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Nursing Health Services
Research Unit

**Health Human Resources
Series Number 9**

**Jennifer Blythe, PhD
Andrea Baumann, RN, PhD**



Supply of Internationally Educated Nurses in Ontario:

*Recent Developments and
Future Scenarios*

February 2008

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Jennifer Blythe, Senior Scientist,
Nursing Health Services Research Unit (McMaster University Site)

Andrea Baumann, Associate Vice President, (International Health), Director,
Nursing Health Services Research Unit (McMaster University Site)

*Authors
Provincial
Data*

Jennifer Blythe

Phone (905) 525-9140, ext. 22281
E-mail blytheje@mcmaster.ca
Website www.nhsru.com

Contact



This research has been generously funded by a grant from the Government of Ontario. The views expressed in this report do not necessarily reflect those of the Government of Ontario.

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Executive Summary

Ontario does not educate sufficient nurses to avoid a serious shortage in the future. Therefore, it is essential that planners understand the importance of internationally educated nurses (IENs) as a supply source. This report builds on Report Number 3 in the Health Human Resource series (Baumann, Blythe, Rheaume, & McIntosh, 2006) and answers three questions: What are the characteristics of the Ontario IEN workforce? What factors are likely to influence IEN supply in the future? What are the implications of IEN migration for policy making and workforce planning?

Characteristics of the IEN Workforce

Over half of all IENs in Canada work in Ontario and comprise 10.78% of the provincial nursing workforce (College of Nurses of Ontario, 2007c.) Among nurses working in Toronto, about a quarter was educated abroad. Most internationally educated registered nurses (RNs) in Ontario come from 10 countries, with about one-third from the Philippines. The workforce profiles of IENs from these countries differ from each other and from Ontario educated nurses. Few IENs are under 30 years of age, but their age composition varies by country. Nurses from the UK are the oldest contingent and Romanian nurses are the youngest. Groups from the USSR and Yugoslavia include proportionately more men. Nurses from the Philippines, Eastern Europe and India have the highest rates of full-time work; nurses from the UK have the lowest. Most IENs work in direct practice and the majority work in hospitals. However, frequencies vary by country. For example, one-third of the nurses from China and Yugoslavia work in long-term care, proportionally more than from the other groups.

Numbers of IENs entering the workforce decreased in the 1990s, increased dramatically in 2004/5 as IENs made efforts to obtain licenses before regulations for entry to practice changed, then fell abruptly in 2006. Eastern European countries ceased to be among the top 10 IEN groups entering the workforce that year. In contrast, numbers of registered practical nurses (RPNs) entering the workforce doubled between 2005 and 2006. Rates of attrition have varied among IENs during the past decade, but overall gains have been relatively small. There were only 824 more IENs in the workforce in 2006 than in 1997.

Influences on IEN Supply

Migration usually occurs from poorer to richer nations. Global forces, push-pull factors and policy decisions all influence migration. While the worldwide nursing shortage has affected nurse migration, individual nurses have multiple motives for leaving their countries. The International Council of Nurses encourages countries to be self-sufficient but upholds the freedom of nurses to migrate. Policy decisions affect the volume of migration. The US has been assertive in attracting IENs and provides National Council Licensure Examination (NCLEX) RN testing worldwide. Canadian provinces vary in their overseas recruitment efforts.

Internationally educated nurses come from source countries with different economic characteristics. These include populous developing countries such as the Philippines and India that educate nurses for export, politically or economically unstable countries (e.g., Iran and the former USSR) and developed countries such as the UK, which acts as a conduit for nurses intending to settle in the US or Canada. Rates of migration from Africa are low, but the loss of even a few nurses negatively affects small workforces in the continent.

Implications for Policy

Without IENs, the nursing shortage in Ontario would be more severe. However, fewer IENs may enter the Ontario workforce as RNs in the future. Encouraging IENs to prepare for RPN examinations may be a useful strategy, but international competition for nurses is increasing and additional strategies (e.g., allowing nurses to take licensing examinations before migration to Canada) may be warranted.

Recommendations

Improving Workforce Planning

- Include information on the annual inflow of IENs in policy and planning exercises.
- Create government initiatives to target recruitment and retention of IENS in a variety of work place settings.

Clarifying Issues Related to Recruitment Abroad

- Create a strategic plan at government level to address ethical and policy issues relevant to IEN recruitment from abroad.

Supporting IENs to Become Licensed/Employed

- Ensure that IENs who wish to become examination eligible receive counselling about the advantages of preparing for the Canadian Registered Nurse Examination (CRNE) or the Canadian Practical Registered Nurse Examination (CRPNE).
- Provide assistance from government sources to enable IENs working as personal support workers to become eligible for national examinations.

Transition to the Workplace

- Provide government assistance to organizations to support the workplace orientation of newly licensed IENs, thus improving retention.
- Provide cultural orientation to all IENs entering the Ontario workforce to improve transition to the workplace.
- Ensure that hospital and community orientation programs are sufficiently flexible to accommodate nurses with different educational and cultural backgrounds.
- Conduct research on effective strategies for retaining IENs, including new registrants, in the workforce.

Introduction

Ontario nursing programs do not produce sufficient graduates to avoid a serious nursing shortage in the future. Therefore, it is essential that planners are well informed about the contribution of migrants from other provinces and abroad to the Ontario nursing workforce. Decisions about how many new nurses Ontario should educate and how much reliance should be placed on migration to ease projected shortfalls will have long-term implications for healthcare in the province.

Understanding migration trends is integral to workforce planning.

This report focuses on the contribution of internationally educated nurses (IENs) to the Ontario workforce and the factors that may influence their role in the future. This report builds on Report Number 3 in the Health Human Resource series (Baumann, Blythe, Rheaume, & McIntosh, 2006), which considers challenges faced by IENs entering the workforce and emphasizes that many never do. It will answer three questions: What are the characteristics of the Ontario IEN workforce? What factors are likely to influence IEN supply in the future? What are the implications of IEN migration for policy making and workforce planning? Evidence derives from recent literature on nurse migration, data supplied by the College of Nurses of Ontario (CNO) from their membership database and input from focus groups and interviews with IENs.

Characteristics of the IEN Workforce in Ontario

If they are to plan effectively, policy makers must be aware of the demographic characteristics of the IEN workforce. This section of the report provides the following:

- An overview of the current workforce
- A profile of IENs for the top 10 source countries
- A description of trends in the IEN workforce

Overview of the Current Workforce

Internationally educated nurses have represented between 7% and 8% of the Canadian nursing workforce in recent years (Canadian Institute for Health Information [CIHI], 2007). Over half of these IENs work in Ontario and comprise 10.78% of the provincial nursing workforce (CNO, 2007c). Nursing is currently listed among the regional occupations under pressure in Ontario, indicating that employers may have difficulty in filling vacancies (Government of Canada, 2007b).

IENs comprise more than 10% of the Ontario nursing workforce.

In 2007, there were 90,233 registered nurses (RNs), 26,135 registered practical nurses (RPNs) and 729 RNs with extended class (EC) designation working in Ontario (CNO, 2007c). Of these, 10,165 RNs, 1084 RPNs and 37 RNs (EC) were internationally educated. The absence of RPN equivalency in most countries and the volatility of the Ontario RPN labour market explain the relatively small internationally educated RPN cohort.

The majority of IENs work in central Ontario, particularly in Local Health Integration Networks (LHINs) 6, 7, 8 and 9 (see Appendix A). About a quarter (258) of the IENs resident in Ontario work in Toronto Central (LHIN 7). Most internationally educated RPNs also work in urban areas, and more than a third (30.64%) practice in Toronto (CNO, 2007c).

IENs represent more than a quarter of the Toronto RN workforce.

Internationally educated nurses represent a substantial part of the local nursing workforce in some LHINs. For example, they represent 24.52% of the RN workforce in Toronto and 20.46% in Mississauga/Halton (LHIN 6) (CNO, 2007c). These figures demonstrate how much metropolitan and urban areas depend on IENs to deliver healthcare. Few IENs work in LHINs with predominantly rural or small town settlement patterns (Baumann et al., 2006).

Most of the IENs who have completed registration are employed.

The unused capacity of the current nursing workforce is very low. While some IENs fail to become registered in Ontario (Baumann et al., 2006), most who successfully completed registration are employed. However, Table 1 shows that a slightly higher proportion of internationally educated RNs (8.7%) than Ontario educated RNs (7.1%) are unemployed. Similarly, 8.3% of internationally educated RPNs and 6.6% of Ontario educated RPNs are not in the workforce. Yet care should be taken in interpreting these figures. Only 19.4% of unemployed RNs and 26.1% of unemployed RPNs are actively seeking work. The remainder are most likely on maternity or other leave (CNO, 2007b). Most unemployed IENs are probably out of the workforce for similar reasons.

Table 1. Workforce Participation by Internationally Educated Nurses Registered in Ontario (2006)

Status	Registered Nurses		Registered Practical Nurses		Registered Nurses Extended Class		Total	
	#	%	#	%	#	%	#	%
Employed in Ontario	10,165	81.5	819	84.3	32	94.0	11,016	81.7
Employed Outside Ontario	846	6.8	20	2.1	1	3.0	867	6.4
Employed in Non Nursing	381	3.0	52	5.3	0	0.0	433	3.2
Unemployed	1,087	8.7	81	8.3	1	3.0	1,169	8.7
Total	12,479	100.0	972	100.0	34	100.0	13,485	100.0

Source: College of Nurses of Ontario, 2007c.

Demographic Comparisons of Registered Nurses Educated in Ontario and the Top 10 Source Countries

The Philippines (110) is the largest contributor to the internationally educated RPN workforce (CNO 2007a). In this report, comparisons are made only among internationally educated RNs. Numbers from other sources are too small to make comparison meaningful. Most internationally educated RNs in the Ontario workforce come from the 10 countries listed in Table 2.

The Philippines is the largest contributor to the internationally educated RPN workforce.

Internationally educated nurses originate from countries with diverse cultures, nursing traditions and migration histories. Consequently, their workforce profiles differ from one another and from Ontario educated nurses. Ontario educated nurses usually enter the workforce soon after graduation. Most IENs, however, have work experience before migrating to Canada, and many complete upgrading to become eligible to take their professional examinations. Some IENs also delay entry to the workforce for family-related reasons or because of language limitations (Baumann et al., 2006). As a result, few IENs are under 30 years of age.

Few IENs are under 30 years of age.

Table 2. Top 10 Source Countries of Internationally Educated Registered Nurses Employed in Ontario (2006)

Philippines	3,114
United Kingdom	1,993
United States	679
India	781
Poland	530
Yugoslavia	305
China	255
USSR	228
Iran	225
Romania	197

Source: College of Nurses of Ontario, 2007a.

Comparisons between Ontario educated nurses and those from source countries who are working in Ontario reveal additional differences in age distribution (see Appendix B). Nurses from the UK comprise the oldest group, with almost 40% over the age of 60. Nurses from Romania, India and China are much younger, with more than half between the ages of 30 and 39. Ontario educated nurses and IENs from Iran, Poland, Yugoslavia, the USSR and the US cluster in the age ranges between 40 and 54.

The age composition of IENs varies by country.

An interesting finding is the extent to which nurses remain in the workforce into their 60s. Nurses from the UK have a strong tendency to keep working after retirement age. Nurses from the US, the Philippines and India are also well represented in the oldest ranges, although not to the same degree. Reasons for the lack of older nurses in other groups may be cultural or, as in the case of China, may indicate a comparatively recent history of migration.

Nurses from the former USSR and Yugoslavia include the highest proportions of men.

High rates of part-time work in certain IEN groups may be age related.

Rates of casual work also vary with origin of nursing education.

Female dominance in nursing is worldwide. However, the proportions of male nurses among the top 10 source countries differ. Fewer than 5% of nurses educated in Ontario and most of the source countries are male. Contingents from the former USSR (12.28%) and Yugoslavia (10.79) include the highest proportions of male nurses.

Encouraged by the Ministry of Health and Long-Term Care (MOHLTC), many employers are attempting to increase percentages of full-time workers. Proportions of full-time, part-time and casual workers vary considerably among IENs (see Table 3), and there are likely demographic and cultural reasons for the differences. Nurses from the UK have the lowest rate of full-time work and the highest level of part-time work, a pattern that probably reflects the preferences of nurses in this older cohort.

Nurses educated in Ontario and the US also have a relatively high rate of part-time work, as do Chinese nurses. In the case of the latter, it is possible that recent entry to the workforce rather than preference is responsible for this pattern. Nurses from the Philippines, Eastern Europe and India have a very high rate of full-time work, which may be the result of obligations to send remittances home (Baumann et al., 2006). Rates of casual work also vary with origin of nursing education. Casual status can be a symptom of disadvantage. However, it is plausible that the high rate among certain groups reflects the preferences of older nurses and nurses raising families. In contrast to nurses from the UK, US and India, Eastern Europeans have very low rates of casual work.

Table 3. Location of Nursing Education by Work Status: Ontario and Top 10 Source Countries

Location of Education	Work Status %			
	Full Time	Part Time	Casual	Total
Philippines	71.61	20.07	8.32	100.00
United Kingdom	55.95	26.59	17.46	100.00
United States	57.44	31.96	10.60	100.00
India	63.89	22.54	13.57	100.00
Poland	69.43	25.47	5.09	100.00
Yugoslavia	63.93	30.82	5.25	100.00
USSR	60.08	34.31	5.70	100.00
China	56.47	32.94	10.97	100.00
Iran	62.67	26.22	11.11	100.00
Romania	68.53	27.92	3.55	100.00
Philippines	67.27	27.27	5.45	100.00
Ontario	61.38	30.94	7.68	100.00

Source: College of Nurses of Ontario, 2007a.

With the exception of nurses educated in Ontario, the UK and the US, over 90% of nurses work in direct practice (see Table 4). Nurses from the US have the highest representation in education, administration and research. It is probable that career-oriented nurses apply for jobs while still in the US and subsequently migrate. The age and seniority of nurses from the UK may be relevant to their high representation in administration. Like nurses from the US, they may also target specific jobs in education and research before migration. Among other groups, a few nurses, notably from the Philippines and India, work in education, administration or research. Further investigation into the low representation of these groups outside direct practice might be considered.

The majority of IENs work in direct practice.

Table 4. Location of Nursing Education by Dimension of Practice: Ontario and Top 10 Source Countries

Location of Education	Dimension of Practice (%)					Total
	Direct	Education	Administration	Research	Not Stated	
Philippines	94.57	0.55	2.57	0.22	2.09	100.00
United Kingdom	85.30	3.06	8.13	0.75	2.76	100.00
United States	78.65	6.77	9.19	1.33	4.12	100.00
India	92.60	0.77	2.05	0.00	3.59	100.00
Poland	91.51	*	**	0.00	5.08	100.00
Yugoslavia	91.80	0.00	**	*	3.61	100.00
USSR	94.74	0.00	**	*	2.19	100.00
China	97.65	*	*	0.00	4.00	100.00
Iran	93.78	**	*	0.00	4.89	100.00
Romania	90.86	*	**	0.00	2.54	100.00
Ontario	85.60	3.36	7.75	0.65	2.63	100.00

Source: College of Nurses of Ontario, 2007a.

While the majority of nurses from all source countries work in hospitals, frequencies of work in this sector vary (see Table 5). Nurses from India are most likely to work in hospitals, but RNs educated in the Philippines, Iran, Romania and the UK also have high representation. In contrast, fewer than half of the nurses from China, the USSR and Yugoslavia are in this sector. Nurses educated in Ontario, the US and the USSR are well represented in the community, but very few nurses educated in the Philippines or China work in this sector.

Most IENS work in hospitals, but frequencies vary by country.

About one-third of the nurses from China and Yugoslavia work in long-term care. Relatively fewer nurses educated in Ontario, the US and the UK work in this sector. These three groups are well represented in the “other” group. Without further qualitative enquiry, it is impossible to explain this variation. There have been cases of visible minorities streamed into less prestigious or low-paying sectors of healthcare (Hagey et al., 2001), but this situation cannot be inferred from the data.

One-third of the nurses from China and Yugoslavia work in long-term care.

Table 5. Location of Nursing Education by Practice Sector: Ontario and Top 10 Source Countries

Location of Education	Practice Sector (%)					Total
	Hospital	Community	Long-Term Care	Other	Not Stated	
Philippines	65.41	6.29	21.10	1.99	5.20	100.00
United Kingdom	62.22	18.41	9.46	6.12	3.76	100.00
United States	52.14	23.27	8.98	11.34	4.27	100.00
India	69.78	5.51	17.93	1.28	5.51	100.00
Poland	55.28	13.21	22.64	3.40	5.47	100.00
Yugoslavia	48.85	12.11	29.51	1.97	6.56	100.00
USSR	48.68	23.25	**	*	5.70	100.00
China	47.45	**	32.94	*	3.52	100.00
Iran	63.11	14.22	**	*	7.11	100.00
Romania	60.41	12.69	20.81	3.55	2.54	100.00
Ontario	64.04	23.27	7.58	6.84	3.00	100.00

Source: College of Nurses of Ontario, 2007a.

The most common places of employment are acute care and long-term care.

The CNO (2007a) also provided information about the five most frequent employment locations and positions for IENs from different source countries. For all RN groups, the most common places of employment are acute care and long-term care. For most groups, addiction, complex continuing care and nurse/staffing agency are included among the five most common employment locations. Exceptions are Iran with other hospital in third position, the USSR with community in fifth position and China and the UK with physician offices in fifth position. The US has schools, colleges and universities in fourth place, reflecting its importance as a source of nursing educators. Nurses educated in Ontario and the US also include public health and Community Care Access Centres among their most common places of employment.

IENs are most likely to be staff nurses, regardless of their country of education.

In terms of nursing position, IENs are most likely to be staff nurses, regardless of their country of education. The second most frequent position is visiting nurse, although exceptions exist. Nurses educated in the UK and Romania have middle manager as the second most frequent position, while nurses educated in Ontario, the US and the Philippines have “other” employment.

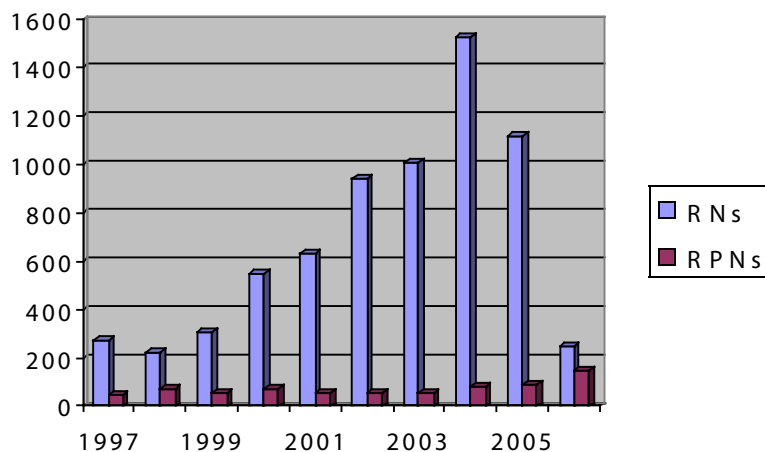
Migration Trends

In the late 1990s, the annual number of IENs entering the Ontario workforce declined, reaching a low of 223 in 1998 (CNO, 2007d). The increased number of IENs during the early 2000s reflects the overall increase in migration to Canada, as well as the growth of the nursing workforce as the Canadian healthcare industry recovered from a period of contraction due to restructuring.

High numbers in 2004 (1532) and 2005 (1114) may reflect an increase in migration. However, they are more likely the result of diploma-equivalent IENs entering the workforce before the changes in entry to practice made a baccalaureate degree a prerequisite for examination eligibility. There was a dramatic decline in 2006 when only 249 new IENs entered the Ontario workforce (see Figure 1). Figures for 2007 will provide important evidence to evaluate the impact of entry to practice changes on the numbers of internationally educated entrants.

High numbers of IEN entrants in 2004/5 preceded a dramatic fall in 2006.

Figure 1. All Internationally Educated Nurses Entering the Ontario Workforce



Source: College of Nurses of Ontario, 2007d.

In contrast to RNs, the number of internationally educated RPNs entering the Ontario workforce has remained low. However, in 2006, numbers (146) almost doubled from 2005 (87) (CNO, 2007d).

Migration Trends for the Top 10 Source Countries

Over the past decade, the migration trends of workforce entrants from the major source countries have remained similar (see Appendix C). After 1998, numbers rose to a peak in 2004 and then fell abruptly in 2006. Entrants educated in the Philippines, India, China and the former USSR increased each year during this period. In 2006, there was a sharp decline in entrants from all source countries, with eastern European countries, the USSR, Poland, Yugoslavia and Romania ceasing to be among the top 10 contributors.

Numbers of internationally educated RPNs entering the workforce doubled in 2006.

In 2006, Eastern European countries ceased to be among the top ten source countries for IENs.

The Ontario IEN workforce increased by 824 between 1997 and 2006.

Although the numbers of IENs entering the Ontario workforce increased annually during the past decade, the total number of IENs in the workforce grew only modestly. Between 1997 and 2006, 6832 IENs entered the Ontario workforce. However, 6024 left during the same decade. In the late 1990s and in 2001, more IENs left than joined the workforce. As a result, only 824 more IENs were in the workforce in 2006 than in 1997 (CNO 2007b, 2007d).

It would be useful to compare attrition rates of nurses from different source countries; unfortunately, relevant data is only available for US educated nurses. Between 1997 and 2006, 485 US educated nurses entered the Ontario workforce and 440 left. Consequently, there were only 45 more nurses in this group in 2006 than in 1996 (CNO 2007b, 2007d).

Rates of attrition vary among IENs from the different source countries.

Comparing the number of IENs who entered the workforce in the last 10 years with their stock in 2006 provides some clues about retention. For example, the total stock of nurses originating in the UK is 1993, but only 381 joined the Ontario workforce during the past decade. This evidence, together with the advanced age of UK nurses, suggests high retention. While it is impossible to estimate the retention rate of nurses from the Philippines, India, Poland, Yugoslavia and Romania, the evidence shows that more nurses remain in the workforce than have entered in the past 10 years. In contrast, fewer nurses from China, the USSR and Iran have entered the workforce. The inference is that there is a high rate of attrition among nurses from these countries (CNO, 2007b, 2007c).

Factors that may Influence the Supply of Internationally Educated Nurses in the Future

Global forces, push-pull factors and policy decisions influence migration.

Migration patterns are influenced by global forces, push-pull factors and policy decisions. Each factor is covered briefly in this section of the report. In addition, the possible effects of specific policies implemented in Ontario and the major source countries that are likely to affect the future participation of IENs in the Ontario workforce are explored.

Global Forces

Globalization is the accelerating mobility of goods, services, labour, technology and capital.

According to the Government of Canada (2007a), globalization describes the accelerating mobility of goods, services, labour, technology and capital. One symptom of globalization is the diminished relevance of time and space to doing business. Better information technology means that many transactions occur without physical movement. However, more efficient means of travel has also influenced labour mobility. In recent decades, numbers of skilled professional migrants, including healthcare professionals such as nurses, have increased significantly. In addition to long-term trends, global spikes in migration result from social disruptions or economic or environmental catastrophes. Migration can be permanent, temporary or episodic. Migrants may also move serially from country to country (Buchan, 2006). Another variation is “commuter migration” in which workers frequently return home, a pattern facilitated by the establishment of budget airlines (Salmon & Yan, 2005).

Migration usually involves movement from poorer to richer nations.

The limited availability of statistical information and the complexity of migrant patterns hamper our understanding of the scope of nurse migration. However, major patterns are well understood. Internal migration from rural areas to urban centres occurs in most countries.

Externally, the model identified by Mejia, Pizurki and Royston (1979) of intra-regional movement to the most affluent countries and movement from poorer to richer nations persists.

Population dynamics, shifts in market conditions, environmental forces and political changes lead to changes in migration currents over time. The worldwide nursing shortage underlies nurse migration. Kingma (2006) suggests that it has set off “an international carousel” of nurses. The shortage itself results partly from the failure of developed countries to educate and retain sufficient home grown nurses. Lack of adequate nurse recruitment in the 1990s and aging populations are also implicated. Shortage in the developed world triggered migration from developing countries with poor working conditions or with too little capacity to absorb all its qualified workers. The international trend toward increased nurse migration began in the 1990s and stabilized in 2001/2002. In 2000, an estimated 11% of employed nurses in the Organisation for Economic Co-operation and Development (OECD) countries were foreign-born (OECD, 2007).

The worldwide nursing shortage influences migration.

Push-Pull Factors

Analysts commonly use the terms push and pull to discuss the factors that influence decisions to leave one's home country for specific destinations. Writers traditionally considered migration choices to be economically motivated; but while the world market influences migration routes, individuals have multiple motivators. Nurses' motivations variously relate to economics, quality of life, career, accompanying a partner, adventure, survival, work associated risks (e.g. AIDs), education and other factors (Kingma, 2006). Local labour markets, linguistic compatibility, sociocultural affinity, professional equivalency, ease of travel and visa policies are also implicated in decision making (Joint Learning Initiative, 2004).

Nurses have multiple motives for migrating.

Policy Decisions

Internationally educated nurses usually travel from source countries in Africa, the Caribbean, Southeast Asia and South Asia to Australia, Canada, France, Belgium, the UK, the Middle East and the US. The policy decisions made in both sending and receiving countries ultimately direct the volume of nurse migration. Receiving countries are usually selective about the kinds of migrants they welcome. Some countries have programs for attracting health professionals. Australia, for example, has programs aimed at recruitment for “areas of need” (OECD, 2007).

Policy decisions affect the volume of migration.

Countries vary in terms of the enthusiasm with which they actively recruit nurses abroad. The US has been extremely assertive in its efforts to attract IENs. In April 2006, the National Council of State Boards of Nursing (NCSBN) began NCLEX-RN (National Council Licensure EXamination-Registered Nurse) testing at newly selected international centres. The NCLEX-RN is a computer adaptive test “that measures the competencies needed to perform safely and effectively as a newly licensed, entry-level registered nurse” (NCSBN, 2007).

The US has been assertive in its efforts to attract IENs, providing NCLEX-RN testing worldwide.

In addition to centres in England, South Korea and Hong Kong, which have been operational since January 2005, there are centres in Australia, Canada, Germany, India, Mexico, Japan and Taiwan (NCSBN, 2007). A crucial question is the extent to which this initiative will boost the migration of nurses to the US and have a negative effect on nurse migration to Canada.

Canadian provinces vary in the extent to which they recruit abroad.

Canadian provinces vary in the extent to which they recruit abroad. The College of Licensed Practical Nurses in Manitoba has collaborated with the Horizon Recruitment Pacific Corporation (HRPC) to administer the Canadian Licensure Examination for Licensed Practical Nurses in Manila (HRPC, n.d.). In British Columbia, a partnership of four regional Health Authorities regularly recruits in the UK (Nurse Vancouver, British Columbia, Canada, 2007).

The ICN upholds the freedom of nurses to migrate but encourages countries to become self-sufficient.

Controversy surrounds the migration of healthcare workers from poorer southern to richer northern countries. Xu and Zhang (2005) note that stakeholders' views of the ethics of nurse recruitment depend on their specific interests. There is consensus in the literature that developed countries should not recruit vigorously in the developing world. Nevertheless, South African nurses strongly objected to a ban on recruitment as an infringement on personal rights (Kingma, 2006). The International Council of Nurses (ICN, 2001) upholds the freedom of nurses to migrate but encourages countries to become self-sufficient. Self-sufficiency is also promoted by Little and Buchan (2007). However, while Iran has become entirely self-sufficient and Australia, Oman, Malawi and Caribbean countries have declared their intention to create national or regional self-sufficiency, this ideal may not be feasible everywhere (International Centre for Nurse Migration, 2007).

Ontario: Approaches and Policies

Nurses are included in the Regional Occupations under Pressure List for Ontario.

Both information about vacancies and assistance in becoming a nurse in Ontario are readily available on the Internet, and employers undertake a certain amount of recruitment abroad. Nurses are included in the Regional Occupations under Pressure List for Ontario (Government of Canada, 2007b), but the government, professional bodies and employers do not actively recruit IENs. There are various initiatives to assist nurses and other health professionals educated outside Canada once they are settled. For example, programs funded by Health Canada in conjunction with the Pan-Canadian Health Human Resources Strategy (Health Canada, 2007) and the newly established foreign credential referral services offered at 320 Service Canada centres nationwide (Government of Canada Foreign Credentials Referral Office, 2007). There are also local initiatives such as the Employer Council of Champions (Internationally Trained Workers Partnership-Ottawa, 2007).

Degree education is required to register in Ontario.

Becoming a nurse in Ontario has recently become more difficult due to changes in entry to practice. New regulations for registration with the CNO affected applicants who applied for registration with the CNO on or after January 1, 2005. These changes included amendments to O. Reg. 275/94 under the Nursing Act, 1991 ratified by the Ontario government and amendments to registration policy by the CNO. Entry to practice as a RN in Ontario now requires a four-year baccalaureate degree in nursing or equivalent. Entry to practice as an RPN requires a diploma in practical nursing from an Ontario College of Applied Arts and Technology or equivalent. Examination eligible candidates for both nursing professions now have three rather than six opportunities to write the national registration examination (CNO, 2006a).

There was a surge of registrants before the regulations changed.

High numbers of IENs entering the RN workforce from 2003 to 2005 reflect the effort by nurses without four-year baccalaureate degrees to obtain their licenses before the regulations changed. A peak also occurred in figures for entrants from other provinces. The entry of the double cohort (the result of the elimination of Grade 13 in Ontario high schools) into

the workforce inflated the numbers of Ontario educated RNs entering the workforce, but regulatory changes may also have contributed to the increase.

In 2006, the number of IEN entrants fell dramatically. They represented only 10% of new nurses, in contrast to 34.1% in the previous year. For the first time in six years, there were more entrants from other provinces than from abroad (CNO, 2007d). Figures for 2007 will provide evidence of whether the low numbers of IEN entrants represent the beginning of a trend. Increase in the numbers of new RPN registrants in 2006 suggests that some IENs decided to become RPNs rather than meet the new RN standards. However, the growth in RPN numbers did not counterbalance the decrease in RNs.

RPN entrants to the workforce are increasing.

Source Countries: Approaches and Policies

Source countries for IENs include developing countries that promote the export of nurses, unstable regimes, developed countries and developing countries with shortages that do not wish to lose their nurses. Nurses from each kind of source country currently settle in Ontario. Policies adopted in their home countries will influence their migration to Ontario in the future.

Nurse Exporting Countries

Developing countries with high birth rates typically have high rates of unemployment because their economies do not have the capacity to provide everyone with work. Nurse-patient ratios in these countries are lower than in developed countries, but the shortage of healthcare resources limits employment (Healey, 2006). Lack of employment and poor working conditions encourage nurses to migrate (Thomas, 2006). A strategic method of profiting from “surplus human resources” is to educate nurses and other professionals for export. Migrants enter more developed countries, find jobs and contribute to the economy of the source country through remittances to family members who remain behind.

Several countries educate nurses to migrate abroad.

In the 1950s, the Philippines began to prepare nurses for export, mainly to the US (Brush & Solchalski, 2007; Choy, 2004). Educated in English, Filipino nurses now migrate to the Middle East and throughout the developed world. According to the Philippines Overseas Employment Administration, nearly 88,000 nurses left the Philippines between 1992 and 2003; however, this may be an underestimate (Perrin, Hagopian, Sales, & Huang, 2007).

Following the example of the Philippines, the Indian government supports the export of nurses (Healey, 2006). In 2005, there were 370 nursing programs in the Philippines and 558 in India in 2005-06. Low standards and shortage of experienced nursing teachers are problems (Healey, 2006) in both countries. Nonetheless, many groups profit from nurse migration. Khadria (2007) describes the process in India as “business process outsourcing.” This model includes comprehensive training-cum-recruitment-cum-placement for popular destinations like the UK and the US through a proliferating agency system. China and Korea are beginning to follow a similar path. Given that the Chinese nursing workforce numbers about 2 million, there is huge potential for migration (Fang, 2007).

The number of nursing schools has grown exponentially in the Philippines and India.

Shortages of experienced teachers are a problem in some nurse exporting countries.

The majority of IENs in Ontario come from nurse-exporting countries, notably the Philippines and India and increasingly China. In 2004, entry into the Ontario workforce peaked with 455 entrants from the Philippines, 150 from India and 125 from China (see Appendix D: Figure 1). While the possibility remains for continued export of nurses to Ontario due to good pay and work conditions, Canada may be a less popular destination than in the past. Nurses from nurse-export countries often have degrees, but the decline in standards of nursing education may make it difficult for them to pass the Canadian professional examinations. Increases in the numbers of RPNs from nurse exporting countries in 2005 and 2006 indicate that some nurses have taken this option. The trend may continue in the future. An unrelated reason for the drop in numbers of IENs entering Canada may be the establishment of NCLEX-RN testing centres in major cities in the Philippines, India and China.

Some IENs are from politically or economically unstable countries.

Unstable or Economically Troubled Countries

Many migrants move to Canada from countries characterized by political or economic instability or lack of personal security. In some cases, they are escaping difficulties that follow from revolution or ideological change and may be refugees. In others, the motivation is economic improvement or a better quality of life than they could expect in their own countries. Migrants from countries experiencing stressful times include those from Iran, the republics of the former USSR and post-Communist Eastern Europe.

The former Soviet Union and Eastern Europe have been major sources of IENs in the past decade. Nurses receive low wages throughout this region and migration is motivated by expectations of economic gain and better quality of work life. In the former USSR, hospitals are under funded and a lack of resources affects patient care and professional development (Difazio, Lang, & Boykova, 2004; Jones, 1997). Nursing is considered subordinate to medicine rather than an autonomous profession. Limited to performing routine tasks, nurses become dissatisfied. In Poland and Romania, as in the USSR, nursing was previously taught in secondary schools. In Romania, nursing has been reintroduced at the tertiary level, including some degree programs, but physicians remain in charge and the professional philosophy follows a medical model. In Poland, nurses complete three-year programs in tertiary institutions and there has been some progress in establishing nursing as a separate discipline from medicine, but there is no national licensing exam (Ashworth & Bidelka, 2007; Belcher & Hart, 2005).

More nurses from Eastern Europe are becoming RPNs.

Owing to the educational and regulatory systems in their countries, nurses from Eastern Europe have been severely affected by changes of entry to practice in Ontario. After 2006, the USSR, Romania, Yugoslavia and Poland ceased to be in the top 10 countries for new international RNs. In the same year, the Russian Federation, Romania and Poland were in the top 10 countries for new international RPNs. However, their contribution to the increased numbers of RPNs did not compensate for the decline in their contribution to RNs. It is possible that nurses educated in Eastern Europe will join the RPN workforce in greater numbers in the future.

Over the past decade, Iranian nurses have entered the Ontario workforce in small but consistent numbers. Modern nursing programs in Iran offer a four-year baccalaureate in nursing, accredited by the High Council of Medical Education of the Ministry of Health and Medical Education. The Ministry of Health and Medical Education supervises the nursing comprehensive examination that serves as both a nursing licensing and registration exam. Nursing studies in the MSc and PhD stream are also available in Iran (Nasrabadi, Lipson, & Emami, 2004; Salsali, 2005). Although numbers of new registrants from Iran fell in 2006, Iranian nurses appear well placed to obtain licenses in Ontario. However, it is difficult to predict their future contribution to the workforce because of the volatility of Middle Eastern politics.

Developed Countries

Among developed countries, the US and the UK have provided a steady supply of nurses to Canada for the past decade. Career development, financial gain and family interests may be motivators for these nurses. The UK also acts as a conduit for nurses whose ultimate goal is settlement in the US or Canada. Currently, a three-year degree is a prerequisite for entry to practice in the UK, but older nurses are likely to have diplomas rather than degrees. Most nurses will require some upgrading if they wish to practice in Ontario, which may make Canadian provinces that do not require a degree more attractive.

The UK is a conduit for IENs intending to settle in the US or Canada.

Some US nurses do not have degrees and need considerable upgrading to become exam eligible in Ontario. Numbers of both UK and US entrants fell in 2006. It is unknown if this represents the beginning of a trend or a pause following the rush by nurses without degrees to become registered. The effect of the Bologna Process (i.e., the move to harmonize tertiary education across Europe) on migration to Canada is difficult to predict (Zgaga, 2006)

Developing Countries

Developing countries with relatively small populations and weak economies, including most African countries, prefer their educated citizens to remain at home. Because their workforces are small, the migration of relatively few health professionals makes a difference. Various advocate groups (e.g., the ICN) discourage recruitment in these countries. Some countries have policies for ethical or selective recruiting. For example, the UK has made commitments not to recruit in developing countries with severe shortages (OECD, 2007). However, the lack of active recruitment does not prevent migration. No African country features among the top 10 sources for Ontario nurses; however, some nurses from this region are in the workforce. A report by McKintosh, Torgerson and Klassen (2007) has begun to address the ethical issues concerning the migration of healthcare workers to Canada. It outlines steps whereby Canadian provinces might begin the process of developing guidelines or a code of practice.

Migration of even a few nurses affects small African workforces.

The Implications of Internationally Educated Nurse Migration for Policy making and workforce Planning

Without IENs the nursing shortage would be more severe.

As the large cohort of older nurses retire, the nursing shortage in Ontario is likely to worsen. Although the Ministry of Training, Colleges and Universities has established a target of 4000 RN graduates per annum, this goal is rarely met. Each year varying but substantial portions of new CNO members entering the workforce have been educated in other provinces or abroad. Without these additional sources of supply, the nursing shortage would be considerably greater. As demonstrated, the majority of IENs settle in urban centres where they serve a multi-ethnic community and play an important part in mitigating the effects of the nursing shortage in these areas.

The decision to make a four-year baccalaureate degree the criterion for entry to practice for IENs is intended to improve standards of care. However, an unintended consequence has been to make it harder for nurses educated outside Canada or from provinces with other criteria for entry to practice to enter the system. Fewer nurses may come to Ontario, and many of those already resident may never obtain licences.

The BScN entry to practice may result in fewer IEN entrants.

Constructive speculation about the future supply of IENs in Ontario requires making a distinction between nurses that migrate to further their careers and those whose priority is settlement. It is likely that career-oriented nurses with degrees will continue to see upgrading to Ontario standards as a reasonable investment. Nurses who do not have a four-year baccalaureate degree may hesitate to come to Ontario because of the amount of upgrading required. Provinces with less rigorous standards and countries such as the US or Australia would be more attractive.

Nurses with other reasons for coming to Ontario (e.g., their spouse's job, security from danger or a better future for their children) may be undeterred by the new rules. In the past, many nurses entered healthcare as personal support workers and later completed upgrading to diploma level (Baumann et al., 2006). In the future, fewer of these nurses may become RNs because of the commitment required to obtain a baccalaureate degree.

IENs are willing to prepare for RPN licensure.

Given the possibility of a smaller IEN workforce and the potential brain waste of diploma equivalent nurses, policy makers may wish to develop strategies to assist IEN entry to practice. For example, many IENs without degrees may be willing to prepare for RPN rather than RN professional status. Because IENs may not be knowledgeable about the practical nursing profession, a publicity campaign might be useful. Incentives could also be offered and include assistance with tuition.

Although the number of new members registering with the CNO fell in 2006, this development may not represent a long-term trend. Countries that "export" nurses produce healthcare professionals with degrees who become exam eligible with some upgrading. However, there are two major concerns about nurses from these countries. First, schools of nursing are burgeoning in these countries, but there are limited numbers of qualified and experienced faculty. Consequently, the standards of nurse education may be falling. Furthermore, possession of a degree does not necessarily ensure competence or the ability to

pass licensing examinations. Internationally educated nurses generally have a low pass rate (CNO, 2006b). The lower the preparedness of IENs entering Canada, the less likely they are to enter the workforce. As a result, their skills are lost to both source and receiving countries.

A second concern is whether Ontario will continue to attract nurses from exporting countries. International competition for nurses is increasing. The presence of NCLEX centres in major recruitment areas means that nurses can be licensed and ready to take up employment in the US before they leave their country of origin. The UK takes a different but similarly effective approach in negotiating arrangements with willing countries to supply nurses (OECD, 2007).

International competition for nurses is increasing.

While the Manitoba RPN licensing body has arranged examinations for nurses in the Philippines, the CNO has not followed suit. Allowing nurses to take their licensing examination before migrating to Ontario would be advantageous in some respects. Nurses who did not pass would not migrate. When migrants already settled in Canada fail their examinations three times, they cannot practice as nurses in the province.

Many Filipino nurses come to Ontario under the Live-In Caregiver Program. This provides migrant nurses with few financial resources entry to Ontario. These nurses are unable to apply to the CNO for registration until they have completed their contracts and can apply for landed immigrant status (Citizenship and Immigration Canada, 2003). Passing the Canadian Registered Nurse Examination before leaving their country would allow them to apply for professional positions immediately if they meet the CNO's other criteria.

A final consideration is whether active recruitment in nurse export countries is injurious to local healthcare systems. The situation in these countries differs from developing countries where there is international consensus that active recruitment is inappropriate. Although export countries produce more nurses than their system has the capacity to absorb, the healthcare systems of these countries suffer to some degree because both experienced nurses and neophytes migrate (Healey, 2007; Perrin et al., 2007). Klassen, McIntosh and Torgerson (2007) suggest guidelines for ethical recruitment. However, any such guidelines need to take individual rights into account (ICN, 2001).

Passing the licensing examination does not guarantee that IENs will stay in the Ontario workforce. Rates of workforce attrition vary by country. While there may be different reasons for this (e.g., differences in age by country or the frequency of return migration), it is possible that IENs from some countries find it easier to adapt to the Ontario healthcare system than do others. The development of prior learning assessment and recognition (PLAR) as a means for IENs to demonstrate their competence may help to ensure standards among new entrants (Hendrickson & Nordstrom, 2007). However, orientation to Canadian culture and nursing philosophy is also important.

Passing the licensing examination does not guarantee that IENs will stay in the Ontario workforce.

The success of the Creating Access to Regulated Employment (CARE) program demonstrates the utility of helping nurses prepare for examinations and work in the Canadian healthcare system (CARE Centre for Internationally Educated Nurses, n.d.). The UK insists that all new nurses receive a 20 day orientation to the National Health System (Nursing and Midwifery Council, 2007). Similar orientation for nurses in Ontario might decrease attrition among IENs. Currently, representatives from nursing, pharmacy, physiotherapy, occupational therapy, medical radiation technology and medical laboratory technology are developing a Pan-Canadian orientation program for internationally educated health professionals at

The success of the CARE program demonstrates the utility of helping nurses prepare for examinations and work in the Canadian healthcare system.

the University of Toronto (Lawless, 2007). In addition, there is increasing interest in the development of cultural competence, including the development of a Best Practice Guideline published by the Registered Nurses Association of Ontario (2007).

The OECD (2007) suggests that the flattening of the migration curve is due partly to changes in policy that result in greater numbers of nurses graduating in developed countries and partly to changes in strategies for accepting nurses educated abroad. In September 2005, the introduction of the Overseas Nursing Program in the UK delayed immigrant nurses awaiting places in the program from entering the workforce (OECD, 2007). However, the current plateau in nurse migration may be temporary. China and Korea are gearing up as nurse exporters. In the interim, receiving countries are adopting new strategies for attracting migrants.

Workforce planners in Ontario need to make contingency plans to ensure a sufficient supply of nurses in the future.

It is difficult to infer from the evidence what changes to IEN supply will occur in Ontario. The decrease in entrants in 2006 may represent a reaction to the high figures of the two years preceding the changes in entry to practice or a trend toward fewer entrants. Whatever the explanation, workforce planners in Ontario need to make contingency plans to ensure a sufficient supply of nurses in the future. This will entail decisions about how much emphasis should be placed on increasing nursing school graduates and what efforts should be made to recruit abroad or to encourage resident IENs to become eligible to enter the workforce.

Recommendations¹

Improving Workforce Planning

- Include information on the annual inflow of IENs in policy and planning exercises.
- Create government initiatives to target recruitment and retention of IENs in a variety of work place settings.

Clarifying Issues Related to Recruitment Abroad

- Create a strategic plan at government level to address ethical and policy issues relevant to IEN recruitment from abroad.

Supporting IENs to Become Licensed/Employed

- Ensure that IENs who wish to become examination eligible receive counselling about the advantages of preparing for the Canadian Registered Nurse Examination (CRNE) or the Canadian Practical Registered Nurse Examination (CRPNE).
- Provide assistance from government sources to enable IENs working as personal support workers to become eligible for national examinations.

Transition to the Workplace

- Provide government assistance to organizations to support the workplace orientation of newly licensed IENs, thus improving retention.
- Provide cultural orientation to all IENs entering the Ontario workforce to improve transition to the workplace.
- Ensure that hospital and community orientation programs are sufficiently flexible to accommodate nurses with different educational and cultural backgrounds.
- Conduct research on effective strategies for retaining IENs, including new registrants, in the workforce.

1 See Appendix E for additional recommendations.

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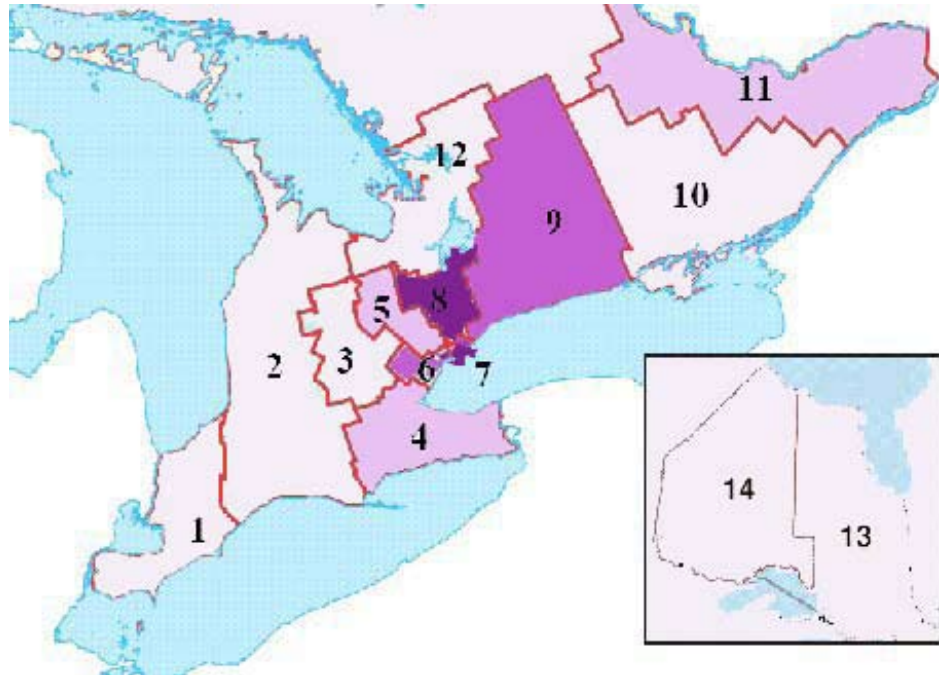
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Appendix A. Numbers of Internationally Educated Nurses (IENs) by Local Health Integration Network (LHIN)



LHIN Geographic Area	
1. Erie St. Clair (n=253)	8. Central (n=1,869)
2. South West (n=363)	9. Central East (n=1,339)
3. Waterloo Wellington (n=272)	10. South East (n=146)
4. Hamilton Niagara Haldimand Brant (n=931)	11. Champlain (n=670)
5. Central West (n=619)	12. North Simcoe Muskoka (n=123)
6. Mississauga/Oakville (n=1,327)	13. North East (n=176)
7. Toronto Central (n=4,330)	14. North West (n=100)

Number of IENs by LHIN - Indicated by Colour
Light = less than 500
Medium = 501-1,000
Dark = 1,001-1,500
Darkest = 1,500+

Note. Map adapted from the Ministry of Health and Long-Term Care, 2002. Figures obtained from the College of Nurses of Ontario, 2007c.

Appendix B. Location of Nursing Education by Age Range: Ontario and Top 10 Source Countries

Location of Education	Age Range (%)										
	18-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+	Total
Philippines	*	**	20.13	18.30	5.36	13.36	14.10	10.82	10.76	4.88	100.00
United Kingdom	0.00	0.40	1.16	3.86	9.53	10.44	13.85	20.97	24.03	15.25	100.00
United States	0.00	3.83	7.66	10.46	15.91	20.32	16.79	12.67	9.13	3.24	100.00
India	*	**	16.65	14.98	13.17	9.73	11.01	7.17	9.86	7.68	100.00
Poland	0.00	0.00	5.66	16.60	28.68	25.09	15.47	6.6	**	*	100.00
Yugoslavia	0.00	3.28	12.46	21.9	22.30	14.43	14.10	8.20	1.97	*	100.00
USSR	0.00	0.00	2.36	26.32	33.33	25.88	7.46	2.63	*	*	100.00
China	0.00	3.92	22.75	29.80	29.80	8.24	3.14	-	*	*	100.00
Iran	0.00	*	9.78	29.33	18.22	19.56	12.00	7.56	**	0	100.00
Romania	0.00	*	27.92	31.98	14.21	5.08	12.18	4.06	*	*	100.00
Ontario	1.34	8.08	10.07	12.01	15.71	14.40	17.65	13.12	6.03	1.56	100.00

Source: College of Nurses of Ontario, 2007a.

Appendix C. Entry to the Registered Nurse Workforce: Place of Education by Year (Top 10 Countries)

Location of Education (#s)	Year										Total Entrants
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	
Philippines	70	50	77	160	191	346	333	455	387	72	2141
United Kingdom	23	15	15	40	64	51	46	62	54	11	381
United States	22	39	39	55	56	56	56	61	71	30	485
India	21	12	29	36	33	87	110	150	106	33	617
Poland	20	16	25	39	29	41	44	56	22	*	292+
Yugoslavia	16	11	14	29	19	31	35	45	28	*	228+
USSR	11	5	13	25	28	50	63	133	59	*	387+
China	11	*	13	*	16	21	51	125	55	6	298+
Iran	*	6	11	20	14	37	26	75	39	14	242+
Romania	9	*	*	15	25	27	20	51	31	*	178+

**Not in top 10. Total entrants 1997-2006 cannot be calculated for source countries with missing data.*

***Hong Kong is included as China in 1997 and 1999.*

Source: College of Nurses of Ontario, 2007d.

Appendix D. Migration to Ontario from the Top Ten Source Countries

Figure 1. New Registered Nurse Members from the Philippines, India and China

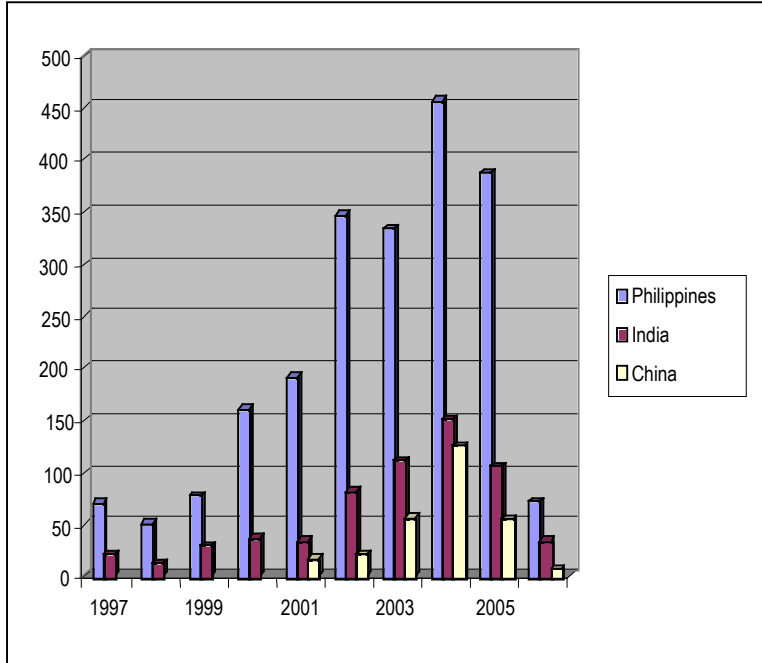
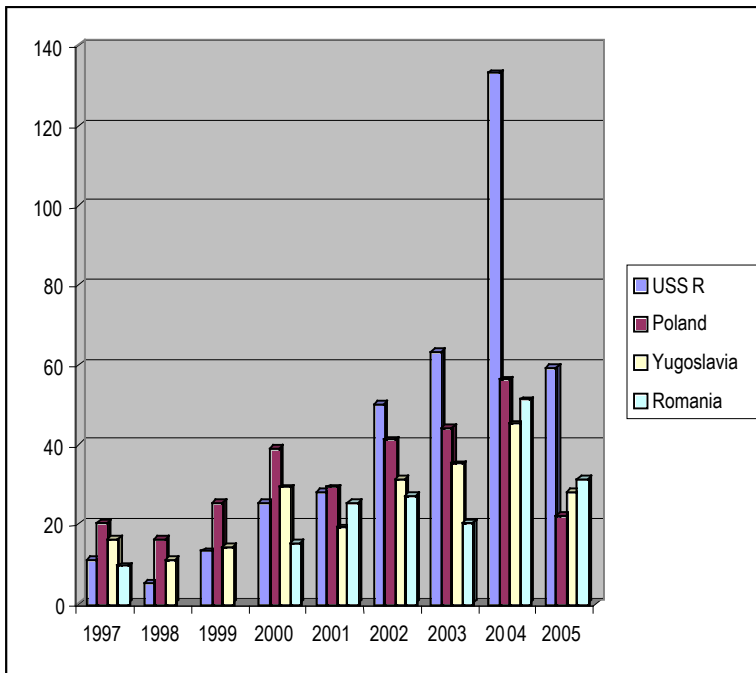


Figure 2. New Registered Nurse Members from the USSR, Poland, Yugoslavia and Romania



Appendix D. Migration to Ontario from the Top Ten Source Countries

Figure 3. New Registered Nurse Members from Iran

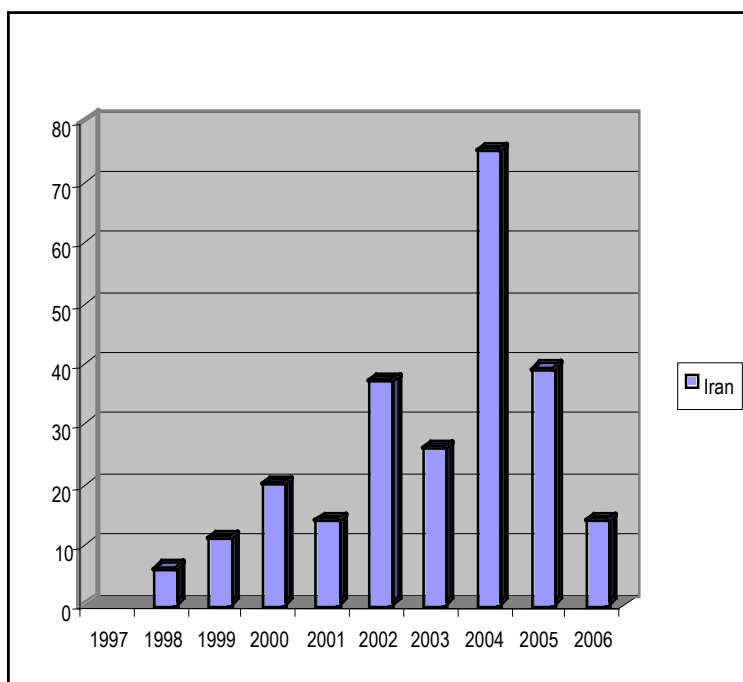
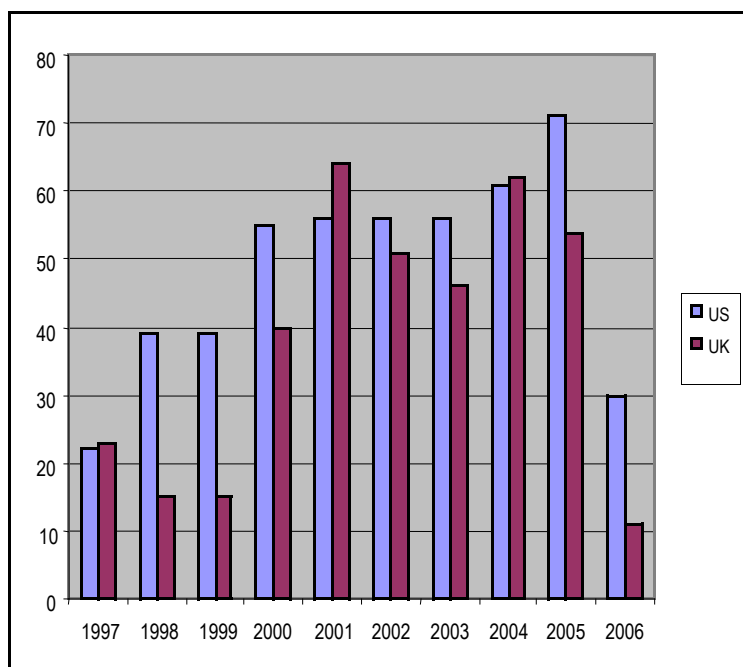


Figure 4. New Registered Nurse Members from the US and the UK



Appendix E. Additional Recommendations²

Government

- Ensure potential applicants for regulated professions in Canada, such as IENs, are provided with appropriate information on licensing and the labour market during the immigration process and before they enter Canada.
- Require all stakeholders, including licensing bodies, governments, settlement agencies, employers and nursing associations, to collaborate in planning initiatives for the integration of internationally educated professionals. A taskforce should be created to identify appropriate strategies.
- Create a funding envelope to provide permanent funding for upgrading/bridging programs. Merge bridging/upgrading courses for IENs into regular educational programs.
- Initiate collaboration among educational programs to facilitate transfer of credits from one institution to another.
- Ensure effective information exchange between agencies serving immigrants and regulatory bodies. Consider the creation of an advisory body to facilitate the process.
- Ensure that municipal settlement organizations and other relevant non governmental organizations have appropriate information and skills to advise nurses and other applicants to regulated professions.

Licensing and Professional Bodies

- Encourage completion of elements of the licensing process that can be done in advance of emigration. For example, submission of educational credentials, evidence of fluency in English or French, registration/registration eligibility in the jurisdiction of original registration and evidence of safe nursing practice.
- Provide an on-line questionnaire with automated responses available to enable IENs to match their education and experience against Canadian requirements.
- Develop a standardized means of assessing the educational credentials of IENs. Initiate collaboration among nursing regulators, other professional bodies and the proposed Canadian agency for assessment and recognition of credentials.

² From Health Human Resource Series 3. Internationally educated nurses in Ontario:

Educators

- Develop common Prior Learning Assessment Recognition (PLAR) processes and ensure that students equal or surpass established standards.
- Make existing programs similar to CARE (Creating Access to Regulated Employment) for nurses a component of the upgrading/bridging programs offered by institutions.
- Consider the introduction of an adaptation program providing orientation to the Canadian health care system, workplace and philosophy of care mandatory for all IENs intending to practice in Canada.
- Expand language competencies to include the cultural aspects of communication. For example, expectations around communication with colleagues, interdisciplinary team members and patients in the workplace.
- Introduce short courses at community colleges to assist IENs to pass professional examinations.
- Provide individual institutions with anonymized pass rates for IENs to help them assess the effectiveness of their programs.
- Improve counselling services, strategies and pathways for entering the workforce and for achieving career goals.

Employers

- Create orientation and mentoring programs for IENs with funding comparable to those for new graduates.
- Develop effective employment practices for integrating IENs into the workplace.

Researchers

- Evaluate the effect of changes in entry to practice on nurse supply, including the supply of IENs.
- Track IEN applicants throughout the licensing process.
- Assess reasons for the low pass rates by IENs.
- Design and evaluate interventions to ease transition into the workplace.
- Study the dynamics of cross cultural and inter-professional workforces.
- Investigate the perspectives of IENs on nursing care and the role of the nurse.
- Study the employment patterns of IENs with different geographical, educational and practice backgrounds.