Building the Future: An integrated strategy for nursing human resources in Canada

Immigration and Emigration Trends: A Canadian Perspective
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This report is part of an overall project entitled Building the Future: An integrated strategy for nursing human resources in Canada.

Immigration and Emigration Trends: A Canadian Perspective
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Preface

This report is part of an overall project, Building the Future: An integrated strategy for nursing human resources in Canada. The goal of the project is to create an informed, long-term strategy to ensure that there is an adequate supply of skilled and knowledgeable nurses to meet the evolving health care needs of all Canadians. Through surveys, interviews, literature reviews, and other research, Building the Future will provide the first comprehensive report on the state of nursing human resources in Canada. The project comprises the following two phases.

Phase I: Research about the nursing labour market in Canada is being conducted in stages. Reports will be released as the research work is completed to share interim findings and recommendations with the nursing sector. This is the third of these reports. A final report will be produced at the conclusion of this phase that will include all of the recommendations accepted by the Nursing Sector Study Corporation.

Phase II: A national strategy will be developed in consultation with government and non-government stakeholders that builds on the findings and recommendations presented at the completion of Phase I.

To oversee such a complex project, the Nursing Sector Study Corporation (NSSC) was created in 2001. The Management Committee of NSSC comprises representatives of the signatories to the contribution agreement with the Government of Canada and other government groups.

The multi-stakeholder Steering Committee for the project comprises approximately 30 representatives from the three regulated nursing occupations (licensed practical nurse, registered psychiatric nurse, and registered nurse), private and public employers, unions, educators, health researchers, and federal, provincial and territorial governments. The Steering Committee guides the study components and approves study deliverables including all reports and recommendations.

Members of the Management Committee and the Steering Committee represent the following organizations and sectors.

Aboriginal Nurses Association of Canada
Association of Canadian Community Colleges
Canadian Alliance of Community Health Centre Associations
Canadian Association for Community Care
Canadian Association of Schools of Nursing
Canadian Federation of Nurses Unions
Canadian Healthcare Association
Canadian Home Care Association
Canadian Institute for Health Information
Canadian Nurses Association
Canadian Practical Nurses Association
Canadian Union of Public Employees
Health Canada
Human Resources and Skills Development Canada
National Union of Public and General Employees
Nurse educators from various institutions
Ordre des infirmières et infirmiers auxiliaires du Québec
Ordre des infirmières et infirmiers du Québec
Professional Institute of the Public Service of Canada
Registered Psychiatric Nurses of Canada
Representatives of provincial and territorial governments
Service Employees International Union
Task Force Two: A human resource strategy for physicians in Canada
Victorian Order of Nurses Canada

Together, we are committed to building a better future for all nurses in Canada and a better health system for all Canadians
Executive Summary

In this report, trends and policy issues relevant to the migration of nurses to and from Canada are examined. The report is based on published and grey literature and available databases. The lack of comprehensive and reliable information on nurse migration makes international comparisons difficult, if not impossible, and partially explains the limitations of the literature (Organization for Economic Co-Operation and Development [OECD], 2000). Information about licensed practical nurses (LPNs, known as registered practical nurses in Ontario) and registered psychiatric nurses (RPNs) is extremely limited.

Influences on World Migration Trends

Patterns of migration include regional markets, in which richer countries attract migrants, and a global market, with flows from less developed to more developed regions such as Western Europe and North America. However, some of the wealthier and more advanced countries lose many of their professionals through emigration (Abella, 1997). Many countries attempt to attract migrants to offset shortages caused by inadequate production, internal mobility, and retirements. In addition to economic factors, also implicated in migration are cultural ties, common language, wars, economic problems, political events, and natural disasters (Mejia, Pizurki, & Royston, 1979). The trend toward globalization in the past 30 years, including new trade agreements, has led to more international trade and an increase in migration (Woodward, Drager, Beaglehole, & Lipson, 2001).

Migration in the General Canadian Population

Immigrants made up almost 70% of the growth in the Canadian labour force in 2001 and may account for virtually all workforce growth by 2011 (Spergel, 2001). Canada has a low rate of emigration (0.3% to 0.4% per year); however, Canadian emigrants include a disproportionate number of skilled workers (Nadeau, Whewell, & Williamson, 2000). In the 1990s, Canada was a net loser of workers to the US, although the numbers were small relative to the stock of workers in the Canadian labour force (DeVoretz, 1999; Helliwell, 1999; Industry Canada, 1999).

Nurse Migration in Canada

Although only a small number of nurses migrate to Canada each year, the numbers accumulate if they remain in Canada permanently and they have a moderate impact on the labour force overall and a considerable impact on several jurisdictions. In 2001, of the 231,512 RNs employed in nursing, 6.8% (15,659) were graduates of international nursing schools (Canadian Institute for Health Information [CIHI], 2002). The percentages of internationally educated registered nurses varied by jurisdiction, accounting for more than 10% of the nurses in British Columbia (14.6%), Ontario (10.4%), and Nunavut (10.4%; CIHI, 2002, p. 68). Of the 230,957 registered nurses employed in Canada in 2002, 6.9% (15,847) were internationally educated and accounted for more than 10% of RNs in four jurisdictions: British Columbia (15%), Nunavut (13.6%), Ontario (10.5%), and the Northwest Territories (10.1%; CIHI, 2003a). In 2002, of the 60,123 LPNs employed in Canada, only 1.6% (986) were internationally educated, 72.4% (43,530) were educated in Canada and 26% did not state their place of graduation (CIHI, 2003b). Internationally educated LPNs migrate mainly to Ontario (3.2%), Manitoba (2.5%), Alberta (2.3%), and Saskatchewan (1.7%; CIHI, 2003b, p. 54). Of the 5,132 RPNs employed in psychiatric nursing in Western Canada, 89.2% (4,577) were educated in Canada, 7.5% (387) were internationally educated, and 3.3% (168) did not state their place of graduation (CIHI, 2003c).
Nurse immigration increased from 1999 to 2002. According to Citizenship and Immigration Canada, the number of RNs entering Canada as landed immigrants decreased steadily from 1994 (816) to 1998 (247) and remained stable in 1999 (243; CIHI, 2000) with 2000 (325) figures similar to those from 1997 (351; CIHI, 2001b). Overall, the number of RNs entering Canada decreased 70.2% from 1994 to 1999 (CIHI, 2000). However, the number of RNs increased slightly from 1999 (243) to 2000 (325), rose considerably in 2001 (1,528) and again rose slightly in 2002 (1,849; CIHI, 2000, 2001b, 2002, 2003a). The 1,528 RNs and nurse supervisors admitted to Canada as permanent residents in 2001 represented 21.8% of immigrants listed under health occupations (CIHI, 2002, p. 73). It is not known what percentage of immigrants the 1,849 RNs admitted in 2002 represent.

In 2001, the main sources of immigrants in the Canadian RN workforce were the United Kingdom (UK) and the Philippines (CIHI, 2002). In 2002, the Philippines was the main source, followed by the United Kingdom (CIHI, 2003a). Of all the provinces, British Columbia (BC) relies most heavily on international RN migration (CIHI, 2002, 2003a). Although some LPNs migrate from the US and other countries, the source countries of internationally educated LPNs were not specified in the most recent data (CIHI, 2003b). Of the few LPNs that migrate to Canada, most migrate to Ontario, Manitoba, and Alberta (CIHI, 2003b). Most internationally educated RPNs employed in Canada in 2002 were educated in the United Kingdom (CIHI, 2003c). British Columbia (26%) admits the most internationally educated RPNs of the Western Canadian provinces (CIHI, 2003c).

Although Canadian nurses migrate to many countries, there are definite trends for each group: most RNs go to the United States (US); most LPNs migrate to Hong Kong, New Zealand, and the UK (CIHI, 2003b); and most RPNs migrate to Australia, New Zealand, the UK, or Bermuda (A. Osted, College of Registered Psychiatric Nurses of Manitoba, personal communication, September 15, 2003).

According to Zhao, Drew, and Murray (2000), RNs migrating to the US increased from 330 per year in the late 1980s to 825 in 1996 and 1997. Among RNs, out-migration in 1995 was equivalent to more than a quarter (i.e., 800 of the 3,000) of new Canadian RN graduates (Zhao et al., 2000). Saskatchewan experienced high rates of RN and RPN migration compared to other provinces or countries in the mid-1990s (Elliott, 1999) and this continued into 2002 (CIHI, 2003a, 2003b). The greatest emigration for RPNs was from Alberta and British Columbia in 2002 (CIHI, 2003c).

Motivations for Migration

Nurse migrants are drawn by opportunities for professional or career advancement, personal development, better quality of life, job satisfaction, recognition of professional expertise, higher self-esteem, a wider sphere of influence, and learning opportunities (International Council of Nurses [ICN], 2002a). Reasons for emigration include workforce imbalances, low wages, and poor working conditions (Adams & Kinnon, 1998; ICN, 1999a; Oulton, 1998; Peterson, 2001).

Factors that attract nurses to Canada include a good standard of living, job opportunities, lack of strife, health care, and public education (McGovern, 2002). Migration from Canada to the US in the 1990s was prompted by the unstable labour market at home, inducements offered by US employers, and the expectation of rewarding jobs, higher salaries, and lower taxes (Frank & Bélair, 1999; Industry Canada, 1999; Nadeau et al., 2000; Williamson, 2000). Extensive migration of nurses to the US has historically been due to salaries and working conditions (Davis & Nichols, 2002).
Issues in the Migration and Recruitment of Internationally Educated Nurses

When nurses migrate temporarily, technical and clinical expertise gained abroad can be transferred to colleagues when they return. Poor countries may have more qualified nurses than they can employ and can profit from the remittances that migrant nurses contribute to the home economy (Mejia et al., 1979). However, source countries suffer if too many nurses migrate (Kline, 2003).

Ninety nurses’ associations representing 69 countries reported shortages of registered nurses (Clark & Clark, 2003) suggesting that the nursing shortage is a worldwide phenomenon. (“Global issues”, 2003; Kline, 2003). Global shortages have been reported in the LPN and RPN literature also (Clinton, du Boulay, Hazelton, & Horner, 2001; Laccetti Meyers, 2002). As a result of national shortages, many western and northern countries aggressively recruit nurses from one another and elsewhere (International Labour Organization [ILO], 2002). Usually, no designated body regulates or monitors the contracts or subsequent working conditions of these nurses, leaving them susceptible to abuse (Abella, 1997; ICN, 2002b). The Canadian Nurses Association (CNA), the Australian Nursing Council (ANC), the Royal College of Nursing (RCN), the Norwegian Nursing Association, and the Irish government have published statements supporting the right of registered nurses to travel and migrate, but agree that it is problematic when nurses are aggressively recruited from countries where there are shortages (Buchan, Parkin, & Sochalski, 2003; CNA, 2000a; ICN, 2001a; Kingma, 2001; Oulton, 1996; Peterson, 2001; RCN, 2002).

While the recruitment of internationally educated RNs may be a short-term solution to a shortfall of nurses, it is not always in the long-term interests of nursing (Glaessel-Brown, 1998; ICN, 2001a, 2002b). In receiving countries, massive immigration of internationally educated nurses delays the implementation of measures to improve recruitment, retention, and human resource planning (Buchan, 2001a; Peterson, 2001). Migration of nurses may be beneficial to countries where there is unemployment, but more frequently, it exacerbates shortages.

Recommendations

International initiatives are required to ensure better management of international migration. These include the development of appropriate databases, the establishment of an international body to manage and monitor migration, creation of a forum for workplace monitoring, and development of a common protocol to deal with recruitment practices. Front-line nurses and unions need to be involved in research and in developing strategies for retention and recruitment of nurses (Canadian Nursing Advisory Committee [CNAC], 2002). Canada needs to improve nursing workforce planning nationally and to collaborate more extensively with other governments and international organizations to manage and facilitate the movement of nurses (RNs, LPNs, and RPNs) worldwide.

The following recommendations relate to an overall goal of strengthening the nursing workforce nationally and internationally by promoting retention, positively transforming nurses’ working conditions, and facilitating, monitoring and managing migration worldwide.

1. Encourage national and jurisdictional strategies to create a policy framework for nurse migration. The Nursing Strategy for Canada (ACHHR, 2000) and the Final Report of the Canadian Nursing Advisory Committee (CNAC, 2002) include strategies and recommendations that need to be implemented to create an adequate, self-sufficient, renewing workforce.

2. Conduct research into the issues relevant to internationally educated nurses and their integration into the Canadian health care system.
3. Formulate methods to collect data systematically about all aspects and issues relevant to LPNs and RPNs, including migration. This will facilitate a complete representation of the total nursing population.

4. Facilitate human resources planning; more comprehensive databases are required to track the migration of all three regulated nursing professions to and from Canada. The various levels of government and all key stakeholders should collaborate to collect information about every aspect of nursing, from supply and demand to nurses’ professional roles (Kazanjian, 2000).

5. Collaborate with international colleagues to develop a model capable of predicting the complex flow of nurses’ movements in order to produce accurate assessments of future changes (Irwin, 2001).

6. Create a foreign employment policy framework that will ensure that internationally educated nurses in Canada have employment conditions equal to nationally educated nurses in positions requiring the same level of competency and involving the same duties and responsibilities, thus ensuring against discriminatory practices (“Overseas recruitment”, 2000). Support and enforcement of the moral and ethical stance not to engage in active and aggressive recruitment of nurses from countries with nursing shortages is warranted.

7. Establish an international advisory service for nurses considering working abroad and internationally educated nurses entering Canada. Advice would relate to the following:
   a. individual, personal, and work-related problems, such as institutional racism, violence, sexual harassment, and the facilitation of return migration (Lowell & Findlay, 2001; “Overseas recruitment”, 2000);
   b. disseminating information on the working conditions of nurses (“Overseas recruitment”, 2000);
   c. providing information about equivalencies of diplomas, qualifications, or degrees among countries (“Overseas recruitment”, 2000); and
   d. assisting nurses with problems related to international migration and repatriation (“Overseas recruitment”, 2000).

The Advisory Committee on Health Delivery and Human Resources approved the creation of a Task Force for International Nurses for all regulated nursing occupations. This should be supported.

8. Establish effective human resources planning based on clear operational definitions (Canadian Chamber of Commerce, 2001; “Human resources”, 2001; Martineau et al., 2002). Canadian nursing policy makers should develop recruitment and retention strategies that address such issues as positive organizational climate, working conditions, respect for clinical judgment, and scope of practice (“Global issues”, 2003).

9. Develop a national unique identifier for each nurse, which is a non-reused, lifetime number assigned either on entry into an education program or on applying for first licensure. Adopting a unique identifier would facilitate accurate tracking of nurses throughout their careers and provide accurate information for the construction of a database comparable at national and international levels.
1. Introduction

In this report, trends and policy issues associated with the international migration of nurses to and from Canada are examined. The movement of nurses in and out of Canada and the number of internationally educated (immigrant) nurses in the national workforce are best studied in a global context.

This report includes information regarding members of the three regulated nursing professions in Canada — registered nurses (RNs), licensed practical nurses (LPNs), referred to as registered practical nurses in Ontario), and registered psychiatric nurses (RPNs) — and their equivalents globally, who often employ differing professional title designations. The following acronyms are used in this report.

- RNs registered nurses
- LPNs licensed/registered practical nurses
- RPNs registered psychiatric nurses

(Note that although the acronym RPN refers to registered practical nurses in Ontario, Canada, it is not so used in this report.)

The report begins with a discussion of the methods used, data quality, and limitations of data and resources. An overview follows of economic, globalization and other factors regarding migration as well as a brief outline of selected international immigrant legislation which has a significant influence on the migration of nurses.

Canadian migration is then discussed, starting with the general backdrop of international migration of the general population and progressing to migration of nurses to and from Canada. This section introduces issues relevant to the topic, for example, how migration affects the nursing workforce. A discussion of the push-pull factors that drive nurse migration ensues, with added focus on the migration of nurses to and from the US. The implications of the global movement of nurses for national/regional health care systems, particularly that of Canada, are also considered. The report concludes with recommendations for policy makers.

There is little agreement on the definition of key terms in the literature on migration. For example, migrant is defined inconsistently, even within nations, and there is no agreed upon definition for skilled or highly skilled worker (Mahroum, 1999). For the purposes of this report, key terms essential to understanding issues in migration are defined in the Glossary.
2. **Methods**

2.1. **Search Strategies and Identification of Relevant Literature**

Key words and phrases, such as *international nurse migration, migration of nurses, nurse emigration, nurse immigration, nursing brain drain*, and *nursing immigration policy* were used to search both published and grey literature. Both broad and narrow key words and phrases were used to search all sources. A broad term, such as *nurse(s)*, was used in an effort to capture information relating to all three regulated nursing professions in Canada. More focused words and phrases, such as *registered nurse(s), licensed practical nurse(s)*, and registered psychiatric nurse(s), were used to access data for each of the regulated nursing professions.

*Published literature* was searched in bibliographic databases, including CINAHL, MEDLINE, and Healthstar/Ovid (see Appendix A). Emphasis was placed on literature produced since 1990; however, significant earlier publications were also considered. *Grey literature* was searched on the Internet using a variety of search engines, including Copernic Pro 2001. Reports, news releases, statistical data and databases, documents from international and national university-based academic research units, and governmental publications were reviewed. *Major statistical resources*, such as census data from Statistics Canada and nursing databases from the Canadian Institute for Health Information (CIHI), were investigated where available. Literature that was reviewed but not referenced in the report is listed in Appendix I.

Although the majority of available data refers to RNs, general discussions (e.g., trends), in this report conclusions and recommendations are applicable to all of the three regulated nursing professions in Canada.

2.2. **Data Quality and Limitations**

The search of the *published literature* led to the retrieval of numerous articles; however, most were descriptive or anecdotal in nature. A few relevant studies on registered nurses exist from Canada, the United States (US), and the United Kingdom (UK). Statistical data from Canada on LPNs and RPNs were released only recently by the Canadian Institute for Health Information (CIHI, 2003b, 2003c). Little else was found regarding LPNs and RPNs.

Review of the *grey literature* revealed numerous reports, newspaper articles, and information about immigration statistics posted on the Internet; these were of variable quality. The most salient publication was the dated, but still useful, overview of physician and RN migration entitled *Physician and nurse migration: Analysis and policy implications* (Mejia, Pizurki, & Royston, 1979). Another publication of note was the recent publication *International nurse mobility: Trends and policy implications* by Buchan, Parkin, and Sochalski (2003). The latter should be read in conjunction with this report.

*Lack of Routine Collection of Data*. The lack of comprehensive and reliable information on migration flows makes international comparison of migration difficult, if not impossible, and partially explains the limitations of the literature (Organization for Economic Co-Operation and Development [OECD], 2000). Information regarding the international migration of health professionals is inconsistent, with no routine recording of numbers and activities of health personnel in many countries (Diallo, Zum, Gupta, & Dal Poz, 2003; Dobson, 2003; Martineau, Decker, & Bundred, 2002). Individual nations usually
No Standard Method of Data Collection. The international community has no standard method of collecting migration data and the data are collected by a variety of bodies. Frequently, nurses are not specifically identified in migration documents. In Canada, for example, Citizenship and Immigration Canada (CIC) collects general migration data. Conversely, in the US, the Immigration and Naturalization Service (INS), as well as various state boards, national associations, and agencies, all collect certain data about nurse migration. Some countries rely on self-report or, as is done in South Africa, track emigration only from exit points such as airports (Brown, Kaplan, & Meyer, 2001). Other countries have no system at all. Furthermore, trade agreements that allow free movement among countries make cross-border movements impossible to track (OECD, 2000).

No Specific Tracking of Health Care Personnel. There is little possibility of accurate international comparisons of health human resources among countries. Data on the movements of health care personnel are non-existent or inadequate.

Other Issues. Other issues include a lack of standardized definitions, inconsistent data collection formats, and inaccurate data measures (Diallo et al., 2003; Dobson, 2003; Martineau et al., 2002). Data available on RN migration are often not comparable, and there is a need for standardized definitions and data sets in order for collected data to be comparable (Buchan et al., 2003). The term nurse is not clearly defined in any international occupational classification scheme (ICN, 1994). The ICN has a definition of registered nurse in its constitution but the roles and responsibilities of RNs vary internationally. Similarly, there are no internationally agreed upon definitions for the Canadian designations licensed practical nurses or registered psychiatric nurses, or their international counterparts.

Lack of Standardization in Nursing Profession Overall. The nursing profession varies internationally in educational preparation, regulatory structures, practice patterns, and career trajectories. There are also differences in basic nursing education, career structures, and titles for similar or overlapping roles (ICN, 2000). Nurses’ roles vary depending on the roles of other professionals.

No Accurate Tracking of Employment/Migration. In many countries, there is no way of tracking which health care personnel are employed, or when they leave their profession, migrate, or retire (Diallo et al., 2003). In other countries, such as Canada, regulatory bodies estimate numbers of international migrants by using country of graduation compared with jurisdiction of current registration as an indicator of migration. Further information may be found in national census records, labour force surveys, population surveys, and taxation records. However, these resources all have shortcomings. For example, databases equating education abroad with migration would categorize individuals educated abroad and returning to their home countries as migrants.

Note. As immigrants include all RNs whose previous registration was outside Canada, Canadian RNs returning home may also be counted as immigrants.

Limited Statistical Sources. The limitations of current databases and other statistical resources preclude accurate analysis of trends in international RN migration. The limitations of specific literature and databases are documented in Appendix B. Information on the migration of LPNs and RPNs is even more scant than for RNs. National databases about LPNs and RPNs were only recently released in Canada by CIHI. The limitations of the databases can be found within the CIHI documents and through the following CIHI sources.
2.2.1. **Plans for Improvement of Data Quality**

There are plans to improve the quality of data about health human resources internationally. WHO has initiated the following (Diallo et al., 2003).

- Attempting to refine and expand the knowledge base on health human resource issues.
- Forming partnerships with stakeholders and data providers as a process of capacity building in countries.
- Implementing four main collaborative projects, as follows:
  - World Health Survey
  - Global Directory of Health Training Institutions
  - Collection of qualitative and quantitative assessments of human resources for health in six developing countries
  - Creation of a meta-database of data sources of information on health human resources in all countries to enable consistent cross-country and within-country comparisons

In Canada, CIHI has instituted new procedures to improve data quality and accuracy for the three nurse databases. Publications generated from these databases are listed below.

- **Registered Nurses Database**: *Workforce Trends of Registered Nurses in Canada, 2002* (RNDB; CIHI, 2003a)
- **Licensed Practical Nurses Database**: *Workforce Trends of Licensed Practical Nurses in Canada, 2002* (LPNDB; CIHI, 2003b)
- **Registered Psychiatric Nurses Database**: *Workforce Trends of Registered Psychiatric Nurses in Canada, 2002* (RPNDB; CIHI, 2003c)
3. Influences on General World Migration Trends

3.1. Migration Factors

3.1.1. Economic Factors

To better understand the place of migrants in Canadian human resources, some background is necessary regarding the international context. Patterns of migration include those pertaining to two types of markets: regional markets, in which richer countries in a region attract migrants from poorer countries in the region; and a global market, in which migrants flow from less developed regions to more developed regions (e.g., Western Europe and North America). Some countries, including Canada and the UK, are interim countries of residence for migrants whose eventual destination is the US. In addition to economic factors, also influencing migration are historic or cultural ties and common language. Wars, economic problems, political events, and natural disasters are similarly implicated in the international movement of workers (Mejia et al., 1979).

3.1.2. Globalization Factors

Over the centuries, there have been recurrent periods of globalization and retrenchment. Globalization involves three processes which have a circular relationship: an increase in cross-border flows stimulates the development of global rules and institutions; these promote the opening of economies; and this in turn increases the scale of cross-border flows (Woodward, Drager, Beaglehole, & Lipson, 2001). Driving and constraining forces in globalization include technological developments, political influences, economic pressures, changing ideas, and increasing social and environmental concerns (Woodward et al., 2001). The migration of people across borders is inherent in the globalization process (OECD, 2002).

Over the past three decades, international migration has increased (Abella, 1997). The current period of globalization began in the 1970s and was accompanied by the lowering of trade barriers, removal of capital controls, and liberalization of foreign exchange restrictions (Martineau et al., 2002). The globalization of markets and the development of international trade agreements — such as the North American Free Trade Agreement (NAFTA) and those of the European Union (EU) — facilitated international migration and reduced barriers to trade and mobility of people (Martineau et al., 2002). The resultant growth in international trade led to an increase in migrant workers (Woodward et al., 2001). The United Nations Population Division estimated that the number of migrants worldwide rose 46% in the 1990s, from 120 million to 175 million (Migration News, 2003).

3.1.3. Other Factors

International migration has traditionally comprised low-skilled workers, involved family unification, or occurred for humanitarian reasons (OECD, 2002). With economic expansion and technological growth, there has been a considerable increase in the migration of professionals and skilled workers (OECD, 2002). With the recent economic expansion and increased demand for skilled workers, many countries have implemented policies to facilitate the entry of foreign skilled workers (OECD, 2002). This new migration of people has been attributed largely to travel and tourism, and has been accompanied by a slow growth in legal immigration as developed countries have sought to close their borders, except to highly skilled people or those with capital (Woodward et al., 2001).
In most countries, immigration regulations are designed to protect the domestic labour market by stipulating that an immigrant can only be hired in the absence of a qualified citizen or permanent resident (Xu, Xu, & Zhang, 1999). Nonetheless, when shortages occur in specific niches in a national workforce, laws may be passed to facilitate the immigration of skilled foreign workers. For example, in the early 1990s, Australia, Canada and the US all modified immigration legislation to admit skilled workers in short supply, and potential contributors to science and technology (International Labour Organization, [ILO], 1997; Martineau et al., 2002). More recently, however, the US has legislated more rigorous credentialing of RNs and LPNs, which is in conflict with the NAFTA agreement and will greatly affect the number of internationally educated nurses allowed to practise in the US (Wong & Wolfsdorf, 2003). A presentation of selected immigration legislation relevant to RNs follows.

3.2. Selected Immigration Legislation Relevant to RNs

3.2.1. European Union

The European Union (EU) — formerly known as the European Community (EC) or European Economic Community (EEC) — is a union of 25 independent states. It was founded on November 1, 1993, to enhance political, economic and social co-operation. As of July 2004, the following countries were members of the European Union (date of joining union is indicated above the column).

<table>
<thead>
<tr>
<th>November 1, 1993</th>
<th>January 1, 1995</th>
<th>May 1, 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>Austria</td>
<td>Cyprus (Greek region)</td>
</tr>
<tr>
<td>France</td>
<td>Finland</td>
<td>Czech Republic</td>
</tr>
<tr>
<td>Germany</td>
<td>Sweden</td>
<td>Estonia</td>
</tr>
<tr>
<td>Greece</td>
<td></td>
<td>Hungary</td>
</tr>
<tr>
<td>Ireland</td>
<td></td>
<td>Latvia</td>
</tr>
<tr>
<td>Italy</td>
<td></td>
<td>Lithuania</td>
</tr>
<tr>
<td>Luxembourg</td>
<td></td>
<td>Malta</td>
</tr>
<tr>
<td>Netherlands</td>
<td></td>
<td>Poland</td>
</tr>
<tr>
<td>Portugal</td>
<td></td>
<td>Slovakia</td>
</tr>
<tr>
<td>Spain</td>
<td></td>
<td>Slovenia</td>
</tr>
<tr>
<td>United Kingdom of Great Britain and Northern Ireland</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mutual recognition agreements have assisted the movement of professionals, including nurses, through the European Community since the 1970s (Seecombe, Buchan, & Ball, 1993). For example, the UK Nurses, Midwives and Health Visitors Act 1979 was amended in 1996 to include: “by virtue of a right conferred by Article 11 of Council Regulation (EEC) No. 1612/68 [Nurses, Midwives and Health Visitors are]… entitled to be treated, for the purposes of access to the nursing profession, or the profession of midwifery, no less favourably than a national of such a State, shall be treated. . . for the purposes of subsection (3b) above as if he [she] were such a national” (Durrell, 1996). A proposal for a directive of the European Parliament in 2002 called for a more uniform, transparent and flexible regime of recognition of professional qualifications in order to make Europe the world’s most dynamic and competitive economy by 2010 (“Reform of the system”, 2003). The recognition of professional qualifications would enable nurses to gain access in host Member States of the EU in which they were qualified and to enjoy the same rights as those of nationals when practising nursing (when nursing is regulated; “Reform of the system”, 2003). Where there were no exact correspondence between the qualifications required in the Member
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State of origin and that in the Host State, migrants would be required to complete a compensatory measure (an adaptation period or aptitude test; “Reform of the system”, 2003). The fifteen initial members would be able to block freedom of movement for up to seven years, especially those bordering the member countries added in 2004 (Migration News, 2003).

3.2.2. The North American Free Trade Agreement (NAFTA)

In January 1994, Canada, the United States, and Mexico launched the North American Free Trade Agreement (NAFTA) and formed the world’s largest free trade area (Department of Foreign Affairs and International Trade, 2003). All Canadian professionals qualify for NAFTA visas if they have a US job offer, and these visas can be renewed indefinitely (DeVoretz, 1999; Industry Canada, 1999; O’Neill, 1999). Because of the agreements in NAFTA, Canadian and Mexican nurses can immigrate to the US under a specifically created Trade NAFTA (TN) visa (Xu et al., 1999). These nurses may immigrate initially for a year and may then extend their stay annually through the US Immigration and Naturalization Service (“Assess and Intervene”, 2000; Xu et al., 1999). There is no quota on the number of Canadian nurses allowed under TN status, although there is a 5,500 per year limit on Mexican professionals for the first 10 years of the NAFTA agreement (Xu et al., 1999). The professional category of NAFTA allows Canadian employers to hire RNs who are citizens of Mexico or the US on a temporary basis without recourse to the Human Resources and Skills Development Canada (HRSDC) confirmation process (HRSDC, 2002). However, in July 25, 2003, US legislation regarding necessary credentials for working in US was finally ruled on, to be put into effect July 26, 2004; this legislation counters some of the free movement of nurses and other healthcare professionals provided by the NAFTA agreement (Wolfsdorf & Wong, 2003).

3.2.3. Canada

The regulation of foreign workers entering Canada, including nurses, is a federal responsibility and rests with the Department of Citizenship and Immigration Canada (HRSDC, 2002). Nurses coming to Canada as temporary workers must have offers of employment that have been confirmed by HRSDC, unless they are seeking entry under the provisions of NAFTA (HRSDC, 2002). A streamlined process allows employers with vacancies in certain specialties to recruit qualified nurses in foreign jurisdictions without undertaking a recruitment search in the Canadian labour market (HRSDC, 2002).

As did many countries, Canada updated its immigration system to a points system, which came into effect in June 2002. High points are conferred for postgraduate education, language skills, and experience; ten points are awarded to those having a confirmed job offer; and extra points are give for immigrant agreement to settle in rural areas and fill vacancies for nurses, teachers, and other skilled workers (Migration News, 2002a, 2003).

3.2.4. United States (US)

Various immigration and registration policies affect the immigration into the US. Nurses can enter the US in various ways:

- through a permanent or immigrant visa (i.e., a green card),
- under the NAFTA visa,
- under various temporary visas (H-1A, H-1B, H-1C, H-2B),
- as tourists,
- as refugees, or
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- as returning US citizens (Davis, 2002).

**Canadian Nurses.** In the past, when entering certain states from Canada, nurses did not require visas or further examination for licensure, depending on their province of origin and the specific requirements of the state where they were seeking employment. A new ruling, regarding Section 343 of the *Illegal Immigration Reform and Immigrant Responsibility Act of 1996* (IIRIRA), requires all RNs and LPNs to obtain VisaScreen certificates, for which there are no exceptions (Wong & Wolfsdorf, 2002).

3.2.4.a. Evolution of Quotas and Visa Requirements, 1921–2003

**1921.** The *Quota Law* of May 19, 1921, set limits on the number of aliens of any nationality entering the US to 3% of the foreign-born persons of that nationality living in the US in 1910, with about 350,000 entering each year, mainly from Northern and Western Europe (US, INS, 1999).

**Before 1965.** US immigration was based on the National Origins Quota System, which favoured immigrants from the Western hemisphere by setting very low numerical limits for immigrants from elsewhere in the world (Xu et al., 1999).

**1965.** Following amendments to the *Immigration and Naturalization Act* in 1965, the priority for immigration shifted to those with skills, talent, or knowledge that were needed in the US. For example, nurses, actors, artists, professors, and other aliens belonging to any recognized learned professions were placed on a non-quota basis (US, INS, 1999).

**1989.** The *Immigration Nursing Relief Act of 1989* readjusted the law so that certain non-immigrant nurses with H-1 status could continue their employment if they had been employed as nurses for at least three years, and if their continued employment in nursing met certain labour certification requirements (US, INS, 1999). The Act created a special temporary visa (H-1A) specifically for internationally educated nurses and enabled employers to sponsor internationally educated nurses to emigrate to the US to perform nursing services (US, INS, 1999; Xu et al., 1999). Further adjustment to the *Immigration Nursing Relief Act of 1989* let residents change their status from temporary to permanent, without regard for numerical limitation of certain non-immigrants who were employed in the US, and also established a new non-immigrant category for the temporary admission of qualified RNs (US, INS, 2000). In the absence of legislative actions by Congress to extend or renew the *Immigration Nursing Relief Act of 1989*, the law sunset on August 31, 1995 (Xu et al., 1999).

**1990.** The passage of the *Immigration and Naturalization Act of 1990*, created preferential provisions for members of certain professions and occupations, including nursing, for the US national interests. Members of professions and occupations classified as experiencing a shortage in the US could enter the country on an occupational visa. These professions and occupations were granted a waiver of the usual labour certification required to protect the US domestic labour market (Xu et al., 1999).

**1997–1998.** Because a number of hospitals were still experiencing great difficulty in attracting American nurses, the *Health Professional Shortage Area Nursing Relief Act of 1997* created a new temporary RN visa program (H-1C) — that would provide up to 500 visas a year and would sunset in five years — for RNs to work in hospitals located in designated health professional shortage areas (“US House or representatives”, 1997). The establishment of a new non-immigrant classification for non-immigrant nurses in health professional shortage areas was created with the *Health Professional Shortage Area Nursing Relief Act of 1998* (“US House or representatives”, 1998).
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1999. The Nursing Relief for Disadvantaged Areas Act of 1999 allows internationally educated nurses to work in a temporary capacity in the US in areas most acutely affected by nursing shortages (Kline, 2003). The Act ratified a new H-1C non-immigrant class of admissions, under a temporary visa, for 500 nurses annually for four years in shortage areas. This allowed hospitals to hire internationally educated RNs for the first time since 1997 (Jaklevic, 1999) as a short term solution for nursing shortages in a limited number of medically underserved areas, and with a maximum three-year stay in the US (Jaklevic, 1999; US, INS, 2000). Internationally educated nurses were recruited to work in places where American nurses would not work (Jaklevic, 1999). Because of the strict requirements for hospitals aiming to qualify as sponsors for H-1C nurses, only 14 hospitals nation-wide qualified (“H-1C nurse law FAQ”, 2004).

2001. Two other bills that were passed by Congress regarding visa authority for internationally educated RNs (Rural and Urban Health Care Act of 2001 [S. 1259] and the Rural and Urban Health Care Act of 2001 [H.R. 2705]) were opposed by the American Nursing Association (ANA, 2001). The opposition stemmed from various limits, or none, on the number of visas issued under these Acts, the recognition of a degree from a Canadian school of nursing as equal to that from an American school of nursing, the provision that the RN may take the NCLEX-RN examination after entry into the US (thus rescinding the requirements of the CGFNS), and other issues regarding place of employment, and working conditions (ANA, 2001).


3.2.4.b. Recent Visa Screening Program, 2004

Adding to the confusion about US immigration laws for health care professionals, the implementation of Section 343 of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA), which created grounds for inadmissibility for certain immigrant health care workers including RNs and LPNs, was finally ruled upon on July 25, 2003 (Wolfsdorf & Wong, 2003). This final ruling now applies to all immigrants in seven health care occupations and became effective July 26, 2004 (Wolfsdorf & Wong, 2003). This law requires certain internationally educated health care professionals to satisfy a screening program (named the VisaScreen Procedure) prior to receiving a temporary or permanent occupational visa, which includes H-1B, H-2B, TN (NAFTA visa), and permanent resident alien visas (Immigration Law Associates, 2003).

For RNs and LPNs, the CGFNS has been assigned the authority to provide the VisaScreen certificates, for which there are no exceptions (Wong & Wolfsdorf, 2002). For example, a Canadian nurse may have full and unrestricted license to practise in Ontario and California, but may not continue working on a NAFTA (TN) visa after July 26, 2004 without obtaining a VisaScreen certificate (Wong & Wolfsdorf, 2003). This Section 343 credentialing, which verifies that a nurse’s education, licensing, experience, and English competency are comparable to that of American nurses, is in addition to any current state or national credentialing or licensure requirement already in place (Wong & Wolfsdorf, 2003). For RNs, one of the requirements is that they have passed both the US Commission on Graduates of Foreign Nursing Schools (CGFNS) Qualifying Examination and the US licensing examination (NCLEX-RN) examination (Immigration Law Associates, 2003). Canadian nurses, except those from Quebec, are exempt from English language testing (Wong & Wolfsdorf, 2003).
3.2.4.c. US Nursing Licensure (CGFNS and NCLEX)

The US Commission on Graduates of Foreign Nursing Schools (CGFNS) is responsible for administering an examination that is now required for all internationally educated nurses prior to their taking the US licensing examination (NCLEX-RN). Previously, nurses from certain countries (e.g., Canada, excluding Quebec) were not required to take either the CGFNS or the NCLEX-RN examination; rather, they could obtain their licensure through endorsement of their Canadian RN license (International Nursing, 2003).

Beginning in 2004, the US nursing licensing examination has been offered abroad for the first time in history. Internationally educated nurses can take the US licensing examination in their own country (Friess, 2003). It is expected that this will bring more foreign-born nurses to the US and help alleviate the crippling nursing shortage (Friess, 2003). It is anticipated that given this convenience, the number of nurses taking the examination will increase greatly. Anecdotal accounts abound of health care companies spending thousands to cover the recruitment and immigration expenses of internationally educated nurses (Friess, 2003). It is not known how the new legislation discussed above will affect the licensing examination process.

3.2.5. United Kingdom

The Highly Skilled Migrant Programme, which came into effect January 28, 2002, is based on a points system intended to attract talented people, develop the immigration system, and maximize the benefits of highly skilled workers. A work permit is not required. The successful applicant may work for one year in the UK and apply for an extension of up to three years. After a period of four years, applicants can apply for settlement status (Immigration and Nationality Directorate, 2001). Temporary overseas workers may enter the UK through the expansion of the Working Holiday Makers Scheme (Immigration and Nationality Directorate, 2002).

3.2.6. Australia

Nurses may enter under the Australian Student or Business Short Stay Visa Plan (Heath, 2001). Students from abroad now have the option to stay in Australia permanently after graduation (Heath, 2001). In addition, students who are sponsored by an Australian employer may apply for temporary residency (Heath, 2001). The Australian Working Holiday Maker Program for single, internationally educated nurses between the ages of 18 and 30 allows nurses to work for up to three months in Australia, after which time they are eligible to transfer for other longer stay temporary or permanent visas (Heath, 2001). In 2000 to 2001, 3,200 Working Holiday Maker visas were granted to nurses (Heath, 2001).

Since 1999, four-year work permits have been available in Australia and the country is recruiting from the UK, the US, and Canada (Carrigg, 2001). The staffing levels and pay rates are comparable between Australia and Canada, with the incentive being six weeks of holidays a year (Carrigg, 2001).
4. Canadian Migration

4.1. Migration in the General Population


**General Immigrants.** In the 1990s, the inflow of international immigrants was considerably greater than the outflow (O’Neill, 1999; Shillington, 2000). Between 1996 and 2001, in association with a declining birth rate, immigration accounted for more than half of Canada’s population growth (Statistics Canada, 2002). In 2001, immigrants made up almost 70% of the growth in the Canadian labour force and, by 2011, may account for virtually all workforce growth (Spergel, 2001). **Source countries** the of 250,346 immigrants in 2001 are as follows: 53% from Asia and the Pacific (including 16% from China), 19% from the Middle East and Africa, 17% from Europe, and 8% from South and Central America (Migration News, 2003).

**Skilled Workers.** The number of landed immigrants declined in the latter part of the 1990s and began to increase to more than the targeted number in 2000 and 2001 (CIC, 2001). With the increase in the targeted number of immigrants in 2002, the number of actual immigrants was only slightly less than the targeted number (CIC, 2002). The proportion of skilled workers also increased slightly each year until 2001, as seen in Table 1 below (CIC, 2000a, 2001, 2002, 2003). Between 1986 and 2002, three million immigrants were admitted to Canada (Migration News, 2003). Currently, the intention is to increase immigration levels to 300,000 per year, or one percent of the country’s population, to help fill a shortfall of one million skilled workers expected by 2010 as the baby boomers retire (Migration News, 2002a, 2003).

<table>
<thead>
<tr>
<th>Year</th>
<th>Target #</th>
<th>Actual #</th>
<th>% of Actual #</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>177,900–195,700</td>
<td>165,387</td>
<td>48.68</td>
</tr>
<tr>
<td>2000</td>
<td>177,900–195,700</td>
<td>197,129</td>
<td>52.14</td>
</tr>
<tr>
<td>2001</td>
<td>177,900–195,700</td>
<td>222,538</td>
<td>54.75</td>
</tr>
<tr>
<td>2002</td>
<td>187,000–204,600</td>
<td>203,947</td>
<td>53.85</td>
</tr>
</tbody>
</table>


Note: Numbers do not include refugees.

4.1.1. Net Loss of Skilled Workers to US, 1990s

Canadians are becoming more highly skilled and while Canada experienced a significant gross outflow of skilled workers in the 1990s, it was a net recipient of skilled workers, based on studies of permanent worldwide outflows and inflows (Industry Canada, 1999). Although Canada was a net recipient of skilled workers on a worldwide basis, it was a net loser to the US (Industry Canada, 1999). For example, in the 1990s, Canada experienced a net loss of permanent and temporary workers to the US, although the numbers remained small by historical standards and relative to the stock of workers in the Canadian labour force (DeVoretz, 1999; Helliwell, 1999; Industry Canada, 1999).
In the 1990s, an average annual migration of 22,000 to 35,000 people occurred — about 0.1% of the Canadian population (Zhao, Drew, & Murray, 2000). Overall, Canada has a low rate of emigration (0.3% to 0.4% per year); however, Canadian emigrants include a disproportionate number of skilled workers (Nadeau, Whewell, & Williamson, 2000). There has also been an upward trend in registered nurses, professors, and teachers migrating to the US. One of the reasons may be the increased employment opportunities compared to Canada (Helliwell, 1999; Iqbal, 1999; O’Neill, 1999; Zhao et al., 2000). The Standing Committee on Finance of the Government of Canada has recognized that the lack of employment opportunities in Canada, along with the low unemployment rate in the US, have enticed recent graduates to migrate to the US (Bevilacqua, 1999). In the 1990s, a substantial increase of highly skilled temporary migrants to the US was noted, although unreliability of data on temporary migrants and the poor quality of measurement makes further comment on this issue difficult (Bevilacqua, 1999).

Temporary emigration to the US is estimated to be triple the magnitude of permanent emigration, and ranges between 10,400 and 16,450 annually (Industry Canada, 1999). However, it is difficult to assess what proportion of migrants actually return. A study by Frank and Bélair (1999) found that only 18% of a sample of migrants who left Canada in 1995 had returned by 1997. A further 43% intended to return in the future.

4.2. Migration of Nurses to and from Canada

4.2.1. Nursing Stock

The number of RNs employed in nursing in Canada decreased in the mid-1990s and has remained relatively stable since then, with a slight increase of 1.4% between 1998 and 2002 (from 227,814 to 230,957; CIHI, 2003a). As a result of a steady Canadian population growth, the number of RNs per 10,000 Canadian has declined from 75.1 RNs in 1998 to 73.4 RNs in 2002 (CIHI, 2003a). In 1999, the proportion of the three nursing groups to the overall nursing workforce were RNs 76% (228,534), LPNs 22% (66,100), and RPNs 2% (5,408; CIHI, 2001a, CIHI, 2003a).

Although only a small number of nurses migrate to Canada each year, the numbers accumulate if they remain in Canada permanently and they have a moderate impact on the labour force overall and a considerable impact on several jurisdictions (see Appendices E, F and G for new RNs, LPNs and RPNs respectively; see Appendix C for cumulative RNs).

4.2.1.a. RN Immigrants, 1990–2002

RNs. The proportion of [accumulated] immigrants in the RN workforce varied slightly between 1990 and 2002, as seen below in Table 2 (see Appendix C for numbers of new immigrants each year).
Table 2. Immigrants in Canadian RN Workforce, by Selected Years, 1990–2002

<table>
<thead>
<tr>
<th>RN Workforce</th>
<th># of Immigrants</th>
<th>% of Workforce</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>223,964</td>
<td>19,144</td>
</tr>
<tr>
<td>1997a</td>
<td>229,838</td>
<td>17,767</td>
</tr>
<tr>
<td>1999</td>
<td>228,450</td>
<td>15,564</td>
</tr>
<tr>
<td>2000</td>
<td>232,412</td>
<td>14,177</td>
</tr>
<tr>
<td>2001</td>
<td>231,512</td>
<td>15,659</td>
</tr>
<tr>
<td>2002</td>
<td>230,957</td>
<td>15,847</td>
</tr>
</tbody>
</table>


aOntario, Alberta, British Columbia and the territories had the highest number of immigrant RNs (Kazanjian, 2000; Kazanjian et al., 2000).

As seen in Table 3 below, in 2002, of the 230,957 RNs employed in Canada, immigrants accounted for more than 10% of the RN workforce in four jurisdictions: British Columbia (15%), Nunavut (13.6%), Ontario (10.5%), and the Northwest Territories (10.1%; CIHI, 2003a). Data was similar to that from 2000 and 2001, except that the Northwest Territories data for 2002 constituted a substantial increase (CIHI, 2003a). A comparison of 2002 results for all three nursing professions follows in Table 4 below.

Table 3. Immigrants in Provincial/territorial RN Workforces, by Year, 2000–2002

<table>
<thead>
<tr>
<th>Group</th>
<th>Canada</th>
<th>BC</th>
<th>AB</th>
<th>SK</th>
<th>MB</th>
<th>ON</th>
<th>QC</th>
<th>NB</th>
<th>NS</th>
<th>PE</th>
<th>NL</th>
<th>YT</th>
<th>NT</th>
<th>NU</th>
</tr>
</thead>
<tbody>
<tr>
<td>#</td>
<td>14,177</td>
<td>14.5</td>
<td>0.0</td>
<td>2.5</td>
<td>4.9</td>
<td>10.5</td>
<td>0.9</td>
<td>0.8</td>
<td>2.4</td>
<td>1.4</td>
<td>0.0a</td>
<td>7.2</td>
<td>6.7</td>
<td>14.0</td>
</tr>
<tr>
<td>% of workforce</td>
<td>6.1</td>
<td>14.6</td>
<td>3.1</td>
<td>2.6</td>
<td>5.0</td>
<td>10.4</td>
<td>2.2</td>
<td>1.3</td>
<td>2.4</td>
<td>1.4</td>
<td>2.2</td>
<td>5.5</td>
<td>8.5</td>
<td>10.4</td>
</tr>
<tr>
<td>RNs, 2001</td>
<td>15,659</td>
<td>15.0</td>
<td>3.5</td>
<td>2.7</td>
<td>5.3</td>
<td>10.5</td>
<td>2.2</td>
<td>1.2</td>
<td>2.4</td>
<td>1.7</td>
<td>1.9</td>
<td>5.5</td>
<td>10.1</td>
<td>13.6</td>
</tr>
<tr>
<td>RNs, 2002</td>
<td>15,847</td>
<td>15.5</td>
<td>3.6</td>
<td>2.8</td>
<td>5.4</td>
<td>10.6</td>
<td>2.3</td>
<td>1.3</td>
<td>2.5</td>
<td>1.8</td>
<td>2.0</td>
<td>5.7</td>
<td>10.6</td>
<td>13.8</td>
</tr>
</tbody>
</table>

aFigure too small to be expressed

4.2.1.b. Immigrants in Provincial/territorial Nursing Workforces, 2002

In 2002, there were enough data for all three professions to be able to present a comparison below. Historical data are not available for a similar comparison, as 2002 was the first year of standardized data collection for LPNs and RPNs in Canada (CIHI, 2003b, 2003c). CIHI recently released an inaugural compilation of national data from LPNs and RPNs (CIHI, 2003b; CIHI, 2003c).

Of the 60,123 LPNs employed in Canada, the percentage of immigrant LPNs in all jurisdictions was small — ranging from 0.0% to 3.2% — compared to the large percentages of immigrant RNs in some jurisdictions (CIHI, 2003b). Of the 5,132 RPNs employed in psychiatric nursing in 2002, 7.5% (387) were internationally educated (CIHI, 2003c). Although the actual numbers are smaller, a greater percentage of RPNs are internationally educated than LPNs or RNs. British Columbia (12.6%) had the highest percentage of internationally educated RPNs in the western provinces.
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Table 4. Immigrants in Provincial/territorial Nursing Workforces, by Group, 2002

<table>
<thead>
<tr>
<th>Group</th>
<th>Canada</th>
<th>BC</th>
<th>AB</th>
<th>SK</th>
<th>MB</th>
<th>ON</th>
<th>QC</th>
<th>NB</th>
<th>NS</th>
<th>PE</th>
<th>NL</th>
<th>YT</th>
<th>NT</th>
<th>NU</th>
</tr>
</thead>
<tbody>
<tr>
<td>#</td>
<td>% of workforce</td>
<td>% of workforce</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RNs</td>
<td>15,847</td>
<td>6.9</td>
<td>15.0</td>
<td>3.5</td>
<td>2.7</td>
<td>5.3</td>
<td>10.5</td>
<td>2.2</td>
<td>2.4</td>
<td>1.7</td>
<td>1.9</td>
<td>5.5</td>
<td>10.1</td>
<td>13.6</td>
</tr>
<tr>
<td>LPNs</td>
<td>986</td>
<td>1.6</td>
<td>0.0</td>
<td>2.3</td>
<td>1.7</td>
<td>2.5</td>
<td>3.2</td>
<td>n/s</td>
<td>0.5</td>
<td>0.3</td>
<td>b</td>
<td>0.0</td>
<td>0.0</td>
<td>b</td>
</tr>
<tr>
<td>RPNs</td>
<td>387</td>
<td>7.5</td>
<td>12.6</td>
<td>d</td>
<td>b</td>
<td>1.7</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

Source: RNs (CIHI, 2003a); LPNs (CIHI, 2003b); RPNs (CIHI, 2003c).

Note. n/a = data not available; n/s=data not submitted. RPNs are licensed and regulated in the four western Canadian provinces only.

a26% (15,607) of the workforce did not state their country of graduation (CIHI, 2003b).
bData suppressed in accordance with CIHI’s privacy policy (CIHI, 2003b, 2003c).
cOnly 3.3% (168) of RPNs did not state their place of graduation (CIHI, 2003c).
dValue suppressed to ensure confidentiality.

4.2.2. In-flow

Statistics Canada does not track immigrant nurses separately from other immigrant health care workers when they migrate to Canada. Nurses may enter under 3 major admission classes — economic, family and refugee. Under economic, nurses may declare their credentials and be admitted in the skilled worker class. If they enter in other sub-categories, they may not declare their credentials. For example, under economic, they may come under the sub-category of business class as a spouse, or under family, they may enter as immediate family member, or parent (CIC, 2002; Statistics Canada, 2003b).

4.2.2.a. RN Immigration, 1998–2002

As seen in Table 2 above, from 2000 to 2002, as the overall numbers in the workforce decreased, the proportion of immigrants increased.

RN Immigrants, Including not Registered. RN immigration increased from 1999 to 2002. The 1,528 nurse supervisors and other RNs who were admitted to Canada as permanent residents in 2001 represented 21.8% of all immigrants listed under health occupations (7,001; CIHI, 2002, p. 73). However, most of these nurses (97.4%) did not have employment arranged on their arrival to Canada (CIHI, 2002, p. 73), and it is not known whether they registered with any nursing regulatory bodies or found employment. Among these nurses, the proportion of those who met the criteria for professional registration in Canada is unknown. It is also not known what percentage of total immigrants to Canada the 1,849 new RN registrants admitted in 2002 represent (Canadian Nurses Association [CNA], personal communication, July 21, 2003).

New RN Registrants. The number of new RN registrants in Canada from outside the country also increased substantially from 1999 (653) to 2002 (1,849), for a total of 4,735 (see Appendix E). Numbers of new RNs registrants from abroad increased threefold in Ontario, doubled in British Columbia, and increased fivefold in Alberta over this time period. There were less dramatic increases in Newfoundland and Labrador, Prince Edward Island, Quebec, and Manitoba in the same time period. New RN registrants to Nova Scotia, New Brunswick, and Saskatchewan increased in 2000, but decreased somewhat in 2001 and 2002.
High Proportion of Immigrants in BC Workforce. In 2002, of all the provinces, BC relied most heavily on immigration: 29.5% of BC’s employed RNs were from other jurisdictions in Canada and there was an increase of internationally educated RNs in the workforce, from 14.6% to 15%, for a total of 44.5% (CIHI, 2002, 2003a). Approximately half of the RNs employed in the health care system in BC were educated in BC, ranging from 58% of new RN registrants in 1998, 52% in 2000, to 55.4% in 2001 and 2002 (“Assess and Intervene”, 2000; CIHI, 2002, 2003a; Registered Nurses Association of British Columbia [RNABC], 2002). However, as a result of the global nursing shortage, BC may find it difficult to increase the number of nurses from outside the province in the near future (“Assess and Intervene”, 2000). According to CIHI, (CIHI, 2003a, p. 79), “A high rate of … out of country graduates may reflect: the number of nursing programs (and/or seats) available in the province/territory, the migration patterns of the general population, better job availability and/or career opportunities … or that people in that particular jurisdiction are more likely to attend school in another province/country before returning home to work” Given that almost half of BC’s workforce has migrated from elsewhere, it may be difficult to increase migration as a way of augmenting the nursing workforce; rather, “increasing the number of seats available in nursing schools may have a greater effect on future nursing supply for jurisdictions that retain a substantial proportion of their graduates than for jurisdictions that retain fewer of their own RN graduates” (CIHI, 2003a, p. 80).

Source Countries of RNs. Table 5 below indicates the source countries of immigrants to the Canadian RN workforce. In 2000 and 2001, the UK and the Philippines were the main source countries, in that order (ICN, 2001b; CIHI, 2002). In 2002, they continued to be the main source but with the Philippines taking the lead (CIHI, 2003a).

Table 5. Immigrants in Canadian RN Workforce, by Source Country, 2000–2002

<table>
<thead>
<tr>
<th>Source Country</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>4,050</td>
<td>28.6</td>
<td>4,054</td>
</tr>
<tr>
<td>Philippines</td>
<td>3,370</td>
<td>23.8</td>
<td>4,157</td>
</tr>
<tr>
<td>United States</td>
<td>1,279</td>
<td>9.0</td>
<td>1,389</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>982</td>
<td>6.9</td>
<td>926</td>
</tr>
<tr>
<td>India</td>
<td>615</td>
<td>4.3</td>
<td>695</td>
</tr>
<tr>
<td>Other countries</td>
<td>3,884</td>
<td>27.4</td>
<td>4,399</td>
</tr>
<tr>
<td>Total</td>
<td>14,177</td>
<td>100</td>
<td>15,659</td>
</tr>
</tbody>
</table>


An increase of US-educated new RN registrants were tracked by registration endorsement in Canada from 1999 (26) to 2002 (54), for an overall total of 155 new registrants during this timeframe, although there may be other RNs from the US who attained their licenses through examination (see Appendix D).
4.2.2.b. LPN Immigration, 1998–2002

From 1998 to 2001, the number of LPNs migrating to Canada and registering more than quadrupled, from 110 to 461 for a total of 1,061. In 2002, of the 60,123 LPNs employed in Canada, only 1.6% (986) were internationally educated, 72.4% (43,530) were educated in Canada and for 26% the place of graduation is unknown (CIHI, 2003b). Internationally educated LPNs migrated mainly to Ontario (3.2%), Manitoba (2.5%), Alberta (2.3%), and Saskatchewan (1.7%; CIHI, 2003b, p. 54). Few or no LPNs migrated to Newfoundland and Labrador, Prince Edward Island, Nova Scotia, New Brunswick, British Columbia, or the Northern Territories (CIHI, 2003b). Data were not available for Quebec and Nunavut.

Source Countries of LPNs. Although it is known that some LPNs migrate from the US and other countries, the source countries of internationally educated LPNs were not specified in the available data (CIHI, 2003b).

4.2.2.c. RPN Immigration, 1998–2003

From 1998 to 2003, the numbers of new RPNs registrants in Canada from outside of the country was small (54). Similarly to the RNs and LPNs, the number of internationally educated RPNs quadrupled between 1998 and 2003, with the greatest number emigrating in 2001. During this time period, RPNs migrated mainly to BC (40), with fewer migrating to Alberta (8), Manitoba (3), and Saskatchewan (3; see Appendix G).

RPNs are educated and regulated in the four Western Canadian provinces. In 2002, of the 5,132 RPNs employed in psychiatric nursing in Western Canada, 89.2% (4,577) were educated in Canada, 7.5% (387) were internationally educated, and 3.3% (168) did not state their place of graduation (CIHI, 2003c).

Source Countries of RPNs. Of the internationally educated RPNs employed in Canada in 2002, 84.2% completed their psychiatric nursing education in the United Kingdom (CIHI, 2003c). Between 1998 and 2003, RPNs migrated mainly from the UK (25), Australia (17), and Hong Kong (7), with fewer numbers from the Netherlands (2), Finland (1), New Zealand (1), and South Africa (1; A. Osted, College of Registered Psychiatric Nurses of Manitoba, personal communication, September 2, 2003). British Columbia (26%) admits the most internationally educated RPNs of the Western Canadian provinces (CIHI, 2003c).

4.2.3. Out-flow

In the 1990s, problems related to funding and restructuring of the health care system, including hospitals, prompted many Canadian RNs to consider migration to the US or elsewhere (Malugani, 2000; Nadeau et al., 2000). Physicians, engineers, scientists, and RNs had the highest levels of annual emigration, although these levels were less than 1% of the total Canadian workforce stock (Zhao et al., 2000). Canada’s largest losses were in the health professions (Zhao et al., 2000). Among the nurses, there are large numbers of nurses who do not either register, or maintain registration, in Canada.

- “Canada witnessed a gross outflow of roughly 27,100 nurses [RNs] through permanent emigration to the U.S. over the 1990s” (Industry Canada, 1999, p. 19).
- Between 1990 and 1997, about 78,000 nurses graduated in Canada from registered nursing education; “however, the total number employed in this profession increased only 8,000 over this period” (Industry Canada, 1999, p. 19). This would indicate that 70,000 nurses either emigrated or did not register with a regulatory body in order to gain employment in nursing in Canada.
• Registration rates in 2001 of graduates in the 1990s indicated that “Of the 81,044 graduates of Canadian nursing schools [RNs] who graduated in the 11 years from 1990 to 2000, only 64,394 (79%) were registered in the year 2001” (CNA, 2002, p. 55). Therefore, 16,650 recent RN graduates were not registered and not available to work in nursing in Canada (CNA, 2002).

4.2.3.a. Request for Verification Data

Nurses apply for verification of their credentials when considering moving to another jurisdiction in Canada or to another country. The numbers of RNs who applied to another country for verification of their credentials increased from 1,032 in 1988, when verification was first reported, to a peak of 5,433 in 1996 (CNA, 2002). Numbers remained high in 2000 (3,548), but have since declined (CNA, 2002). Since verification requests do not represent actual migration, but only the intention to migrate, it is not known how many of these nurses actually left Canada.

RNs tend to request verification of credentials from Ontario and Alberta, while LPNs request verification from Ontario and British Columbia. There are insufficient data to comment on the verification requests of RPNs. Little is known about the migration patterns of either LPNs or RPNs (Elliott, 1999). Saskatchewan is reported to have experienced very high rates of RN and RPN migration to other provinces or countries in the mid-1990s, although this trend appeared to have reversed by the end of the decade (Elliott, 1999).

4.2.3.b. Secondary Registration Data, 2002

In the absence of national unique identifiers for nurses, actual migration of RNs, LPNs, and RPNs is impossible to report accurately. CIHI identifies secondary registrations which do not reflect the major jurisdiction of RN, LPN, and RPN employment and excludes them from further analysis in order to report an accurate head count for the nursing workforce in Canada (CIHI, 2003a, 2003b, 2003c).

RNs. More than three quarters of RNs with secondary registrations currently employed outside of Canada are from Ontario (CIHI, 2003a). Tracking of RNs in Canada is possible only if they maintain a Canadian license (CIHI, 2003a); therefore, these data are likely to underestimate the number of RNs emigrating. Although Canadian RNs emigrate to a variety of countries, of the 9,266 secondary registrations, 42.6% (3,948) were employed in the US, with an additional 9.9% having migrated to Saudi Arabia, Hong Kong, the UK, and various unnamed countries (CIHI, 2003a). A total of 1,975 (21.3%) of RNs with secondary registrations are employed in other jurisdictions in Canada. A large number of RN registrants (26.2%) did not state their province of employment (CIHI, 2003a).

LPNs. Similar to the RN data, most secondary registrations in the LPN data (69.9%) are from Ontario (CIHI, 2003b). Of the 720 duplicate registrations, 85 (11.8%) LPNs retaining Canadian registration migrated and were employed in the US and 1.7% migrated to Hong Kong, New Zealand, the UK, and various unnamed countries (CIHI, 2003b). More than half of LPN secondary registrants (53.3%) did not state their jurisdiction of employment (CIHI, 2003b).

RPNs. The RPN data reported 18 duplicate registrations, 13 of which were employed in psychiatric nursing in Canada but outside of the four western provinces (CIHI, 2003c). The location of the remaining five RPNs was not reported. Another source indicated that most RPNs migrate to Australia, New Zealand, the UK, or Bermuda (A. Osted, College of Registered Psychiatric Nurses of Manitoba, personal communication, September 15, 2003).
4.2.3.c. RN Emigration to the US

According to Zhao et al. (2000), the number of RNs leaving for the US increased from 330 per year in the late 1980s, to 825 in 1996 and 1997. The total outflow of RNs to the US was equivalent to more than a quarter (i.e., 800) of the 3,000 new RN Canadian graduates in 1995 (Zhao et al., 2000). Overall, approximately 27,000 RNs migrated to the US in the 1990s (Industry Canada, 1999), representing 15 Canadian RNs for every US RN migrating to Canada (Zhao et al., 2000). Another report indicated that from 1993 to 1994, 40% of the graduates of Canadian nursing schools from registered nursing educational programs left for the US (DeVoretz, 1999).

Exam Requirements for Licensure

In the US, there are 2 types of licensure exams for internationally educated nurses:

- Commission on Graduates of Foreign Nursing Schools (CGFNS) examination (for RNs)
- National Council Licensure Examination – Registered Nurse [NCLEX-RN]
- National Council Licensure Examination – Licensed Practical Nurse [NCLEX-PN]

**Limitations of Previous Data.** The US Commission on Graduates of Foreign Nursing Schools (CGFNS) provides data about RNs and LPNs who write the CGFNS examination. However, these data from the CGFNS have limitations because Canadian nurses, with the exception of those from Quebec, have been exempted in the past from the CGFNS examination, English language testing, and sometimes the NCLEX-RN examination, depending on the requirements of the state to which they are applying for licensure. Previously, several states accepted Canadian licensure by endorsement (Davis & Nichols, 2002).

**New Legislation as of July 2004.** New legislation passed in July 2003, effective in July 2004, requires verification of all RN and LPN education, licensure, experience, and English competency as comparable to that of American nurses (Wong & Wolfsdorf, 2003). These requirements are in addition to any current state or national credentialing or licensure requirements already in place and are in direct contradiction of the NAFTA requirements (Wong & Wolfsdorf, 2003). One of the requirements is that RNs have passed both the CGFNS Qualifying Examination and the NCLEX-RN examination, and for LPN to pass the NCLEX-PN (Immigration Law Associates, 2003; Wong & Wolfsdorf, 2003). Canadian nurses, except those from Quebec, will be exempt only from English language testing (Wong & Wolfsdorf, 2003).

See Sections 3.2.4.b and 3.2.4.c. for further discussion.

In 1994 and 1995, 6,821 and 5,234 Canadian RNs, respectively, obtained temporary permits to work in the US (“Assess and Intervene”, 2000). Between 1995 and 1997, nearly 1 in 10 RN nursing graduates (9.3%) moved to the US, a ratio that is seven times higher than for Canadian graduates in other fields (1.3%; CNA, 2000b; Malugani, 2000; Picard 2000). Other estimates are that 1 in 3, or 30% of RNs leave the profession or move to the US within 3 years of graduation (Picard, 2000). Between 1993 and 1997, the proportion of baccalaureate graduates from the McMaster University School of Nursing that left Canada increased from 8.9% to 10.6%, showing the same effect in a single university cohort (Rideout, Mallette, & Coates, 1998).
Canada is a major source country of RNs migrating to the US. Twenty-two percent of RNs applying for licensure from 1997 to 2000 in the US were educated in Canada (Buchan et al., 2003). However, in the last half of the 1990s, the annual number of RN applicants from Canada to the US fell by nearly one half (Buchan et al., 2003). In 2000, fewer Canadian-educated RNs (1,093) wrote the NCLEX-RN examination than in 1997 (1,891; CIHI, 2002, 2003a). It is not known if this reflects reduced migration or the movement of Canadian RNs to the individual US states that did not require this examination at the time, or a combination of the two (CIHI, 2002, 2003a).

It is very difficult to determine how many nurses are currently leaving Canada for the US (CIHI, 2003a, 2003b) or elsewhere. US statistical databases provide estimates of the numbers of RNs migrating to the US. The visa categories in which nurses appear in the US INS records vary depending on revisions or additions to immigration policies.

**US Survey of NCLEX–RN Candidates.** In a US telephone survey, the target population was internationally educated nurses in the US who had taken the NCLEX-RN between January 1, 1997 and December 31, 1999 (Davis, 2002). Two rounds of telephone interviews were conducted, the first between June 25 and July 22, 2000, and the second in March 2001. A total of 789 interviewees were interviewed once only and the results revealed the following.

- Of the 789 nurses interviewed, only 461 (58.4%) were licensed in the US at the time of the survey and 328 (41.6%) were non-licensed (Davis, 2002).
- The majority of RNs in the study (72%) were licensed as RNs in another country, usually their home country (Davis, 2002).

**Among those who were licensed:**

- 405 (88%) were employed at a paying job — with 402 (87%) employed in nursing — and 12% were not employed (Davis, 2002).
- 23% had been educated in Canada (Davis, 2002), and 17% in the Philippines — interestingly, while nurses educated in the Philippines comprised the largest group of study participants, they did not represent the majority of the respondents who achieved licensure in the US (Davis, 2002).
- The majority of others were educated in India (8%), Nigeria (6%) and Russia/Ukraine (4%; Davis, 2002).

**Among those who were not licensed:**

- 41% of unlicensed foreign nurse graduates were born in the Philippines, while only 2% were born in Canada” (Davis, 2002).
- About half of the unlicensed nurses found employment in nursing related fields, mainly as nursing assistants.

**Canadian Surveys.** Another survey conducted in 2002 revealed that 14% of 213 newly graduated RNs in British Columbia were planning on leaving Canada (RNABC, 2002). In a survey of 69 nursing graduates of the class of 2000 from the University of Saskatchewan, from a total 134 with a response rate of 51.5%, 100% were employed in nursing in the first year following graduation (Sawatzky & Laing, 2002). Of those, 88% were employed in Saskatchewan and 9% in either Alberta or British Columbia (Sawatzky & Laing, 2002). Two years after graduation, 91% were working in nursing, with 79% in Saskatchewan and 18% of the graduates in Alberta or British Columbia (Sawatzky & Laing, 2002). In 2002,
contact information was unavailable for 32% of the 134 graduates of 2000, with the authors hypothesizing that the graduates had moved out of the province or out of the county (Sawatzky & Laing, 2002). The numbers of Canadian RNs migrating to the US may decrease with the implementation of the new stricter credentialing requirements in 2004.

4.2.3.d. LPN Emigration to the US

In 2000, fewer Canadian-educated LPNs (33) wrote the NCLEX-PN examination for the first time than in 1997 (75; CIHI, 2003b). It is not known if this reflects reduced migration or the movement of Canadian LPNs to the individual US states (2) that did not require this examination at the time, or a combination of the two (CIHI, 2003b). The numbers of Canadian LPNs migrating to the US may decrease with the implementation of the new stricter credentialing requirements in 2004.

4.2.3.e. RPN Emigration

The Registered Psychiatric Nurses Database: Workforce Trends of Registered Psychiatric Nurses in Canada, 2002 (RPNDB; CIHI, 2003c) does not divulge the destination countries of Canadian-educated RPNs who may have left the country (CIHI, 2003c). Another source indicated that most RPNs who leave Canada migrate to Australia, New Zealand, the UK, and more recently to Bermuda (A. Osted, College of Registered Psychiatric Nurses of Manitoba, personal communication, September 15, 2003).
5. Motivation Factors for Nurse Migration

International migration of nurses is the result of interplay between pull and push factors (Buchan et al., 2003; Mejia et al., 1979). The identification of the reasons for nurse migration — within countries and out of the profession — is important to improve the understanding of nurse migration (Buchan et al., 2003). Nurses are pushed by the negative aspects of their current situation and pulled by the perceived attractions of employment in a different country. As well as the push-pull forces, other forces affecting migration may become barriers, such as strict immigration policy or other constraints limiting migration (Mejia, et al., 1979).

For nurses who migrate voluntarily, decisions are probably reached after weighing various factors, including relative earnings and/or job opportunities, the need for additional remuneration, the state of the local market, family obligations, and recruitment pressures and inducements.

Many of the pull/push factors discussed below are particularly significant for communities on the Canadian-US border, such as Windsor, Ontario and Detroit, Michigan, where many Canadian nurses cross the border to work in the US daily (French, 2004).

5.1. Pull Factors

Nurses choose to change their jobs, and sometimes their locations, for a number of reasons, all of which can be implicated in nurse migration. In many developing countries, the single and most pervasive cause for migration is economic (ICN, 2002a).

<table>
<thead>
<tr>
<th>Pull Factors</th>
<th>Information Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Between developed countries, salary levels also are part of the motivation for migration, for example, from the UK to the US</td>
<td>(Hellinghausen, 1999; Helliwell, 1999; Helliwell &amp; Helliwell, 2000; Williamson, 2000)</td>
</tr>
<tr>
<td>• Nurses may voluntarily migrate to follow intellectual or educational pursuits, to experience other cultures, or to expand their personal and professional knowledge.</td>
<td>(Oulton, 1998)</td>
</tr>
<tr>
<td>• opportunities for professional or career advancement</td>
<td>(cont’d)</td>
</tr>
<tr>
<td>• personal development</td>
<td></td>
</tr>
<tr>
<td>• improved quality of life</td>
<td></td>
</tr>
<tr>
<td>• greater job satisfaction</td>
<td></td>
</tr>
<tr>
<td>• recognition of professional expertise</td>
<td></td>
</tr>
<tr>
<td>• better salaries</td>
<td></td>
</tr>
<tr>
<td>• improved conditions of employment</td>
<td></td>
</tr>
<tr>
<td>• better working conditions</td>
<td></td>
</tr>
<tr>
<td>• higher self esteem</td>
<td></td>
</tr>
</tbody>
</table>
5.1.1. **Pull Factors for Nurses Migrating to Canada**

Generally, among the general population, although Canada experiences a net loss of migrants to the US, it remains a very attractive country for many immigrants. Despite Canada’s interest in recruiting nurses from abroad, there is limited information about the specific motivation of RNs who migrate permanently or temporarily to Canada. Information about the motivation for LPN and RPN migration to Canada was unavailable.

According to McGovern (2002), the *pull* factors among the general population include the following.

- a good standard of living
- reasonable job opportunities
- peace, with a lack of political strife
- publicly funded health care and education

CIHI (2003a, 2003b) suggested that a high number of internationally educated RNs and LPNs in a jurisdiction might reflect the following.

- the number of nursing education programs in a jurisdiction
- migration patterns of the population in general
- better job availability and/or career opportunities

5.1.2. **Pull factors to the US from Canada**

At the same time that push factors were compelling RNs to leave Canada, they were being *pulled* by inducements offered by US employers, including the following.
**Pull Factors to the US from Canada**

- more and better professional and career opportunities, such as jobs requiring higher skill levels
- the chance to develop skills
- jobs more closely related to their specialties than were available in Canada
- higher salaries and incentives, such as signing bonuses, better employment benefits, and perks
- lower taxes

*Information Source*:

(Frank & Bélair, 1999; Industry Canada, 1999; Nadeau et al., 2000; Williamson, 2000)

- American hospitals used aggressive recruitment strategies to attract Canadian nurses, for example, sign-on bonuses, bonuses for weekend work, and paid moving expenses

*Information Source*:

(“Assess and Intervene”, 2000; Frank & Bélair, 1999)

Reasons cited by Canadians in general for moving to the US include a combination of the following.

<table>
<thead>
<tr>
<th>Push factors in Canada</th>
<th>Pull factors in the US</th>
</tr>
</thead>
<tbody>
<tr>
<td>high taxes, a higher cost of living and housing costs</td>
<td>better job opportunities,</td>
</tr>
<tr>
<td>lifestyle reasons</td>
<td>lower unemployment</td>
</tr>
<tr>
<td>cold weather</td>
<td>greater prospects for career advancement</td>
</tr>
</tbody>
</table>

*Information Source*:

(DeVoretz, 1999; Iqbal, 1999; Nadeau et al., 2000; Taylor Martin, 1999; Williamson, 2000)

- Another development that makes it attractive for Canadian nurses to migrate to the US is the recent California nursing staffing ratio legislation. The legislation requires minimum and specific nurse-to-patient ratios to be based on severity of patient illness, need for specialized equipment and technology, complexity of care, level of patient self-care, and licensure of the nurse. An additional 17 states are considering similar legislation.

*Information Source*:

(Habgood, 2000)

- This came into effect on January 1, 2004

*Information Source*:

(Gilson & Bryant, 2002/2003)

- Changes in immigration laws, e.g., NAFTA and its mobility provisions, further prompted migration from Canada to the US, although only RNs are included in this trade agreement.

*Information Source*:

(DeVoretz, 1999; Helliwell & Helliwell, 2000)

### 5.1.3. Pull Factors to Return to Canada

The role that employment conditions play in decisions about migration was also evident in the RNAO (2001) survey. Among RNs who resided outside of Canada and who had maintained their Ontario registration with the College of Nurses of Ontario (CNO), the majority (78.3%) of practising RNs (in 73 countries throughout the world in 2001) indicated they would consider returning to nursing in Ontario for full-time, stable employment, without which they would not return to Ontario. Most of these RNs (80.1%) were employed in the US (RNAO, 2001). According to the RNAO (2001), conditions that would induce RNs to return (**pull factors**) included the following.
• availability of full-time work (65.5%)
• coverage of relocation expenses (66.3%)
• good wages and bonuses (32.1%)
• family considerations (15.2%)
• availability of part-time work (14.5%)
• availability of specific positions or locations (13.9%)
• job security (11.4%)
• educational and training support (9.2%)
• scheduling (7.0%)
• workload and work conditions (5.9%)
• respect for the profession (2.2%)
• lower taxes (1.7%)

Likelihood of RNs to consider returning decreased for RNs who were away longer: for RNs away more than 10 years, 65.4% would consider returning; for RNs away 5 years or less, 81.5% would consider returning (RNAO, 2001).

An Australian recruiter reported that most Canadian RNs said they fully intend to return to Canada after their time in Australia (Carrigg, 2001).

5.2. Push Factors

Many health professionals would prefer to stay in their home countries if economic conditions were better (Martineau et al., 2002). Negative aspects that push nurses to migrate include the same reasons that precipitate nursing shortages, such as the following.

<table>
<thead>
<tr>
<th>PUSH FACTORS</th>
<th>INFORMATION SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>imbalance in the workforce</td>
<td>(Adams &amp; Kinnon, 1998; Buchan et al., 2003; ICN, 1999a; Oulton, 1998; Peterson, 2001)</td>
</tr>
<tr>
<td>low wages</td>
<td></td>
</tr>
<tr>
<td>limited career opportunities</td>
<td></td>
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<tr>
<td>unstable or dangerous working</td>
<td></td>
</tr>
<tr>
<td>conditions</td>
<td></td>
</tr>
<tr>
<td>economic instability</td>
<td></td>
</tr>
<tr>
<td>poor working conditions</td>
<td></td>
</tr>
<tr>
<td>lack of resources to work effectively</td>
<td></td>
</tr>
<tr>
<td>limited educational opportunities</td>
<td></td>
</tr>
<tr>
<td>impact of HIV/AIDS</td>
<td></td>
</tr>
<tr>
<td>Involuntary factors such as war, economic collapse, or political and religious persecution also play a part in nurse migration</td>
<td>(OECD, 2002)</td>
</tr>
</tbody>
</table>
PUSH FACTORS (CONT’D)  

<table>
<thead>
<tr>
<th>INFORMATION SOURCE</th>
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<tbody>
<tr>
<td>Skilled migrants, such as nurses, are often found among refugee and asylum seekers (OECD, 2002)</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>INFORMATION SOURCE</th>
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<tbody>
<tr>
<td>The restructuring of health care in Canada caused many health professionals to relocate to the US, where jobs were available, salaries were better, and research funding and advanced research facilities were available. (Nadeau et al., 2000)</td>
</tr>
</tbody>
</table>

5.2.1. Push Factors for Nurses Migrating from Canada

Nurse migration in the 1990s was clearly related to the unstable labour market at the time (Malugani, 2000). For example, approximately 6,000 nurses were laid off in Ontario between 1994 and 1997 (“Assess and Intervene”, 2000), and many RNs found it impossible to find full-time employment and left the country (“Assess and Intervene”, 2000; Malugani, 2000). A survey of RNs migrating from Ontario compared reasons for migration in two time frames, 1961–1970 and 1992–2000, and found differing motivations for migration (Registered Nurses Association of Ontario [RNAO], 2001), as follows.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>travel and weather (50%)</td>
<td>downsizing/lack of employment opportunities (62.7%), including full-time stable employment</td>
</tr>
<tr>
<td>pay and benefits (36.71%)</td>
<td>family or personal issues (28%)</td>
</tr>
<tr>
<td>job opportunities (21.42%)</td>
<td>pay and benefits (13.2%)</td>
</tr>
<tr>
<td>family and personal (14.29%)</td>
<td>travel and weather (8.8%)</td>
</tr>
<tr>
<td></td>
<td>workload and work conditions (7.6%)</td>
</tr>
<tr>
<td></td>
<td>cost of living (3.8%)</td>
</tr>
<tr>
<td></td>
<td>not feeling valued (3%)</td>
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</table>

**Push Factors out of BC.** A survey conducted by the Registered Nurses Association of British Columbia (2002) found that reasons for RNs leaving BC were as follows.

- lack of adequate support received in the practice environments, such as mentorship and resource persons in the beginning practice of new graduates and lack of available experienced nurses as role models
- increasingly unsafe working conditions, including poor workplace communication, low morale, excessive workloads, and nursing shortages
- concerns about personal debt, especially for new graduates who reported continuing difficulty finding permanent employment
5.3. Employment Status as Push/Pull Factor

In Canada, a recent report indicates a substantial decline in RN casual employment in the past 5 years, from 18.6% in 1998 to 11.6% in 2000, with a concurrent increase in full-time employment, from 49.1% to 54.1%, and part-time employment, from 32.2% to 33.8% (CIHI, 2003a). This fact may influence the numbers of RNs returning to work in nursing in Canada. In 2002, most RPNs were employed on a full-time basis (66.9%), while 27.6% were employed part-time, and 5.5% were employed on a casual basis (CIHI, 2003c). As well, there was an increase in both full-time and part-time employment of RNs (O’Brien-Pallas et al., 2003). Furthermore, fewer LPNs worked full-time and casual than in previous years, with an increase in part-time employment by approximately 30% (O’Brien-Pallas et al., 2003). Less than half of LPNs worked in full-time positions in 2002 (42.2%), with 35.7% employed in part-time positions, 16.6% in casual positions, and 5.5% unknown (CIHI, 2003b). It is not known whether type of employment affects the migration of LPNs and RPNs.

Many developed countries with similar nursing education and a common language recruit RNs from one another, including the US, the UK, Canada, and Australia, with the largest recruiter being the US (CNA, 2002). Similar literature specifically about the recruitment of LPNs and RPNs was unavailable at the time of this report.
6. International Recruitment and Migration of Nurses

6.1. Benefits and Costs Associated with Migration

International migration can benefit both source and receiving countries, as well as the individual nurses; however, the costs and benefits of international migration are likely to be unevenly distributed (ILO, 2002; Martineau et al., 2002; OECD, 2002). When nurses migrate temporarily, technical and clinical learning experiences gained elsewhere can be transferred to nurses in the source country when they return. In addition, developing countries may have more qualified nurses than they can afford to employ and, as is the case in the Philippines, may export them in the expectation that remittances will contribute to the home economy (Mejia et al., 1979).

However, there are also serious negative outcomes if too many nurses migrate, particularly when the direction of migration is from a less affluent to a more affluent country. Some countries view the emigration of nurses as exacerbating shortages in the profession (Clark & Clark, 2003; Davis, 2002; “Global issues”, 2003; Hellinghausen, 1999; “Human resources”, 2001; Royal College of Nursing [RCN], 2002). The loss of intellectual capital or brain drain of health professionals has become increasingly worrisome for developing countries (McCoskey, 2001; Lowell & Findlay, 2001; Pang, Lansang, & Haines, 2002; Peterson, 2001). It is also cause for concern in developed nations (Buchan, 2001a; Davis, 2002; Martineau et al., 2002).

The demand for skilled workers, including nurses, throughout the world has been increased by globalization and the emergence of a knowledge-based economy (Industry Canada, 1999; Nadeau et al., 2000). Presented below are a number of benefits and costs to source and receiving countries related to international nurse migration. Unfortunately, because of insufficient data, accurate measurement of these is not possible.
6.1.1. Benefits of Migration to Source and Receiving Countries

<table>
<thead>
<tr>
<th>BENEFITS TO SOURCE COUNTRIES</th>
<th>BENEFITS TO RECEIVING COUNTRIES</th>
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</thead>
<tbody>
<tr>
<td>• Stimulated economic growth through remittances and investments (Buchan et al., 2003; Lowell &amp; Findlay, 2001; Migration News, 2002b; Samuel, 1998). For example, remittances from workers from the Philippines rose from 1 billion dollars in 1989, to 5 billion in 1995, and 8 billion in 2002, with 50% to 60% of the remittances coming from the US or Canada (Migration News, 2002b).</td>
<td>• Increase in the stock of available human capital and building infrastructure (Samuel, 1998). Many industrialized countries have aging populations, which contributes to and exacerbates the labour shortage (Buchan et al., 2003).</td>
</tr>
<tr>
<td></td>
<td>• The stimulation of innovation capacity.</td>
</tr>
<tr>
<td>• The opportunity for nurses returning to their home country to enhance the health systems and upgrade the medical knowledge and technological capacities (Adams &amp; Kinnon, 1998; Samuel, 1998).</td>
<td>• Broadening the experience of international nurses can enrich the practice of the receiving country and enhance the quality of care (RCN, 2002).</td>
</tr>
<tr>
<td>• Additional training, education, skills, and experience of workers who return to their home countries (Buchan et al., 2003; Samuel, 1998), potentially enhancing economic development (Buchan et al., 2003).</td>
<td>• International dissemination of knowledge is improved (OECD, 2002; ICN, 2002a).</td>
</tr>
<tr>
<td>• The encouragement of modernization and cultural exchange (Samuel, 1998).</td>
<td>• Saved education costs.</td>
</tr>
<tr>
<td>• Reduced excess labour in a source country may create strong economic links between and among countries, thus promoting global economic restructuring (Samuel, 1998).</td>
<td>• Workers who earn less in their country of origin may be more willing to work in hard-to-fill vacancies. For example, as noted by Buchan (2000), internationally educated nurses made up 31% of the nurses working in inner London.</td>
</tr>
<tr>
<td>• Links between migrants and their source countries are established and maintained through networks (Buchan et al., 2003). The international connections created through migration can forge links between source and destination countries which facilitates exchange of information and expertise (Buchan et al., 2003). This can potentially have a positive impact on economic growth in the source country (Buchan et al., 2003).</td>
<td>• Creation of jobs and fostering of social development (Samuel, 1998).</td>
</tr>
<tr>
<td>• Sustained maintenance and development of family members in the country of origin (ICN, 2002a).</td>
<td>• Immigration helps to reduce wage pressures, thereby moderating inflation, and it helps countries in the north develop trading and investment contacts with the south (Samuel, 1998).</td>
</tr>
</tbody>
</table>
### 6.1.2. Costs of Migration to Source and Receiving Countries

<table>
<thead>
<tr>
<th>COSTS TO SOURCE COUNTRIES</th>
<th>COSTS TO RECEIVING COUNTRIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Loss of young and experienced nurses, and skilled nurses (and other health personnel), nursing shortages, and understaffing of health systems (Adams &amp; Kinnon, 1998; Buchan et al., 2003; Martineau et al., 2002; McCoskey, 2001; Peterson, 2001; ICN, 2002a).</td>
<td>• Problems with immigrant integration and discrimination (Samuel, 1998).</td>
</tr>
<tr>
<td>• Loss of future. Loss of potential nurse leaders and reduced pressure for reform and social progress (Buchan, 2001a; Samuel, 1998).</td>
<td>• Immigrants take jobs from nationals (Oulton, 1998) and fewer jobs are available to nationals (Buchan et al., 2003). When international workers meet the demands of employers, wage rates will be suppressed (Buchan et al., 2003).</td>
</tr>
<tr>
<td>• Drain of highly skilled workers leaving the country resulting in a depleted workforce and the reduction of availability and quality of services (Buchan et al., 2003). Deterioration of the quality of patient care (“Human resources”, 2001).</td>
<td>• Potential decrease in the quality of care from internationally educated nurses (Oulton, 1998).</td>
</tr>
<tr>
<td>• Heavier workloads, increased over-time, burnout, absenteeism, and job dissatisfaction for nurses who remain at home (Ortin, 1990).</td>
<td>• Hindered development of human resources planning and national supply of health professionals (Martineau et al., 2002). International recruitment is a short-term remedy to labour and skill shortages (Buchan et al., 2003).</td>
</tr>
<tr>
<td>• Alteration of the skill mix with nurses being substituted by unregulated, less qualified staff (“Human resources”, 2001).</td>
<td>• Challenges of integrating internationally educated health care workers (ILO, 2002), for example, language barriers between nurses and patients (“Human resources”, 2001).</td>
</tr>
<tr>
<td>• Widened gap in health inequities worldwide (Pang et al., 2002).</td>
<td>• Some downward occupational mobility experienced by some nurses because of internationally educated recruited nurses filling lower level staff positions (Hardill &amp; MacDonald, 2000).</td>
</tr>
<tr>
<td>• Loss of national economic investment in nursing human resources development (Adams &amp; Kinnon, 1998; Buchan, 2001a; Kline, 2003; Martineau et al., 2002; Pang et al., 2002).</td>
<td>• Abusive and discriminatory work situations.</td>
</tr>
<tr>
<td>• Loss of full intellectual potential of migrants when they cannot get registered in their profession and must work at jobs far below their potential (Martineau et al., 2002).</td>
<td></td>
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</table>
6.2. The Current Global Nursing Shortage

There is a critical imbalance in the nursing sector worldwide which may be due to severe shortages, maldistribution, and/or misutilization of RNs ("Global issues", 2003). Ninety nurses’ associations representing 69 countries and every geographic region of the world reported RN shortages, suggesting a global shortfall (Clark & Clark, 2003; Kline, 2003; Peterson, 2001; World Health Organization [WHO], 2001). In the US, 12% of nursing positions are vacant and 50% of the RNs currently employed in Canada will retire within the next 15 years ("Global issues", 2003). Australia, France, Germany, the UK, Ireland, Denmark, and the Netherlands are also experiencing RN shortages ("Global issues", 2003; Irwin, 2001; Kline, 2003). Global shortages have been reported in the LPN and RPN literature also (Clinton, du Boulay, Hazelton, & Horner, 2001; Laccetti Meyers, 2002).

6.2.1. Projected Losses in Canada

RNs. Large deficits of RNs in Canada are projected for 2011 (78,000) and 2016 (113,000; CNA, 2002). A recent Canadian study estimated the following scenarios regarding projected loss of RNs aged 50 or older to retirement or death, based on assumed ages of usual retirement (O’Brien-Pallas, Alsknis, & Wang, 2003).

<table>
<thead>
<tr>
<th>Assumed retirement age</th>
<th>Projected loss of RNs by 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 years of age</td>
<td>29,746 RNs, a number equivalent to 13% of Canada’s 2001 RN workforce (O’Brien-Pallas et al., 2003)</td>
</tr>
<tr>
<td>55 years of age</td>
<td>64,248 RNs, a number equivalent to 28% of the 2001 RN workforce (O’Brien-Pallas et al., 2003)</td>
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</table>

<table>
<thead>
<tr>
<th>Assumed retirement age</th>
<th>Projected loss of RNs by 2008 (Ontario)</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 years of age (Ontario)</td>
<td>15,611 RNs (O’Brien-Pallas et al., 2003), a number equivalent to 19.4% of the 2001 Ontario RN workforce of 80,428 (College of Nurses of Ontario, [CNO], 2002)</td>
</tr>
<tr>
<td>55 years of age (Ontario)</td>
<td>30,086 RNs (O’Brien-Pallas et al., 2003), a number equivalent to 37.4% of the 2001 Ontario RN workforce of 80,428 (CNO, 2002)</td>
</tr>
</tbody>
</table>

LPNs/RPNs. The number of LPNs in Canada has been stagnant or decreasing for the past 20 years, creating a shortage of LPNs (CNA, 2002). Estimated scenarios for LPNs and RPNS reveal the following.

<table>
<thead>
<tr>
<th>Assumed retirement age</th>
<th>Projected loss of LPNs/RPNs by 2008 (Ontario)</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 years of age (Ontario)</td>
<td>5,124 LPNs (O’Brien-Pallas et al., 2003c), a number equivalent to 20.4% of the 2001 Ontario LPN workforce of 25,090 (CNO, 2002)</td>
</tr>
<tr>
<td>55 years of age (Ontario)</td>
<td>9,131 LPNs (O’Brien-Pallas et al., 2003c), a number equivalent to 36.4% of the 2001 Ontario LPN workforce of 25,090 (CNO, 2002)</td>
</tr>
</tbody>
</table>
If the LPNs and RPNs currently employed in Canada were to retire at the age of 55, over half of each group would be eligible for retirement by 2012 (CIHI, 2003b, 2003c).

6.2.2. Various Strategies and Their Effects

6.2.2.a. Recruitment to Supplement Workforce

The result of the global nursing shortage is that there is increased competition for nurses. Many countries in the northern and western hemispheres aggressively recruit RNs for temporary or long-term positions (ILO, 2002; Kline, 2003; Peterson, 2001).

- England, Ireland, Australia, Norway, the US, and Canada have published national nursing strategies to deal with staff shortages that involve recruitment of internationally educated RNs (Buchan, 2001a, Buchan et al., 2003).
- Some governments have made bilateral agreements with others to employ RNs and other health care professionals from specific countries for specified periods of time (ILO, 2002; Irwin, 2001; Oulton, 1998; Xu et al., 1999).

While the recruitment of internationally educated nurses may be a short-term solution to a local shortfall, migration as a regular strategy for supplementing a workforce may not be in the best interests of the nursing professions in either receiving or source countries (Glaessel-Brown, 1998; ICN, 2001a, 2002a), as it can have adverse effects on nurses in a variety of ways. Usually, no designated body regulates or monitors the contracts for these nurses, leaving them susceptible to abuse (ICN, 2002a).

- Excessive immigration of internationally educated nurses delays the development and implementation of effective local measures that would improve the recruitment, retention, and long-term human resources planning for nurses (Friess, 2003; Peterson, 2001).
- The methods used sometimes encourage discriminatory practices involving lower pay or poorer working conditions than those enjoyed by nationally educated nurses (“Human resources”, 2001; ICN, 1999a).
- The methods preclude informed decision-making, for example, consideration of the loss of pension and seniority associated with migration (ICN, 1999a, 2000).
- Decreased income may result from loss of pension benefits, seniority allowances, and the loss of investment in the national retirement insurance plan (ICN, 2002a).
- Lower professional status and lower pay than nationally educated RNs may result from non-recognition of specialized skill or degrees obtained abroad and non-recognition of work experience and skill development (ICN, 2002a).
- Increased demands in developed countries have increased migration from developing countries, leading to chronic RN shortages in the poorest nations (Buchan et al., 2003; ICN, 2002a).
- Even in the Philippines, where it is government policy to encourage migration, concern has been expressed about the recruitment of new RN graduates (Buchan et al., 2003; “Global issues”, 2003; Peterson, 2001).
- In Botswana, the most severe shortage is among LPNs (Southern African Migration Project, 2003).
6.2.2.b. Adjusting Licensure Requirements

Some migrant nurses arrive in a receiving country without credentials for licensure that are accepted as equivalent to those in the receiving country (Glittenburg, 1989). For example, refugees and dependants who have been employed in nursing in the past may be unable to practise in their new country. Educational or cultural backgrounds may also be barriers to passing licensing examinations or finding jobs (Gennaro, 2000; Oulton, 1998). In Canada, a number of programs have been established to prepare these nurses to take their licensing examinations, including the following: the LeaRN framework for the support of international RN applicants to Canada, developed by the CNA; and local initiatives, such as the Creating Access to Regulated Employment (CARE) for internationally educated RNs and LPNs (“CARE for Nurses Project”, 2002). However, more needs to be done (Munro, 2003).

The desire to acquire nurses from abroad has also encouraged some countries to ease licensure requirements. On the other hand, other countries, such as the US, have mandated more rigorous credentialing of RNs and LPNs — which affects migrating Canadian nurses — even though a severe nursing shortage in the US is acknowledged (Wong & Wolfsdorf, 2003).

6.3. Policies Regarding the Recruitment of Nurses

6.3.1. Policy Implementation Issues

The Canadian Nurses Association (CNA), the American Nurses Association (ANA), the Australian Nursing Council (ANC), the Royal College of Nursing (RCN), the Norwegian Nursing Association, and the Irish government have published statements supporting the right of RNs to travel and migrate, but agree that it is problematic when nurses are aggressively recruited from countries where there are shortages (Buchan et al., 2003; CNA, 2000a; ICN, 2001a; Kingma, 2001; Oulton, 1996; Peterson, 2001; RCN, 2002). The CNA has endorsed the ICN’s position on international trade and labour mobility, and ethical nurse recruitment (CNA, 2000a; ICN, 2001a). Refer to Appendix H for the ICN Ethical Guidelines for Registered Nurse Recruitment. No similar guidelines were found in the LPN or RPN literature, although these ethical guidelines would likely apply to all nurses.

The ICN argues “there is a delicate balance to be maintained between the human and labour rights of the individual and a collective concern for the health of the ‘exporting’ nation’s population” (ICN, 2002a, p. 10). Some countries are beginning to institute ethical policies, but preventing abuse requires a collaborative effort and vigilance. In the UK, National Health Service (NHS) policies that required non-recruitment of RNs from certain countries led to the short-term reduction of migration from South Africa and the Caribbean (Buchan, 2002). However, recruitment may have been transferred to other developing countries. The movement of citizens to foreign employment is a complex issue and should be guided by a comprehensive foreign employment policy (Abella, 1997). Issues for internationally educated LPNs and RPNs are unknown, although it is likely that they are similar to those of internationally educated RNs.

6.3.2. Canadian Policy Initiatives

Given the difficulties migrant nurses face, policies should include supplying potential immigrating nurses with information. The ICN policy states: “Career moves must be decided on the grounds of reliable information on the key stakeholders involved, the contract process, conditions of employment, benefits, possible fees and the impact on nurses’ present and future quality of life” (ICN, 2002a, p. 11).
Despite these guidelines, nurses often leave their countries of origin without sufficient information about nursing in the destination country. However, positive measures are being taken to address these concerns. The Canadian Nurses Association has recently released a framework to provide information and resources for internationally educated RN applicants (L. Little, CNA, personal communication, September 18, 2003). Other local initiatives in Canada have been organized to assist internationally educated RNs to integrate in the Canadian health care system. In fact, there needs to be a coordinated scheme that integrates all three regulated nursing groups into the system. Immigration is a complex process for nurses and other workers, involving several federal and provincial/territorial ministries as well as professional and regulatory bodies. A coordinated strategy for integrating nurses into the workforce would be beneficial to Canada and to individual nurses.
7. Discussion and Recommendations

7.1. The International Perspective

The information presented in this report suggests that collaboration and information exchanges of comparable data among governments worldwide would increase understanding of the nursing labour market. In particular, it would be beneficial if governments agreed upon approaches to the management of international migration (Martin, 2001). The initiatives below outline key changes necessary to improve monitoring and management of international migration of nurses. The issues they address are similar for RNs, LPNs and RPNs, and their international equivalents.

**International Body to Monitor and Manage Migration.** A possible global initiative would involve the establishment of an international body to manage and monitor migration. This would involve strategic alliances at all levels, for example, the participation of nursing associations, unions, educational institutions, regulatory bodies, government ministries, nurse executives, and other necessary government and non-governmental organizations. This international body would work with the representative bodies for RNs (i.e., ICN), LPNs, and RPNs to assist nurses contemplating migration by disseminating information, providing education, advocating on behalf of migrant nurses, monitoring working conditions, and adhering to international labour standards (ICN, 2001a).

**Forum on Workforce Monitoring and Migration Good Practice.** Another option would be the establishment of an international forum for workforce monitoring and exchange of information about good practice (Irwin, 2001). This would be in addition to the already existent international fora sponsored by the ICN, such as the International Credentialing Forum, and would have broader foci on migration and enforcement of ethical recruitment. Such a forum would potentially address the following items.

- Manage migration through global standards, policies, and legal frameworks.
- Facilitate international negotiations, including those leading to bilateral and multilateral agreements, and serve to manage migration among receiving countries, source countries, and transit countries (Martin, 2001).
- Address the rights of migrant workers (Martin, 2001) and formulate acceptable recruiting practices to minimize the negative effects on health care in source countries (Martineau et al., 2002; Pang et al., 2002; Woodward et al., 2001).
- Develop a common protocol to help address overly aggressive international recruitment practices and enable positive recruitment experiences (Irwin, 2001);
- Ensure the interests of developing countries are fully represented in decision-making (Adams & Kinnon, 1998; Woodward et al., 2001);
- Enforce rules for international recruitment (Martineau et al., 2002; Pang et al., 2002).

**ICN Workforce Forum.** Another key ICN forum is the yearly ICN Workforce Forum, which receives input from the National Nursing Associations and addresses workplace issues such as fair and equitable compensation and treatment; leadership in negotiation; and social issues within the workplace (ICN, 2004). National nurses’ associations can achieve the following (“Overseas recruitment”, 2000).

- Promote the welfare of migrant nurses and nurses contemplating migration by participating in the development of national policies on migration.
• Provide an advisory service to help nurses interpret contracts and deal with credentialing issues, personal and work-related problems, and repatriation.
• Help nurses to make informed decisions about migration by disseminating information about local working conditions.
• Discourage potential migrant nurses from working in jobs for which local nurses find the salaries and conditions unacceptable.
• Ensure that migrant nurses have employment parity with nurses who are nationally educated. They can also monitor the activities of recruiting agencies.

**Improved Workforce Strategies.** All groups involved with nurses should be implicated in improving nursing workforce strategies. Among these groups are national nursing associations, ICN, governments, individual employers, hospitals, and unions. In addition to improving international monitoring of nurses, a combined effort should be made to ensure better working conditions. This could be achieved by supporting the development of a healthy, domestic nursing workforce through medium- and long-term strategies (RCN, 2002; Sibbald, 2000). Improving workforce and human resource planning and management practices would assist the nursing profession to attract and retain sufficient numbers of nurses (Buchan, 2001b; Kline, 2003; RCN, 2002; Sibbald, 2000; WHO, 2001).

**Standardized Indicators and Definitions.** Finally, international data collection should be initiated based on established definitions and uniform indicators that can be used to measure, monitor, and report data relevant to nursing human resource planning (Advisory Committee on Health Human Resources [ACHHR], 2000; Brown et al., 2001; Buchan, 2001b; Buchan et al., 2003; Diallo et al., 2003; OECD, 2000; Pang et al., 2002; Peterson, 2001). Efforts should also be made to build on steps initiated by WHO, ILO, and ICN. Good databases are needed to provide evidence on which to base sound decision-making.

### 7.2. The Canadian Perspective

#### 7.2.1. Impact of Immigration

**RNs.** Canada attracts less than 0.8% of its RN workforce annually through immigration (CIHI, 2003a; CNA, 2002); nonetheless, immigration has a moderate impact on the overall nursing labour market and a considerable impact on the labour markets of certain jurisdictions. From 1998 to 2002, the accumulated number of internationally educated RNs employed and registered in Canada remained between 6% and 7% of the total RN workforce (CIHI, 2003a). In 2002, the accumulated stock of immigrant RNs constituted almost 7% (15,847) of the Canadian RN labour force (CIHI, 2003a; see Appendix C). In British Columbia, Nunavut, Ontario, and the Northwest Territories, more than 10% of the RN workforce were immigrants (CIHI, 2003a).

**LPNs/RPNs.** From 1998 to 2001, 1,086 internationally educated LPNs and 54 RPNs were new registrants in Canada. In 2002, the accumulated stock of internationally educated LPNs was 1.6% (986) of the total number of employed LPNs in Canada, although 26% did not state the country where they completed their initial nursing education (CIHI, 2003b). The accumulated stock of internationally educated RPNs in 2002 was 7.5% (387) of the total number of employed RPNs in Canada, and only 3.3% did not state the country where they completed their initial education (CIHI, 2003c).
7.2.2. Impact of Emigration

Emigration has also had an impact. There was a dramatic exodus of new graduate RNs from Canada in the 1990s as a result of hospital restructuring (ACHHR, 2002; CNA, 2002; Frank & Bélair, 1999; Malugani, 2000). This represented a lost opportunity for renewing and maintaining the RN workforce, which would in turn affect the nursing workforce as a whole (Baumann & Blythe, 2003). Despite the difference migration has made to the RN workforce, it is evident that using international recruitment to resolve nursing shortages without addressing fundamental issues in the workforce leads to only short-term solutions (Meleis, 2003). Migrant nurses have much to offer their host countries, but they should not be considered substitute labour. The real solution to the current nursing shortage lies in the revitalization of the national nursing workforce. Numerous suggestions have been made for strategies to improve nurse retention and working environment (Baumann et al., 2001). It is vital that they be heeded. If the nursing profession in a country does not offer adequate working conditions, then local nurses will leave the profession or the country.

7.3. Conclusion

The costs and benefits of international migration should be considered in planning for nursing human resources in Canada and abroad. In general, migration has only a moderate impact on the labour market for nurses in Canada. However, it has considerable impact on the RN and LPN labour market of certain jurisdictions, especially ON and BC, and very little on that of RPNs. As well, Canada is a participant in globalization and thus has responsibility to manage migration factors, both internationally and at home. Cooperation with international partners to manage nurse migration will contribute to worldwide health through more effective use of health human resources. As part of its nursing human resource planning strategy, Canada, like other nations, needs to improve data collection processes that are relevant to immigration and emigration. Canada must also expand and enhance nursing recruitment and retention policies within the country, as well as develop and augment related processes and policies. Finally, while it is important for Canada to explore the effects of migration on nursing, there may prove to be more value and longer-term benefits in achieving a better understanding of health human resources in Canada and facilitating their planning, both nationally and jurisdictionally.

7.4. Recommendations

The following recommendations relate to an overall goal of strengthening the nursing workforce nationally and internationally by promoting retention, positively transforming nurses’ working conditions, and facilitating, monitoring and managing migration worldwide.

1. Encourage national and jurisdictional strategies to create a policy framework for nurse migration. The *Nursing Strategy for Canada* (ACHHR, 2000) and the *Final Report of the Canadian Nursing Advisory Committee* (CNAC, 2002) include strategies and recommendations that need to be implemented to create an adequate, self-sufficient, renewing workforce.

2. Conduct research into the issues relevant to internationally educated nurses and their integration into the Canadian health care system.

3. Formulate methods to collect data systematically about all aspects and issues relevant to LPNs and RPNs, including migration. This will facilitate a complete representation of the total nursing population.
4. Facilitate human resources planning; more comprehensive databases are required to track the migration of all three regulated nursing professions to and from Canada. The various levels of government and all key stakeholders should collaborate to collect information about every aspect of nursing, from supply and demand to nurses’ professional roles (Kazanjian, 2000).

5. Collaborate with international colleagues to develop a model capable of predicting the complex flow of nurses’ movements in order to produce accurate assessments of future changes (Irwin, 2001).

6. Create a foreign employment policy framework that will ensure that internationally educated nurses in Canada have employment conditions equal to nationally educated nurses in positions requiring the same level of competency and involving the same duties and responsibilities, thus ensuring against discriminatory practices (“Overseas recruitment”, 2000). Support and enforcement of the moral and ethical stance not to engage in active and aggressive recruitment of nurses from countries with nursing shortages is warranted.

7. Establish an international advisory service for nurses considering working abroad and internationally educated nurses entering Canada. Advice would relate to the following:
   a. individual, personal, and work-related problems, such as institutional racism, violence, sexual harassment, and the facilitation of return migration (Lowell & Findlay, 2001; “Overseas recruitment”, 2000);
   b. disseminating information on the working conditions of nurses (“Overseas recruitment”, 2000);
   c. providing information about equivalencies of diplomas, qualifications, or degrees among countries (“Overseas recruitment”, 2000); and
   d. assisting nurses with problems related to international migration and repatriation (“Overseas recruitment”, 2000).

The Advisory Committee on Health Delivery and Human Resources approved the creation of a Task Force for International Nurses for all regulated nursing occupations. This should be supported.

8. Establish effective human resources planning based on clear operational definitions (Canadian Chamber of Commerce, 2001; “Human resources”, 2001; Martineau et al., 2002). Canadian nursing policy makers should develop recruitment and retention strategies that address such issues as positive organizational climate, working conditions, respect for clinical judgment, and scope of practice (“Global issues”, 2003).

9. Develop a national unique identifier for each nurse, which is a non-reused, lifetime number assigned either on entry into an education program or on applying for first licensure. Adopting a unique identifier would facilitate accurate tracking of nurses throughout their careers and provide accurate information for the construction of a database comparable at national and international levels.
REFERENCES


Buchan, J. (2001b). The way we were… *Nursing Standard, 15*(47), 20-21.


Canadian Institute for Health Information. (2001c). *Figure 5: Percentage of foreign-trained RNs employed in nursing by country of graduation, Canada, 2000* [Electronic version]. Ottawa, Canada: Canadian Institute for Health Information. Retrieved April 24, 2002, from <http://www.cihi.ca.medrls/23may2001exec/figure_5.shtml>


Appendix A. Methods

KEY WORDS AND PHRASES

Note: All key words and phrases were used to search for data for each of the three regulated nursing professions: registered nurses, licensed/registered practical nurses, and registered psychiatric nurses. As differing titles were found in the general search, they were then also used as search words. This list below is not a comprehensive list.

- Brain drain
- Brain exchange
- Career mobility
- Career mobility international (CINAHL)
- Credentialing
- Definition of nurse
- Emigration of health care workers
- Foreign ‘trained’ nurses
- Foreign nurses
- General migration patterns
- Global migration and development
- Globalization of nurse labour market
- Health human resources (and migration)
- Health manpower
- Health worker substitution
- Highly skilled workers
- Immigration and emigration trends
- Immigration statistics
- Immigration
- Immigration/immigrants
- International nurse labour market
- International nurse migration
- International nursing labour market
- International nursing labour market and trends
- International nursing labour market for UK, USA, Canada, EU, Philippines, Asia, Australia, South Africa, Caribbean and Ghana
- International recruitment agencies
- International trends in health care
- Labour mobility
- Licensed practical nurse(s)
- Migration of health care workers

Migration of nurses
Migration patterns of health professionals/health care workers
Migration patterns of nurses
Nurse career changes
Nurse emigration
Nurse immigration
Nurse job dissatisfaction
Nurse migration
Nurse mobility
Nurse turnover
Nurses and quality of work life
Nurses importing/exporting
Nurses working conditions
Nursing brain drain
Nursing early retirement
Nursing employment patterns
Nursing immigration policy
Nursing manpower planning
Nursing shortage
Nursing shortage and quality of patient care
Nursing workforce
Patterns of nursing employment
Personnel recruitment
Recruitment and retainment
Registered nurse(s)
Registered psychiatric nurse(s)
Skill mix
Skilled international migration
Skilled workers
Trends of foreign nurses — ethical issues, historical, legislation, trends, standards (CINAHL)
# Sources

## Databases
- CIHI Licensed Practical Nurses Database: Workforce Trends of Licensed Practical Nurses, 2002
- CIHI Registered Nurse Database, 2001
- CIHI Registered Nurses Database: Workforce Trends of Registered Nurses, 2002
- CIHI Registered Psychiatric Nurses Database: Workforce Trends of Registered Psychiatric Nurses, 2002
- Electronic Databases at McMaster University: Health Sciences Library, Mills Library

## Published Literature
- CINAHL
- HealthSTAR/Ovid
- Journals at Ovid
- MEDLINE

## Grey Literature
- Copernic Pro 2001 software (Search Tool)

### Canada
- Building the Future: An integrated strategy for nursing human resources in Canada: Registered nurses
  <http://www.buildingthefuture.ca/e/nursing/registered/>
- Building the Future: An integrated strategy for nursing human resources in Canada: Licensed practical nurses
  <http://www.buildingthefuture.ca/e/nursing/licensed/>
- Building the Future: An integrated strategy for nursing human resources in Canada: Registered psychiatric nurses
  <http://www.buildingthefuture.ca/e/nursing/registeredpsych/>
- Canadian Census, Statistics Canada
  <http://www12.statcan.ca/english/census01/release/index.cfm>
- Canadian Economic Indicators
  <http://strategis.ic.gc.ca/pics/ra/mei200205e.pdf>
- Canadian Federation of Nurses Unions <www.nursesunions.ca>
- Canadian Institute for Health Information <www.cihi.ca>
- Canadian Nurses Association: Highlights of 2001 Nursing Statistics
- Canadian RN Directory <www.canadianrn.com/directory/assoc.htm>
- CBC News, Backgrounder
- Citizenship and Immigration Canada <www.cic.gc.ca/english/srr>
- College of Nurses of Ontario — statistics
- Health Canada <www.healthcanada.ca>

Highlights from the Canadian Census 2001
<http://geodepot2.statcan.ca/Diss/Highlights/text_e.pdf> and
<http://www12.statcan.ca/english/census01/release/index.cfm>


Kalayaan Centre (Filipino site in Canada) <http://www.kalayaancentre.org/>

Policy Research Initiative (Canada)

Statistics Canada <www.statcan.ca>

Statistics Canada: Census 1996
<http://www.statcan.ca/english/census96/nation.htm>

**United Kingdom**

BBC News Online <http://news.bbc.co.uk/>

Economic and Social Research Council (United Kingdom)
<http://www.transcomm.ox.ac.uk/>

National Health System for Scotland <http://www.nes.scot.nhs.uk/nursing/>

Royal College of Nurses <www.rcn.org.uk>

UK Society Guardian Online <http://society.guardian.co.uk>

United Kingdom Government Online <www.ukonlinegov.uk>

United Kingdom Immigration & Nationality Directorate
<http://www.ind.homeoffice.gov.uk/> and
<http://www.ind.homeoffice.gov.uk/news.asp?NewsID=146> and
<http://www.ind.homeoffice.gov.uk/news.asp?NewsId=111&SectionId=1>

United Kingdom, Department of Health <www.doh.gov.uk>

United Kingdom, National Health System <www.hsdirect.nhs.uk>

**United States**

ABC News Online <http://abcnews.go.com/sections/living/DailyNews/nursing_shortage010518.html> and

Nursing Workforce <http://www.gao.gov/new.items/>

Projected Supply, Demand, and Shortages of Registered Nurses: 2000-2020

US Census Bureau, US Department of Commerce <http://www.census.gov/>

US Department of Health and Human Services <http://www.hhs.gov/> and


US Department of Immigration and Naturalization — Statistics
## Immigration and Emigration Trends: A Canadian Perspective

US Department of Labor, Bureau of Labor Statistics  
<http://www.bls.gov/opub/>  

**Australia**  
Australia Bureau of Statistics <www.abs.gov.au>  
Australia Commonwealth Department of Education, Science, and Training (DEST): National Review of Nursing Education  
Australian Nursing Federation <http://www.anf.org.au>  
Mental health nursing education: Australia  

**Ghana**  
Ghana <www.ghanaweb.com>

**Europe**  
Europa The EU Online <http://europa.eu.int/>  
European Research Centre on Migration and Ethnic Relations  
<http://www.ercomer.org/>  
International Labour Organization, Key Indicators of the Labour Market  
Link for International Labor Statistics  
<http://130.15.161.74/webdoc/web/labour.htm>  
Migration and Policy Group (EU) <http://www.migpolgroup.com/>  
National Nursing Associations (NNA)  
<http://www.nursefriendly.com/nursing/natlink.htm>  
NursingLinks International Organizations Page  
<http://www.nursingworld.org/rnindex/intl.htm>  
Standing Committee of Nurses in the European Union  

**General**  
Nursing Index for links to Education, Employment, Hospitals, Literature, Organizations <www.nursingindex.com>  
Online Journal of Issues in Nursing  
<http://www.nursingworld.org/ojin/topic14/tpc14_4.htm>

## Research Centres and International Sites

**Canada**  
The Canadian Centre for Policy Alternatives  
<http://www.policyalternatives.ca/>  
The Canadian Council on Social Development <http://www.ccd.ca/>  
Canadian Health Services Research Foundation <http://www.chsrfs.ca/>  
Canadian Institute for Health Information (CIHI)  
<http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=home_e>  
Canadian Medical Association Journal <http://www.cmaj.ca/>  
Centre for Applied Health Research, University of Waterloo
<http://www.ahs.uwaterloo.ca/~cahr/>
Centre for Health Economics and Policy Analysis <http://www.chepa.org/>
Centre for Health Services and Policy Research (CHSPR)
<http://www.chspr.ubc.ca/>
Citizenship and Immigration Canada (CIC) – Statistics
Government of Canada <http://canada.gc.ca/main_e.html>
Health Canada: National Nurse Retention and Recruitment Strategy
<http://www.hc-sc.gc.ca/msb/pdf/action_e.pdf>
The Institute for Social Research <http://www.math.yorku.ca/ISR/menu.htm>
Institute of Intergovernmental Relations <http://qsilver.queensu.ca/iigr/home-home.html>
Institute of Intergovernmental Relations <http://qsilver.queensu.ca/iigr/home-home.html>
Labour market Information in Canada
<http://www.workinfonet.ca/cwn/english/index.cfm?cat=4>
Legal definitions of Nurse/Nursing in Jurisdictions in Canada
<http://www.cns.nf.ca/research/sd1apb1.htm>
Policy Research Initiative of Canada
The University of Toronto Ethnic Immigration and Pluralism Studies
<http://www.utoronto.ca/ethnicstudies/>

United Kingdom
The Institute for Employment Studies (UK) <http://www.employment-studies.co.uk/>
Migration Research Unit, University College London
<http://www.geog.ucl.ac.uk/mru/>
Nursing and Midwifery Council (former UKCC, United Kingdom Nursing Registry) <http://www.nmc-uk.org/cms/content/Publications/>

United States
American Association of Colleges of Nursing
<http://www.aacn.nche.edu/education/Resindex.htm>
American Organization of Nurse Executives <http://www.aone.org/>
Carnegie Endowment – International Migration Policy Program
<http://www.ceip.org/files/projects/imp/imp_home.ASP>
Commission for Graduates of Foreign Nursing Schools (CGFNS- US)  
<www.cgfns.org>
Institute for the Study of International Migration (ISIM) Georgetown University  
<http://www.georgetown.edu/sfs/programs/isim/>
Journal of the American Medical Association <http://jama.ama-assn.org/>
National League for Nursing (US)  
<http://www.nln.org/newsletter/newsle110a.htm>
NurseWeek/American Organization of Nurse Executives  
National Survey of Registered Nurses <www.nurseweek.com/survey/>,
<http://www.nurseweek.com/survey/summary.asp>

International  
Asia-Pacific Migration Research Network  
<http://www.unesco.org/most/apmrncn4.htm>
Centre for European Migration and Ethnic Studies <http://www.cemes.org/>
Centre for Immigration Studies <http://www.cis.org/>
CERIS (Centre of Excellence for Research on Immigration and Settlement) The  
Metropolis Project, Research and Policy  
<http://ceris.metropolis.net/research-policy/network/index_e.html>
European Migration Information Network <http://emin.geog.ucl.ac.uk/>
ICN Credentialing Forum overview <http://www.icn.ch/forumoverview.pdf>
International Labour Organization (ILO) <http://www.ilo.org/>
International Migration and Multi-Cultural Policies  
<http://www.unesco.org/most/>
International Migration Policy Program <http://www.impprog.ch/>
Migration Dialogue <http://migration.ucdavis.edu/>
Migration News <http://migration.ucdavis.edu/mn/>
Migration Policy Institute (US) <http://www.migrationpolicy.org/>
Organization for Economic Co-Operation and Development (OECD)  
<http://www.oecd.org/EN/home/0,EN-home-0-nodirectorate-no-no-no-0,FF.html>
Pan American Health Organization (PAHO) <http://www.paho.org/>
Sigma Theta Tau International <http://www.nursingsociety.org/>
Southern Africa Migration Project <http://www.queensu.ca/samp/>
Stockholm University, Center for Research in International Migration and  
Ethnic Relations <http://www.ceifo.su.se/>
United Nations Educational, Scientific and Cultural Organization  
<http://www.unesco.org/>
World Health Organization (WHO) <http://www.who.int/en/>
Appendix B. Limitations of Data

Limitations of Data (Below nurse refers to RNs, LPNs, and RPNs, unless otherwise stated)

Source: University Research Units, Advisory Committees
- Nursing Databases in General

1. Estimates are general only of international nurse migration as data are collected in an inconsistent manner nationally and internationally, with inadequate tracking; there may be under-counting or over-counting of nurse migration.
2. True level of nurse migration is unknown.
3. Major limitations regarding the quality and quantity of data on the nursing workforce limit what is known in general, and about migration in particular (Kazanjian, 2000).
4. Inability to track nurses from application, to nursing education, to retirement limits the reliability and utility of the current data (Advisory Committee on Health Human Resources, 2000).
5. Cannot determine the international migration of nurses due to the lack of a unique identifier (Kazanjian, 2000)
6. There is no national coordination of data for all nursing professionals in most countries including developed countries, for example, the US and the UK; however, in 2003, Canada released national data on all three Canadian nursing professions, RNs, LPNs, and RPNs.
7. Many of the basic policy questions (e.g., nurse supply and demand, deployment) cannot be answered (Advisory Committee on Health Human Resources, 2000).
8. Without standardized, complete national data, the knowledge of nurse supply is incomplete (Advisory Committee on Health Human Resources, 2000). This includes data on migration and other relevant aspects of nursing, and data needs to include all nursing professions, including RNs, LPNs, and RPNS.
9. Little work has been done to predict future supply needs due to insufficient or lacking data (Advisory Committee on Health Human Resources, 2000).
10. The lack of national data makes seemingly simple questions about the current nursing supply difficult to answer (Advisory Committee on Health Human Resources, 2000).
11. In Canada, none of the registration databases can be considered comprehensive of all individuals who may have been employed in nursing in any one jurisdiction during any calendar year (Kazanjian et al., 2000, CIHI 2003a, 2003b, 2003c).
12. Data on nurses are limited and generally collected for administrative, funding, or licensing purposes (CIHI, 2001a). Data on RNs are collected for licensure and public protection, which is assigned to the jurisdictional regulating bodies by jurisdictional laws. Data were not initially collected for health human resources use and have been adapted over the years to reflect changes in trends, legislation, and to improve the quality of the data (L. Little, CNA, personal communication, September 18, 2003).
13. Provincial and federal legislation related to the protection of personal information also limits the kind and amount of data able to be collected (CIHI, 2001a).

Source: Internet using Copernic Pro 2001 — a software search tool that searches other search engines, for example Google

15. Internet information is not verifiable, not reliable.
Limitations of Data (Below *nurse* refers to RNs, LPNs, and RPNs, unless otherwise stated)

16. Several links are no longer available as websites have been altered or updated.
17. Internet addresses are difficult to find at times.
18. Websites are frequently difficult to navigate, confusing, lack important information, and direct the user to contact the site by an electronic or postal address.

**Source:** General
- Definitions

19. There is no agreed upon definition of *highly skilled workers* (OECD, 2002).
20. No international consensus of the definition of *nurse*.

**Source:** General, International Databases/Statistics

21. In order to reflect the growing complexity of Health Human Resources issues, more than one data source is required (Diallo et al., 2003).
22. There is a need to distinguish between professional RNs and midwives and their associate counterparts in data collection and databases (Diallo et al., 2003).
23. There is a need for a clear definition of roles and scope of practice. The roles and tasks performed by nurses vary across countries and within countries (Diallo et al., 2003).
24. There is a need internationally for standardized classifications for health professionals at the greatest level of detail possible in order to allow for useful analysis and comparisons (Diallo et al., 2003).
25. The significant methodological weaknesses in data for health care planning have been discussed for decades but not resolved (Bloor & Maynard, 2003).
26. Databases are not cross-referenced or linked, which hampers in-depth analysis, monitoring, and human resource planning.
27. Imprecise operational definitions make international comparisons of any data difficult.
28. There is no agreed-upon international definition of *international migrant*.
29. There is a need for consensus regarding other terms, such as *temporary migrant* and *permanent migrant*.
30. International migration statistics are either not collected, or are poorly collected, and are not comparable nation to nation or globally; therefore, the empirical basis for any conclusions is weak.
31. There is a need for information about the characteristics of those individuals who migrate and those who do not migrate.
32. The lack of data on permanent and temporary flows of migrants according to skill level in many OECD countries makes international comparison difficult (OECD, 2002).
33. When data are collected, the reason for resignation from a nursing position is not typically recorded and is not linked to migration in source countries. Measurement of losses to health care systems is problematic (Martineau et al., 2002).
34. Data on in- and out-migration are insufficient. If visas are used to track migrants, the data are inaccurate as not all countries require visas for immigrants (i.e., the EU).
35. Some countries have no standardized tools to collect data about RNs; other countries collect and report data in some settings where RNs work but not others (ICN, 2001c).
36. A wide variety of measurement methodologies are used across countries (ICN, 2001c).
37. Common terminology and standards for documenting nursing activities are absent (ICN, 2001c).
38. UK — Most data on RNs or midwives in the four countries making up the UK are collated at the country
Immigration and Emigration Trends: A Canadian Perspective

Limitations of Data (Below nurse refers to RNs, LPNs, and RPNs, unless otherwise stated)

39. The registration data from the UK nursing registry only records the fact that the RN or midwife is registered and does not show when the RN or midwife actually entered the UK or what the RN or midwife is doing (Buchan, 2002).

40. The poor quality of data regarding RNs has been commented upon for years (Seecombe, Buchan, & Ball, 1993). The request for registration verification is a measure of intent to migrate and practise in the UK and is a proxy measure of migration, rather than an indicator that the RN or midwife is actually working in the UK (Buchan, 2002; Seecombe, et al., 1993).

41. The UK nursing registry data are regarding qualified RNs and midwives, not people who move to the UK for education or to enter pre-registration RN education (Buchan, 2002).

42. There is little consistency between countries in how human resources strategies are monitored or evaluated (Diallo et al., 2003).

43. International assessments of health personnel are less widespread than assessments of health care expenditures (Diallo et al., 2003).

44. Facilitating the collection of data, analyses, and comparisons internationally requires the use of a limited, essential, and agreed upon number of indicators that are comparable and measurable using standard data resources (Diallo et al., 2003).

45. There is difficulty in comparing and measuring the impact of emigration on source countries due to the general lack of reliable and comparable data from source countries (Diallo et al., 2003).

46. Inconsistent definitions and occupational categories for nursing personnel make comparison difficult (Diallo et al., 2003).

Source: Canadian Institute for Health Information (CIHI, 2003a, 2003b, 2003c)
- Data through annual nursing registration renewals


Source: Centre for Health Services and Policy Research: Health Human Resources Unit, The University of British Columbia
- Nursing Workforce Study (Kazanjian, 2000). Data collected through annual registration forms, survey, and requests from nursing regulatory bodies

48. Any information about nurses is based on data collected through annual registration forms (same limitations as above) or through data provided by nursing associations or registrars. Both methods lead to incomplete data collection, both from self-report nursing registration forms and incomplete provision of data — or none — from associations and/or registrars from certain jurisdictions.

49. In 2000, there was no nationally collected data on LPNs and RPNs, and no standardized format for data collection and storage (Kazanjian, 2000), making international comparison with Canada impossible. National data about LPNs and RPNs were released by CIHI in the fall of 2003 for the first time.

50. There is no of national unique identifier in Canada for the three nursing professions (RNs, LPNs, RPNs; Kazanjian, 2000).

51. Estimates of movement of nursing personnel do not link out-migration from one jurisdiction to in-migration to another jurisdiction (Kazanjian et al., 2000) or country.

52. Canadian nurses who leave Canada for a time and then return to a different jurisdiction than the previous jurisdiction they were registered in will be counted as an international migrant (and not someone previously registered in Canada; Kazanjian et al., 2000).
Limitations of Data (Below nurse refers to RNs, LPNs, and RPNs, unless otherwise stated)

53. Nurses who leave Canada will only be counted if they choose to retain registration in a Canadian jurisdiction (Kazanjian et al., 2000).

54. None of the registration databases can be considered to be comprehensive of all individuals who have been employed in nursing in any one jurisdiction during any calendar year in Canada (Kazanjian et al., 2000).

55. Other limitations of annual nurse registration are as follows: (a) nurses who move to another jurisdiction and then back to their original jurisdiction before the annual registration is due will not be counted as having relocated; (b) nurses who relocate before the end of registration year will be counted as registered in their previous jurisdiction and not having relocated, unless the nurse specifically terminates their membership (which is unusual) in their original jurisdiction; and (c) members can register as non-practising, but are not employed in nursing and still retain membership (Kazanjian et al., 2000).

56. Nurses may apply to have their credentials verified by an out of country jurisdiction but there is no way of knowing from the registration data whether these nurses actually left Canada (Kazanjian et al., 2000).

Source: Statistics Canada Census (2002) — Questionnaires to household addresses in Canada

57. The census is conducted at a single point in time and some people are not counted due to various reasons, such as not counting a boarder in a home, those people without a permanent residence, households that did not receive a questionnaire (Statistics Canada, 2002).

58. Some people may be counted twice (Statistics Canada, 2002).

59. Only an estimate of the stock of non-permanent residents and permanent residents can be distinguished by citizenship status (CIC, 2000b).

60. The data does not offer a distinction among reasons for coming to Canada (CIC, 2000b).

61. Data is collected only every five years in Canada, therefore analysis is limited to changes between census years (CIHI, 2001a).

62. Occupational class codes and grouping codes need review (CIHI, 2001a).

Source: Citizenship and Immigration Canada (CIC) — Immigration data

63. All data on foreign-born persons resident temporarily or permanently in Canada come from two sources: Citizenship and Immigration Canada and census data (CIC, 2000b).

64. The definitions used in the Immigration Act for Canada do not correspond to those proposed by the United Nations (UN) taxonomy (CIC, 2000b).

65. No CIC administrative data are available for departures (CIC, 2000b).

66. Time lines differ from UN recommendations (CIC, 2000b), i.e., UN uses short-term and long-term migration, Canada uses temporary and permanent.

67. In-flows are linked to one of the following: education and training, employment, international civil servants, free establishment, settlement, family reunification or family formation, asylum, and other (CIC, 2000b).

68. Migrants stocks include citizens living abroad and foreign-born people living in Canada (CIC, 2000b).

Source: Statistics Canada
- NAFTA Visas

69. Exclusion of NAFTA workers from the emigration data is misleading since these workers account for 90% of the total emigration of highly skilled Canadians to the US (Iqbal, 1999).
Limitations of Data (Below nurse refers to RNs, LPNs, and RPNs, unless otherwise stated)

Source: Citizenship and Immigration Canada
- Landed Immigrant Data System (principal source of data on immigration to Canada)

70. Source gives only intended occupations of immigrants at the time of attaining landed immigrant status, based on their education and work experience (Zhao et al., 2000).

71. Data provided are for landed immigrants with and without pre-arranged employment (CIHI, 2001a).

Source: Statistics Canada
- Reverse Record Check (estimate coverage in the Canadian Census of the Population)

72. Data are subject to relatively high levels of sampling error (Zhao et al., 2000).

Source: Canadian Personal Taxation Data

73. All people who receive income from Canadian sources are required to file, including those leaving Canada during the tax year. While the date of departure is asked, the destination is not (Zhao et al., 2000).

Source: National Population Censuses

74. Censuses are exhaustive in coverage and use standard international classifications but are carried out infrequently and lack important information such as duration of stay (OECD, 2002).

75. Censuses generally have shorter questionnaires than other forms of surveys and capture limited information, which limits in-depth analysis (Diallo et al., 2003).

76. Censuses are usually conducted every five or ten years, therefore more useful for long-term changes (Diallo et al., 2003).

77. Often, in source countries (e.g., Africa), these data are underused, the content varies widely from country to country and sometimes varies widely from one census to another in the same country (Diallo et al., 2003).

78. In Canada, the Census is every five years and is limited to comparing changes in data among Census years (CIHI, 2001a).

Source: National Population Registries

79. Not many registries exist.

80. They are mainly concerned with demographic data.

81. They generally do not have data regarding important migration variables, such as educational levels or labour market characteristics (OECD, 2002).

Source: National Labour Force Surveys

82. Typically, the surveys have small sample sizes but they are one main source for international comparison (OECD, 2002).

83. The data consists of gross inward migration flows only (OECD, 2000).

84. In Canada, these surveys provide detailed and accurate data on the labour market, but the data are only a small sample of the total supply of nurses (CIHI, 2001a).

85. In Canada, nurses from Nunavut, the Northwest Territories, and the Yukon Territory are excluded, therefore data are not a sampling from the whole country (CIHI, 2001a).
Limitations of Data (Below nurse refers to RNs, LPNs, and RPNs, unless otherwise stated)

**Source: National Administrative Sources**

86. These include work permits and temporary visas and provide relevant data, but do not use the concepts, definitions, and classifications necessary for calculating international statistics (OECD, 2002).

87. Data on change are rarely available (OECD, 2002).

88. Sources can include professional associations, entry visas, and work permits for international migrants but are normally not comparable among countries (Diallo et al., 2003).

89. In many countries there is no regular recording of the numbers and activities of all health care personnel; some surveys only study the public sector or have variable accuracy for rural or remote areas (Diallo et al., 2003).

90. Data often suffer from over-counting or under-counting (Diallo et al., 2003).

**Source: National Specific Surveys**

91. Surveys track highly skilled workers but do not always have a foreign component, and exist only in certain countries (OECD, 2002).

92. Surveys need to be more broadly used and harmonised (OECD, 2002).

93. Surveys need cost effectiveness research to articulate the economic value of nursing (ICN, 2002b).


94. The survey profiles the foreign-born people in US and estimates the number of Canadian-born people who entered US in the 1990s and are still there in each year from 1994 to 1999. It includes people whose place of residence is for a period of 6 months of longer, and does not include stays of short duration (Zhao et al., 2000).

95. The survey is subject to relatively high levels of sampling error (Zhao et al., 2000).

**Source: US Immigration and Naturalization Service Data — Principal data source for Permanent Migration**

96. There are many limitations, such as multiple entries, lack of distinction between initial entries and renewals (Zhao et al., 2000).

97. NAFTA visas are replacing categories of temporary visas (Zhao et al., 2000).

98. This is not a reliable source of information on the magnitude of temporary movements from Canada to the US or of their trend over time (Zhao et al., 2000).

99. The source counts by occupations of permanent migrants whose last permanent residence was Canada (Zhao et al., 2000).

100. The source does not report data after 1997 of Canadian emigrants admitted as permanent residents.

101. Data does not include Canadian RNs working in the US on temporary visas, such as Trade NAFTA (TN) visas, which allow Canadians to work without becoming American citizens. However, the recent Section 343 IIRIRA ruling requiring credentialing under every US visa should improve the comprehensiveness of data collection and potentially the comparability of data.

102. Accurate data regarding the number of RNs receiving these temporary visas are not available.

103. Since nurses are not listed in a standardized way, there is no way to track them accurately, either as a general group or as a specialized group (RN, LPN, RPN). For example, they may be listed as “health assessment and treating personnel”, “other immigrants” (registered nurses and their families), “former H-1 nurses”, “temporary workers and trainees” or “registered nurses H1-A”.

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Building the Future: An integrated strategy for nursing human resources
### Appendix C. RN Immigrants to Canada, by Selected Years, 1983–2002

<table>
<thead>
<tr>
<th>Year</th>
<th>RN workforce</th>
<th>New Immigrants</th>
<th>Overall Immigrants</th>
<th># of immigrants</th>
<th>% of workforce</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983</td>
<td>983</td>
<td></td>
<td></td>
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<tr>
<td>1984</td>
<td>887</td>
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<td>1988</td>
<td>961</td>
<td></td>
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</tr>
<tr>
<td>1989</td>
<td>1,303</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1990</td>
<td>223,964&lt;sup&gt;b&lt;/sup&gt;</td>
<td>1,680</td>
<td>19,144&lt;sup&gt;b&lt;/sup&gt;</td>
<td>8.6&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>1991</td>
<td>2,289</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>1992</td>
<td>1,589</td>
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<td></td>
</tr>
<tr>
<td>1993</td>
<td>1,205</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1994</td>
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<td>928</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>229,612&lt;sup&gt;c&lt;/sup&gt;</td>
<td>653</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1997</td>
<td>229,838&lt;sup&gt;b&lt;/sup&gt;</td>
<td>654</td>
<td>17,767&lt;sup&gt;b&lt;/sup&gt;</td>
<td>7.7&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
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<td>228,450</td>
<td>653</td>
<td>15,564&lt;sup&gt;c&lt;/sup&gt;</td>
<td>6.8&lt;sup&gt;c&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>232,412</td>
<td>1,072</td>
<td>14,177&lt;sup&gt;d&lt;/sup&gt;</td>
<td>6.1&lt;sup&gt;d&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>231,512</td>
<td>1,161</td>
<td>15,659&lt;sup&gt;e&lt;/sup&gt;</td>
<td>6.8&lt;sup&gt;e&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>230,957</td>
<td>1,849</td>
<td>15,847&lt;sup&gt;f&lt;/sup&gt;</td>
<td>6.9&lt;sup&gt;f&lt;/sup&gt;</td>
<td></td>
</tr>
</tbody>
</table>


Note. All data refers to immigrants in the Canadian RN workforce.

<sup>a</sup>(CNA, 2002, 2003)
<sup>b</sup>(Kazanjian et al., 2000)
<sup>c</sup>(CIHI, 2000)
<sup>d</sup>(CIHI, 2001b)
<sup>e</sup>(CIHI, 2002)
<sup>f</sup>(CIHI, 2003a)
### Appendix D. New RN Immigrants from the United States, by Endorsement, 1999–2002

<table>
<thead>
<tr>
<th>Prov./terr.</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>10</td>
<td>23</td>
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<tr>
<td>AB</td>
<td>4</td>
<td>3</td>
<td>7</td>
<td>18</td>
<td>32</td>
</tr>
<tr>
<td>SK</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MB</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>ON</td>
<td>11</td>
<td>8</td>
<td>10</td>
<td>13</td>
<td>42</td>
</tr>
<tr>
<td>QC</td>
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<td>3</td>
<td>0</td>
<td>2</td>
<td>5</td>
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<td>NB</td>
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<td>NS</td>
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<td>14</td>
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<td>4</td>
<td>10</td>
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</tr>
<tr>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>NT(^a)</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>26</strong></td>
<td><strong>45</strong></td>
<td><strong>30</strong></td>
<td><strong>54</strong></td>
<td><strong>155</strong></td>
</tr>
</tbody>
</table>

*Source:* Canadian Nurses Association (used with permission from the CNA, July 21, 2003).

\(^a\)Data for Nunavut were not listed separately by the CAN.
## Appendix E. New RN Immigrant Registrants, by Province/Territory, 1999–2002

<table>
<thead>
<tr>
<th>Prov./terr.</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC</td>
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<td>230</td>
<td>287</td>
<td>416</td>
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<tr>
<td>AB</td>
<td>51</td>
<td>72</td>
<td>141</td>
<td>238</td>
<td>502</td>
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<tr>
<td>SK</td>
<td>22</td>
<td>49</td>
<td>31</td>
<td>36</td>
<td>138</td>
</tr>
<tr>
<td>MB</td>
<td>14</td>
<td>27</td>
<td>0</td>
<td>95</td>
<td>136</td>
</tr>
<tr>
<td>ON</td>
<td>309</td>
<td>628</td>
<td>636</td>
<td>949</td>
<td>2,522</td>
</tr>
<tr>
<td>QC</td>
<td>24</td>
<td>17</td>
<td>34</td>
<td>79</td>
<td>154</td>
</tr>
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</tr>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>NT&lt;sup&gt;a&lt;/sup&gt;</td>
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</tr>
<tr>
<td><strong>Canada</strong></td>
<td><strong>653</strong></td>
<td><strong>1,072</strong></td>
<td><strong>1,161</strong></td>
<td><strong>1,849</strong></td>
<td><strong>4,735</strong></td>
</tr>
</tbody>
</table>

*Source: Canadian Nurses Association (used with permission from the CNA, July 21, 2003).*

<sup>a</sup>Data for Nunavut were not listed separately by the CNA.
### Appendix F. New LPN Immigrants, by Province, 1998–2001

<table>
<thead>
<tr>
<th>Prov./terr.</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>Total</th>
</tr>
</thead>
<tbody>
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<td>193</td>
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<tr>
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<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>MB</td>
<td>0</td>
<td>0</td>
<td>40</td>
<td>13</td>
<td>53</td>
</tr>
<tr>
<td>ON</td>
<td>110</td>
<td>151</td>
<td>213</td>
<td>242</td>
<td>716</td>
</tr>
<tr>
<td>NB</td>
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<tr>
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<td>4</td>
</tr>
<tr>
<td>PE</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>NL</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>110</td>
<td>171</td>
<td>319</td>
<td>461</td>
<td>1,061</td>
</tr>
</tbody>
</table>

*Source:* Provincial/territorial Licensed Practical Nurses Regulatory Authorities.

*Note:* QC did not provide data. YT does not keep track of these data.

aData represents actual in-migration to Canada, unless otherwise indicated.

bData represent applicants for registration (ON, NB, and BC).
## Appendix G. New RPN Immigrants, by Province, 1998–2003

<table>
<thead>
<tr>
<th>Province</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>BC</td>
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<td>6</td>
<td>3</td>
<td>8</td>
<td>9</td>
<td>12</td>
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<tr>
<td>AB</td>
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<td>7</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>SK</td>
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<td>1</td>
<td>2</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MB</td>
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<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3</td>
<td>7</td>
<td>5</td>
<td>16</td>
<td>11</td>
<td>12</td>
<td>54</td>
</tr>
</tbody>
</table>

*Source: A. Osted, College of Registered Psychiatric Nurses of Manitoba, personal communication, October 15, 2003.*
Appendix H. International Council of Nurses:
Ethical Guidelines for RN Recruitment

The International Council of Nurses (ICN, 1999b, 2001a, 2002a) provided a position statement and outlined key ethical regulated recruitment principles for all national Registered Nurses’ associations. The ICN position and key principles are listed below.

Position:

1. ICN and its member associations believe that quality health care is directly dependent on an adequate supply of qualified and committed nursing personnel.
2. ICN recognizes the right of individual nurses to migrate.
3. ICN condemns the practice of recruiting nurses to countries where sound human resource planning has not been implemented.
4. ICN denounces unethical recruitment practices that exploit nurses.
5. ICN calls for a regulated recruitment process based on ethical principles.

Key Principles

1. That national nurses associations, governmental and non-governmental agencies closely monitor the development and impact of international trade agreements that affect health and social policy.
2. Implementation of effective human resources planning and development in each country, including continuing education.
3. Nursing legislation must authorize the regulatory body to determine nurses’ standards of education, competencies, and standards of practice ensuring that only individuals meetings these standards are allowed to practise as a nurse.
4. Access to full employment.
5. Freedom of movement including the right to migrate internationally.
6. Freedom from discrimination.
7. Good faith contracting including informed consent.
8. Equal pay for work of equal value.
10. A safe work environment.
11. Effective orientation, mentoring, and supervision.
12. Employment trial periods.
14. Regulation of both public and private recruitment with effective monitoring mechanisms.
Appendix I. Bibliography


Appendix J. Acronyms

See Appendix L for acronyms used for provinces.

CGFNS...... Commission on Graduates of Foreign Nursing Schools (US)
CIC........... Citizenship and Immigration Canada
CIHI .......... Canadian Institute for Health Information
CNA ......... Canadian Nurses Association
CNAC ...... Canadian Nursing Advisory Committee
EU ............ European Union
HHRU ...... Health Human Resources Unit, University of British Columbia
HRSDC .... Human Resources and Skills Development Canada
ICN.......... International Council of Nurses
ILO.......... International Labour Organization
INS .......... Immigration and Naturalization Service (US)
LPN......... licensed practical nurse
LPNDB ..... Licensed Practical Nurses Database
NAFTA ..... North American Free Trade Agreement
NCLEX ..... National Council Licensure Examination
OECD....... Organization for Economic Co-Operation and Development
RN.......... registered nurse
RNAO ...... Registered Nurses Association of Ontario
RNDB ...... Registered Nurses Database
RPN......... registered psychiatric nurse
RPNDB ..... Registered Psychiatric Nurses Database
WHO......... World Health Organization
Appendix K. Glossary of Key Terms

Note: This glossary is meant to indicate only how the following terms are used in this report. It is not meant to provide comprehensive definitions.

**emigrate.** To leave one’s own country to settle in another country (Canadian Oxford English Dictionary, 2001, p. 457).

**flow [data].** Measures movements into and out of countries (Mejia et al., 1979, p. 12). Data referred to in terms of in-flow/in-migration and out-flow/out-migration.

**immigrate.** To come as a permanent resident to a country other than one’s native land (Canadian Oxford English Dictionary, 2001, p. 707).

**jurisdiction.** In Canada, a province or territory. Internationally, a foreign country.

**licensed practical nurse (LPN).** LPNs are “regulated health care professionals who work in partnership with other members of the health care team to provide nursing services to individuals, families and groups of all ages. LPNs combine nursing knowledge, skill and judgement when treating health conditions, promoting health, preventing illness and assisting clients to achieve an optimal state of health. They assess, plan, implement and evaluate care for clients throughout the lifecycle as disease progresses and through palliative stages” (“Building the Future”, 2003b).

**migrant.** Someone living outside their country of birth for twelve months or more (Migration News, 2003).

**migrate.** To move from one place (country, town, college, and/or house) to another (Canadian Oxford English Dictionary, 2001, p. 917).

**mobility/migration.** Movement of people from one place to another.

**nurse.** For the purposes of the report, a nurse is a graduate of an accredited nursing program who has passed the requisite licensing examinations and is registered with an appropriate regulatory body.

**registered nurse (RN).** “Through their legislated scope, RNs are authorized to practise autonomously regardless of the complexity of the client’s/clients’ condition(s) or the predictability of the outcomes of care. RNs are diversified health care workers, able to provide care to individuals, families, groups, communities and populations of all ages and levels of health. RNs provide client care across the continuum of health promotion, disease prevention, treatment, support and rehabilitation and palliative care” (“Building the Future”, 2003a).

**registered psychiatric nurse (RPN).** RPNs “participate as members of interdisciplinary health care teams in providing holistic care to client groups in the context of mental and developmental health services. Psychiatric Nursing promotes the restoration of client health and wellness through health promotion initiatives that are evidence based. RPNs practise at all levels of prevention, including primary, secondary, and tertiary health care services across the life span” (“Building the Future”, 2003c).

**stock [data].** Stock data represents a picture of the population numbers at a given time (Mejia, Pizurki, & Royston, 1979, p. 12).
Appendix L.  Key to Geographical Names and Acronyms

THE NORTH (the territories)
(Referred to in this document as the territories to avoid confusion with the Northwest Territories.)
YT Yukon Territory
NT Northwest Territories

Nursing education programs in the territories:
RN One in NT.
LPN One in YT and NT, offered on an occasional basis every two to three years (CIHI, 2003b). It is unknown what percentage the territories contribute to the total LPN workforce.
RPN None.
THE RESEARCH TEAM

The Nursing Effectiveness, Utilization and Outcomes Research Unit (NRU) has been engaged by The Nursing Sector Study Corporation to conduct research and prepare ensuing reports for Building the Future. The NRU is a network of researchers located in several provinces. The co-directors are as follows.

Linda O’Brien-Pallas, RN, PhD
Co-Principal Investigator, NRU
University of Toronto

Andrea Baumann, RN, PhD
Co-Principal Investigator, NRU
McMaster University

Collectively NRU investigators have established reputations for conducting high quality research on a variety of issues related to nursing and health human resources. Nationally and internationally, the team has established extensive contacts in education, management, research, practice and policy development.

AUTHORS’ BIOGRAPHIES

Andrea Baumann, RN, PhD  Co-Principal Investigator, NRU, McMaster University
Dr. Baumann has authored or edited several books and chapters and has written many peer-reviewed publications focusing on decision making and nursing. Her most recent work is on investment in human capital. She is the editor for the Journal of Advanced Nursing for the Americas. Dr. Baumann is known internationally for capacity building in educational health services. She is a member of several provincial and national research review committees and was a member of the interim governing council of the Canadian Institutes of Health Research.

Jennifer Blythe, MLS, PhD  Senior Scientist, NRU, McMaster University
Dr. Blythe’s academic background includes degrees in anthropology, library and information science, and English language and literature. Dr. Blythe has authored book chapters, periodical articles and reports on human resources, women and work, nursing informatics and social change in Northern and Pacific communities. Her current research interests include innovation and change in health human resources and nurse migration. Recent committee work includes membership of the Hamilton Wentworth Training Board.

Camille Kolotylo, RN, PhD  Senior Research Associate, NRU, McMaster University
Dr. Kolotylo’s previous research includes the study of chronic pain in women with migraine headache. Current interests include nursing human resources research. Camille has co-authored a book chapter and several peer-reviewed publications in the areas of pain and nursing care.

Jane Underwood, RN, MBA  Clinical Professor, School of Nursing, McMaster University
Professor Underwood’s research foci include the quality of workplace for nurses, roles and skills of professionals in community health, and the use of evidence by public health and community practitioners. She has taken an active role on numerous committees such as the Provincial Public Health Research Education and Development (PHRED) Committee and the Mandatory Programs Measurement Group of the Ontario Ministry of Health and Long-Term Care (MOHLTC), and has been involved in provincial initiatives such as the development of the Healthy Babies, Healthy Children Program. Professor Underwood had published in the area of public health nursing and health promotion and currently is a reviewer for the Canadian Journal of Public Health.