

THE REGIONAL MIGRATION STUDY GROUP

BUILDING SKILLS IN NORTH AND CENTRAL AMERICA BARRIERS AND POLICY OPTIONS TOWARD HARMONIZING QUALIFICATIONS IN NURSING

By Victoria Rietig and Allison Squires



**BUILDING SKILLS IN
NORTH AND CENTRAL AMERICA:**
Barriers and Policy Options toward
Harmonizing Qualifications in Nursing

Victoria Rietig and Allison Squires

March 2015

Acknowledgments

The authors would like to thank all the experts and practitioners interviewed for this report for sharing their knowledge and experience with the nursing systems of the United States, Mexico, Canada, El Salvador, and Guatemala. Sean Clarke, Dean of the Boston College School of Nursing, and Patricia Bradley, Associate Professor at York University School of Nursing, graciously reviewed an early draft and provided very helpful comments.

The authors extend their gratitude to Rodrigo Dominguez Villegas for providing stellar research assistance and to Demetrios Papademetriou, Michael Fix, and Madeleine Sumption for their thoughtful review and comments on earlier versions of the report. Thanks also go to Michelle Mittelstadt and Fayre Makeig for their skillful edits and invaluable assistance with the publication of this report.

This research has been made possible through the generous support of the MacArthur Foundation, the Tinker Foundation, and the Central America and Mexico Migration Alliance (CAMMINA).

A draft version of the report was presented at the Regional Migration Study Group roundtable on “Building Regional Skills: Improving the Quality of Health Worker Education and Harmonizing Qualifications in North and Central America” held in Mexico City, October 21, 2014.

© 2015 Migration Policy Institute.
All Rights Reserved.

Cover Photo: Modified version of North American map
(2725801) – BigStockPhoto.com
Cover Design: Burke Speaker, MPI
Typesetting: Rebecca Kilberg

No part of this publication may be reproduced or transmitted in any form by any means, electronic or mechanical, including photocopy, or any information storage and retrieval system, without permission from the Migration Policy Institute. A full-text PDF of this document is available for free download from:
www.migrationpolicy.org.

Information for reproducing excerpts from this report can be found at www.migrationpolicy.org/about/copy.php. Inquiries can also be directed to: Permissions Department, Migration Policy Institute, 1400 16th Street, NW, Suite 300, Washington, DC 20036, or by contacting communications@migrationpolicy.org.

Suggested citation: Rietig, Victoria and Allison Squires. 2015. *Building Skills in North and Central America: Barriers and Policy Options toward Harmonizing Qualifications in Nursing*. Washington, DC: Migration Policy Institute



Table of Contents

- Executive Summary** 1

- I. Introduction** 2

- II. Regional Nurse Labor Markets: Expected Supply Bottlenecks and High Job Growth**..... 4

- III. Obstacles to Harmonized Nurse Qualifications** 6
 - A. Knowledge Barriers: Quality of Basic Education and Language Skills 8
 - B. Structural Barriers: Dispersed Decision-Making Power 9
 - C. Administrative Barriers: Recognition of Qualifications 15

- IV. Ways Forward: Policy Options toward Harmonized Qualifications**..... 17
 - A. Exchange Programs and Language Capacity Building..... 18
 - B. Agreements between Regulatory Bodies 20
 - C. Bridging Programs and Support for Internationally Educated Nurses..... 22
 - D. Networks Among the Region’s Stakeholders 27

- V. Conclusion** 29

- List of Acronyms** 31

- Works Cited** 34

- About the Authors** 41



Executive Summary

Faced with aging populations and rising rates of chronic diseases, governments of North and Central America should think regionally about their shared interest in skilled health workers. Increasing both the quantity of nurses and the quality of nurse education are becoming policy priorities in the region, but regional approaches to reach these goals remain rare.

The harmonization of qualifications in nursing is a promising yet underexplored regional avenue toward nurse supply and quality. While each country's health and nursing systems have their own flavor and reflect national preferences, bringing neighboring systems closer together has the potential to create a range of benefits: In-depth comparison of national standards may help identify gaps in nurse education, and—if necessary—decrease them. The ability to compare nurses' knowledge independently of where they have studied can decrease brain waste and deskilling and increase nurse supply. Pointing to a regionally recognized qualification can help nurses take advantage of new job opportunities in medical tourism and tele-health—both sectors of growing importance for the region. While the extent of these benefits have not yet been fully explored, it is clear that policymakers in the United States, Mexico, and Canada increasingly recognize the role harmonized qualifications can play in finding answers to shared concerns.

The harmonization of qualifications in nursing is a promising yet underexplored regional avenue toward nurse supply and quality.

Emerging regional attempts to harmonize nurse qualifications face significant roadblocks. The decision-making power of regulatory bodies that determine curricula and the licensing requirements of nurses is highly dispersed, presenting a structural barrier to successful harmonization attempts that require the broad buy-in and collaboration of these actors. Second-language skills and levels of basic education vary substantially among the region's nursing workforce, adding individual knowledge barriers to the list of obstacles. Finally, the red tape nurses have to overcome domestically and internationally when they enter into practice after moving across a state or national border adds administrative barriers that delay or even impede entry into practice.

Harmonization efforts tackle these hurdles by pursuing two parallel tracks: one aims to align the region's education systems to create nursing graduates with more comparable skill bundles before they enter the profession; the second seeks to bridge skills and knowledge on a case-by-case basis after nurses have joined the profession. While the region has witnessed a variety of harmonization efforts, successful interventions can broadly be grouped into four types of policies that are worthy of attention:

- **Exchange programs and language capacity building.** Student exchanges between nursing programs in the region and intensive language capacity building should be expanded. Policies to support these programs are long-term investments into future generations of the region's workforce. Speeding up language learning helps chip away at the knowledge-related barriers that have slowed down past harmonization efforts.
- **Agreements between regulatory bodies.** Shared curricula and similar or even unified licensing requirements for nurses are among the tangible results from agreements between regulatory bodies. Collaboration between regulators in charge of approving educational programs and issuing licenses carries the promise of direct impact on millions of nurses throughout the region.



- ***Bridging programs and support for Internationally Educated Nurses.*** Programs to help nurses who have received their education in another country gain entry into practice are widespread in the region, but their content varies widely, as do the required time and financial investments. Successful bridging programs go beyond providing additional training modules to prepare nurses to gain a new license, and include profession-specific language classes and support during job searches. State-level support of Internationally Educated Nurses (IENs) can also include special temporary or conditional licenses to bridge the time between entering the labor market and gaining all required qualifications to practice without supervision.
- ***Networks among the region's stakeholders.*** Solid networks with fluid communication between the region's professional associations, educational institutions, and other relevant governmental and nongovernmental stakeholders represent a fundamental precondition for most harmonization policies. Regular exchanges between nurses of the region are vital building blocks to create mutual trust and spark future harmonization efforts.

These types of policies differ in their target, scope, and impact, but all help drive the harmonization of qualifications in North and Central America—and they are not limited to the nursing sector. The recommendations this report outlines aim to encourage policymakers to think regionally about harmonization of other sectors of interest, such as manufacturing, accounting, and engineering. Independently of the sector targeted, smart harmonization policies will promote regional exchanges between students of in-demand professions, bring together regulators to compare and evaluate the requirements they lay down for new members of the profession, invest in support services that equip internationally educated skilled workers with tools to open the door to new labor markets, and build the networks that are needed to create trust across cultures and borders.

I. Introduction

Demand for health-care workers will increase rapidly in North and Central America in the next decade.¹ As the health needs of the more than 450 million people in the United States, Mexico, and Canada further converge, shaped by aging populations, the demand for well-qualified nurses throughout the region will only increase. The governments of North and Central America face a common challenge: what policies can they pursue today to ensure a sufficient supply of well-qualified health professionals tomorrow?

Discussions on health-care provision are heated in the United States, and also preoccupy other countries. Solutions, understandably, tend to focus on domestic policies and initiatives. New nursing programs are opening their doors throughout the region, attracting a new generation of students with expectations of a rewarding career in a meaningful profession. Improved working conditions are being introduced, intended to retain experienced nurses. Investment in the human capital levels of nurse professionals and ensuring rigorous national standards of nurse education and training are further promising pieces of the puzzle.

Regional approaches to increasing the supply of qualified nurses remain rare. One avenue that has not received much public attention, despite its potential impact on both the quality and supply of nurses, is the harmonization of nurse qualifications across the region. Harmonization is a process by which

1 For estimates of future health-care human resources development, see, for instance, the U.S. Bureau of Labor Statistics (BLS), "Occupational Outlook Handbook," last updated January 8, 2014, www.bls.gov/ooh/healthcare/home.html; the Canadian Institute for Health Information (CIHI), "Regulated Nurses, 2013," July 8, 2014, www.cihi.ca/web/resource/en/NURSES_DATA_JULY082014_EN.xlsx; Pan American Health Organization (PAHO), "Observatorio Regional de Recursos Humanos en Salud," accessed February 16, 2015, www.observatoriorh.org/?q=node/242.



countries that face similar challenges work together to develop an understanding of one another's training and education systems, identify gaps between these systems, and create strategies to bridge gaps over time.

Harmonizing the region's nurse qualifications carries the promise of large payoffs. It can increase the quality of care in all countries involved, as the process of comparing systems itself reveals where quality improvements are needed most. Shared educational standards can enable nurses to acquire comparable skills and knowledge, independent of where they have studied or worked. As qualifications and standards get harmonized, nurses would also have greater opportunity to practice their profession across political jurisdictions within each country and, gradually, across the region. Moreover, brain waste and deskilling would decrease if nurses could get their qualifications recognized without spending months and years tangled in administrative red tape. The easier it is to reliably compare the qualifications of two nurses from different localities or countries, the greater the chances that these nurses' investment in themselves—their human capital—will not be squandered. Finally, regional collaborations among nursing organizations, regulatory bodies, and academic institutions create fertile ground for greater exchange of knowledge and resources, and contribute to the improvement of human capital in all countries involved. Harmonizing qualifications systems thus promises to strengthen regional nurse labor markets.

Resistance to the idea of harmonized nurse qualifications may come from an array of actors. Unions may fear competition or wage depression from potential nurse inflows into their city or state. Employers may be skeptical whether the qualifications of a nurse educated abroad are equal to those of someone who went through the domestic educational system. The public's justified concerns regarding quality of service may be mixed with prejudices or cultural stereotypes. Governments may fear brain drain and the loss of skilled workers in a critical sector, or they may have concerns about the employment opportunities of domestically educated nurses, especially if policies are in place to increase the domestic nurse supply. Why encourage more young people to become nurses if they may have difficulty finding employment later on?

These concerns are important to consider. The harmonization of qualifications should not be viewed as an alternative to domestic solutions to the supply and training of nurses, but as an additional initiative that brings to the table an often-neglected regional perspective. Ultimately, the success of policymakers who champion harmonization depends on their ability to identify the primary sources of concern and address them in the design of harmonization policies.

Resistance to the idea of harmonized nurse qualifications may come from an array of actors.

This report serves as a roadmap for policymakers who want to navigate the risks and reap the benefits of qualifications harmonization. It analyzes supply bottlenecks and likely job growth in the profession in the region; highlights structural, administrative, and knowledge-related obstacles policymakers should consider; and suggests ways forward by formulating four policy options toward common regional standards for health-care professionals. The discussion focuses on the systems for nursing education and practice in the United States, Canada, and Mexico. Systems of Central America are discussed to a lesser degree, due to varying levels of nurse education quality and different structures around licensing and accreditation. Some select information on Guatemala and El Salvador is included, however, to illustrate the different types of challenges to be considered in the design of harmonized nurse qualification frameworks that encompass North and Central America.



II. Regional Nurse Labor Markets: Expected Supply Bottlenecks and High Job Growth

Amid an aging population and the growth of noncommunicable and chronic diseases such as diabetes, demand for nurses in the three countries of North America is projected to increase substantially in the next decade. Growth estimates for both nurse employment and health-care services vary, but there is broad agreement that the demand for health care will grow much more rapidly than for other job sectors.

In the United States alone an estimated 5.6 million vacancies for health-care professionals at all skill levels will open up between 2010 and 2020.² This includes more than 2.9 million new jobs and more than 2.6 million replacement jobs to fill the positions of members expected to leave the workforce to retire or switch to other professions. The overall health workforce in the United States is projected to grow from 10.1 million in 2010 to 13.1 million in 2020.³ Nursing will be the fastest growing of the health-care occupations.⁴ The Bureau of Labor Statistics (BLS) Employment Projections program estimates that the registered nurse (RN) workforce will grow from 2.7 million in 2012 to 3.2 million in 2022, an increase of close to 20 percent. Adding the expected high rates of retiring nurses, the total number of job openings for RNs due to growth and replacement is projected to reach more than 1 million by 2022.⁵ While graduation rates from nurse programs have increased in recent years, it is unclear whether this trend will level out in the future.⁶ U.S. regional shortages are expected to be most acute in the South and West.⁷ While foreign-born nurses are less common in the United States than immigrant health professionals overall (including doctors and medical assistants), it is worth noting that more than one in five (22 percent) health-care workers in the United States is foreign born, making health care the sector with the largest proportion of immigrant workers.⁸

In the United States alone an estimated 5.6 million vacancies for health-care professionals at all skill levels will open up between 2010 and 2020.

In Canada employment in health-care occupations grew by more than 15 percent between 2009 and 2014.⁹ The health-care and social assistance sector accounted for 11.4 percent of all employment—with a workforce of approximately 1.9 million—according to Statistics Canada’s 2011 National Household

- 2 Antony P. Carnevale, Nicole Smith, Artem Gulish, and Bennett H. Beach, *Healthcare—Executive Summary* (Washington, DC: Center on Education and the Workforce, Georgetown University, 2012), 4, <https://georgetown.app.box.com/s/elqhud1k-sx3oewdso5ls>.
- 3 *Ibid.*, 4.
- 4 *Ibid.*, 7.
- 5 BLS, “Economic News Release, Table 8. Occupations with the Largest Projected Number of Job Openings Due to Growth and Replacement Needs, 2012 and Projected 2022,” (news release, December 19, 2013), www.bls.gov/news.release/ecopro.t08.htm; American Association of Colleges of Nursing, “Nursing Shortage,” updated April 24, 2014, www.aacn.nche.edu/media-relations/fact-sheets/nursing-shortage.
- 6 David I. Auerbach, Peter I. Buerhaus, and Douglas O. Staiger, “Registered Nurse Supply Grows Faster than Projected Amid Surge in New Entrants Ages 23-26,” *Health Affairs (Project Hope)* 30, no. 12 (2011): 2286–92, <http://content.healthaffairs.org/content/30/12/2286.abstract>.
- 7 In 2030 the states with the largest registered nurses (RN) shortages are projected to be California (193,000), Florida (128,000), and Texas (109,000). The states with the largest shortage ratios (RN shortage per 100,000 people) will be New Mexico (614), Arizona (530), and Nevada (453). Stephen P. Juraschek, Xiaoming Zhang, Vinoth Ranganathan, and Vernon W. Lin, “United States Registered Nurse Workforce Report Card and Shortage Forecast,” *American Journal of Medical Quality* 27 (2012): 241–29, <http://ajm.sagepub.com/content/27/3/241.full.pdf+html>.
- 8 Carnevale, Smith, Gulish, and Beach, *Health care—Executive Summary*, 12.
- 9 Department of Finance Canada, *Jobs Report: The State of the Canadian Labour Market* (Ottawa: Department of Finance Canada, 2014), 10, www.budget.gc.ca/2014/docs/jobs-emplois/pdf/jobs-emplois-eng.pdf.



Survey.¹⁰ More than 3 percent of employed women over the age of 15 work in the nursing field, making it the third most common occupation for that population,¹¹ and in 2013, there were more than 270,000 RNs working in their profession in Canada, more than half of them full time.¹² The Canadian Nurses Association projects that Canada will have a shortage of between 54,000 and 60,000 RNs by 2022.¹³ The majority of RNs in Canada, around 60 percent, are concentrated in the provinces of Ontario and Quebec. Ontario employs about one-third of all RNs in Canada—more than 95,000 in 2013.¹⁴ The rapid aging of Ontario's citizens (by 2041, 25 percent of the population will be above the age of 65, as opposed to 15.2 percent in 2013),¹⁵ make it likely that demand for health and nursing care will grow as well. Quebec, where approximately one-quarter of all RNs in Canada (67,000)¹⁶ are employed, faces a similar situation.¹⁷

Mexico has also seen a consistent growth trend in health-care jobs.

Mexico has also seen a consistent growth trend in health-care jobs. Human resources data released by the Mexican health ministry's statistical agency show that the number of nurses has grown more or less consistently, from around 260,000 in 2007 to around 310,000 in 2012.¹⁸ Specific estimates of the number of nurses that Mexico will need in the next decade are hard to come by; however, Mexico's rate of 2.5 nurses per 1,000 people in 2010 is far below the 9.3 per 1,000 average in Canada, the 8.5 in the United States, and the 8.8 average of the Organization for Economic Cooperation and Development (OECD) countries (see Figure 1).¹⁹ Overall, Mexico's health profile looks increasingly similar to those of its neighbors to the north: aging populations and an increase in chronic diseases, combined with general population growth and a growing middle class that increasingly demands higher-quality health services. This is a marked departure from Mexico's health profile a few decades ago when infectious diseases dominated national morbidity and mortality profiles. In light of these changes, the challenges to be faced

10 Statistics Canada, *National Household Survey 2011, Portrait of Canada's Labour Force* (Ottawa: Statistics Canada, 2014), www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-012-x/99-012-x2011002-eng.cfm.

11 Ibid.

12 CIHI, "Regulated Nurses, 2013."

13 Gail Tomblin Murphy, Stephen Birch, Rob Alder, Adrian MacKenzie, Lynn Lethbridge, Lisa Little, and Amanda Cook, *Tested Solutions for Eliminating Canada's Registered Nurse Shortage* (Ottawa: Canadian Nurses Association, 2009), 27, https://nursesunions.ca/sites/default/files/rn_shortage_report_e.pdf.

14 CIHI, "Regulated Nurses, 2013," Table 8. For more information on trends in Canadian nurse employment, see College of Nurses of Ontario, "Membership Statistics Highlights 2014," revised October 16, 2014, 8, www.cno.org/Global/docs/general/43069_stats/43069_MembershipStatistics-Highlights.pdf?utm_source=cno.org&utm_medium=link_in_page&utm_term=MembershipHighlightsPDF2013&utm_campaign=MembershipHighlightsPDF2013; CIHI, *Regulated Nurses: Canadian Trends, 2007-11* (Ottawa: CIHI, 2012), 30, https://secure.cihi.ca/free_products/Regulated_Nurses_EN.pdf.

15 Ontario Ministry of Finance, *Ontario Population Projections Update* (Ontario: Ministry of Finance, 2013), www.fin.gov.on.ca/en/economy/demographics/projections/.

16 CIHI, *Regulated Nurses, 2013*, table 8.

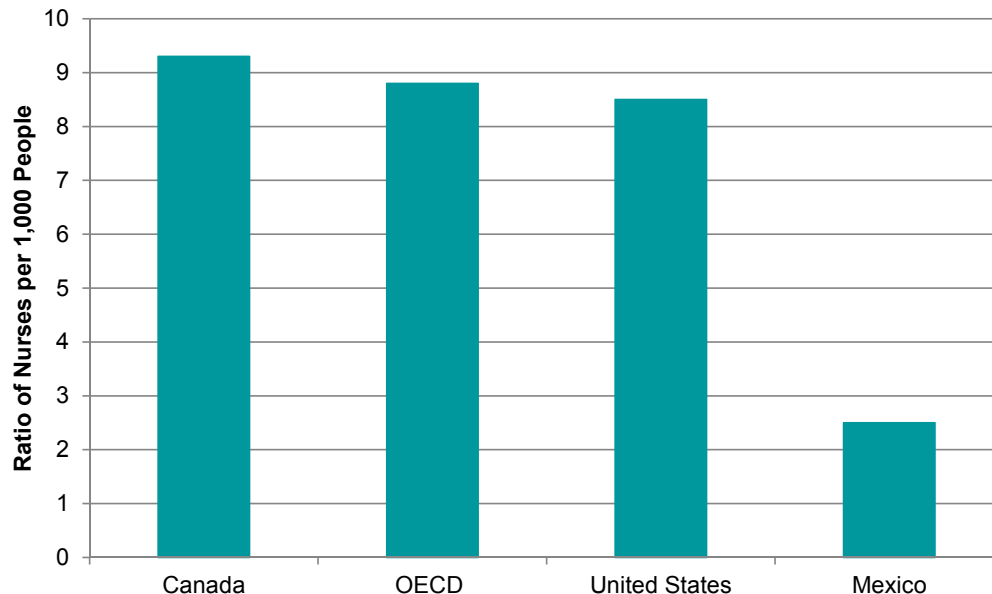
17 The Quebec Order of Nurses predicts a shortage of 23,000 nurses by 2022, in spite of the facts that the number of new nurses regularly exceeds the number of nurses exiting the profession in the province, and although 24,500 new jobs in the health-care and social assistance sector are expected by 2015. See Quebec Order of Nurses/Ordre des infirmières et des infirmiers du Québec (OIIQ), "InfoStats4," no. 1 (Quebec: OIIQ, March 2012), www.oiiq.org/uploads/periodiques/infostats/vol04n01/index.htm. For more information on medium-term employment forecasts both by industry and by occupation for Quebec, see Employment and Social Development Canada, *Sectoral Outlook 2013-2015—Québec Region—Fall 2013* (Ottawa: Employment and Social Development Canada, 2013), www.esdc.gc.ca/eng/jobs/lmi/publications/sectoral-outlooks/2013-2015/region-quebec-en.shtml.

18 Sistema Nacional de Información en Salud, (SINAIS) "Numeralia de recursos humanos de los sectores público y privado, 2000-2012," accessed September 30, 2014, www.sinais.salud.gob.mx/recursoshumanos/rh_index.html.

19 PAHO, "Health Solutions in the Americas—Basic Indicators 2013," accessed January 31, 2015, www.paho.org/hq/index.php?option=com_docman&task=doc_view&gid=23080&Itemid=270&lang=en; Organization for Economic Cooperation and Development (OECD), "OECD Health Statistics 2014 – How does Mexico compare?," accessed February 26, 2015, www.oecd.org/els/health-systems/Briefing-Note-MEXICO-2014.pdf.

by the countries of North America in the coming decades will be more similar than ever before.

Figure 1. Ratio of Nurses to Population for Canada, Mexico, the United States, and OECD Average, 2010



Note: The OECD average is based on 2012 data.

Source: Pan American Health Organization (PAHO), “Health Solutions in the Americas—Basic Indicators 2013,” accessed February 26, 2015, www.paho.org/hq/index.php?option=com_docman&task=doc_view&gid=23080&Itemid=270&lang=en; and Organization for Economic Cooperation and Development (OECD), “OECD Health Statistics 2014 – How does Mexico compare?,” accessed February 26, 2015, www.oecd.org/els/health-systems/Briefing-Note-MEXICO-2014.pdf.

In this shared need lie opportunities for more regional collaboration. But what policies can the countries of the region develop in concert with their neighbors to prepare for the growing demand for skilled nursing services? What types of obstacles are policymakers likely to encounter?

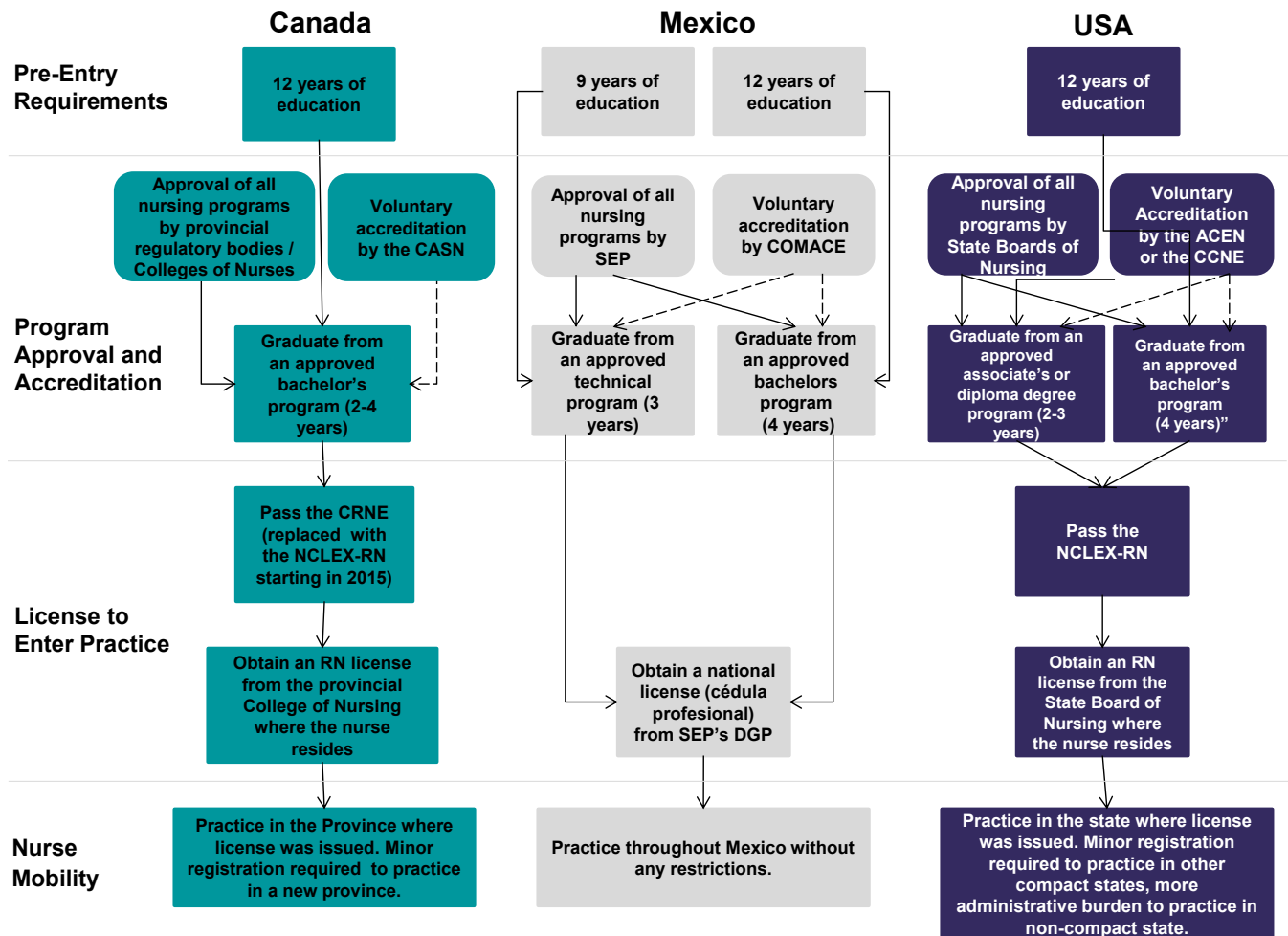
These statistics tell a story: well-qualified nurses are needed across North America—and more will be needed in the future.

III. Obstacles to Harmonized Nurse Qualifications

Tackling the obstacles that harmonization of nurse qualifications faces requires an understanding of the region’s different nursing systems. Figure 1 visualizes four stages related to credentialing processes in the professional life of a nurse: (1) nursing programs establish pre-entry requirements for aspiring nurse students, which includes the length of secondary education; (2) nursing programs maintain approval and accreditation, which affects nurses’ tertiary education; (3) upon graduation, a nurse needs to fulfill licensure or registration requirements to gain entry into the profession; and (4) in case a nurse moves across state or national borders, s/he needs to undergo a qualifications recognition process in her/his new place of residence.



Figure 2. Comparison of Nursing Systems in North America



Source: Information compiled by authors from CGFNS International Trilateral Initiative and interviews with nurse experts in Canada, Mexico, and the United States. Note that the gap in the gray column visualizes the absence of a mandatory licensure exam in Mexico.

Attempts to harmonize nurse qualifications typically aim to align these four stages. For instance, efforts targeting the second stage—approval and accreditation systems—identify differences in curricular requirements for students and may seek to develop shared or comparable curricula. Alternatively, harmonization efforts focusing on the third stage—licensing requirements—compare the knowledge and skills each country considers vital before nurses are allowed to practice without supervision. A further analysis of each of the stages is provided in the following subsections.

Untangling the complex regulatory web of nurse qualifications requires some patience. The highly technical nature of qualification systems underscores the many obstacles to regional harmonization. While barriers are interconnected, they may be divided into three broad categories:

- Knowledge barriers, such as differences in secondary educational quality, language capabilities, and cultural norms
- Structural barriers, such as dispersed decision-making power of actors in a complex patchwork, especially obvious in the processes of approval, accreditation, and licensing
- Administrative barriers, such as the credential recognition challenges nurses face when moving across state or national borders.



This framing of common obstacles to harmonization efforts may, in turn, give insights into possible solutions.

A. Knowledge Barriers: Quality of Basic Education and Language Skills

One important difference across the nursing professions in Canada, the United States, and Mexico is the educational threshold level required to enter a nurse education program. Mexican students can enroll in vocational nursing programs that require only nine years of formal schooling, while the United States and Canada require a minimum of 12 years.²⁰ Wide achievement gaps between high school students in the three countries are well documented by international comparisons of educational achievement, such as Program for International Student Assessment (PISA) evaluations, which reflect the performance of 15-year-old students across countries.²¹ Table 1 shows that Canada ranked in the top, the United States in the middle, and Mexico at the bottom of the 65 countries that participated in the study. Canadian students outperform students in the United States and Mexico in mathematics, reading, and science—the three subjects PISA measures. Students from the United States trail their Canadian peers in mathematics by one full school year, and Mexican students trail Canadians by 2.5 years.²² Given that graduates from secondary school in the three countries possess these vastly different skill levels, it is likely that the same observation applies to entrants into nursing programs.

Table 1. PISA Mean Scores in Mathematics, Reading, and Science for Canada, Mexico, the United States, and OECD, 2012

Country	Mathematics	Reading	Science
Canada	518	523	525
OECD	494	496	501
United States	481	498	497
Mexico	413	424	415

Source: OECD, *PISA 2012 Results in Focus: What 15-Year-Olds Know and What They Can Do with What They Know* (Paris: OECD Publishing, 2014), www.oecd.org/pisa/keyfindings/pisa-2012-results-overview.pdf.

Communication and language skills are among the key skills of care personnel. Nurses' fluency in medical terminology needs to be combined with an ability to explain medical procedures and outcomes in laymen's terms to allow clear interactions with both medical professionals and patients. Research confirms that use of standard and correct technical language is associated with better outcomes in patient care.²³ Second-language proficiency is particularly important, especially in light of a rapid increase in the Hispanic population in the United States, growing medical tourism and advances in tele-health in Mexico,

- 20 Canadian Nurses Association, "Education," accessed September 30, 2014, <http://cna-aicc.ca/en/becoming-an-rn/education/rn-baccalaureate-education-table>; author interview with Graciela Salinas, Founder, International Bilingual Nursing Association, September 5, 2014.
- 21 The Program for International Student Assessment (PISA) is a triennial study by the OECD to evaluate education systems worldwide by testing the skills and knowledge of 15-year-old students. For more information on PISA, see OECD, "About PISA," accessed July 28, 2014, www.oecd.org/pisa/aboutpisa/.
- 22 Forty PISA points are considered equivalent to one year of schooling. For instance, Canadian students score on average 518 points in mathematics, while those from the United States score 481, and Mexican students 413; the OECD average is 494. See World Bank, *PISA 2012: Bulgaria* (Washington, DC: World Bank, 2012), www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2013/12/20/000442464_20131220123158/Rendered/PDF/832810BRI0P1460Box0382091B00PUBLIC0.pdf; and OECD, *PISA 2012 Results in Focus: What 15-Year-Olds Know and What They Can Do with What They Know* (Paris: OECD Publishing, 2014), 5-7, www.oecd.org/pisa/keyfindings/pisa-2012-results-overview.pdf.
- 23 Marjorie Rutherford, "Standardized Nursing Language: What Does it Mean for Nursing Practice?" *OJIN: The Online Journal of Issues in Nursing* 13, no. 1 (2008), www.nursingworld.org/MainMenuCategories/ThePracticeofProfessionalNursing/Health-IT/StandardizedNursingLanguage.html.



and increased nurse mobility.²⁴ Canada has long been a nation of two languages, but increasing immigrant diversity in the country makes increased language diversity a newer challenge for health services delivery.²⁵

Yet, in spite of the importance of second-language skills, few nurses in the region are bilingual. In 2008, most RNs in the United States spoke only English fluently, with just 5.1 percent speaking Spanish.²⁶ With a 15 percent Hispanic population, more Spanish-speaking nurses are needed to meet U.S. service demands. U.S. nursing schools, however, have trouble retaining Hispanic and other minority students who may be non-native English speakers.²⁷ Estimates of the number of English-speaking nurses in Mexico are hard to find, but anecdotal evidence and experience show that relatively small numbers of nurses are proficient in English. This is especially worrisome as English language training benefits the profession on multiple fronts.²⁸ The growing medical tourism industry in the region— driven by elective surgeries or care for expat retirees—means that English language skills expand job opportunities and may reduce some labor market stagnation experienced by Mexican and Central American nurses. Further, English language skills increase access to international, evidence-based research that can help improve the quality of care. Given that most literature and research on nursing is available only in English, language skills are already crucial during theoretical training, even before patient contact occurs.²⁹ Professionals who stay abreast of research literature can help save already under-resourced health-care systems substantial costs thanks to reduced incidence of errors and unstandardized practices. Developing English language skills among nurses also help expand international training, collaboration, and research opportunities, thereby improving human capital and technical capacity within a country.

*In spite of the importance of second-language skills,
few nurses in the region are bilingual.*

The different basic education levels of aspiring nurses in the region, along with the lack of solid second-language capacities form knowledge barriers to the harmonization of nurse qualifications that are intuitively understood, yet overcoming them would require long-term investments in the educational systems of the region and especially in language classes.

B. Structural Barriers: Dispersed Decision-Making Power

Structural barriers pose a different type of challenge. A patchwork of institutions regulates the nursing profession and complicates concerted action toward harmonization. Decision-making power rests with a multitude of actors. This is particularly visible in the processes nursing programs undergo to gain

24 Allison Squires and Hiram Beltrán-Sánchez, *Strengthening Health Systems in North and Central America: What Role for Migration?* (Washington, DC: Migration Policy Institute, 2013), <http://migrationpolicy.org/research/strengthening-health-systems-north-and-central-america-what-role-migration>.

25 Statistics Canada, “Linguistic Characteristics of Canadians”, updated January 14, 2014, www12.statcan.ca/census-recensement/2011/as-sa/98-314-x/98-314-x2011001-eng.cfm.

26 Health Resources and Services Administration, *The Registered Nurse Population—Findings from the 2008 National Sample Survey of Registered Nurses* (Washington, DC: U.S. Department of Health and Human Services, 2010), 185, <http://bhpr.hrsa.gov/healthworkforce/rnsurveys/rnsurveyfinal.pdf>.

27 Catherine Gilliss, Dorothy Powell, and Brigit Carter, “Recruiting and Retaining a Diverse Workforce in Nursing: from Evidence to Best Practices to Policy,” *Policy, Politics & Nursing Practice* 11, no.4 (2010): 294–301; DeMonica L. Junious, Ann Malecha, Kathryn Tart, and Anne Young, “Stress and Perceived Faculty Support among Foreign-born Baccalaureate Nursing Students,” *The Journal of Nursing Education* 49, no.5 (2010): 261-70; Kimberly Starr, “Nursing Education Challenges: Students with English as an Additional Language,” *The Journal of Nursing Education* 48, no. 9 (2009): 478–87.

28 Squires and Beltrán-Sánchez, *Strengthening Health Systems*.

29 Silvina Maria Malvarez and Maria Consuelo Castrillón-Agudelo, *Overview of the Nursing Workforce in Latin America* (Washington, DC: PAHO, 2005), 37, www.icn.ch/images/stories/documents/publications/GNRI/Issue6_LatinAmerica.pdf.



approval and accreditation, and in the steps each nurse has to take to become licensed and enter the profession.³⁰

Put simply, approval of nursing programs is a pass/fail review necessary for any program to open its gates and admit students. Such approval is mandatory in the three North American countries, to ensure that any nursing program, independent of who offers it, meets the standards deemed essential to prepare skilled nurses. Yet the institutions that define and implement the standards for approval differ by country. In the United States and Canada, nursing programs are approved by self-regulating state or provincial nursing regulatory bodies, called State Boards of Nursing in the United States, and Colleges of Nurses in Canada.³¹ They may receive support and guidance from national organizations, such as the National Council of State Boards of Nursing (NCSBN) in the United States, but decision power is decentralized to the state and provincial/territorial level.³² In Mexico approval of nursing programs is driven less by members of the profession and more by the government via a centralized model. The federal Ministry of Education (Secretaría de Educación Pública, SEP), state governments, and approved higher education institutions can approve nursing programs.³³

After gaining approval from the bodies described above, several nursing programs voluntarily seek accreditation to gain a stamp of higher quality, raise their prestige, and attract students. Programs need to demonstrate a minimum set of characteristics of facilities, clinical placement opportunities, and faculty profiles to gain accredited status. The exact standards for accreditation are set by agencies in each country; these agencies derive their authority from the government, which grants their status as an accreditation agency. In the United States, college or university-based nursing education programs are accredited by the Commission on Collegiate Nursing Education (CCNE, a wing of the American Association of Colleges of Nursing [AACN]), which accredits only programs that provide a bachelor's degree and above, and the Accreditation Commission for Education in Nursing (ACEN, a former wing of the National League for Nursing), which accredits nursing programs at all levels. Canada's accreditation body is the Canadian Association of Schools of Nursing (CASN). In Mexico, the Mexican Council for the Accreditation and Certification of Nursing (Consejo Mexicano para la Acreditación y Certificación de la Enfermería, COMACE), is authorized by the government as the accrediting body for nursing schools, through the Education Ministry's Council for the Accreditation of Higher Education (Consejo para la Acreditación de la Educación Superior, COPAES).³⁴

Approval and accreditation are important for nursing students, because both play a crucial role in their future professional lives: Attending an approved program is required in order to obtain the license necessary for practice in all three countries, and some hospitals may not hire nurses that have not

30 Note that this report uses the terms “approval” and “accreditation” to refer to the quality assurance processes for educational nursing programs. In contrast, “licensing” is the quality assurance process for individual nurses. The term “regulation” is an umbrella term for the mandatory processes of approval and licensing, but not the voluntary process of accreditation. The terms “credentials” and “qualifications” are used interchangeably to denote the sum of an individual's formal diplomas and certificates, as well as informal knowledge and skills.

31 Note that in spite of their name, Canada's Colleges of Nurses are not schools where nursing curricula are taught, but rather self-governing regulatory bodies, consisting of members of the profession. Not all provincial/territorial nurse regulators are called “Colleges of Nurses;” for instance, the regulatory body of Saskatchewan is the “Registered Nurses' Association.” For a list of Canada's 12 regulatory bodies, see the Canadian Council of Registered Nurse Regulators (CCRNRR), “Members,” accessed February 26, 2015, www.ccrnr.ca/members.html.

32 Author interview with Sean Clarke, Dean, Boston College School of Nursing, September 18, 2014; author interview with Catherine Davis, Director of Global Learning, Research, and Development, CGFNS International, October 3, 2014. For an overview of the difference between approval and accreditation, see National Council for State Boards of Nursing, “Approval vs. Accreditation,” accessed September 30, 2014, www.ncsbn.org/357.htm.

33 Subsecretaría de Educación Superior, “Reconocimiento de Validez Oficial de Estudios Superiores Federales y Estatales—Qué es un RVOE?” accessed September 30, 2014, www.sirvoes.sep.gob.mx/sirvoes/jspQueEsRvoe.jsp. For a full list of approved nursing programs, see Subsecretaría de Educación Superior, “Reconocimiento de Validez Oficial de Estudios Superiores Federales y Estatales,” accessed September 30, 2014, www.sirvoes.sep.gob.mx/sirvoes/index.jsp.

34 Interview with Sean Clarke; interview with Catherine Davis; author interview with Patricia Bradley, Associate Professor, York University School of Nursing, October 8, 2014.



graduated from accredited programs. In the United States, moving up the career ladder and gaining admissions to higher-level education is substantially more difficult for nurses who graduated from unaccredited programs. The United States and Mexico still offer nurse programs that provide a credential below a bachelor's degree. By comparison, all the provinces and territories in Canada, except Quebec, have transitioned to offering only bachelor's degrees in nursing.

*Licensing is regulated by a complex web of authorities,
following the same broad pattern as approval and accreditation.*

Licensing is a way to safeguard the public from substandard practice. A license guarantees that the nurse possesses a minimum level of knowledge to deliver care safely. All three countries require a nursing license for practice. Licensing is regulated by a complex web of authorities, following the same broad pattern as approval and accreditation. In Canada and the United States a national nursing organization may provide guidelines about the licensing process and requirements, but it is the provincial and state-level nursing organizations that are in charge of determining the requirements for their state or province, and that have the right to issue the licenses. To obtain a license in the United States, the state boards of nursing usually require applicants to have graduated from an approved nursing program, passed the National Council Licensure Examination (NCLEX), and gone through a criminal and substance abuse background check.³⁵ In Canada the system is similar. Regulatory bodies have the right to issue licenses at the provincial or territorial level and reject applicants who do not fulfill the requirements. General regulatory guidelines are developed by a national body made up of representatives of the provinces' regulatory bodies.³⁶ These bodies derive their authority from legislation that all provincial and territorial governments have passed. Until very recently, a passing grade on the Canadian Registered Nurse Examination (CRNE) was required to obtain a license in every province in Canada, except Quebec, which has its own examination. Yet since January 1, 2015, all provincial and territorial regulatory bodies outside Quebec will use the NCLEX as the entry-to-practice exam, thus retiring the CRNE as Canada's national licensure exam for RNs.³⁷

In contrast, Mexico's licensing system is centralized and government driven. The licensing authority lies with the General Directorate of Professions (Dirección General de Profesiones, DGP) of the federal Ministry of Education.³⁸ To be issued a license, candidates must provide their official degree in nursing from an approved program, and they must complete between six months and one year of "social service" (*servicio social*).³⁹ Employers require all nurses at the technician and bachelor's levels to have a license

35 In the United States, the boards of nursing of each state provide licenses, while the National Council of State Boards of Nursing (NCSBN) publishes guidelines with license requirements for the state boards of nursing. For the guidelines, see NCSBN, *The 2011 Uniform Licensure Requirements* (Chicago: NCSBN, 2011), www.ncsbn.org/11_ULR_table_adopted.pdf.

36 The national body is the Canadian Council of Registered Nurse Regulators (CCRN). For more information, see CCRN, home page, accessed February 26, 2015, www.ccrnr.ca/.

37 Canadian Nurses Association (CNA), "RN Exam," accessed January 31, 2015, www.cna-aiic.ca/en/becoming-an-rn/rn-exam; CASN, "NCLEX-RN Transition," accessed January 31, 2015, www.casn.ca/transitioning-to-the-nclex-rn/. For a review of strategies by nursing schools to transition to the National Council Licensure Examination (NCLEX) examination, see Canadian Association of Schools of Nursing (CASN), "Transitioning to the NCLEX-RN: Repertoire of Strategies," accessed September 30, 2014, <http://casn.ca/wp-content/uploads/2014/12/TransitioningtotheNCLEX.pdf>. For more information about the practice of RNs in Canada, see Canadian Nurses Association, *Framework for the Practice of Registered Nurses in Canada* (Ottawa: CNA, 2007), <https://cna-aiic.ca/~media/cna/page-content/pdf-en/framework-for-the-practice-of-registered-nurses-in-canada.pdf?la=en>.

38 PAHO, Área de Fortalecimiento de Sistemas de Salud, Unidad de Recursos Humanos para la Salud, *Regulación de la Enfermería en América Latina* (Washington, DC: OPS, 2011), 160, www.paho.org/hq/index.php?option=com_content&view=article&id=6405:regulacion-enfermeria-america-latina-&Itemid=2095&lang=en.

39 Ibid; Secretaría de Educación Pública, "Registro de título y expedición de cédula profesional," updated January 7, 2015, www.sep.gob.mx.



issued by DGP to practice nursing.⁴⁰ Unlike in the United States and Canada, there is no single mandatory standardized exam to obtain a nursing license in Mexico (see the gap in the gray column of Figure 2). Only some nursing programs require their students to pass a standardized exam as a requirement to graduate, with the passing cutoff score set by each nursing program.⁴¹ This decentralization allows for great variability in the minimum score required to graduate from different nursing schools—and complicates the comparison of qualifications across Mexico.

The stronger involvement of the government in Mexico, compared with the greater self-regulatory authorities of the profession in Canada and the United States...contribute to the institutional barriers impeding further harmonization.

In the comparative analysis above, the complexity between the systems is apparent. Regional harmonization of these complex systems where decision-making power is dispersed requires substantial collaboration between multiple actors. The stronger involvement of the government in Mexico, compared with the greater self-regulatory authorities of the profession in Canada and the United States, complicate comparison and contribute to the institutional barriers impeding further harmonization. Nonetheless, change is underway, as Mexico's system is shifting toward greater involvement of nurse professionals in policymaking and in nurses' autonomous governance of their profession. For an overview of the changes in Mexico's nursing system in the last 20 years and the steps taken to professionalize its nursing framework, see Box 1.

sep.gob.mx/es/sep1/sep1_Registro_de_Titulo_y_Ex_cedula#.VNp_0i6aLqt.

40 Note that some employers do not require a license for nurse assistants. Author interview with Francisco Cadena Santos, President, Federación Mexicana de Asociaciones y Facultades de Enfermería (FEMAFEE), February 10, 2015. See also Comisión Interinstitucional de Enfermería, *Código de Ética para las enfermeras y enfermeros de México* (Mexico DF: Secretaría de Salud, 2001), 1, www.eneo.unam.mx/servicioseducativos/materialesdeapoyo/obstetricia1/DOCUMENTOSCONSULTA/10.pdf.

41 Author interview with Rosa Zárate, Research Coordinator, UNAM Nursing School, August 26, 2014. Note that these exams are the Exit Exam for Technical Nursing (Examen General para el Egreso del Profesional Técnico en Enfermería), and Exit Exam for a Bachelor's in Nursing (Examen General de Egreso de la Licenciatura en Enfermería), respectively. Both exams are designed and administered by the National Centre of Evaluation for Higher Education (Centro Nacional para la Evaluación de la Educación Superior, CENEVAL).



Box 1. The Professionalization of the Nursing Profession in Mexico since the Implementation of NAFTA

The North American Free Trade Agreement (NAFTA) is a regional trade agreement ratified in 1994 between the United States, Canada, and Mexico. Its creation reduced trade barriers between the countries and facilitated greater flow of goods, services, and labor across borders. Provisions for health-care workers were included in the original agreement, with their work classified under “trade in services.”

NAFTA has had mixed effects on the professionalization of Mexican nursing, but sparked a significant series of steps that has strengthened the profession. Professionalization is the process by which a specific occupation evolves to develop or enhance its infrastructure. In the case of the Mexican nursing profession, four steps taken in the past 20 years are worth highlighting: changes in nursing education, increased autonomous governance through professional associations, the development and refinement of licensure systems, and an increased presence of codes of ethics.¹

Changes in Nursing Education

Prior to NAFTA Mexico had a well-established nursing education system that prepared nurses at the secondary school and technical level, requiring a high school diploma for entry into practice. There were less than 20 university-based programs offering bachelor’s degrees and graduate-level education, and not a single PhD program.² Since NAFTA Mexican nursing has been moving away from secondary school or vocational nursing programs. Today’s nurses are often educated through technical programs that may or may not be university based. The Nursing School at Mexico’s National Autonomous University (UNAM ENEO), for example, offers an online bachelor’s program for nurses with technical degrees so they can complete the degree even if such a program is not offered in their state or is not easily accessible.

Meanwhile, the private market for nursing education has grown substantially, allowing for increased production, yet it is bound by few regulations and often allows poor outcomes among graduates. Bachelor’s degree graduates have steadily increased, and graduate programs continue to expand. These steps have resulted in an increased production of nurses prepared at the bachelor’s level. At this level, many curricula across Mexico align with U.S. and Canadian curricula, though psychiatric and mental health nursing is a commonly missing course. These are marked changes from initial assessments of Mexico’s nursing education systems, such as those of the 1996 Trilateral Initiative on North American Nursing that showed stark educational differences between Mexico and its northern neighbors.

Increased Autonomous Governance

Growing professional autonomy coupled with the insertion of Mexican nursing into national health governance structures are steps toward greater autonomous governance of Mexico’s nursing profession. To some extent, they have been a result of the creation of the Permanent Nursing Commission (Comisión Permanente de Enfermería, CPE) in 1996, and its formal institution as a division within the Ministry of Health. CPE represents a balance of centralized and decentralized governance over Mexican nursing. As a division within the Ministry of Health, it is responsible for developing and disseminating policy

1 Allison Squires, “The North American Free Trade Agreement (NAFTA) and Mexican Nursing,” *Health Policy and Planning* 26, no. 2 (2011): 124–32; Andrew Abott, “The Order of Professionalization: An Empirical Analysis,” *Work and Occupations* 18, no. 4 (1991): 355–84.

2 Allison Squires “A Case Study of the Professionalization of Mexican Nursing : 1980 to 2005” (PhD dissertation, Yale University, 2007).



and standardizing clinical practice throughout Mexico. Each Mexican state has a nursing representative in the CPE, as do the large hospital chains. This type of governance means that all parts of the Mexican health-care system are represented by a unified government entity. Improved nursing human resources data is also starting to drive workforce policy in the country, thanks to the 1996 creation of the System for the Management of Human Resources in Nursing (Sistema de Administración de Recursos Humanos en Enfermería, SIARHE).

Professional associations and accrediting bodies have grown in strength and number as the profession has sought to credential its own schools independent of the secretary of education. These organizations operate independent of government oversight, thus offering profession-specific internal governance. Yet challenges remain. The implementation of policies to standardize practice depends heavily on the organizational culture and the amount of autonomy the hospital's nursing administration has in implementation. Power and jurisdictional dynamics with physicians affect nursing's autonomy in care delivery and align well with the classic sociological theories around professions. Gender, class, and generational dynamics further affect the professional autonomy of nurses, many of whom are women. The health-care workers' unions also play a significant role in organizational level governance and affect the ability of administrators to implement changes in personnel practices and management. This is particularly complex because unions are not nursing specific but represent all health-care workers. Thus, a janitor, for example, can be elected as head of the union and make decisions about staff even though the individual may know nothing about clinical care provision. Overall, however, Mexican nurses are gaining more autonomy in governance at the organizational level.

Licensure or Credentialing Systems

Mexico's licensing system and credentialing processes have undergone great changes since NAFTA. In 1994 the National College of Nurses (CNE) established the National Accreditation and Certification System for Training and Professional Practice of Nursing (Sistema Nacional de Acreditación y Certificación para la Formación y Ejercicio Profesional de Enfermería, SNACE). The accreditation system for nurse programs was changed by the introduction of the Mexican Council for Nursing Accreditation (Consejo Mexicano para la Acreditación de Enfermería, COMACE). Lastly, the establishment of the Mexican Board of Nursing Certification (Consejo Mexicano de Certificación de Enfermería, COMCE), created in 2007, introduced a standardized exam for already licensed nurses. While this exam is voluntary, it has been a step toward common standards in nurse credentialing.

Code of Ethics

The first code of ethics for nurses was created by the Mexican Nursing Association in the early 1990s, prior to the implementation of NAFTA, an essential step in the professionalization process. Before this the profession relied on what was provided by the International Council of Nurses, a common practice for the nursing profession in countries with minimal professional infrastructure to guide practice. Nursing associations faced difficulties disseminating the code throughout the profession, yet since its establishment, the Permanent Commission has helped promote ethical standards for practice across all government institutions. While this has been an important step for the profession, adherence to these standards depends on individual priorities and the organizational culture of hospitals and other employers.

Taken together, these four steps have contributed greatly to the professionalization of Mexican nursing. As a secondary effect, they have also paved the way for greater harmonization of qualifications in the region. Thinking beyond Mexico, the countries of Central America are currently professionalizing their nursing systems (see Box 2), facing questions similar to those Mexico has begun to answer in recent years. The experience of Mexico's nursing profession might thus be an interesting case study to consider for nurse educators and regulators of Central America.



C. Administrative Barriers: Recognition of Qualifications

A third set of barriers to harmonized regional nurse qualifications is administrative in nature. For a nurse to take up practice again after moving across borders—be they state borders within a country, or national borders across North America—a flurry of red tape must be passed through. Although some progress has been made toward greater ease of movement in recent years, the recognition of other states' or countries' licenses remains a stubborn obstacle to nurse mobility.

I. Recognition of Nursing Qualifications across U.S. State Borders

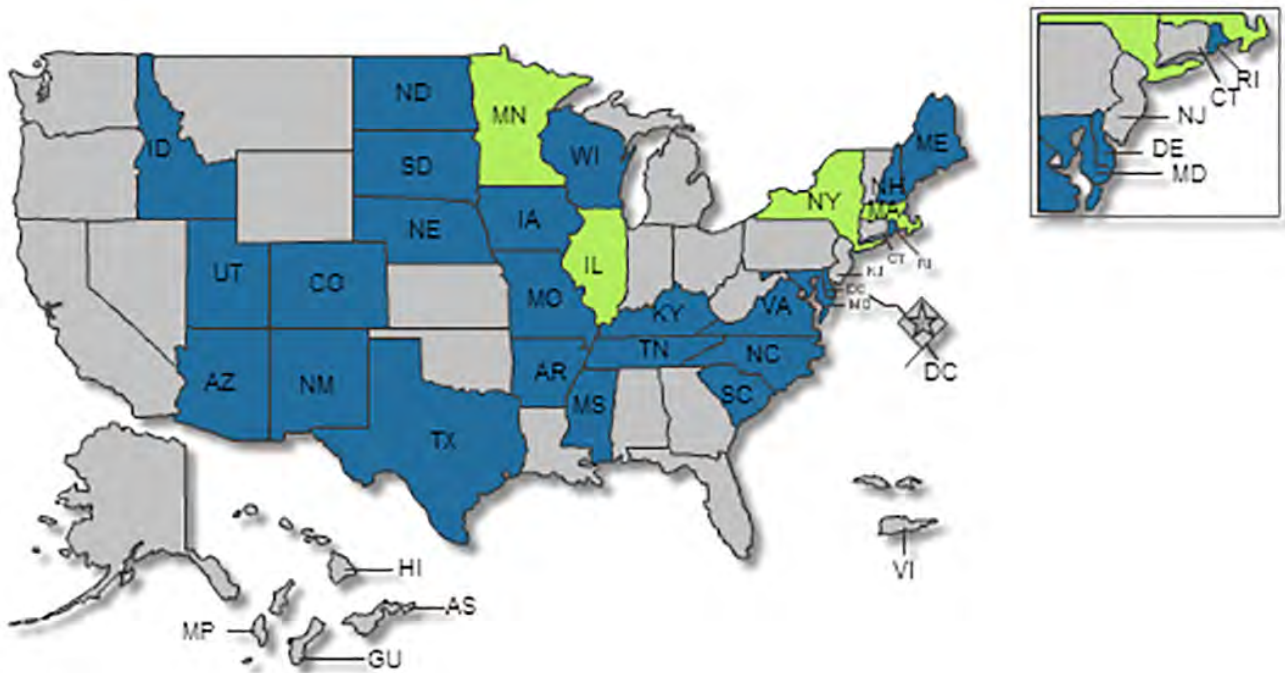
Limits to where a licensed nurse is allowed to practice vary across the region. Mexican licensed nurses are able to move freely across the country without the need for re-registration or relicensing. Canadian nurses enjoy similar freedom, as a mutual recognition agreement among the nursing boards in Canada allows the recognition of Canadian nurses' qualifications across the country, but nurses must reapply for their license in their new home province or state, a process that can take several months.⁴²

*For a nurse to take up practice again after moving across borders...a
flurry of red tape must be passed through.*

In the United States, the picture is more complex, as states are divided into so-called compact states and noncompact states. The Nurse Licensure Compact (NLC) was established in 2000 to improve the ease of nurse mobility. A nurse who gained his/her license in a compact state and commutes to another compact state to work can practice in that state without needing two licenses. If he/she moves to another compact state, for instance, from Virginia to North Carolina, practice is allowed for one to three months in the new state, even if a new license has not yet been issued. This recognition effectively reduces the financial burden on nurses, who do not need to apply for multiple licenses.⁴³ Nurses in noncompact states do not have this privilege. If they want to practice in a compact state, they can apply to do so, yet have to factor in bureaucratic paperwork, for instance, handing in transcripts and old licenses. While licensure applications can often be submitted online to the respective State Board of Nursing, processing times can be cumbersome, up to several months in some states. The NLC is a prime example of close collaboration between state boards of nursing—yet, to date, only 24 states have signed on to the compact. Four more have pending legislation to join (see blue and green states in Figure 3). The fact that after more than ten years of the NLC's existence only half of all U.S. states are participating, shows how long harmonization processes and agreements between regulatory bodies can take.

42 Interview with Sean Clarke. See also Renée Torgerson, Arlene Wortsman, and Tom McIntosh, *Nursing Skills and Mobility: Facilitating the Transfer and Tracking of Nurses Across Canada* (Ottawa: Canadian Policy Research Networks, Inc., 2006), 8, http://cprn.org/documents/43653_en.pdf; Office of the Fairness Commissioner, *Study of the Registration Practices of the College of Nurses of Ontario, 2007* (Toronto: College of Nurses of Ontario, 2008), 20, www.fairnesscommissioner.ca/files_docs/content/pdf/en/college_of_nurses_of_ontario_english.pdf.

43 NCSBN, "Nurse Licensure Compact," accessed July 29, 2013, www.ncsbn.org/nlc.htm. See also NCSBN, "Navigating the Nurse Licensure Compact: Licensure by Endorsement," accessed September 30, 2014, www.ncsbn.org/Endorsement_Flowchart.pdf; NCSBN, "Nurse Licensure Compact (NLC) Fact Sheet for Licensees and Nursing Students," accessed September 30, 2014, www.ncsbn.org/2011_NLCA_factsheet_students_Rev_Jan_2011.pdf.

**Figure 3. Nurse Licensure Compact Member States and States with Pending Legislation to Join, 2014**

Source: National Council for State Boards of Nursing, “Nurse Licensure Compact,” accessed September 30, 2014, www.ncsbn.org/nlc.htm.

2. Recognition of Nursing Qualifications across National Borders

Recognizing the qualifications of Internationally Educated Nurses (IENs) is an even more complex and lengthy endeavor. Taking up nursing practice after moving to another country can take years, and may not necessarily end in success. In Canada and the United States the licensing process for IENs, often also called foreign-educated nurses (FENs), requires two steps: first, IENs must undergo a credential screening and prove their language proficiency.⁴⁴ The credential evaluation, which involves verification and evaluation of all degrees and licenses an IEN may hold—often involving translation of the documents—has to be conducted by an authorized credential evaluation service. The predominant service used in the United States, and as of August 2014 in Canada, is CGFNS International, the former Commission on Graduates of Foreign Nursing Schools.⁴⁵ In a second step, nurses have to prepare for and pass the national licensure exam. Preparing for the NCLEX can take months or years, depending on a nurse’s language skills and educational level, and NCLEX passing rates for IENs are markedly lower than for U.S.-educated nurses.⁴⁶ The NCLEX is offered at international sites (Mexico and Canada both have testing centers) and in different locations throughout the United States.⁴⁷ If an IEN has successfully followed the required steps, U.S. State Boards of Nursing and the Canadian regulatory bodies, respectively, are authorized to issue the license.

In Mexico the process is much less cumbersome. IENs need to validate their foreign nursing degree with the Education Ministry, and then apply for a license at the Ministry’s General Directorate for the Professions (DGP). Some knowledge or language exams may sometimes be required, and regulations may

44 More information on the recognition process is available at American Nurses Association, “Foreign Educated Nurses,” accessed September 30, 2014, www.nursingworld.org/foreigneducatednurses.

45 Interview with Catherine Davis. Also see Canadian Nurses Association, “Becoming an RN—Work in Canada,” accessed September 30, 2014, <http://cna-aiic.ca/en/becoming-an-rn/work-in-canada>. Note that IENs in Canada can use the National Nursing Assessment Service (NNAS), a Canadian national body consisting of nurse regulatory bodies. For more information, see NNAS, “About Us,” accessed February 26, 2015, www.nnas.ca/about-us/.

46 NCSBN, “Exam Statistics and Publications,” accessed January 31, 2015, www.ncsbn.org/exam-statistics-and-publications.htm.

47 NCSBN, “Testing Locations,” accessed January 31, 2015, www.ncsbn.org/testing-locations.htm.



vary between provinces and employers.⁴⁸

Another largely administrative barrier results from immigration requirements and visa regulations. Yet, for nurses in North America, these are less of a problem than one might expect. As nursing is one of the professions under the so-called TN (Treaty NAFTA) status introduced through NAFTA, RNs from Canada or Mexico can legally work in the United States under TN status for unlimited, renewable three-year periods, and vice versa.⁴⁹ Compared with the H-1B visas required for international nurses from any other country to work in the United States, TN status provides the region's nurses with advantages such as lower application costs, greater ability to change employers, and an unlimited number of renewals. There is no cap for the number of TN visas issued yearly. Yet even with the relative ease of obtaining a visa, the movement of RNs across country borders in North America has been limited.⁵⁰ The reasons for this low uptake vary: certainly the lengthy and costly licensing process for IENs is key.

Many of the barriers to harmonizing the qualifications of nurses in the region are complex and entrenched. Knowledge, institutional, and administrative barriers highlighted here include differing education levels, a lack of language proficiency, and a complex web of actors in charge of approval, accreditation, and licensing processes. Along with high administrative hurdles to the recognition of qualifications in another state or country of the region, the question is: How can these barriers be lowered? What policy options may address the challenges, and what can policymakers learn from past harmonization efforts?

Another largely administrative barrier results from immigration requirements and visa regulations.

IV. Ways Forward: Policy Options toward Harmonized Qualifications

Creative attempts to address the stubborn barriers to harmonize qualifications across the region have sprung up in many ways in recent years. Endeavors to harmonize qualifications typically follow a two-pronged approach, be it in nursing or another profession. The first prong is to make educational systems more similar

- 48 Author interview with Graciela Salinas. See also Secretaría de Educación Pública, “Sistema Nacional de Créditos, Revalidación y Equivalencia de Estudios, updated June 11, 2013, www.sincree.sep.gob.mx/es/sincree/EDUCACION_MEDIA_SUPERIOR_Y_SUPERIOR; Secretaría de Educación Pública, “Requisitos para el Registro de Título y Expedición de Cédula Profesional,” updated July 24, 2014, www.sep.gob.mx/es/sep1/Estudios_Obtenidos_en_el_Extranjero_yo_por_Extranjeros_Nivel_Licenciatura#U-5hEfldXOM.
- 49 For instance, to be eligible for this status in the United States, Canadian nurses must have a provincial RN license and Mexican nurses must have a bachelor's degree in nursing. They also must have a job offer at the moment of application. While not required, proof of licensure in the United States may be requested to support the visa application. For more information, see U.S. Citizenship and Immigration Services (USCIS), “TN NAFTA Professionals,” updated June 17, 2013, www.uscis.gov/working-united-states/temporary-workers/tn-nafta-professionals; and U.S. Department of State, Bureau of Consular Affairs, “Visas for Canadian and Mexican NAFTA Professional Workers,” accessed September 30, 2014, <http://travel.state.gov/content/visas/english/employment/nafta.html>.
- 50 In 2013, a total of 9,548 TN visas were issued to all eligible professionals; see U.S. Department of State, Bureau of Consular Affairs, “Nonimmigrant Visas Issued by Classification,” accessed September 30, 2014, <http://travel.state.gov/content/dam/visas/Statistics/AnnualReports/FY2013AnnualReport/FY13AnnualReport-TableXVIB.pdf>. While the specific number of TN visas for registered nurses is unavailable, the number of Canadian and Mexican nurses that took the NCLEX can be used as an approximation. Between 2009 and 2013, 728 Canadian nurses and a mere 67 Mexican nurses took the NCLEX for the first time. Total number estimated by Migration Policy Institute (MPI) using data from: NCSBN, “2012 and 2013 Nurse Licensee Volume and NCLEX Examination Statistics” (NCSBN Research Brief 61, NCSBN, Chicago, May 2014), www.ncsbn.org/14_2012_2013_NCLEXExamStats_vol61.pdf; NCSBN, “2011 Nurse Licensee Volume and NCLEX Examination Statistics” (NCSBN Research Brief 57, NCSBN, Chicago, March 2013), www.ncsbn.org/13_NCLEXExamStats_Vol57_final.pdf; NCSBN, “Revised—2010 Nurse Licensee Volume and NCLEX Examination Statistics” (NCSBN Research Brief 52, NCSBN, Chicago, April 2012), www.ncsbn.org/12_REVISED_2010NCLEXExamStats_Vol52.pdf; NCSBN, “2009 Nurse Licensee Volume and NCLEX Examination Statistics” (NCSBN Research Brief 50, NCSBN, Chicago, December 2010), www.ncsbn.org/10_2009NCLEXExamStats_Vol50_web.pdf.



and ensure that graduates have comparable skills and knowledge, independent of where they receive their education. This aim advances when schools from different countries or states develop shared curricula, or regulatory bodies introduce common qualifying exams. The second prong is to keep educational systems distinct, yet develop ways to bridge the gaps in expertise and ability of individual nurses after they have entered the profession and gained a license. Bridging programs that help nurses adjust their skills bundle to the demands of another nursing system on a case-by-case basis are common throughout the region. Networks that connect the region's stakeholders and contribute the foundation of mutual trust on which all harmonization attempts rest support these two prongs.

Policies and initiatives to increase the harmonization of nurse qualifications and address the obstacles described here fall into roughly four categories:

- Exchange programs and language capacity building
- Agreements between regulatory bodies
- Bridging programs and support for IENs
- Network building among stakeholders.

As with the barriers outlined earlier, policy options may overlap. While each option can be implemented individually, long-term harmonization successes will likely depend on comprehensive approaches that combine the different categories of harmonization attempts described here.

A. Exchange Programs and Language Capacity Building

Many exchange programs between educational institutions expose nursing students to the health systems of other countries in the region. Language acquisition and increased understanding of different nursing cultures are among the tangible benefits that make exchange programs a valuable policy tool for harmonization efforts.

Today's political climate favors educational exchange programs as a whole. Current Mexican and U.S. policies have made collaboration on higher education and the expansion of exchange programs a regional priority. One of the Obama administration's signature initiatives in the Western Hemisphere is the "100,000 Strong in the Americas" program, launched in 2011 (and modeled on a similar 2010 exchange initiative with China), with the aim of "fostering region-wide prosperity through greater international exchange of students."⁵¹ Concretely, the initiative's goal is to increase to 100,000 the number of U.S. students participating in a study abroad program in Latin America, and vice versa. To reach this goal by 2020, current exchange student numbers will need to double.⁵² Similarly, the Bilateral Forum on Higher Education, Innovation, and Research (known also under its Spanish acronym, FOBESII), a bilateral initiative announced in 2013 by Presidents Obama and Peña Nieto, envisions greater student mobility, exchange programs, and research ties between the United States and Mexico.⁵³

Trilateral efforts to increase study abroad opportunities for aspiring nurses hold particular promise, because they can create understanding and ties among the region's next generation. A noteworthy trilateral initiative, in effect from the 1990s until 2010, was the Program for North American Mobility in Higher Education. The program, administered by Canadian, Mexican and U.S. government agencies, aimed to "improve the quality of human resource development in the three countries and to explore ways to prepare students for work throughout North America through the mutual recognition and portability

51 U.S. Department of State, "100,000 Strong Educational Exchange Initiatives," accessed September 30, 2014, www.state.gov/100k/.

52 Ibid.

53 Embassy of the United States to Mexico, "U.S.-Mexico Bilateral Forum on Higher Education, Innovation, and Research Working Group Discusses Potential of Cooperation on Higher Education in Border Region," (news release, March 6, 2014), <http://mexico.usembassy.gov/press-releases/us-mexico-bilateral-forum-on-higher-education-innovation-and-research-working-group-discusses-potential-of-cooperation-on-higher-education-in-border-region.html>.



of academic credits among North American institutions; the development of shared, common, or core curricula among North American institutions; and the acquisition of the languages and exposure to the cultures of the United States, Canada, and Mexico.”⁵⁴

Exchange programs may not create functional bilingual speakers overnight, but they clearly help address the larger barrier of linguistic and cultural understanding.

Nursing is part of this wider trend. Nursing-specific programs within this larger trilateral exchange initiative were developed by nursing schools and programs from the three countries, which collaborated to establish curricular and administrative details. The most recent program, the Cultural Immersion Service Learning in Public Health Nursing, provided a small number of nursing students (15-20 each year) with a stipend for travel, living expenses, meals, and language acquisition. Participants spent several weeks abroad after having completed an online course about the differences in the health systems of the three countries. The program ran from 2008 to 2013 in universities in Puebla and Cuernavaca in Mexico, St. Louis in the United States, and Halifax in Canada.⁵⁵ Another trilateral exchange, the North American Nursing Education Experience program, followed a similar recipe, emphasizing language acquisition prior to a multiweek stay in the participating countries, combined with the development of learning materials to enhance students’ understanding of the differences in health and nursing systems.⁵⁶ Earlier examples, reaching back into the 1990s, include the Cooperative Cultural Partnerships in Nursing Education (1997-2001),⁵⁷ Community Health Nursing in the Context of the Program for North American Mobility in Higher Education (2000-05),⁵⁸ and Collaborative Learning Across Borders: Partnering Nursing Students, Faculty, and Communities (2002-07).⁵⁹

Exchange programs may not create functional bilingual speakers overnight, but they clearly help address the larger barrier of linguistic and cultural understanding. In the long run, building language capacity across borders has the potential to benefit both nurses and their patients. While the funding mechanism for the Program for North American Mobility in Higher Education was discontinued after 2010,⁶⁰ the current political momentum toward greater regional academic exchange could be leveraged to expand

54 U.S. Department of Education, “Program for North American Mobility in Higher Education,” updated May 5, 2014, www2.ed.gov/programs/fipsenortham/index.html. The participating agencies are Human Resources and Skills Development Canada (HRSDC), the U.S. Department of Education, Fund for the Improvement of Postsecondary Education (FIPSE); and Mexico’s Secretariat of Public Education, Dirección de Desarrollo Universitario, Secretaría de Educación Pública (SEP).

55 FIPSE Database, “Cultural Immersion Service Learning in Public Health Nursing,” accessed September 30, 2014, <http://fipsedatabase.ed.gov/fipse/grantshow.cfm?grantNumber=P116N080007>.

56 A description of the program is available at FIPSE Database, “North American Nursing Education Experience,” accessed September 30, 2014, <http://fipsedatabase.ed.gov/fipse/grantshow.cfm?grantNumber=P116N070021>; selected course material is available at CAMEXUS: North American Nursing Education Experience, “Professional Practice: Nursing Across Cultures,” accessed September 30, 2014, wwwapps.cfc.lonestar.edu/grants/Fipse/course.htm.

57 FIPSE Database, “Cooperative Cultural Partnerships in Nursing Education,” accessed September 30, 2014, <http://fipsedatabase.ed.gov/fipse/grantshow.cfm?grantNumber=P116N970022>.

58 FIPSE Database, “Community Health Nursing in the Context of the Program for North American Mobility in Higher Education,” accessed September 30, 2014, <http://fipsedatabase.ed.gov/fipse/grantshow.cfm?grantNumber=P116N000008>.

59 FIPSE Database, “Collaborative Learning Across Borders: Partnering Nursing Students, Faculty, and Communities,” accessed September 30, 2014, <http://fipsedatabase.ed.gov/fipse/grantshow.cfm?grantNumber=P116N020010>. Also see the detailed description of the origins of the program and an evaluation by Alice F. Kuehn, Andrea Chircop, Barbara Downe-Wamboldt, Debbie Sheppard-LeMoine, Donna Murnaghan, et al. “Exploring Nursing Roles Across North American Borders,” *The Journal of Continuing Education in Nursing* 36, no. 4 (2005): 153-62.

60 Senior Program Associate, U.S. Department of Education, e-mail message to author, May 1, 2014; U.S. Department of Education, “Program for North American Mobility in Higher Education.”



such programs and funding lines. As the merits of English as a Second Language (ESL) instruction for nurses' education have been confirmed by research,⁶¹ future exchange programs should include intensive language modules whenever financially possible.

B. Agreements between Regulatory Bodies

The second option, perhaps most likely to have tangible results, is to expand existing agreements between regulatory bodies, including the key actors in charge of the approval of educational programs, and the licensing of nurses. These actors' power lies in their in-depth expertise with educational and regulatory standards of the profession. Bringing regulatory bodies to the table may be a more fruitful way to find common ground and formulate details of harmonization agreements than purely political conversations about regional harmonization are likely to accomplish.

1. Enabling Internal Nurse Mobility: The Nurse Licensure Compact

An agreement worth expanding is the United States' NLC, mentioned earlier. This expansion has the potential to facilitate nurse migration within the United States, while also increasing opportunities for IENs and thus giving patients a better chance of having access to a bilingual nurse. For example, a Spanish-speaking nurse initially credentialed in Texas would have an easier time moving to New York or North Carolina, where there are significant Hispanic populations. Several obstacles, however, must be overcome. As licensure fees are a revenue source for many states, and joining the NLC potentially reduces those revenues, financial concerns of prospective members would need to be addressed. Unionized states may also resist joining the compact because of how potential competition might affect labor market dynamics. On the other hand, some states such as California and Florida might view this change more favorably than others, given that both states project high nursing shortages and have large Hispanic populations. No matter how many new members the NLC will ultimately gain, the conversations between the Boards of Nursing of NLC member states and prospective members already is a step that boosts the collaboration between nurse regulators in the United States.

2. Harmonizing Licensure Exams: The National Council Licensure Examination

One major promising development is the harmonization of licensure exams. As noted earlier, in January 2015 both the United States and Canada introduced the same universal licensing exam for RNs: the National Council Licensure Examination (NCLEX). Graduates of nursing programs in both countries now have to pass the NCLEX to gain entry into the nursing profession. The introduction is a work in progress. The two national bodies that oversee the state-level licensing processes have been working to adapt the U.S. exam to account for cultural and linguistic differences in Canada.⁶² The impact this agreement has on the nurses of the region is profound. New registered nursing school graduates are now educated and tested according to common nursing standards that reach from Canada's Northern Territories to Texas's Rio Grande Valley. A common licensing exam can be called the gold standard of harmonization. If introduced with the support of the profession, a harmonized licensing exam can contribute to a universally high standard of knowledge and skills for the region's nursing workforce, decrease unnecessary administrative obstacles to nurse mobility, and provide an example of a successful collaborative agreement between regulatory agencies from two countries, working across borders, cultures, and languages.

An important challenge to the introduction of the NCLEX in Canada is the translation of test materials into French. Even though Quebec will not adopt the NCLEX, the exam and its instructional materials will be offered in French, as small populations of nurses in Ontario, New Brunswick, and Manitoba are

61 For academic literature reviews on English as a Second Language (ESL) in nursing programs, see Liza Lai Shan Choi, "Literature Review: Issues Surrounding Education of English-as-a-second Language (ESL) Nursing Students," *Journal of Transcultural Nursing* 16, no. 3 (2005): 263–68; and Mary Angela Olson, "English-as-a-Second Language (ESL) Nursing Student Success: a Critical Review of the Literature," *Journal of Cultural Diversity* 19, no. 1 (2011): 26–32.

62 The two bodies are the U.S. NCSBN and the Canadian Council of Registered Nurse Regulators.



francophone.⁶³ To address cultural and linguistic differences, the translation of materials will follow a complex process of revising the pool of NCLEX questions.

The process of building this agreement is ongoing. In 2009 the first steps included taking stock of the similarities and differences between typical activities nurses performed in the United States and Canada. Surveys conducted in both countries yielded results that confirmed an already big overlap between the practical experience and work requirements of entry-level nurses.⁶⁴ A working group was created in 2012 to develop recommendations on how to facilitate moving from the pencil-and-paper CRNE, in which students had to answer around 200 multiple-choice questions, to the computer-based NCLEX, which includes 75 to 265 questions of very different types, such as multiple choice, audio, drag and drop, and graphical.⁶⁵ The development of a pool of questions for the NCLEX continues and involves attempts to include nurses in both countries.⁶⁶

*It is worth asking whether it might be a useful
initial step to develop a mandatory national examination
for bachelor's level nursing professionals in Mexico.*

Annual conferences have gathered stakeholders and educators to discuss the transition. In April 2013 NCSBN, the Canadian Council of Registered Nurse Regulators (CCRN), and NCSBN's testing partner, Pearson VUE, organized a conference in Toronto. More than 200 nursing professionals from the ten Canadian provinces that will make the transition to NCLEX discussed challenges and steps toward a successful transition.⁶⁷ A second conference took place in Calgary in 2014.⁶⁸ Each conference served as a forum for nursing educators to ask questions about NCLEX and gather information about the transition. Workshops have instructed nurse educators to better prepare nursing students for the changes in the content and format that will result from the transition. Starting in the fall of 2013, NCSBN started providing one-day workshops for nurse educators.⁶⁹ Two regional conferences for Canadian nurse educators were scheduled for 2014.⁷⁰

Although a further expansion of the NCLEX to Mexico or other countries of the region may be unlikely at present, it is worth asking whether it might be a useful initial step to develop a mandatory national examination for bachelor's level nursing professionals in Mexico. The introduction of a required national standardized test for the licensing of Mexican nurses would have the benefit of harmonizing the minimum knowledge and skills required for all graduates from approved nursing programs. A licensure exam that evaluates candidates' ability to apply knowledge and assesses their clinical judgment

63 Interview with Patricia Bradley.

64 NCSBN, "Canadian Educators and Students FAQs," accessed September 30, 2014, www.ncsbn.org/4702.htm; and NCSBN, *NCLEX Communiqué—Understanding the NCLEX Examination Through the Core Values of NCSBN* (Chicago: NCSBN, 2013), https://m.ncsbn.org/2013_Sp_NCLEX_Communique.pdf.

65 Sioban Nelson, Judith McFetridge-Durdle, and Patricia Bradley, "CRNE to NCLEX-RN—CASN's Role on the Road to 2015," (presentation to CASN on November 15, 2012), www.casn.ca/2014/12/crne-nclex-rn-powerpoint/. For a side-by-side comparison of the CRNE and the NCLEX-RN, see CASN, *Comparing The 2010-2015 CRNE and the 2013-2015 NCLEX-RN®: Considerations for Nurse Educators in Canada* (Ottawa: CASN, 2012), www.casn.ca/2014/12/comparing-2010-2015-crne-2013-2015-nclex-rn-considerations-nurse-educators-canada/.

66 CASN, "Transitioning to the NCLEX-RN."

67 NCSBN, *NCLEX Communiqué—Understanding the NCLEX Examination Through the Core Values of NCSBN* (Chicago: NCSBN, 2013), https://m.ncsbn.org/2013_Sp_NCLEX_Communique.pdf. For details on the program of the conference, see NCSBN, "2013 NCLEX Conference for Canadian Educators" (conference in Toronto, Ontario, April 22, 2013), www.ncsbn.org/2013_NCLEX_Conference_Canada_web.pdf.

68 For details on the program, see NCSBN, "2014 NCLEX Conference for Canadian Educators," (conference in Calgary, Alberta, April 28, 2014), www.ncsbn.org/2014_NCLEX_Conference_forCanadianEducators.pdf.

69 NCSBN, *NCLEX Communiqué, The Transitional NCLEX Candidate Bulletin for Canadian Candidates Now Available* (Chicago: NCSBN, 2014), 7, https://m.ncsbn.org/2013_Sp_NCLEX_Communique.pdf.

70 *Ibid.*, 5.



would help ensure that all graduates, regardless of the quality of their schooling, possess the minimum education that enables them to deliver care safely. It would also be a way to control for quality variation between educational programs and help safeguard against the effects of irregular practices that may occur during the educational process, such as uneven grades or cheating on exams.

Adapting and expanding existing voluntary exam schemes in Mexico might serve as a starting point. Currently, Mexican nurses can opt to obtain a postlicensure voluntary certification by passing a standardized exam, offered by either the Mexican Board of Nursing Certification (Consejo Mexicano de Certificación de Enfermería, COMCE) or the Mexican College of Nursing Graduates (Colegio Mexicano de Licenciados en Enfermería, COMLE). Both organizations have been approved by Mexico's Education Ministry as certifying entities. Instead of the exams some nursing programs require their students to pass in order to graduate, the exams administered by COMCE and COMLE are designed to test skills at all levels—from basic knowledge to analysis and synthesis of information.⁷¹ In this sense, they are similar to postlicensure specialty certification programs in the United States, such as those from the American Nurses Certification Center (ANCC),⁷² whose certifications are an additional credential that allows employers to evaluate job candidates using a harmonized benchmark of knowledge and skills for nursing practice in different specialties. Because relatively few nurses have acquired these voluntary certifications in Mexico, it is still unclear whether having the certification has real implications for job mobility or salary ranges.

Reactions to the introduction of a mandatory licensing exam in Mexico would likely be mixed. While welcomed by nursing programs that have established rigorous standards, the requirement would force programs with lower standards to improve their instruction; less-stringent nursing programs that might graduate nurses with lower skills would likely oppose the exam.⁷³ On the other hand, adopting or expanding existing exams, such as those designed by COMCE and COMLE, as mandatory licensing exams might be facilitated by their existing relationship with the Education Ministry. A, recently introduced bill in the Mexican Senate plans to require all nursing professionals to be certified by an approved certifying agent in order to practice—a welcome development.⁷⁴ It may also set the stage for a mandatory licensing exam such as the NCLEX.

C. Bridging Programs and Support for Internationally Educated Nurses

A third option is to focus on initiatives that help IENs navigate entry into the nursing profession in another country. An IEN can undergo the process of gaining a license and entering the profession without external help, for instance, if the IEN speaks the language well and wants to keep costs low. But many IENs choose to use services to help them navigate the foreign system. These services are provided by a range of private and nonprofit actors offering more or less tailored trainings in return for fees that can vary widely, between several hundred to a few thousand dollars.⁷⁵ While their primary focus is less on

71 Author interview with Graciela Salinas; and analysis of study guides for CENEVAL, COMCE, and COMLE exams. For specific details on the exams, see the following: for Centro Nacional de Evaluación para la Educación Superior, AC (CENEVAL), *Guía para el sustentante* (Mexico City: CENEVAL, 2014); for Colegio Mexicano de Licenciados en Enfermería, AC (COMLE), *Guía General de Estudio para el Examen único de Certificación de Enfermería Profesional Nivel Técnico y Licenciatura*, (Mexico DF: COMLE, 2009), <http://web.archive.org/web/20090816201029/>; and www.comle.com.mx/GUIACOMLEagosto2009.pdf; for Consejo Mexicano de Certificación de Enfermería (COMCE) and Instituto de Evaluación e Ingeniería Avanzada (IEIA), *Guía de preparación para el Examen Nacional de Certificación en Enfermería (Licenciatura)* (San Luis Potosi: COMCE and IEIA, 2014), http://comceac.org.mx/img/pdf/GuiaExamenCOMCE-L-2014_Def_y_revisada.pdf.

72 American Nurses Credentialing Center, "ANCC Certification Center," accessed September 30, 2014, www.nursecredentialing.org/Certification.

73 Author interview with Maribel Negrete, Member of the Comisión Permanente de Enfermería, August 26, 2014; interview with Rosa Zárate.

74 In addition to obtaining a nursing degree and a nursing license or *cédula profesional*, the new law would require nurses to be certified and be members of a nursing professional association. For more details, see Senado de la República, "Diario de los Debates—Segundo Periodo Ordinario LXII Legislatura Martes, 25 de Febrero de 2014 Diario 8," (news release, February 25, 2014), www.senado.gob.mx/index.php?ver=sp&mn=3&sm=2&lg=&ano=&id=43672.

75 Interview with Virginia Smith, President, International Bilingual Nursing Association, September 4, 2014. Experts estimate the minimum cost for an IEN to undergo the licensing procedures in the United States is around \$1,000. This includes the



harmonizing educational or licensing systems across the region and more on bridging—on a case-by-case basis—the knowledge and skills gaps that the different nursing systems in the region create, these programs are invaluable resources to assess the type and scale of education and training nurses need to close such gaps.

The Welcome Back Initiative (WBI) is a nonprofit organization that helps IENs and other foreign-educated health-care professionals orient themselves in the U.S. system free of charge. WBI helps migrant health-care workers through the process of gaining the credentials they need to practice in the United States. Since its founding in San Francisco in 2001, WBI has expanded its reach to 11 Welcome Back Centers throughout the country, and has served more than 14,000 internationally trained health professionals from more than 160 countries.⁷⁶ More than 40 percent of all health-care professionals serviced by WBI were IENs. Services include NCLEX preparation, job search assistance, workshops and classes, the appointment of a case manager to help develop a career plan, and the English Health Train, a special curriculum designed to improve English language skills.⁷⁷ While WBI does not charge its clients for these services, it may connect them with other services that require fee payments.

Dozens of further organizations offer IEN preparatory services in the United States and Canada, and some universities offer specific bridging programs. In the United States, for instance, the Programa Internacional de Enfermería USA (PIDEUSA) offers preparatory classes for the NCLEX, in collaboration with a nonprofit organization in Texas that provides training to aspiring nurse aides and a testing service. Instruction includes a theoretical component on the nursing system and the NCLEX exam, as well as a practical skills training component with simulations of patient interactions.⁷⁸ Similar courses are offered in Canada. The School of Health and Community Studies of Algonquin College in Ontario, for instance, conducts a province-specific orientation program, which offers courses to qualify students for entry into practice in Ontario.⁷⁹ York University's 20-month bridging program aims to equip IENs with the additional knowledge needed to pass the licensing exam.⁸⁰ Bridging programs for IENs are largely absent in Mexico, a logical consequence of less-extensive licensing requirements. Organizations that provide services to inform nurses educated in Mexico about licensing requirements in the United States are common, as this service is more in demand than services for IENs coming to Mexico.⁸¹

An umbrella organization for IEN services in the region is the International Bilingual Nursing Association (IBNA). Founded in 2003, the association brings together individuals with experience supporting the licensing process of IENs. The association's goal is to increase exchanges between members and to improve services to help IENs enter the profession. Members include nursing educators, nursing association officers, human resources personnel in charge of hiring IENs, and government representatives working with IENs. Today, IBNA has around 50 members in the United States and Canada, and has conducted annual conferences throughout the United States, Mexico, and Canada.⁸²

evaluation (and often translation) of foreign nursing diplomas or certificates, along with fees for the NCLEX exam and additional fees the state nursing board may charge. This does not include the cost for any classes the IEN may take to prepare for the NCLEX or Test of English as a Foreign Language (TOEFL).

- 76 The Welcome Back Initiative (WBI) was a recipient of the Migration Policy Institute's *E Pluribus Unum Prize*, recognizing it as an exceptional U.S. immigrant integration initiative. WBI, "Participant Outcomes," accessed January 31, 2015, www.welcomebackinitiative.org/wb/outcomes/participant_outcomes/index.html; See WBI, "Participants by Country of Origin," accessed February 26, 2015, www.welcomebackinitiative.org/wb/outcomes/participant_outcomes/5_CONTINENTS.pdf; WBI, "Demographics," accessed February 26, 2015, www.welcomebackinitiative.org/wb/outcomes/participant_outcomes/WBI-Demographics.pdf.
- 77 English Health Train, "About," accessed January 31, 2015, <http://englishhealthtrain.welcomebackinitiative.org/about/>.
- 78 Overall program costs for the classes are around \$1,400; Programa Internacional de Enfermería USA, "Transition to Professional Nursing Practice for IENs Program," accessed September 30, 2014, www.pideusa.org/transitionprograms.htm.
- 79 Algonquin College School of Health and Community Studies, "Practical Nursing—FTN (Foreign-Trained Nurse)," accessed September 30, 2014, www.algonquincollege.com/healthandcommunity/program/practical-nursing-ften-foreign-trained-nurse/. Program costs range between CAN \$2,000 and CAN \$7,000. For an overview of further bridging programs in Ontario, see Ontario, Canada, "Working in Ontario," updated September 29, 2014, www.ontarioimmigration.ca/OI/en/working/OI_HOW_WORK_NURSE.html.
- 80 York University, "Nursing: Post-RN for Internationally Educated Nurses," accessed October 9, 2014, <http://futurestudents.yorku.ca/program/nursing-ien>.
- 81 Interview with Graciela Salinas.
- 82 Interview with Virginia Smith; interview with Graciela Salinas; IBNA Ninth Annual Conference brochure, provided by



Governmental support for IEN integration comes in the form of local- and state-level legislation. Texas, a state with high demand for bicultural and bilingual IENs, stands out as the birthplace of two initiatives that ease restrictions for IENs to enter into practice. The first was driven by a Texas state law that from 2009 to 2013 allowed the Texas Board of Nursing to provide Mexican nurses with a temporary license to practice for one year in counties along the border. The requirements were that applicants had graduated from an accredited nursing program, received their license in Mexico, provided a credential evaluation report from a board-approved credential evaluation service, passed the NCLEX, and were eligible for employment in the United States. Finally, acknowledging the fact that Test of English as a Foreign Language (TOEFL) requirements seemed to prevent IENs from obtaining licenses, the TOEFL score requirements for Mexican nurses were lowered from 560 to 475 points. This lowering was deemed possible because other parts of the license application, especially the NCLEX, already evaluate English proficiency and knowledge of health-care-specific terminology.⁸³ Few benefited from this initiative, however. Overall, 53 Mexican nurses applied for this special license, only two passed the NCLEX exam, and one ended up maintaining the one-year license.

The second initiative of the Texas state board is the introduction of a six-month so-called accustomation permit, a form of conditional license. With this permit IENs whose credentials had been evaluated, but who had not yet taken the NCLEX, were allowed to participate in nursing education courses and clinical experiences under the direct supervision of a licensed RN, as a means of learning current nursing and clinical practice of the U.S. health-care system. This permit was intended to increase the NCLEX passing rates by IENs and thus, ultimately, the numbers of nurses in Texas.⁸⁴

While these initiatives provide services to IENs already in the United States, others provide in-depth bridging services to nurses who want to migrate permanently or temporarily. For instance, Nurses Now International (NNI) was a U.S.-based initiative that organized a small number of work placements of Mexican nurses in U.S. hospitals for temporary work periods of up to three years, enabled by TN status. Among the services NNI offered was an intensive three-month language class focused on nursing-specific language and terminology, followed by two to three months of classroom instruction and a six-week supervised clinical practicum in a U.S. hospital, before nurses then took the NCLEX to qualify for practice in a specific state. A noteworthy difference with other initiatives was that NNI provided monthly stipends to its Mexican nurse clients to help them free up the time needed for the months of language and skills training they received. The initiative closed its doors after a series of unfortunate events, including the swine flu outbreak in Mexico and the economic crisis of 2008, which limited NNI's ability to place NCLEX-certified Mexican nurses quickly with U.S. employers. However, the NNI language and skills curriculum may serve as a template for future initiatives.⁸⁵

Lessons from other regions of the world are readily available. Efforts of European countries to attract IENs from North Africa and Asia abound.⁸⁶ Conscious of brain drain concerns and ethical recruitment guidelines, some solutions the sending and receiving countries have developed together might be worth emulating. Several nurse education programs involving European, African, and Asian countries aim to train nurses primarily for export—making migration an inherent part of the program goals agreed to by the participating partner governments. For instance, Germany has agreements with Vietnam and China to train nurses for employment in elder care, and Finland with the Philippines for surgical nurses. Language training and multiyear apprenticeships, partly in the country of destination and partly in the country of

Virginia Smith.

83 Texas Legislature, "A bill to be entitled 'An Act relating to the licensing of certain nurses who will practice in border counties'," CS HB 4353, Texas House of Representatives, 81st Legislature, regular session (April 29, 2009), www.legis.state.tx.us/tlodocs/81R/analysis/html/HB04353H.htm. For more information on the background and implications of this bill, see also Texas House Research Organization, *Bill Analysis*, accessed January 31, 2015, www.lrl.state.tx.us/scanned/hroBillAnalyses/81-0/HB4353.PDF.

84 Author interview with Mark Majek, Director of Operations, Texas State Board of Nursing, September 17, 2014; Texas Administrative Code, Examining Boards, Texas Board of Nursing, Licensure, Peer Assistance, and Practice, Title 22, Part 11, Chapter 217, RULE §217.4, http://tx.eregulations.us/rule/title22_chapter217_sec.217.4.

85 Squires and Beltrán-Sánchez, *Strengthening Health Systems*.

86 See, for example, Maria Vincenza Desiderio and Kate Hooper, *Improving Migrants' Labour Market Integration in Europe from the Outset: A Cooperative Approach to Predeparture Measures* (Brussels: Migration Policy Institute Europe, 2015), <http://migrationpolicy.org/research/improving-migrants-labour-market-integration-europe-outset-cooperative-approach>.



origin, are key components of these programs.⁸⁷

But some programs focus less on migration, and more on up-skilling in the partner countries. For instance, a collaboration between Australia and five Pacific Islands called the Australia-Pacific Technical College (APTC), taught technical courses adherent to Australian standards on the islands. Its dual goals were to encourage some migration to Australia, but also to improve the human capital situation and educate skilled workers to stay on the islands. For various reasons, only a small fraction of the people trained (a little more than 1 percent) ended up migrating, thus rendering APTC essentially a human capital building program for the Pacific Island partners. This idea of linking human capital development and migration is also at the core of a recent proposal to implement global skills partnerships for nursing education. This proposal, developed by the World Bank, the Center for Global Development, and the Center for Mediterranean Integration, suggests partnerships between governments of sending and receiving countries that finance a two-track nurse education program, in which an “away track” would educate nurses who want to work abroad temporarily, balanced by a “home track” that would educate nurses to stay in the partner country.⁸⁸

Some programs focus less on migration, and more on up-skilling in the partner countries.

The lesson of these international programs and experiences is clear: training nurses to a standard from another country may not necessarily result in harmful brain drain of a country’s health-care personnel. Instead, it has the potential to contribute to higher numbers of health workers in both countries. At the same time, well-designed programs can provide a higher quality of training at lower cost by spreading the financial burden across governments, employers, and nurses themselves. This lesson may be of value for Central American countries that are trying to improve both quality and quantity of their nursing workforce, as discussed in this next section, which clarifies the current gap in nursing standards between the countries of North and Central America, and highlights recent and potential steps toward greater professionalization and infrastructure building in nursing.

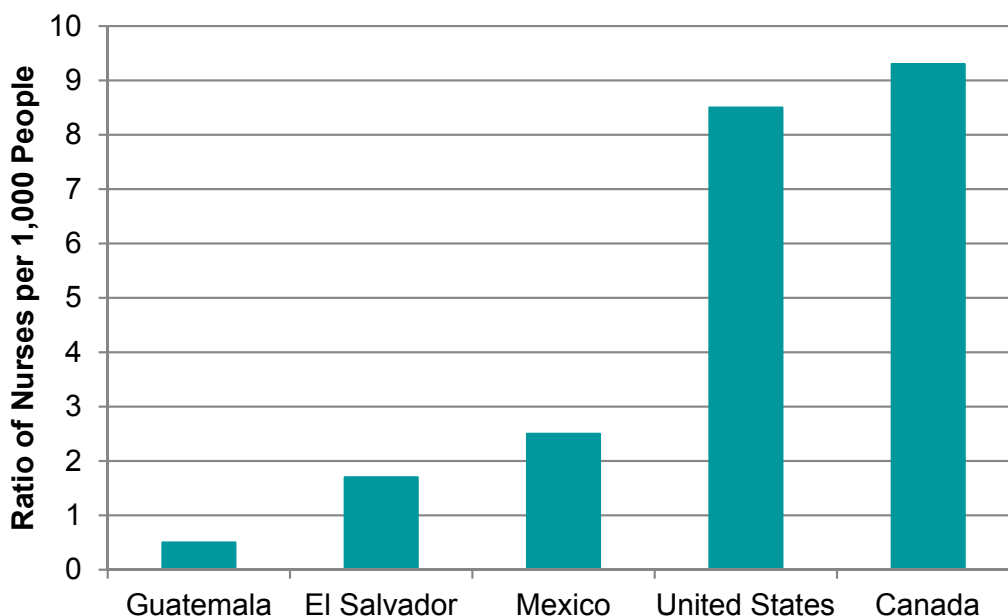
Nurse Qualifications in El Salvador and Guatemala

Guatemala and El Salvador both suffer from critical nurse shortages. El Salvador’s nurse-to-population ratio is low, at 1.7 per 1,000, and Guatemala’s even lower ratio of 0.5 means that on average only one nurse cares for every 2,000 Guatemalans. These rates contrast notably with those of Mexico (2.5), the United States (8.5), and Canada (9.3).

87 Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), “Training Nurses from Viet Nam to Become Geriatric Nurses in Germany,” accessed September 30, 2014, www.giz.de/en/worldwide/18715.html; Michael A. Clemens, “Global Skill Partnerships: A Proposal for Technical Training in a Mobile World” (CGD Policy Paper 040, Center for Global Development, Washington, DC, May 2014), 19, www.cgdev.org/sites/default/files/clemens%20global%20skill%20partnerships%20cgd%20web.pdf; Deutsche Welle, “Germany looks to China for Nursing Support,” Deutsche Welle, October 17, 2012, www.dw.de/germany-looks-to-china-for-nursing-support/a-16310640.

88 Clemens, “Global Skill Partnerships,” 19.

Figure 4. Ratio of Nurses to Population for El Salvador, Guatemala, Mexico, the United States, and Canada, 2010



Source: Pan American Health Organization (PAHO), *Health Situation in the Americas-Basic indicators 2013*, accessed February 26, 2015, www.paho.org/hq/index.php?option=com_docman&task=doc_view&gid=23080&Itemid=270&lang=en.

This lack of nursing personnel is worrisome in light of the overall health situation in the two countries. In Guatemala, malnutrition continues to be a scourge hindering the development of children. Indigenous Guatemalans suffer from especially high rates of malnutrition, up to 69.5 percent in indigenous areas.⁸⁹ In El Salvador, where 40 percent of households fall below the poverty line, lack of access to health care is a challenge, particularly in rural areas.⁹⁰

Yet the challenge for Guatemala and El Salvador is not just the low quantity of nurses, but also the quality of nurse education. The minimum number of years required to enter a nursing program varies (12 years in El Salvador, nine in Guatemala), as does the duration of educational programs (two to four years in El Salvador, and as low as one year in Guatemala). El Salvador's lowest nursing degree is that of the nurse technician (*enfermera técnica*), which takes two years to complete. The middle degree is that of the nurse technologist (*enfermera tecnológica*), which is similar to an associate's degree, requiring four years of a nursing program. Bachelor's degrees are the highest degrees for RNs and require five years of study in an approved program. All three types of programs require students to gain work experience through six months of social service and to pass an exit exam, which differs across schools.⁹¹ Guatemala educates four kinds of nurses: community nurse assistants, nurse assistants, nurse technicians, and holders of bachelor's degrees in nursing.⁹² The large majority, around three-quarters of nurses, are either community nurse assistants or nurse assistants.⁹³ Nurse assistant programs last for only one year, so graduates are often rather young when they graduate, given that the entry requirement is only nine years of secondary education. In contrast, students who want to graduate as nurse technicians or with a

⁸⁹ World Food Programme, "Guatemala: Overview," accessed October 8, 2014, www.wfp.org/countries/guatemala/overview.

⁹⁰ Mónica Acosta, María del Rocío Sáenz, Blanca Gutiérrez, and Juan Luís Bermúdez, "Sistema de Salud de El Salvador," *Salud Pública de México* 53 (2011): 195, www.scielo.org.mx/pdf/spm/v53s2/14.pdf.

⁹¹ Author interview with Edelmira de Osegueda, Vice President for Central America, Asociación Latinoamericana de Escuelas y Facultades de Enfermería (ALADEFE), September 17, 2014; Universidad Andrés Bello, "Tecnólogo en Enfermería," accessed July 25, 2014, www.unab.cl/admision/enfermeria.aspx.

⁹² PAHO, *Regulación de la Enfermería*, 136.

⁹³ Ministerio de Salud Pública, *Caracterización de la Fuerza de Trabajo en Enfermería en Guatemala* (Guatemala Ministerio de Salud Pública, 2009), 30, <http://mispas.gob.gt/decap/files/descargas/bibliotecaVirtual/RRHH/Fuerza%20de%20trabajo%20enfermer%C3%ADa.pdf>.



bachelor's degree need an equivalent of a 12-year high school degree for admission.⁹⁴

As in Mexico, the approval of nursing programs is in the hands of the government. In El Salvador, the Education Ministry's Directorate of Higher Education (Dirección de Educación Superior) approves programs in consultation with the Ministry of Health's Control Council for Nursing (Junta de Vigilancia de Enfermería).⁹⁵ In Guatemala approval of nurse assistant and nurse technician programs is in the hands of the Ministry of Health, while bachelor's degree programs can only be provided by public or private universities approved by the Ministry of Education.⁹⁶ Interestingly, more than one in ten Guatemalan nurses (around 12 percent) has a nurse assistant diploma from a nonapproved program. To regularize these nurses, the government established a program in which an auxiliary nurse must finish sixth grade, complete an assistant nursing diploma, and pass a written and a practical test.⁹⁷ Another similarity to Mexico is the lack of a mandatory national licensing exam. In El Salvador entry to practice is gained by registering with the Control Council (Junta de Vigilancia) and providing a diploma from an approved program.⁹⁸ In Guatemala all nurses must register at the Ministry of Health and must be a member of Guatemala's College of Nursing (Colegio de Enfermeras).⁹⁹ There is no licensure exam to ensure the comparability of nurse qualifications and skills across educational programs in either country.

This is where the similarities with Mexico end. While Mexico established the accreditation of nursing programs in the 1990s,¹⁰⁰ there is still no program accreditation system in either El Salvador or Guatemala—an obvious obstacle to improving the structural quality of nurse education. First steps toward accreditation have been made, yet their outcomes are not yet clear. In El Salvador unofficial conversations between the government and PAHO are reported about the establishment of an accreditation system.¹⁰¹ In Guatemala the National System of Accreditation for Private Higher Education (Sistema Nacional de Acreditación de la Educación Superior, SINADEPS) is in the process of being formed.¹⁰²

Professional associations that might work toward increased quality standards in nurse education are the National Nursing Association of El Salvador (Asociación Nacional de Enfermeras de El Salvador), El Salvador's Council of Lecturers for Human Resources in Nursing (Consejo de Formadores de Recursos Humanos de Enfermería), and the Guatemalan Association of Professional Nurses (Asociación Guatemalteca de Enfermeras Profesionales).¹⁰³ Moving forward, members of the profession in El Salvador and Guatemala may be interested in examining their regulatory systems with an eye to adjusting the current balance between government and profession, especially in light of increased participation of professional nurse associations in Mexico and other countries of the region.

D. Networks Among the Region's Stakeholders

The fourth and last option is to increase the connections and networks between the region's stakeholders to regularize exchanges and build trust across countries. Researchers and practitioners of nursing have already knit a tight web of connections, creating a landscape teeming with small-scale projects to exchange information and conduct research. Yet an overarching forum to bring these nursing networks together is missing.

94 Consejo de la Enseñanza Privada Superior, "Licenciatura en Enfermería," accessed October 5, 2014, www.ceps.edu.gt/ceps/prog-view-one?programa_id=672.

95 PAHO, *Regulación de la Enfermería*, 123.

96 *Ibid.*, 137.

97 Ministerio de Salud Pública y Asistencia Social, "Acuerdo Ministerial 530-2013," www.mspas.gob.gt/files/Descargas/Acuerdos%20ministeriales/ACUERDO%20MINISTERIAL%20530-2013.pdf.

98 PAHO, *Regulación de la Enfermería*, 126.

99 *Ibid.*, 139.

100 Consejo Mexicano para la Acreditación de Enfermería, "Antecedentes," accessed October 5, 2014, <http://comace.mx/Antecedentes.aspx>.

101 Interview with Edelmira de Osegueda.

102 PAHO, *Regulación de la Enfermería*, 144.

103 *Ibid.*, 133, 144.



Following a model similar to the International Council of Nurses, a newly created North American Council for Nursing could provide such a forum. The council could aim to advance nursing knowledge and discuss regional policies that strengthen labor rights and conditions throughout the region.¹⁰⁴ Beyond bringing together leading voices of the profession to add to the debate, the council could advance harmonization efforts by working to influence policies around regional workforce development.¹⁰⁵

One way to strengthen these aforementioned networks could be to replicate a research initiative from the 1990s: the Trilateral Initiative.

The council might do well to build on existing structures. Among these is the annual Global Nursing Exchange, which brings together hundreds of nurse educators and researchers from Canada, the United States, and Mexico, or the international nurse regulator conference, organized by the National Council of State Boards of Nursing in Chicago in October 2014.¹⁰⁶ Another existing forum is offered by the so-called Nursing Collaborating Centers, which are designed to increase the exchange of knowledge and state-of-the-art research between research institutions and practitioners in different countries in the region and globally. Currently, more than 700 centers exist in 80 member countries; they are recognized by the World Health Organization (WHO) and the Pan American Health Organization (PAHO) for their institutional expertise.¹⁰⁷ A limitation of their work is that funding is based on the goodwill of the universities that house the centers, and their efficacy depends on each center's ability to support staff and affiliated research. The steadier the funding streams covering general operational costs, the easier it might be for these nursing-specific centers to increase their capacity-building initiatives.

One way to strengthen these aforementioned networks could be to replicate a research initiative from the 1990s: the Trilateral Initiative conducted by CGFNS in 1995.¹⁰⁸ Triggered by the advent of NAFTA, the original study aimed to illustrate the educational, functional, and historical similarities and differences between nursing in the United States, Canada, and Mexico. Since the publication of its pivotal document "An Assessment of North American Nursing," the initiative's analysis has influenced the three countries of the region in many ways. In Mexico it served as a vehicle to justify major professionalization initiatives after NAFTA went into effect. In the United States and Canada, it became a major reference document for actors seeking to navigate the region's nursing systems.¹⁰⁹ Replicating the Trilateral Initiative in the 21st century could provide a critical resource for nursing human resources development in the region. The initiative could identify the changes that have occurred over the past 20 years, articulate the challenges ahead, and evaluate what it would take to elevate the recognition of nurse qualifications on the region's political agenda. A seminal policy document such as that of a 21st-century trilateral initiative might also direct necessary capital toward nursing human resources that may help achieve many of the policy goals described in this report.

The initiatives and programs detailed here are just a small selection of the range of harmonization efforts possible. But they do bring home the message that, while harmonizing qualifications is a challenge that requires work on many fronts, much progress has been made—and more is promised in the near future.

104 International Council of Nurses (ICN), "About ICN," updated July 15, 2014, www.icn.ch/about-icn/about-icn/.

105 Interview with Graciela Salinas. Primary obstacles to the idea of this council would likely be financial limitations and potential opposition from existing structures.

106 Author interview with Frank Shaffer, CEO, CGFNS International, September 19, 2014.

107 World Health Organization (WHO), "WHO Collaborating Centers," accessed September 30, 2014, www.who.int/collaboratingcentres/en.

108 Trilateral Initiative for North American Nursing, *An Assessment of North American Nursing* (Philadelphia: Commission on Graduates of Foreign Nursing Schools, 1996).

109 Christina Gabriel, "NAFTA, Skilled Migration, and Continental Nursing Markets," *Population, Space and Place* 19, no. 4 (2013); Richard D. Smith, Rupa Chanda, and Viroj Tangcharoensathien, "Trade in Health-related Services," *Lancet* 373, no. 9663 (2009): 593-601; Squires, "The North American Free Trade Agreement (NAFTA) and Mexican Nursing."



V. Conclusion

Harmonizing nurse qualifications in North and Central America is a complex endeavor with several potential pitfalls. This report draws a road map to address such challenges. At first glance, the regional systems look like a web of structural, administrative, and knowledge barriers, many of which may dishearten policymakers from taking on the challenge of harmonization. Decision-making power is dispersed, fears around brain drain abound, and political resistance is uneven but not uncommon. Navigating varied systems requires expert technical knowledge, another factor that complicates the task.

Data on health needs in the region are the best incentive to take up the challenges. The need for qualified health-care workers in the region has increased and will continue to grow, potentially dramatically, in the next decades. National health profiles of the United States, Canada, and Mexico will continue to converge, with aging populations confronting more and more chronic diseases and demanding even higher quality standards. In the case of Mexico, the demand for health care will continue to rise sharply as its growing middle class and the opportunities for e-health and medical tourism make the case for more health-care professionals and higher standards of care ever more relevant.

The need for qualified health-care workers in the region has increased and will continue to grow, potentially dramatically, in the next decades.

Harmonization of academic qualifications—in the form of transfers of credits, dual degrees, and shared curricula between universities of the region—is nothing new. Moving to the harmonization of licensing requirements and other standards is simply one step further in the same direction the region has been moving for the past two decades. This report emphasizes that the collection of experiences and best practices available today is rich enough to inform and underpin more concerted regional harmonization action. Actions calling for further exploration include:

- Investments in nursing-specific academic exchange programs to increase the mutual understanding of the region’s nursing systems, and to improve second-language capacities of the next generation of nurses—a crucial skill independent of any migration intention
- The expansion of common licensing standards and processes in the region, be it through the National Council Licensure Examination or other standard convergence or recognition, such as the expansion of the Nurse Licensure Compact or the introduction of a mandatory licensing exam in Mexico
- The promotion of programs to facilitate the integration of IENs into the region’s labor markets, such as the work of the Welcome Back Initiative, the International Bilingual Nurse Association’s member organizations or state-level legislation to give temporary or conditional licenses to nurses educated abroad
- The building of regional platforms for exchange between the members of the nursing profession, be it via a North American Council of Nursing or a renewed Trilateral Initiative.



The lessons this report draws go beyond the health sector. Harmonization attempts can be made in many other professions of importance to the region, such as engineering, logistics, accounting, or manufacturing. Although this report serves as a case study of qualification harmonization in the health-care sector, the policy options outlined here have broader application. Exchange programs specific to a profession and the building of networks, expanding agreements between regulatory bodies or relevant actors for the accreditation of educational programs, and easier recognition of the qualifications of foreign-educated members of a profession—all of them can be expanded beyond nursing to other occupations. Patience, the commitment, initially, of a few relevant professional groupings, and *political will* are the necessary ingredients for the next steps toward harmonized qualifications across the region.

Although this report serves as a case study of qualification harmonization in the health-care sector, the policy options outlined here have broader application.

For more on MPI's Regional Migration Study Group please visit:
www.migrationpolicy.org/regionalstudygroup



List of Acronyms

Acronym	Name	Country	Function
ACEN	Accreditation Commission for Education in Nursing (formerly NLNAC)	United States	An accreditation agency that is authorized by the Department of Education to accredit nursing programs of all levels in the United States. ACEN was founded by NLN (see below) as NLNAC (see below) and is now an independent organization.
CASN	Canadian Association of Schools of Nursing	Canada	The accreditation agency that is authorized to accredit baccalaureate level nursing programs in Canada. It also conducts research and is an advocate for nursing policy and education.
CCNE	Commission on Collegiate Nursing Education	United States	An accreditation agency that is approved by the Department of Education to accredit higher-level nursing programs in the United States, including baccalaureate and graduate programs.
CCRN	Canadian Council of Registered Nurse Regulators	Canada	An umbrella organization made up of representatives from the 12 provincial and territorial regulatory bodies for nursing in Canada. It serves as a national forum to discuss interprovincial/territorial nursing regulation.
CGFNS	CGFNS International (formerly the Commission on Graduates of Foreign Nursing Schools)	United States	A nonprofit organization that provides services to Internationally Educated Nurses (IENs), among them the evaluation and assessment of international nursing credentials. It also conducts research relevant to IENs.
CNA	Canadian Nurses Association	Canada	An organization of registered nurses from 11 provincial and territorial nursing associations and colleges in Canada. It serves as Canada's representative to the International Council of Nurses, and used to administer the former Canadian nursing examination (CRNE, see below).
CNO	College of Nurses of Ontario	Canada	Regulatory body of the Canadian province of Ontario, responsible for establishing requirements for entry to practice, setting and enforcing practice standards, and issuing licenses. Colleges of Nursing in Canada are similar to State Boards of Nursing in the United States.
COMACE	Consejo Mexicano para la Acreditación y Certificación de la Enfermería <i>Mexican Board of Nursing Accreditation and Certification</i>	Mexico	The accreditation agency that is authorized by the COPAES (see below) to accredit nursing programs in Mexico.



COMCE	Consejo Mexicano de Certificación de Enfermería	Mexico	An organization that offers a voluntary post-licensure examination for Mexican nurses. It is an auxiliary body of Mexico's Ministry of Education that promotes and implements the professional certification and recertification of nurses at all levels.
	<i>Mexican Board of Nursing Certification</i>		
COMLE	Colegio Mexicano de Licenciados en Enfermería	Mexico	An organization that offers a voluntary post-licensure examination for Mexican nurses. It provides opportunities for professional development and advocacy to its members.
	<i>Mexican College of Nursing Graduates</i>		
COPAES	Consejo para la Acreditación de la Educación Superior	Mexico	A subunit of the Mexican Secretariat of Education (SEP, see below) that evaluates and authorizes accrediting bodies on higher education programs. This includes authorization of COMACE to act as accrediting agency of nursing education programs in Mexico.
	<i>Board of Accreditation of Higher Education</i>		
CPE	Comisión Permanente de Enfermería	Mexico	An advisory body on national nursing practice within the Mexican Ministry of Health, consisting of nurse professionals and experts.
	<i>Permanent Nursing Commission</i>		
CRNE	Canadian Registered Nurse Examination	Canada	Former mandatory entry-to-practice nursing examination in Canada (except Quebec), administered by CNA. On January 1, 2015, CRNE was replaced by the NCLEX-RN (below) as the Canadian national mandatory licensure exam.
DGP	Dirección General de Profesiones	Mexico	A department within the Mexican Ministry of Education (SEP, see below), that regulates national educational accreditation, licensing, and certification. It is in charge of issuing licenses (cédulas) for many professions, including nurses.
	<i>General Directorate for Professions</i>		
NCLEX	National Council Licensure Examination	United States / Canada	Current mandatory entry-to-practice nursing examination in the United States, administered by NCSBN (below) in collaboration with Pearson VUE. There are two versions, the NCLEX-RN (for registered nurses) and the NCLEX-PN (for practical nurses); on January 1, 2015, the NCLEX-RN replaced the CRNE as Canada's mandatory national licensure exam, valid in all of Canada except Quebec.
NCSBN	National Council of State Boards of Nursing	United States	An umbrella organization of State Boards of Nursing in the United States that develops and administers the National Council Licensure Examination (NCLEX), promotes the Nurse Licensure Compact (NLC, see below), and acts as a policy advocate.



NLC	Nurse Licensure Compact	United States	A multistate agreement between State Boards of Nursing started in 2000 that allows nurses licensed in a participating state to practice in any of the (currently 24) member states for a period of time to bridge the time until the new state's license is issued.
NLN	National League for Nursing	United States	An organization comprised of nurse faculty and nursing education leaders. It provides research grants, professional development opportunities, and voluntary certification for nurse educators in the United States. Founded in 1893, the NLN was the first nursing organization in the United States.
NLNAC	National League for Nursing Accrediting Commission		See ACEN.
SEP	Secretaría de Educación Pública	Mexico	The Mexican ministry of Education. Subunits of SEP include the Dirección General de las Profesiones (see DGP) and the Consejo para la Acreditación de la Educación Superior (see COPAES).
	<i>Department of Public Education</i>		
TX-BON	Texas Board of Nursing	United States	Regulatory body of the state of Texas, responsible for regulating the practice of nursing, approval of nursing education programs, and issuing of licenses. State Boards of Nursing are similar to Colleges of Nursing in Canada.



Works Cited

- Abbott, Andrew. 1991. The Order of Professionalization: An Empirical Analysis. *Work and Occupations* 18 (4): 355–84.
- Accreditation Commission for Education in Nursing. 2013. News release, May 19, 2013. www.acenursing.net/ace-nursing/ACEN/.
- Acosta, Mónica, María del Rocío Sáenz, Blanca Gutiérrez, and Juan Luí Bermúdez. 2011. Sistema de Salud de El Salvador. *Salud Pública de México* 53: 195. www.scielo.org.mx/pdf/spm/v53s2/14.pdf.
- Algonquin College School of Health and Community Studies. N.d. Practical Nursing—FTN (Foreign-Trained Nurse). Accessed September 30, 2014. www.algonquincollege.com/healthandcommunity/program/practical-nursing-ftn-foreign-trained-nurse/.
- American Association of Colleges of Nursing. 2014. Nursing Shortage. Fact Sheet, April 24, 2014 www.aacn.nche.edu/media-relations/fact-sheets/nursing-shortage.
- American Nurses Association. N.d. Foreign Educated Nurses. Accessed September 30, 2014. www.nursingworld.org/foreigneducatednurses.
- American Nurses Credentialing Center. N.d. ANCC Certification Center. Accessed September 30, 2014. www.nurse-credentialing.org/Certification.
- Auerbach, David I., Peter I. Buerhaus, and Douglas O. Staiger. 2011. Registered Nurse Supply Grows Faster than Projected Amid Surge in New Entrants Ages 23-26. *Health Affairs (Project Hope)* 30 (12): 2286–92. <http://content.healthaffairs.org/content/30/12/2286.abstract>.
- Bradley, Patricia. 2014. Interview with one of authors, October 8, 2014.
- Cadena Santos, Francisco. 2015. Interview with one of authors, February 10, 2015.
- CAMEXUS: North American Nursing Education Experience. N.d. Professional Practice: Nursing Across Cultures. Accessed September 30, 2014. www.wappsfc.lonestar.edu/grants/Fipse/course.htm.
- Canadian Association of Schools of Nursing (CASN). 2012. *Comparing the 2010-2015 CRNE and the 2013-2015 NCLEX-RN®: Considerations for Nurse Educators in Canada*. Ottawa: CASN. www.casn.ca/2014/12/comparing-2010-2015-crne-2013-2015-nclex-rn-considerations-nurse-educators-canada/.
- _____. N.d. NCLEX-RN Transition. Accessed January 31, 2015. www.casn.ca/transitioning-to-the-nclex-rn/.
- _____. N.d. Transitioning to the NCLEX-RN: Repertoire of Strategies. Accessed September 30, 2014. <http://casn.ca/wp-content/uploads/2014/12/TransitioningtotheNCLEX.pdf>.
- Canadian Council of Registered Nurse Regulators. N.d. Members. Accessed February 26, 2015. www.ccrnr.ca/members.html.
- Canadian Institute for Health Information (CIHI). 2012. *Regulated Nurses: Canadian Trends, 2007-11*. Ottawa: CIHI. https://secure.cihi.ca/free_products/Regulated_Nurses_EN.pdf.
- _____. 2014. Regulated Nurses, 2013, Table 6. Ottawa: CIHI, 2014. www.cihi.ca/web/resource/en/NURSES_DATA_JULY082014_EN.xlsx.
- Canadian Nurses Association (CAN). 2007. *Framework for the Practice of Registered Nurses in Canada*. Ottawa: CNA. <https://cna-aici.ca/~media/cna/page-content/pdf-en/framework-for-the-practice-of-registered-nurses-in-canada.pdf?la=en>.
- _____. N.d. Becoming an RN—Work in Canada. Accessed September 30, 2014. <http://cna-aici.ca/en/becoming-an-rn/work-in-canada>.



- _____. N.d. Education. Accessed September 30, 2014. <http://cna-aiic.ca/en/becoming-an-rn/education/rn-baccalaureate-education-table>.
- _____. N.d. RN Exam. Accessed January 31, 2015. www.cna-aiic.ca/en/becoming-an-rn/rn-exam.
- Carnevale, Antony P., Nicole Smith, Artem Gulish, and Bennett H. Beach. 2012. *Healthcare—Executive Summary*. Washington, DC: Center on Education and the Workforce, Georgetown University. <https://georgetown.app.box.com/s/elqhud1ksx3oewdso5ls>.
- Centro Nacional de Evaluación para la Educación Superior, AC (CENEVAL). 2014. *Guía para el sustentante*. Mexico City: CENEVAL.
- Choi, Liza Lai Shan. 2005. Literature Review: Issues Surrounding Education of English-as-a-second Language (ESL) Nursing Students. *Journal of Transcultural Nursing* 16 (3): 263–68.
- Clarke, Sean. 2014. Interview with one of authors, September 18, 2014.
- Clemens, Michael A. 2014. Global Skill Partnerships: A Proposal for Technical Training in a Mobile World. Policy Paper 040, Center for Global Development, May 2014. www.cgdev.org/sites/default/files/clemens%20global%20skill%20partnerships%20cgd%20web.pdf.
- College of Nurses of Ontario. 2014. Membership Statistics Highlights 2014, revised October 16, 2014, 8. www.cno.org/Global/docs/general/43069_stats/43069_MembershipStatistics-Highlights.pdf?utm_source=cno.org&utm_medium=link_in_page&utm_term=MembershipHighlightsPDF2013&utm_campaign=MembershipHighlightsPDF2013.
- Colegio Mexicano de Licenciados en Enfermería, AC (COMLE). 2009. *Guía General de Estudio para el Examen único de Certificación de Enfermería Profesional Nivel Técnico y Licenciatura*. Mexico DF: COMLE. www.comle.org.mx/GUIACOMLEmarzo2010.pdf.
- Comisión Interinstitucional de Enfermería. 2001. *Código de Etica para las enfermeras y enfermeros de Mexico*. Mexico DF: Secretaría de Salud. www.eneo.unam.mx/servicioseducativos/materialesdeapoyo/obstetricia1/DOCUMENTOSCONSULTA/10.pdf.
- Consejo de la Enseñanza Privada Superior. N.d. Licenciatura en Enfermería. Accessed October 5, 2014. www.ceps.edu.gt/ceps/prog-view-one?programa_id=672.
- Consejo Mexicano para la Acreditación de Enfermería (COMCE). N.d. Antecedentes. Accessed October 5, 2014. <http://comace.mx/Antecedentes.aspx>.
- COMCE and Instituto de Evaluación e Ingeniería Avanzada (IEIA). 2014. *Guía de preparación para el Examen Nacional de Certificación en Enfermería (Licenciatura)*. San Luis Potosi: COMCE and IEIA. http://comceac.org.mx/img/pdf/GuiaExamenCOMCE-L-2014_Def_y_revisada.pdf.
- Davis, Catherine. 2014. Interview with one of the authors, October 3, 2014.
- De Osegueda, Edelmira. 2014. Interview with one of the authors, September 17, 2014.
- Department of Finance Canada. 2014. *Jobs Report: The State of the Canadian Labour Market*. Ottawa, Canada: Department of Finance Canada. www.budget.gc.ca/2014/docs/jobs-emplois/pdf/jobs-emplois-eng.pdf.
- Desiderio, Maria Vincenza and Kate Hooper. 2015. *Improving Migrants' Labour Market Integration in Europe from the Outset: A Cooperative Approach to Predeparture Measures*. Brussels: Migration Policy Institute Europe. <http://migrationpolicy.org/research/improving-migrants-labour-market-integration-europe-outset-cooperative-approach>.
- Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). N.d. Training Nurses from Viet Nam to Become Geriatric Nurses in Germany. Accessed September 30, 2014. www.giz.de/en/worldwide/18715.html.
- Deutsche Welle. 2012. Germany looks to China for Nursing Support. October 17, 2012. www.dw.de/germany-looks-to-china-for-nursing-support/a-16310640.



- Embassy of the United States to Mexico. 2014. U.S.-Mexico Bilateral Forum on Higher Education, Innovation, and Research Working Group Discusses Potential of Cooperation on Higher Education in Border Region. News release, March 6, 2014. <http://mexico.usembassy.gov/press-releases/us-mexico-bilateral-forum-on-higher-education-innovation-and-research-working-group-discusses-potential-of-cooperation-on-higher-education-in-border-region.html>.
- Employment and Social Development Canada. 2013. *Sectoral Outlook 2013-2015—Québec Region—Fall 2013*. Ottawa, Canada: Employment and Social Development Canada. www.esdc.gc.ca/eng/jobs/lmi/publications/sectoral-outlooks/2013-2015/region_quebec-en.shtml.
- English Health Train. N.d. About. Accessed January 31, 2015. <http://englishhealthtrain.welcomebackinitiative.org/about/>.
- FIPSE Database. N.d. Collaborative Learning Across Borders: Partnering Nursing Students, Faculty, and Communities. Accessed September 30, 2014. <http://fipsedatabase.ed.gov/fipse/grantshow.cfm?grantNumber=P116N020010>.
- _____. N.d. Community Health Nursing in the Context of the Program for North American Mobility in Higher Education. Accessed September 30, 2014. <http://fipsedatabase.ed.gov/fipse/grantshow.cfm?grantNumber=P116N000008>.
- _____. N.d. Cooperative Cultural Partnerships in Nursing Education. Accessed September 30, 2014. <http://fipse-database.ed.gov/fipse/grantshow.cfm?grantNumber=P116N970022>.
- _____. N.d. Cultural Immersion Service Learning in Public Health Nursing. Accessed September 30, 2014. <http://fipsedatabase.ed.gov/fipse/grantshow.cfm?grantNumber=P116N080007>.
- _____. N.d. North American Nursing Education Experience. Accessed September 30, 2014. <http://fipsedatabase.ed.gov/fipse/grantshow.cfm?grantNumber=P116N070021>
- Freidson, Eliot. 1970. *Professional Dominance*. New York: Atherton Press.
- Gabriel, Christina. 2013. NAFTA, Skilled Migration, and Continental Nursing Markets. *Population, Space and Place* 19(4).
- Gilliss, Catherine, Dorothy Powell, and Brigit Carter. 2010. Recruiting and Retaining a Diverse Workforce in Nursing: from Evidence to Best Practices to Policy. *Policy, Politics & Nursing Practice* 11 (4): 294–301.
- Government of Ontario, Canada. Working in Ontario. Updated September 29, 2014. www.ontarioimmigration.ca/OI/en/working/OI_HOW_WORK_NURSE.html.
- Health Ministry Mexico. N.d. Conoce el SIARHE. Accessed January 31, 2015. www.salud.gob.mx/unidades/cie/siarhe/?Id_URL=antecedentes.
- _____. N.d. Conoce la Comisión Permanente de Enfermería. Accessed October 9, 2014. www.salud.gob.mx/unidades/cie/cms_cpe/index.php?Id_URL=400despliegue&anio=2015&Id_Nota=380.
- Health Resources and Services Administration. 2010. *The Registered Nurse Population—Findings from the 2008 National Sample Survey of Registered Nurses*. Washington, DC: U.S. Department of Health and Human Services. <http://bhpr.hrsa.gov/healthworkforce/rnsurveys/rnsurveyfinal.pdf>.
- International Council of Nurses (ICN). 2014. About ICN. Updated July 15, 2014. www.icn.ch/about-icn/about-icn/.
- Junious, DeMonica, Ann Malecha, Kathryn Tart, and Anne Young. 2010. Stress and Perceived Faculty Support among Foreign-born Baccalaureate Nursing Students. *The Journal of Nursing Education* 49(5): 261-70.
- Juraschek, Stephen P., Xiaoming Zhang, Vinoth Ranganathan, and Vernon W. Lin. 2012. United States Registered Nurse Workforce Report Card and Shortage Forecast. *American Journal of Medical Quality* 27: 241–29. <http://ajm.sagepub.com/content/27/3/241.full.pdf+html>.



- Kuehn, Alice F., Andrea Chircop, Barbara Downe-Wamboldt, Debbie Sheppard-LeMoine, Donna Murnaghan, et al. 2005. Exploring Nursing Roles Across North American Borders. *The Journal of Continuing Education in Nursing* 36 (4): 153-62.
- Larson, Magali Sarfatti. 1977. *The Rise of Professionalism: A Sociological Analysis*. Berkeley, CA: University of California Press.
- Majek, Mark. 2014. Interview with one of the authors, September 17, 2014.
- Malvarez, Silvina Maria and Maria Consuelo Castrillón-Agudelo. 2005. *Overview of the Nursing Workforce in Latin America*. Washington, DC: Pan American Health Organization. www.icn.ch/images/stories/documents/publications/GNRI/Issue6_LatinAmerica.pdf.
- Ministerio de Salud Pública y Asistencia Social. 2009. *Caracterización de la Fuerza de Trabajo en Enfermería en Guatemala*. Guatemala: Ministerio de Salud Pública. <http://mspas.gob.gt/decap/files/descargas/bibliotecaVirtual/RRHH/Fuerza%20de%20trabajo%20enfermer%C3%ADa.pdf>.
- _____. 2013. Acuerdo Ministerial 530-2013. Guatemala: Ministerio de Salud Pública. www.mspas.gob.gt/files/Descargas/Acuerdos%20ministeriales/ACUERDO%20MINISTERIAL%20530-2013.pdf.
- Murphy, Gail Tomblin, Stephen Birch, Rob Alder, Adrian MacKenzie, Lynn Lethbridge, Lisa Little, and Amanda Cook. 2009. *Tested Solutions for Eliminating Canada's Registered Nurse Shortage*. Ottawa: Canadian Nurses Association. https://nursesunions.ca/sites/default/files/rn_shortage_report_e.pdf.
- National Council for State Boards of Nursing (NCSBN). N.d. Approval vs. Accreditation. Accessed September 30, 2014. www.ncsbn.org/357.htm.
- _____. 2010. 2009 Nurse Licensee Volume and NCLEX Examination Statistics. Research Brief 50, National Council of State Boards of Nursing, Chicago, December 2010. www.ncsbn.org/10_2009NCLEXExamStats_Vol50_web.pdf.
- _____. 2011. *The 2011 Uniform Licensure Requirements*. Chicago: NCSBN. www.ncsbn.org/11_ULR_table_adopted.pdf.
- _____. 2012. Revised—2010 Nurse Licensee Volume and NCLEX Examination Statistics. Research Brief 52, National Council of State Boards of Nursing, Chicago, April 2012. www.ncsbn.org/12_REVISED_2010NCLEXExamStats_Vol52.pdf.
- _____. 2013. 2011 Nurse Licensee Volume and NCLEX Examination Statistics. Research Brief 57, National Council of State Boards of Nursing, Chicago, March 2013. www.ncsbn.org/13_NCLEXExamStats_Vol57_final.pdf.
- _____. 2013. *NCLEX Communiqué—Understanding the NCLEX Examination Through the Core Values of NCSBN*. Chicago: NCSBN. https://m.ncsbn.org/2013_Sp_NCLEX_Communique.pdf.
- _____. 2014. 2012 and 2013 Nurse Licensee Volume and NCLEX Examination Statistics. Research Brief 61, National Council of State Boards of Nursing, Chicago, May 2014. www.ncsbn.org/14_2012_2013_NCLEXExamStats_vol61.pdf.
- _____. 2014. *NCLEX Communiqué, The Transitional NCLEX Candidate Bulletin for Canadian Candidates Now Available*. Chicago: NCSBN. https://m.ncsbn.org/2013_Sp_NCLEX_Communique.pdf.
- _____. N.d. Canadian Educators and Students FAQs. Accessed September 30, 2014. www.ncsbn.org/4702.htm.
- _____. N.d. Exam Statistics and Publications. Accessed January 31, 2015. www.ncsbn.org/exam-statistics-and-publications.htm.
- _____. N.d. Navigating the Nurse Licensure Compact: Licensure by Endorsement. Accessed September 30, 2014. www.ncsbn.org/Endorsement_Flowchart.pdf.
- _____. N.d. Nurse Licensure Compact. Accessed July 29, 2013. www.ncsbn.org/nlc.htm.



- _____. N.d. Nurse Licensure Compact (NLC) Fact Sheet for Licensees and Nursing Students. Accessed September 30, 2014. www.ncsbn.org/2011_NLCA_factsheet_students_Rev_Jan_2011.pdf.
- _____. N.d. Testing Locations. Accessed January 31, 2015. www.ncsbn.org/testing-locations.htm.
- Negrete, Maribel. 2014. Interview with one of the authors, August 26, 2014.
- Nelson, Sioban, Judith McFetridge-Durdle, and Patricia Bradley. 2012. CRNE to NCLEX-RN—CASN’s Role on the Road to 2015. Presented to CASN meeting, November 15, 2012. www.casn.ca/2014/12/crne-nclex-rn-powerpoint/.
- Office of the Fairness Commissioner. 2008. *Study of the Registration Practices of the College of Nurses of Ontario, 2007*. Toronto: College of Nurses of Ontario. www.fairnesscommissioner.ca/files_docs/content/pdf/en/college_of_nurses_of_ontario_english.pdf.
- Olson, Mary Angela. 2011. English-as-a-Second Language (ESL) Nursing Student Success: a Critical Review of the Literature. *Journal of Cultural Diversity* 19 (1): 26–32.
- Ontario Ministry of Finance. 2013. *Ontario Population Projections Update*. Ontario: Ministry of Finance. www.fin.gov.on.ca/en/economy/demographics/projections/.
- Organization for Economic Cooperation and Development (OECD). N.d. About PISA. Accessed July 28, 2014. www.oecd.org/pisa/aboutpisa/.
- _____. N.d. OECD Health Statistics 2014 – How does Mexico compare? Accessed February 26, 2015. www.oecd.org/els/health-systems/Briefing-Note-MEXICO-2014.pdf.
- _____. 2014. *PISA 2012 Results in Focus: What 15-Year-Olds Know and What They Can Do with What They Know*. Paris: OECD Publishing. www.oecd.org/pisa/keyfindings/pisa-2012-results-overview.pdf.
- Organización Panamericana de la Salud (PAHO). 2011. *Regulación de la Enfermería en América Latina*. Washington, DC: PAHO. www.paho.org/hq/index.php?option=com_content&view=article&id=6405:regulacion-enfermeria-america-latina-&Itemid=2095&lang=en.
- _____. 2013. *Health Solutions in the Americas– Basic Indicators 2013*. www.paho.org/hq/index.php?option=com_docman&task=doc_view&gid=23080&Itemid=270&lang=en.
- _____. N.d. Observatorio Regional de Recursos Humanos en Salud. Accessed February 26, 2015. www.observatorioh.org/?q=node/242.
- Programa Internacional de Enfermería USA. N.d. Transition to Professional Nursing Practice for IENs Program. Accessed September 30, 2014. www.pideusa.org/transitionprograms.htm.
- Quebec Order of Nurses/Ordre des infirmières et des infirmiers du Québec (OIIQ). 2012. InfoStats4, no. 1 (Quebec: OIIQ, March 2012). www.oiiq.org/uploads/periodiques/infostats/vol04n01/index.htm.
- Rutherford, Marjorie. 2008. Standardized Nursing Language: What Does it Mean for Nursing Practice?. *OJIN: The Online Journal of Issues in Nursing* 13 (1). www.nursingworld.org/MainMenuCategories/ThePracticeofProfessionalNursing/Health-IT/StandardizedNursingLanguage.html.
- Salinas, Graciela. 2014. Interview with one of the authors, September 5, 2014.
- Secretaría de Educación Pública. 2013. Sistema Nacional de Créditos, Revalidación y Equivalencia de Estudios, Updated June 11, 2013. www.sincree.sep.gob.mx/es/sincree/EDUCACION_MEDIA_SUPERIOR_Y_SUPERIOR.
- _____. 2014. Requisitos para el Registro de Título y Expedición de Cédula Profesional. Updated July 24, 2014. www.sep.gob.mx/es/sep1/Estudios_Obtenidos_en_el_Extranjero_yo_por_Extranjeros_Nivel_Licenciatura#U-5hEfldXOM.
- _____. 2015. Registro de título y expedición de cédula profesional. Updated January 7, 2015. www.sep.gob.mx/es/sep1/sep1_Registro_de_Titulo_y_Ex_cedula#.VNp_0i6aLqt.



- Senado de la República. 2014. Diario de los Debates—Segundo Periodo Ordinario LXII Legislatura Martes, 25 de Febrero de 2014 Diario 8. News release, February 25, 2014. www.senado.gob.mx/index.php?ver=sp&mn=3&sm=2&lg=&ano=&id=43672.
- Shaffer, Frank. 2014. Interview with report author, September 19, 2014.
- Sistema Nacional de Información en Salud (SINAIS). N.d. Numeralia de recursos humanos de los sectores público y privado, 2000–2012. Accessed September 30, 2014. www.sinais.salud.gob.mx/recursoshumanos/rh_index.html.
- Smith, Richard D., Rupa Chanda, and Viroj Tangcharoensathien. 2009. Trade in Health-related Services. *Lancet* 373(9663): 593-601.
- Smith, Virginia. 2014. Interview with report author, September 4, 2014.
- Squires, Allison. 2007. A Case Study of the Professionalization of Mexican Nursing : 1980 to 2005. PhD Diss., Yale University.
- _____. 2011. The North American Free Trade Agreement (NAFTA) and Mexican Nursing. *Health Policy and Planning* 26 (2): 124–32.
- Squires, Allison and Hiram Beltrán-Sánchez. 2013. *Strengthening Health Systems in North and Central America: What Role for Migration?* Washington, DC: Migration Policy Institute. <http://migrationpolicy.org/research/strengthening-health-systems-north-and-central-america-what-role-migration>.
- Starr, Kimberly. 2009. Nursing Education Challenges: Students with English as an Additional Language. *The Journal of Nursing Education* 48 (9): 478–87.
- Statistics Canada. 2014. *National Household Survey 2011, Portrait of Canada's Labour Force*. Ottawa: Statistics Canada. www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-012-x/99-012-x2011002-eng.cfm.
- _____. 2014. *Linguistic Characteristics of Canadians*. Ottawa: Statistics Canada. www12.statcan.ca/census-recensement/2011/as-sa/98-314-x/98-314-x2011001-eng.cfm.
- Subsecretaría de Educación Superior. N.d. Reconocimiento de Validez Oficial de Estudios Superiores Federales y Estatales—Qué es un RVOE?. Accessed September 30, 2014. www.sirvoes.sep.gob.mx/sirvoes/jspQueEsRvoe.jsp.
- Texas Administrative Code. N.d. Examining Boards, Texas Board of Nursing, Licensure, Peer Assistance, and Practice, Title 22, Part 11, Chapter 217, RULE §217.4. http://tx.eregulations.us/rule/title22_chapter217_sec.217.4.
- Texas Legislature. 2009. A bill to be entitled 'An Act relating to the licensing of certain nurses who will practice in border counties', CSHB 4353, Texas House of Representatives, 81st Legislature, regular session, (April 29, 2009). Bill Analysis. www.legis.state.tx.us/tlodocs/81R/analysis/html/HB04353H.htm.
- Torgerson, Renée, Arlene Wortsman, and Tom McIntosh. 2006. *Nursing Skills and Mobility: Facilitating the Transfer and Tracking of Nurses Across Canada*. Ottawa: Canadian Policy Research Networks. http://cprn.org/documents/43653_en.pdf.
- Trilateral Initiative for North American Nursing. 1996. *An Assessment of North American Nursing*. Philadelphia: Commission on Graduates of Foreign Nursing Schools.
- Universidad Andrés Bello. N.d. Tecnólogo en Enfermería. Accessed July 25, 2014. www.unab.cl/admision/enfermeria.aspx.
- U.S. Bureau of Labor Statistics (BLS). 2013. Economic News Release, Table 8. Occupations with the Largest Projected Number of Job Openings Due to Growth and Replacement Needs, 2012 and Projected 2022. News release, December 19, 2013. www.bls.gov/news.release/ecopro.t08.htm.



- _____. 2014. Occupational Outlook Handbook, last updated January 8, 2014. www.bls.gov/ooh/healthcare/home.html.
- U.S. Citizenship and Immigration Services (USCIS). 2013. TN NAFTA Professionals. Updated June 17, 2013. www.uscis.gov/working-united-states/temporary-workers/tn-nafta-professionals.
- U.S. Department of Education. 2014. Program for North American Mobility in Higher Education. Updated May 5, 2014. www2.ed.gov/programs/fipsenortham/index.html.
- _____. 2014. Program for North American Mobility in Higher Education—Applicant Information. Updated September 10, 2014. www2.ed.gov/programs/fipsenortham/applicant.html.
- U.S. Department of State. N.d. 100,000 Strong Educational Exchange Initiatives. Accessed September 30, 2014. www.state.gov/100k/.
- U.S. Department of State, Bureau of Consular Affairs. N.d. Visas for Canadian and Mexican NAFTA Professional Workers. Accessed September 30, 2014. <http://travel.state.gov/content/visas/english/employment/nafta.html>.
- _____. N.d. Nonimmigrant Visas Issued by Classification. Accessed September 30, 2014. <http://travel.state.gov/content/dam/visas/Statistics/AnnualReports/FY2013AnnualReport/FY13AnnualReport-TableXVIB.pdf>.
- Welcome Back Initiative. N.d. Participant Outcomes. Accessed January 31, 2015. www.welcomebackinitiative.org/wb/outcomes/participant_outcomes/index.html.
- _____. N.d. Participants by Country of Origin, Accessed February 26, 2015. www.welcomebackinitiative.org/wb/outcomes/participant_outcomes/5_CONTINENTS.pdf.
- _____. N.d. Demographics, Accessed February 26, 2015. www.welcomebackinitiative.org/wb/outcomes/participant_outcomes/WBI-Demographics.pdf.
- World Bank. 2012. PISA 2012: Bulgaria. Washington, DC: The World Bank. www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2013/12/20/000442464_20131220123158/Rendered/PDF/832810BRIOP1460Box0382091B00PUBLIC0.pdf.
- World Food Programme. N.d. Guatemala: Overview. Accessed October 8, 2014. www.wfp.org/countries/guatemala/overview.
- World Health Organization (WHO). N.d. WHO Collaborating Center. Accessed September 30, 2014. www.who.int/collaboratingcentres/en.
- York University. N.d. Nursing: Post-RN for Internationally Educated Nurses. Accessed October 9, 2014. <http://futurestudents.yorku.ca/program/nursing-ien>.
- Zárate, Rosa. 2014. Interview with report author, August 26, 2014.



About the Authors



Victoria Rietig is a Policy Analyst at the Migration Policy Institute (MPI), where she works for the Regional Migration Study Group and the Transatlantic Council on Migration. She is also a Nonresident Fellow with Migration Policy Institute Europe.

Her research expertise includes forced migration, human trafficking, labor migration, and international development. She conducted field research on forced migration in Mexico, analyzing the impact of organized crime and violence on human trafficking. Her research results were published in the Oxford Monitor of Forced Migration.

Prior to joining MPI, Ms. Rietig worked for the United Nations, NGOs, and the U.S. government. At the United Nations Institute for Training and Research (UNITAR), she developed and implemented conferences and trainings for high-level officials in the Migration and Development Seminar Series at UN headquarters in New York. After that, she worked as a project leader for Fairfood International, where she was in charge of establishing the NGO's Berlin office. Most recently, she consulted for the U.S. government, and developed strategic recommendations for the Human Smuggling and Trafficking Center (HSTC), an interagency center of the Departments of State, Justice, and Homeland Security.

Ms. Rietig received her master in public policy from Harvard University, Kennedy School of Government, where she worked on forced migration, negotiations, and international development. She also holds an M.A. in American studies, history, and psychology from Freie Universität Berlin, with a focus on Latin American migration to the United States. She also studied and conducted research at Universidad Nacional de Córdoba (Argentina), New York University, and El Colegio de México (COLMEX).



Allison Squires is an Assistant Professor at New York University College of Nursing – Global and an affiliated faculty member at the Center for Latin American and Caribbean Studies and an affiliated researcher with the Center for Drug Use and HIV Research. Dr. Squires began a joint appointment with the NYU College of Medicine in 2012. Her research focuses on health-care human resources in developing countries with specific expertise in nursing human resources. She is a co-investigator and policy adviser for the Canada-funded Source Country Perspectives on the Migration of Health Professionals. She was also part of the research team for the European RN4CAST study.

Dr. Squires became interested in international nurse migration when she served as a staff nurse and educator in U.S. hospitals, working alongside internationally educated nurse colleagues from 12 countries. She has nearly two decades of experience working with nurses in Latin America, primarily in Mexico. Overall, she has worked on research studies involving 30 countries.

Dr. Squires received her PhD from Yale University and completed her postdoctoral fellowship at the Center for Health Outcomes and Policy Research at the University of Pennsylvania.



The Migration Policy Institute is a nonprofit, nonpartisan think tank dedicated to the study of the movement of people worldwide. MPI provides analysis, development, and evaluation of migration and refugee policies at the local, national, and international levels. It aims to meet the rising demand for pragmatic and thoughtful responses to the challenges and opportunities that large-scale migration, whether voluntary or forced, presents to communities and institutions in an increasingly integrated world.

www.migrationpolicy.org

1400 16th Street NW
Suite 300
Washington, DC 20036

Tel: 001 202-266-1940
Fax: 001 202-266-1900

