister, and PhD), one is required to take a competence test before practicing nursing services. The competence test is a written examination, and the questions are based on the candidate's level of education. The test is held under the collaboration of many stakeholders, namely

the Ministry of Education and Culture, the Indonesian National Nurse Association, and the Indonesian Nursing Education Association. Those who pass the test are eligible to receive a certificate of competence. The certificate is one of the requirements to receive an STR, which is issued by the MTKI. An STR is required to apply for jobs in health facilities. The STR must be renewed in every five years in order for nurses to maintain their jobs (through an interview with a selected nursing school manager).

Nursing education never ends, even after the completion of all formal education programmes. Law No. 38/2014 on Nursing mentions the development of nurse capability. Article 53 paragraph 4 points out that the management of health facilities where nurses work has to facilitate them to advance their competence through formal and non-formal education. This means that nurses have to continuously learn during their employment period. It is understandable, therefore, that some hospitals employ nurses with a lower level of education, for example D III, and facilitate them to increase their education. Indeed, some hospitals offer financial assistance or scholarships for nurses to enhance their education.

There is a tendency for health facilities, particularly some hospitals in big cities, to recruit nurses with higher levels of education. An interview with a nurse who is a lecturer at a nursing school owned by a private hospital in Jakarta confirmed this argument. Recently, some hospitals only recruit nurses who hold bachelor's degrees and have graduated from professional education. Those who only graduate with a Diploma III level of nursing are encouraged to advance their education. Such a requirement is not likely to be applied in small cities and remote areas. Since the number of nurses with such a level of education is low and such nurses are unevenly distributed, many hospitals in small cities still employ nurses who are Diploma III graduates.

2.3. Indonesian Nurses: Number, ratio, and distribution

Data launched by the Ministry of Health of the Republic of Indonesia shows that in 2016, the total number of health facilities, such as *Puskesmas* (*Pusat Kesehatan Masyarakat*; Primary Healthcare Centres) and public and private hospitals, was 15,263. There were 1,000,780 health providers working at the facilities, comprised of various health professions. Of this number, 60,228 were medical specialists, medical doctors (general practitioners), dentists, midwives, nurses, and pharmacists. The data show that nurses outnumbered every category of medical personnel, and the total figure was 296,876

(41.28%). In 2017 the number of nurses increased by 16.3%, and there were 345,276 nurses in Indonesia (Ministry of Health, 2017).

As mentioned previously, the Indonesian government targeted a nurse-to-population ratio of 180:100,000 for the year 2019. The target is mentioned in the 'Decision of Coordinating Minister for People Welfare No. 54/2013 on Development Planning of Health Provider in 2011-2015'. However, it is difficult to achieve the target. Indeed, in 2014 the target of 158:100,000 was not accomplished. In 2016, the nurse-to-population ratio was 113:100,000, which far below the 2014 target. Nevertheless, some provinces reached the goal and attained a ratio exceeding the target. These provinces were the Jakarta Capital Region (221:100,000), East Kalimantan (202:100,000), and Bangka Belitung Island (202:100,000). On the other hand, Lampung, West Java, and Banten were the three provinces with the lowest ratios in 2016. The ratios were 48:100,000, 68:100,000, and 72:100,000 for the three provinces, respectively (Ministry of Health, 2017). Based on this fact, in the coming years, Indonesia will still need more nurses, and they should be distributed evenly to meet the needs of the whole population in all parts of the country.

The Government of Indonesia has attempted to produce more nurses to meet the need by collaborating with private educational institutions. Many public nursing schools have been established by the government under the management of the Ministry of Education and Culture and the Ministry of Health in all provinces in Indonesia. Nursing schools under the jurisdiction of the Ministry of Health, i.e. polytechnic of health all over Indonesia, created 6,835 nurses with Diploma III certificates in 2015. The number of graduates at the same level in 2016 and 2017 were 6,257 and 5,756, respectively. In 2017 polytechnics of health also created 1,911 nurses with Diploma IV certificates. Unfortunately, it is difficult to obtain data on the number of graduates from nursing schools under the jurisdiction of the Ministry of Education and Culture, which have various faculties at public universities and private nursing schools. All established nursing schools under the Ministry of Education and Culture have trained large numbers of nurses to provide nursing services, compared with private institutions.

2.4. The needs of nursing services

Nurses work at various types of health facilities, ranging from primary health centres at the sub-district level to hospitals, which provide health services at the district and province levels. Some nurses work at primary health centres in remote areas, including the hinterland and small islands at the Indonesian sea that border areas with neighbouring countries. During 2017, about 29.12% of all health personnel who worked at primary health centres in Indonesia were nurses. The percentage of nurses amongst the entire health personnel who were employed at hospitals was 33.53%. Moreover, nurses comprised 31.67% of all health personnel working in remote areas (Ministry of Health, 2018).

Apart from those working at primary health centres and hospitals as mentioned above, there are also many nurses who were recruited to work in remote areas under certain programmes. The programmes specifically aim to provide health services for people living in these areas. One of the programmes is *Nusantara Sehat* (Healthy Nusantara), which deploys health personnel comprising medical doctors, nurses, and midwives, to remote areas, including small islands in many parts of Indonesia. In 2017 the number of nurses employed under the programme was 666, and these nurses worked in many remote areas of Indonesia.

As mentioned in the previous section, the nurse-to-population ratio in Indonesia is still low. However, at some primary health centres, the number of nurses is relatively sufficient. Data show that 66.6% of primary health centres have more nurses than required (Ministry of Health, 2018). Moreover, about 7.2% of primary health centres have an adequate number of such health personnel, while the rest (26.2%) have an insufficient number of nurses. As the distribution of Indonesian nurses is still uneven, the primary health centres with sufficient numbers of nurses are probably located in particular provinces, such as the Jakarta Capital Region, East Kalimantan, and Bangka Belitung Island. For the Jakarta Capital Region, almost all of its parts are categorised as urban areas. This implies that the nurses are working in urban areas. Therefore, it can be said that a large number of nurses are providing health services in these areas. In contrast, the primary health centres that still lack nurses are located in other provinces in Indonesia, including Lampung, West Java, and Banten. This condition again shows that distributing the nurses is still a problem that should be overcome by the Indonesian government.

Nursing services are related not only to curative healthcare facilities but also to other services, for example elderly care. Considering the increasing number of elderly people, more nurses, especially those with adequate skills in nursing and caring for older people, are needed. As a consequence, the government, in particular, should prioritise attempts to produce skilled nurses, particularly for elderly care.

3. Indonesian nurse migration: Survey results

Internal and international nurse migration is an important issue to be explored in Indonesia. Buchan et al. (2003) explain that nurses are considered as a key group of 'knowledge workers' in labour migration in efforts to solve skill shortages in one area by recruiting from other areas that have a surplus supply of nurses. In the context of internal migration, nurses' mobility in Indonesia is an important issue due to the uneven distribution of the population and nurses throughout the country.

As previously pointed out, nursing is not a major occupation when considering Indonesian labour migration to work abroad. However, international nurse migration to work abroad will become an important issue since many countries in Asia are experiencing nurse workforce shortages. Peng (2017: 4) stated that currently, the Philippines is the main sending country for care workers (nurses and care givers) to Japan. Meanwhile, Indonesia is the most important sending country for care workers to Taiwan, and in 2015, 79% of foreign care workers working in Taiwan were from Indonesia

Indonesia has also been considered as a country with a surplus nursing workforce (Efendi et al., 2013). This might be one reason for the demand from other countries in the world. Meanwhile, nurse utilisation in Indonesia is still below the government target ratio. Therefore, the underutilisation of the nursing workforce in the country will become a push factor for Indonesia nurse migration abroad. This creates a dilemma. On one hand, the underutilisation of the nursing workforce in Indonesia results in a nurse-to-population ratio that is lower than the government target ratio, while Indonesia's nursing workforce needs will continue to increase due to the ageing population in the future. On the other hand, the employment opportunities opening for the nursing workforce in other countries will become a pull factor for nurse migration from Indonesia to work abroad. This section will analyse the characteristics of nurse respondents, the factors related to nurse migration in Indonesia, and the importance of employment experience abroad for nurses' career development based on the data collected in the study.

3.1. Demographic characteristics of the respondents

This section discusses the demographic characteristics of the respondents. The respondents are split into two groups, migrants and non-migrants. Migrants refer to those whose places of residence during the study were different from their places of birth, also called 'lifetime migrants'. On the other hand, non-migrants are respondents whose places of residence are the same as their places of birth.

Almost two-thirds of the respondents are migrants as their place of residence differed from their place of birth. We did not ask the time of migration from their place of birth to the current place of residence, but the reason for migration was asked. We define the migrants who moved from their places of births to receive nursing education as 'migrants for education reasons'. Such migrants can be categorised into two groups. The first category comprises respondents who moved to Jakarta when they were enrolled in nursing schools. The second is those who graduated from a lower level of nursing education in places other than Jakarta, and then received further education in nursing schools in Jakarta. This includes, for example, someone who attained a Diploma III certificate from a nursing school in Medan (North Sumatra), and afterwards accomplished a bachelor's degree and the nurse profession in a sampled nursing school located in Jakarta. The study reveals that 32% of the respondents were 'migrants for education reasons', which means that they moved to Jakarta to enrol at selected nursing schools.

More than three-fourths (77.2%) of respondents commenced their first job in Jakarta, and all were no longer working at the health facilities where they started. As much as 83.1% of respondents answered that they were working in Jakarta at the time of the survey. This means that 5.6% of them moved to the capital city during their work life. This finding can suggest that more nurses are attracted by Jakarta as their working place.

Table 3.2: Demographic Characteristics of Respondents by Migration Status

| Demographic characteristics | Migrant | Non-migrant | Migrant + Non-migrant |
|-----------------------------|------------|-------------|-----------------------|
| <i>Age</i> | | | |
| 20–24 | 15 | 17 | 32 |
| 25–29 | 76 | 37 | 113 |
| 30–34 | 34 | 5 | 39 |
| 35–39 | 26 | 7 | 33 |
| 40–44 | 32 | 4 | 36 |
| 45–49 | 19 | 2 | 21 |
| 50–54 | 21 | 4 | 25 |
| 55–59 | 7 | 2 | 9 |
| 60–64 | 4 | 0 | 4 |
| 65 and older | 1 | 0 | 1 |
| N | 235 | 78 | 313 |
| <i>Sex</i> | | | |
| Male | 28 | 8 | 36 |
| Female | 207 | 70 | 277 |
| N | 235 | 78 | 313 |
| <i>Marital status</i> | | | |
| Single | 76 | 41 | 117 |
| Married | 157 | 36 | 193 |
| Divorce | 2 | 1 | 3 |
| N | 235 | 78 | 312 |
| <i>Education</i> | | | |
| Diploma III | 84 | 48 | 132 |
| Bachelor | 8 | 1 | 9 |
| Nurse profession | 132 | 28 | 160 |
| Nurse specialist | 6 | 1 | 7 |
| Others* | 5 | 0 | 5 |
| N | 235 | 78 | 313 |
| <i>Ethnicity</i> | | | |
| Javanese | 102 | 40 | 142 |
| Sundanese | 15 | 7 | 22 |
| Betawinese | 9 | 17 | 26 |
| Bataknese | 44 | 10 | 54 |

| | | | |
|---|------------|-----------|--------------|
| Minangnese | 11 | 1 | 12 |
| Balinese | 5 | 0 | 5 |
| Flores | 22 | 2 | 24 |
| Others | 27 | 1 | 28 |
| N | 235 | 78 | 313 |
| <i>Religion</i> | | | |
| Islam | 111 | 63 | 174 |
| Catholic | 62 | 5 | 67 |
| Protestant | 59 | 10 | 69 |
| Hindu | 3 | 0 | 3 |
| N | 235 | 78 | 313 |
| <i>Current place of residence (province)</i> | | | |
| Jakarta Special Capital Region | 103 | 48 | 151 |
| West Java | 98 | 21 | 119 |
| Banten | 22 | 9 | 31 |
| Papua | 1 | 0 | 1 |
| East Nusa Tenggara | 1 | 0 | 1 |
| East Kalimantan | 1 | 0 | 1 |
| North Sumatra | 1 | 0 | 1 |
| Abroad | 8 | 0 | 8 |
| N | 235 | 78 | 313 |
| <i>Current workplace</i> | | | |
| Jakarta Special Capital Region | 187 | 68 | 255 |
| West Java | 25 | 4 | 29 |
| Banten | 9 | 3 | 12 |
| Papua | 2 | 0 | 2 |
| East Nusa Tenggara | 2 | 0 | 2 |
| Abroad | 7 | 0 | 7 |
| N | 232 | 75 | 307** |
| <i>Occupation of father</i> | | | |
| Armed forces | 23 | 6 | 29 |
| Manager | 5 | 3 | 8 |
| Professional | 75 | 22 | 97 |
| Technician and associated professional | 12 | 5 | 17 |
| Clerical support worker | 15 | 8 | 23 |

| | | | |
|--|------------|-----------|------------|
| Service and sales worker | 46 | 15 | 61 |
| Skilled agricultural, forestry, and fishery worker | 38 | 1 | 39 |
| Craft and related trade worker | 4 | 4 | 8 |
| Plant and machine operator and assembler | 14 | 9 | 23 |
| Elementary occupation | 2 | 5 | 7 |
| No answer | 1 | 0 | 1 |
| N | 235 | 78 | 313 |
| <i>Occupation of mother</i> | | | |
| Housewife | 131 | 55 | 186 |
| Professional | 61 | 12 | 73 |
| Clerical support worker | 2 | 1 | 3 |
| Service and sales worker | 23 | 6 | 29 |
| Skilled agricultural, forestry, and fishery worker | 16 | 1 | 17 |
| Craft and related trade worker | 1 | 0 | 1 |
| Plant and machine operator and assembler | 1 | 2 | 3 |
| No answer | 0 | 1 | 1 |
| N | 235 | 78 | 313 |

Note: * Others refer to respondents, particularly those who are of older ages, who graduate nursing education at the senior high school level. Previously, there was a vocational school in nursing at the level of senior high school. The school is not categorised as higher education level. One respondent who graduated junior high school was able to continue his/her education.

**Six respondents were not working currently since they entered further education.

Source: PPK-LIPI, IDEA JETRO, ERIA Survey (2018).

The respondents were dominated by those of prime working age (25–54 years). The data in Table 3.2 show that 267 respondents (more than 80%) are in this age group. Amongst this group, the highest number was those aged 25–29 years (36%). The mean age of the respondents was 34.6 years and the median age was 30 years. In terms of migration status, a larger number of non-migrants than migrants is seen only for the 20–24 year age group. In other age groups, migrants outnumbered non-migrants.

The study finds that almost two-thirds of the respondents are married. Comparing migrant and non-migrant respondents, the percentage of those who are single is far higher amongst non-migrants. This is because the proportion of non-migrant respondents in the youngest age group (20–24 year) is more than three times higher than the proportion for migrants. As there are more non-migrant respondents in this age group, it is reasonable that more of them are single.

The data in Table 3.2 show the educational attainment of the respondents. It can be said that the respondents have obtained sufficient knowledge of nursing since more than half of all the respondents had 'nurse profession' certificates that can be achieved after the completion of one more year of education after graduating from a bachelor's degree in nursing. Less than half were Diploma III graduates, the minimum educational requirement for nurses in Indonesia. There is an interesting phenomenon when comparing migrant and non-migrant respondents in this aspect. The percentage of migrants with a higher level of nursing education (bachelor and over) is far higher than non-migrants (two-thirds and one-third, respectively). On the contrary, the proportion of respondents with a lower level of education (Diploma III) is far higher amongst non-migrants than migrants.

The survey also asked about the respondents about their parents' occupation. The respondents were requested to answer about their parents' occupation unless they had passed away. The study reveals that the category with the highest percentage of responses for the fathers' occupation was professional. This could be found both for migrant and non-migrant respondents. The category with the second-highest percentage for the fathers' occupation was service and sales worker. For the third-highest category, there was a difference between migrants and non-migrants. For migrant respondents, the category was skilled agricultural, forestry, and fishery worker, while for non-migrants it was plant and machine operator and assembler. The data can be interpreted as that some migrant respondents come from rural areas where jobs in agriculture, forestry, and fishery are still dominant. For the occupations of the respondents' mothers, the study reveals typical job segregation between men and women. More than half of both the migrants' and non-migrants' mothers were housewives, which is a typical women's job in society. The category with the second-highest percentage for the respondents' mothers' occupation was professional. This was particularly higher amongst migrants than non-migrant respondents.

In the study, the respondents were questioned on their ability to speak foreign languages. The results show that a majority of respondents answered that they were able to speak some foreign languages. These foreign languages included English, Japanese, Arabic, French, German, Dutch, Korean, Mandarin, and Taiwanese. English is a foreign language that is taught since elementary school up to the university level in Indonesia. Other languages are taught in some schools, especially at the senior-high level. Some nursing schools teach Japanese language due to the demand from the country for Indonesian nurses and caregivers for the elderly (based on an interview with one of the selected nursing school managers). According to our in-depth interviews with respondents, their foreign language abilities were only passive, in the sense they are good at listening and reading. They have limited capability in speaking, which in turn causes difficulties for them in working overseas. Regarding this situation, foreign language training is absolutely needed for those who intend to work overseas.

3.2. Indonesian nurse migration to work abroad

a) Indonesian nurses' experiences of working abroad

According to the survey, there were 19 nurse respondents who had experienced working abroad, including seven that were still working abroad. They had worked in Japan (eight nurses) and Gulf countries (Saudi Arabia, Kuwait, United Arab Emirates: five nurses), and the rest had worked in several countries in Asia, Africa, and Europe. According to the 19 nurse respondents, those who had worked in Japan started in 2008, while those who had worked in Saudi Arabia started in 1997. The opportunity for Indonesian nurses to work in Japan was first provided by the Indonesia-Japan Economic Partnership Agreement (IJEPA), which was agreed upon by Indonesia and Japan in 2008. The IJEPA has two programmes for such nurses: the nurse candidate programme and the caregiver candidate programme. All eight respondents who had worked in Japan were IJEPA candidates. Only one was a nurse candidate and the rest were candidate caregivers, and all of them started work in Japan in 2008 as the first batch of the IJEPA programme. One respondent who started to work in Japan as a nurse candidate under the IJEPA said she was first assigned just the jobs of nurse assistants until she passed the national exam and became a registered nurse in Japan. Her career was consistent with the procedure adopted in the IJEPA.

Some reasons that the respondents stated for working abroad were:

- To get experience working abroad
 - Better career advancement
 - Higher salary
 - Training programme
 - Continue to further education
 - Following a senior friend
- b) Indonesian nurses' intention to work abroad

Several factors that may affect the respondents' intention to work abroad are analysed in this study. The analysis is based on respondents who had worked for at least two years in Indonesia and did not have any experience of working abroad, comprising 255 female respondents and 29 male respondents. The exclusion of respondents who had less than two years of work experience in this analysis is based on the assumption that they would not have had enough experience working as a nurse to consider their further career development.

There was almost no difference in the intention to work between the female and male nurses. Amongst the female nurses, 73 respondents (about 28.6%) stated that they intended to work abroad, while amongst the male respondents, eight respondents (about 27.6%) said they had an intention to work abroad. So, there was almost no difference in the intention to work abroad amongst the female and male nurses.

The existing literature (Li et al., 2014: 315; Nair and Webster, 2012: 158–159) argue that the underlying reasons for the international migration of nurses are complicated. According to Li et al. (2014), nurses are pushed by their home countries and pulled by recipient countries to migrate. In the home country, substandard conditions or circumstances encourage nurses to leave their country and, thus, represent the push factors. The conditions of the recipient countries represent a pull factor as they attract and facilitate the movement of nurses to that country. The push factors include low wage compensation, limited career opportunities, limited educational opportunities, lack of resources to support work, lack of social and/or retirement benefits, and dangerous working conditions. The several pull factors include the availability of job opportunities for professionals, opportunities for career advancement and personal development, the recognition of professional expertise, a professional work environment, attractive salaries, and social and retirement benefits. The economic reason of getting a better/higher salary and incentives is generally regarded

as an important reason because it is commonly known that the salary and wages when working abroad are higher than working in the country. However, as shown in Table 3.3, the reasons for the intention to work abroad amongst Indonesian nurses are mainly for getting more experience and skill improvement and for better career advancement. For the questions about the destination countries, the survey data show that the highest percentage (34%) of nurses who had an intention to work abroad preferred Japan as their destination country. This could be related to the wide publicity about the IJEPa programme, which has been well publicised by the National Board on Placement and Protection of Indonesia Migrant Labour (BNP2TKI). Other important destination countries are Australia (13.8%), the United States (13.8%), and the Netherlands (11.5%). Amongst nurses who do not have any experience working abroad, most of them are not interested in working abroad mainly due to family constraints.

Table 3.3: Distribution of Female Nurses with no Experience Working Abroad by Reason for Intention to Work Abroad and No Intention to Work Abroad

| Reason for intention to work abroad | N |
|---|-----|
| Expected to get experience by working abroad | 41 |
| Higher salary and incentives | 7 |
| To improve nursing skills | 4 |
| Better career advancement | 21 |
| Number of cases | 73 |
| Reason for no intention to work abroad | N |
| Not interested to work abroad | 93 |
| Limited information on working opportunity and condition abroad | 11 |
| Have already worked as civil servant | 11 |
| Family does not approve of working abroad | 48 |
| Lack of working experience | 4 |
| Language constraint | 1 |
| Others | 14 |
| Number of cases | 182 |

Source: PPK-LIPI, IDEA JETRO, ERIA Survey (2018).

Because of the small number of male respondents, we focused on female respondents for the detailed analysis. In the analysis, factors related to nurses' intention to work abroad are classified into three groups: (1) individual characteristics, (2) satisfaction at work as a proxy for factors preventing female nurses from working abroad, and (3) problems at work as a proxy for push factors in the nurses' intention to work abroad.

Table 3.4 shows the possible factors of the female respondents' individual characteristics that may affect their intention to work abroad, i.e. age, marital status, and education. The data indicate that younger nurses (below 35 years) have a greater intention to work abroad compared to older nurses. Of the respondents, 28.6% said they intend to work abroad.

Table 3.4: Female Nurse Individual Characteristics by Intention to Work Abroad (percentage)

| Nurse individual characteristics | Intention to work abroad | | |
|----------------------------------|--------------------------|-----|-------|
| | Yes | No | Total |
| Age group | | | |
| 20–24 | 10 | 10 | 20 |
| 25–29 | 41 | 56 | 97 |
| 30–34 | 11 | 18 | 29 |
| 35–39 | 6 | 22 | 28 |
| 40–44 | 4 | 28 | 32 |
| 45–49 | 0 | 16 | 16 |
| 50 years and over | 1 | 32 | 33 |
| Total | 73 | 182 | 255 |
| <i>P-value</i> | <i>0.001***</i> | | |
| Marital status | | | |
| Single | 43 | 45 | 34.5 |
| Married | 30 | 134 | 64.3 |
| Divorce | 0 | 3 | 1.2 |
| Total | 73 | 182 | 255 |
| <i>P-value</i> | <i>0.001***</i> | | |

| Final education (at nursing school) | | | |
|-------------------------------------|----|-----|-------|
| Diploma 3 years | 36 | 66 | 102 |
| Bachelor | 1 | 4 | 5 |
| Ners Profession | 35 | 106 | 141 |
| Ners Specialist | 1 | 4 | 5 |
| Other | 0 | 2 | 2 |
| Total | 73 | 182 | 255 |
| <i>P-value</i> | | | 0.394 |

Note: P-value for Independence Test using non-parametric test (fisher test) of nurses' individual characteristic to female nurses' intention to work abroad:

Significant at: * 10%; ** 5%; *** 1%

Source: Authors' calculation on data in PPK-LIPI, IDEA JETRO, ERIA Survey (2018).

The results suggest that respondents aged 25–29 are more likely to have an intention to work abroad. This might be related to their family status, education, and work experience. Compared with the older age group (35 years and above) the younger nurses were more likely not be married yet, and they were also more likely to have less family responsibility (children). Therefore, it is easier for them to plan to work abroad (the data showed a higher intention to work abroad amongst single nurses compared to married nurses). The older nurses might also have more work experience and stable jobs in the country compared to those in the younger group, which might prevent them from leaving their families to work abroad.

For the final education of the respondents, the results show that about 40% graduated from Diploma III education, and 55.3% graduated from the Ners Profession education. Only a few respondents had the title of 'Ners Specialist'. Respondents whose academic background was Diploma III level were more likely to have an intention to work abroad than the respondents whose backgrounds were a higher level (Table 3.4). Diploma 3 years is the lowest level in nursing education, so a higher proportion of those who intend to work abroad might be related to the expectation (amongst nurses with a Diploma 3 years education) of having the opportunity to increase their skills and knowledge by working abroad. Amongst nurses with a Ners Profession education (higher qualification), they were likely to have more secure and permanent jobs, and this prevents them from intending to work abroad. Some of them might also have been sponsored by their workplace (e.g. hospital) to obtain a Ners Profession education, which binds them to their workplaces.

In this study, problems encountered in the workplace can be regarded as a push factor for nurses in Indonesia to leave their current jobs and try to find jobs abroad. Satisfaction at work can be regarded as a potential factor that prevents female nurses from working abroad, or that holds them to their current work in the country. We conducted univariate analyses to examine the relationship between the female respondents' intention to work abroad and several items that can be categorised as 'satisfaction at work' or 'problems at work'. Amongst the factors related to satisfaction at work, only one factor, 'relation with superior', shows a significant relationship with the female nurses' intention to work abroad. This means that a good social environment at the workplace might cause nurses to stay in their current jobs. Other factors, such as salary and social status as a nurse, etc., did not show significant relationships. An important push factor in this analysis amongst 'problems at work' that showed a significant relationship with female nurses' intention to work abroad is 'work risk'. Our in-depth interviews with respondents found this to include risk/safety for women working at night, risks related to contact with patients with infectious diseases, and the use of hospital equipment. Such risks faced by nurses are common in any workplace for nurses, including overseas, but it seems the respondents were not aware that they would face the same risks even if they worked overseas and assumed developed countries would have more advanced safety and security standards for protecting nurses. This is because all of them (nurse samples in the analysis) had never worked abroad. This finding suggests that the Indonesian Government needs to provide Indonesian nurses with detailed information on the working conditions abroad so that they can make a proper decision to work or not work abroad.

Table 3.5: Independence Test Using Non-parametric Test (Fisher Test) of Satisfaction at Work and Problems at Work on Female Nurses' Intention to Work Abroad

| Factors | Category | N (255) | P-value |
|---|----------|---------|---------|
| Satisfaction at work: Factors that prevent female nurses from working abroad | | | |
| Social status as nurse | Yes | 254 | 1.000 |
| | No | 1 | |
| Ease of getting job | Yes | 252 | 0.560 |
| | No | 3 | |
| Level of pride in yourself (as a nurse) | Yes | 254 | 1.000 |
| | No | 1 | |
| Salaries and Incentives received | Yes | 221 | 0.684 |
| | No | 34 | |

| | | | |
|--|-----|-----|----------|
| Relationship with colleagues | Yes | 254 | 1.000 |
| | No | 1 | |
| Relationship with superior | Yes | 247 | 0.045** |
| | No | 8 | |
| Career developments, including promotions/advancement | Yes | 230 | 0.484 |
| | No | 25 | |
| Facilitation of training | Yes | 237 | 0.601 |
| | No | 18 | |
| Work situations, examples of working hours, night shifts, assignments | Yes | 237 | 0.416 |
| | No | 18 | |
| Problems at work: Push factors for female nurses to work abroad | | | |
| Work risk | Yes | 190 | 0.007*** |
| | No | 65 | |
| Limited career development opportunities | Yes | 142 | 0.578 |
| | No | 113 | |
| Patient-nurse ratio | Yes | 207 | 0.111 |
| | No | 48 | |
| Low salaries and incentives | Yes | 181 | 0.879 |
| | No | 74 | |
| Hospital's facilities | Yes | 122 | 0.783 |
| | No | 133 | |
| Poor working conditions | Yes | 125 | 0.167 |
| | No | 130 | |
| Work relations that are not harmonious with superiors | Yes | 59 | 0.251 |
| | No | 196 | |
| Work relations that are not harmonious with co-workers | Yes | 54 | 0.735 |
| | No | 201 | |
| Limited work competency and knowledge as nurses | Yes | 93 | 0.887 |
| | No | 162 | |

Significant at: * 10%, ** 5%, *** 1%

Source: Authors' calculation on data in PPK-LIPI, IDEA JETRO, ERIA Survey (2018).

3.3. Career development

A career is defined as the way a person experiences the sequence of jobs and activities that constitute his/her working history (Hall, 2002). Career development is an ongoing process that involves reciprocal interaction between employees and employers and is achieved in a way that the attainment and/or enhancement of individual capabilities are not restricted to a particular job, career path, or organisation (McDonald and Hite, 2005). Career development can be both formally and informally facilitated, and this is possible in or out of an organisation. Individual workers should be involved in career development in order to increase their capabilities for carrying out jobs.

As mentioned in the previous section, before initiating a career in nursing, one should have knowledge and skills in nursing services. These can be attained at nursing schools, which have several degree levels. After accomplishing the nursing education, he/she has to fulfil all the requirements needed to be a nurse at various types of health facilities. During the employment period, the person should upgrade his/her knowledge through participating in training/courses that are relevant to the job. This refers to Law No. 36/2009 on Health, which mentions that nurses are required to advance their knowledge and skills during the employment time. The advancement of knowledge and skills may support their career development in nursing.

Respondents in this study were asked four questions on efforts related to career development. They were asked whether or not they took and passed a competence examination, owned a Letter of Registration for nurses (STR), took training/courses to upgrade their nursing skills, and registered with a nurse association (see Table 3.6). Passing the competence test and owning an STR are required for working at health facilities. Participation in training/courses related to their tasks as a nurse can be an indicator of efforts to increase their capabilities, which is a factor supporting career development. Moreover, registering in a nurse association is an opportunity to obtain up-to-date information and knowledge related to nursing services.

Table 3.6: Efforts to Support Career Development

| Efforts for career development | Yes | No |
|---|-----|----|
| Taking competence examination | 203 | 99 |
| Ownership of Letter of Registration for nurses | 296 | 17 |
| Undergoing training/courses to upgrade nursing skills | 305 | 8 |
| Registered in nurse association | 287 | 26 |

Source: PPK-LIPI, IDEA JETRO, ERIA Survey (2018).

Table 3.6 shows that almost all the respondents have undergone all the processes and fulfil all prerequisites to be employed at their workplace. Furthermore, they have also made efforts to acquire advanced knowledge and skills related to nursing services. For a reference to interpret these results, one-third of the respondents who did not undertake a competence examination were those who graduated nursing school before 2012. It is not mandatory for them to take and pass a competence test, but they are eligible to have an STR, as mentioned previously.

The study finds that the majority of respondents have undergone training/courses to improve their nursing skills. Some training/courses are held in hospitals/health service facilities where they are working, in the form of short training/courses of one to two days. Less than 2% have undergone training abroad. Moreover, almost three-fourths of respondents were funded to participate in the training/courses by the hospitals/health services employing them. For employers, this shows an effort to have highly qualified nurses to provide prime health services for their clients. Nearly one-fourth of the respondents had undergone training/courses through self-funding. They participated in the training/courses due to the increasing demand for nurses/health service providers with updated knowledge and skills.

In this study, the respondents were asked questions related to their satisfaction in their career development. The answers for each question were classified into four categories: 'not satisfied', 'fair', 'satisfied', and 'not applicable'. Amongst the questions, 281 respondents (95.6%) stated that they were satisfied with their role to 'care for the sick people and those who need care' (see Table 3.7). The least satisfaction related to their career as nurses was for the 'salaries and incentives they received', while the second-lowest level of satisfaction was for 'career development, including promotion and

advancement'. As mentioned previously, more than 90% of respondents have undergone several efforts related to career advancement (Table 3.6). However, those who expressed that they were satisfied with their career development totalled only 155 respondents (52.7%). About one-third of respondents were averagely satisfied, while almost 10% said they were not satisfied with their career development. This study finds that 168 respondents (57%) answered that it was difficult and quite difficult to develop their careers due to limited opportunities to do so (Table 3.8). Less than half said they found no difficulties in career development. The figure may imply that career development is a problem faced only by some respondents.

Table 3.7: Satisfaction Related to Career Development

| Satisfaction related to career development (n = 294) | Not satisfied | Fair | Satisfied | Not applicable |
|--|---------------|------|-----------|----------------|
| Care for sick people and those who need care | 2 | 11 | 281 | 0 |
| Ease of getting job | 3 | 33 | 257 | 1 |
| Salaries and incentives received | 44 | 134 | 116 | 0 |
| Relationship with colleagues | 1 | 43 | 250 | 0 |
| Relationship with superiors | 7 | 65 | 221 | 1 |
| Career development (including promotion and advancement) | 29 | 110 | 155 | 0 |
| Facilitation of training | 21 | 100 | 172 | 1 |
| Work situation (such as working hours, night shift, and assignments) | 22 | 111 | 161 | 0 |

Note: All questions are asked to respondents.
Source: PPK-LIPI, IDEA JETRO, ERIA Survey (2018).

Table 3.8: Factors Which Predispose Nurses to be Conscious of Having Difficulties in Working as a Nurse in Indonesia

| Difficulties in working as a nurse in Indonesia (n = 294) | Not applicable | Fair | Satisfied | Not applicable |
|---|----------------|------|-----------|----------------|
| Dealing with patient | 149 | 126 | 19 | 0 |
| Work risks/hazards | 75 | 120 | 71 | 28 |
| Limited opportunities for career development | 126 | 103 | 51 | 14 |
| Ratio of the number of patient and nurse | 54 | 115 | 88 | 37 |
| Low salaries and incentives | 82 | 113 | 73 | 26 |
| Inadequate hospital facilities | 150 | 93 | 43 | 8 |
| Poor working conditions (heavy duty, long working hours, night shift, etc.) | 150 | 85 | 49 | 10 |
| Inharmonious work relation with superiors | 220 | 56 | 10 | 8 |
| Inharmonious work relation with co-workers | 224 | 56 | 10 | 4 |
| Limited work competency and knowledge as nurses | 183 | 86 | 23 | 2 |
| Gender discrimination by patients | 227 | 55 | 9 | 3 |
| Gender discrimination by doctors/workplace management | 229 | 52 | 11 | 2 |

Note: All questions are asked to respondents.
Source: PPK-LIPI, IDEA JETRO, ERIA Survey (2018).

4. Conclusion and policy implications

4.1. Conclusion

One important issue in Indonesia regarding nurse migration is the uneven distribution and availability of the nurse workforce for providing services throughout the country, and this issue is related to the internal migration of nurses. Another issue, related to international migration is the availability of job opportunities in some countries, especially in Asia (such as Japan, Singapore, Hong Kong, and Taiwan) that attract Indonesian nurses to migrate and work in those countries. In addition, the ASEAN Economic Community (AEC), established at the end of 2015, also promotes the movement of nurses within ASEAN Member States as one element of the AEC Blueprint 2025 is facilitating the free movement of skilled labour within ASEAN Member States for eight occupations, including nursing.

The results of this study in Jakarta and the surrounding areas show that about 28.6% of female nurses with no experience of working abroad had the intention to work abroad. Young and unmarried nurses seem to have a greater intention to work abroad. The opportunity to get more experience, skill improvement, and better career advancement are some reasons that can be regarded as pull factors to the destination countries for Indonesian nurses to migrate to work abroad. Since all nurses in the sample for the analysis of the factors influencing the intention to work abroad were currently working in Indonesia, a pleasant working environment seemed to hold them in their current job, and nurses working in such an environment were less likely to have the intention to work abroad. Meanwhile, work risk, such as risk/safety for women working at night, risks related to contact with patients with infectious diseases, and the use of hospital equipment, might have influenced their thoughts of leaving the country to work abroad.

Japan was the most preferred country amongst the female nurses who indicated an intention to work abroad. This might have been influenced by their awareness of the IJEPA programme, which allows Indonesian nurses to work as candidates of certified caregivers or candidates of registered nurses. The programme also provides them with the opportunity to acquire the status of permanent residence in Japan as certified caregivers or registered nurses if they pass the national exam after several years of working as candidates. The publicity by the National Board on Placement and Protection of Indonesia Migrant Labour (BNP2TKI) on this recruitment programme also broadens female nurses' knowledge of the opportunity to work in Japan.

The study shows that the majority of the nurses in the study sample had undergone training/courses to improve their nursing skills, mostly in Indonesia. Only about 2% of the nurse respondents had undergone training abroad. Most of them had also undergone training/courses funded by their workplace (hospitals/health services). This finding suggests that many employers are willing to provide funds for the career development of their nurses so that they can attract highly qualified nurses who can provide prime health services for the clients of their institutions. However, more than 50% of the sampled nurses stated that they had difficulties in their career development, and this finding can be interpreted as a need to establish a system to promote the career development of nurses for the improvement of nursing services in Indonesia.

4.2. Policy implications

Based on the available data from various sources and survey results, some policy implications can be proposed as follows:

- 1) Regarding nurse internal migration, the Government of Indonesia is recommended to develop programmes for distributing nursing school graduates evenly throughout the country, especially focusing on nursing schools in Jakarta and provinces in Java Island. Migrant nurse graduates (who come to Jakarta and other provinces in Java for education/nursing education) could be encouraged to return to their place of origin, especially those nurses from provinces where the nurse-to-population ratio is far below the government target ratio. The government should provide more incentives (besides the usual salary) for those returned nurses as well as nurses from other provinces (mainly from Jakarta and Java Island) who intend to work in the provinces with a low nurse-to-population ratio. National and local governments are encouraged to guarantee and provide employment opportunities (and incentives) for nurses who are intending to work in the provinces with a low nurse-to-population ratio.
- 2) The Indonesian government needs to synchronise its policy regarding the even distribution of nurses throughout Indonesia and its policy regarding the deployment of Indonesia nurses to work abroad.

- 3) Bilateral agreements between Indonesia and foreign countries on the recruitment of Indonesian nurses to work abroad have to take the optimal use of the skills of nurses educated in Indonesia into consideration.
 - If the destination countries need caregivers, the personnel who have specific caregiver qualifications should be recruited. Nurses should be provided with the status of full worker (not of a trainee) even in destination countries.
 - For those who wish to be recruited by destination countries as registered nurses, training and programmes to improve skills should be provided in Indonesia, in accordance with the needs of the destination countries. Taking Japan as an example here, the country is encouraged to provide information on the specific skill requirements to work as registered nurses there as well as to send trainers from Japan to Indonesia, if necessary. The information and training with trainers from Japan will provide the knowledge and capacity to help Indonesian nurse candidates pass the exam in Japan.
- 4) The nurses who return from other countries are very important human resources for Indonesia. The Indonesian government is encouraged to promote the optimal utilisation of such human resources. For example, the government can develop programmes for them to keep the skills and knowledge acquired abroad and utilise them as practical nurses in health facilities in Indonesia. These measures are required because there are some nurses who return to Indonesia but work as interpreters or in other occupations not requiring nursing skills.
- 5) Referring to the establishment of the AEC and the promotion of the movement of nurses within ASEAN Member States, the Indonesian government needs to provide Indonesian nurses with opportunities to increase their capacity to compete with nurses from other countries, both to work in Indonesia (to compete with nurses from other ASEAN Member States who intend to work in Indonesia) and to compete in the ASEAN labour market (to work in other ASEAN countries).

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