

POSITION STATEMENT

UNIVERSITY EDUCATION
FOR NURSES:

A RESPONSE TO THE CHALLENGES FACING HEALTH SYSTEMS

*Adopted by the Board of Directors of the
Secrétariat international des infirmières et infirmiers
de l'espace francophone on May 26, 2011*



SIDIEF

SECRÉTARIAT INTERNATIONAL DES INFIRMIÈRES
ET INFIRMIERS DE L'ESPACE FRANCOPHONE

CONSULTATIVE STATUS WITH THE
INTERNATIONAL ORGANIZATION
OF LA FRANCOPHONIE (IOF)

COORDINATION AND TEXT

Suzanne K  rouac, R.N., M.N., M.Sc.

Professor Emeritus

Faculty of Nursing

Universit   de Montr  al

Consultant for SIDIIEF

H  l  ne Salette, R.N., M.Sc.

Secretary-General

Secr  tariat international des infirmi  res et infirmiers
de l'espace francophone (SIDIIEF)

GRAPHIC DESIGN

Marc Sen  cal/inoxid  e

ENGLISH TRANSLATION

Traduction Tandem

DISTRIBUTION

Secr  tariat international des infirmi  res et infirmiers
de l'espace francophone (SIDIIEF)

4200, Dorchester Blvd. West

Westmount (Quebec) H3Z 1V4

Telephone: (++) 1.514.849.60.60

Fax: (++) 1.514.849.78.70

LEGAL DEPOSIT

Library and Archives Canada, 2011

Biblioth  que et Archives nationales du Qu  bec, 2011

ISBN 978-2-9808341-7-2

(Original edition : ISBN 978-2-9808341-5-8, SIDIIEF, Quebec, Canada)

ISBN 978-2-9808341-6-5 (PDF)

(Original edition : ISBN 978-2-9808341-4-1 (PDF), SIDIIEF, Quebec, Canada)

   Secr  tariat international des infirmi  res et infirmiers
de l'espace francophone (SIDIIEF), 2011

All rights reserved

COMIT   DE TRAVAIL

**WORKING COMMITTEE
UNDER THE CHAIRMANSHIP OF:**

Jacques CHAPUIS, R.N., M.Sc.
Vice-president, SIDIIEF
Director, Institut et Haute École de la Santé La Source, Lausanne (SWITZERLAND)

AFRICA

Kan KOFFI, R.N., M.Sc.
Secretary-General, Réseau des Associations nationales d'infirmières, infirmiers et
sages-femmes d'Afrique francophone, RANIIAF
Teacher, Institut National de Formation d'Agents de Santé, INFAS, Abidjan (IVORY COAST)

Awa SECK, R.N., Ph.D.
Professor, École nationale de développement sanitaire et social, Dakar (SENEGAL)

MIDDLE EAST

Claire ZABLIT, R.N., M.Sc., M.B.A.
President, Ordre des infirmières et infirmiers du Liban
Dean, Faculty of Nursing, Université Saint-Joseph de Beyrouth (LEBANON)

EUROPE

Miguel LARDENNOIS, R.N., DEA sc. SP [Diploma of advanced studies in specialized sciences]
Representative, Association belge des praticiens de l'art infirmier, acn (BELGIUM)

Dominique LE BŒUF, R.N., DEA Sociology [Diploma of advanced studies in sociology]
President, Ordre national des infirmiers de France (FRANCE)

AMERICA

Anne Marise LAVOIE, R.N., Ph.D.
Professor, School of Nursing, Laurentian University, Ontario (CANADA)

Luc MATHIEU, R.N., D.B.A.
Professor, Vice-dean of Nursing and Director of the School of Nursing,
Université de Sherbrooke, Quebec (CANADA)

Ginette THÉRIAULT, M.A.
Special Advisor to the President, Ordre des infirmières et infirmiers du Québec, OIIQ, Quebec (CANADA)

PROJECT MANAGER

Suzanne KÉROUAC, R.N., M.N., M.Sc.
Professor Emeritus, Faculty of Nursing, Université de Montréal, Quebec (CANADA)

EX OFFICIO MEMBER

Hélène SALETTE, R.N., M.Sc.
Secretary-General, Secrétariat international des infirmières et infirmiers de l'espace francophone, SIDIIEF

LIST OF ABBREVIATIONS

CASN	Canadian Association of Schools of Nursing
CNA	Canadian Nurses Association
DCS	Diploma of College Studies
EC	European Commission
ECOWAS	Economic Community of West African States
HAS	Haute Autorité de santé [French national health authority]
HPST	“ <i>Hôpital, patients, santé et territoires</i> ” [Bill to reform the French health care system]
ICN	International Council of Nurses
IDE	<i>Infirmière diplômée d’État</i> [State nursing diploma]
IOF	International Organization of La Francophonie
IOM	Institute of Medicine, National Academy of Sciences, Washington, DC, USA
ISCED	International Standard Classification of Education, UNESCO
MRA	Mutual recognition agreement
OECD	Organization for Economic Co-operation and Development
OIIQ	Ordre des infirmières et infirmiers du Québec
UNESCO	United Nations Educational, Scientific and Cultural Organization
WAHO	West African Health Organization
WHO	World Health Organization

TABLE OF CONTENTS

LIST OF ABBREVIATIONS	IV
PREAMBLE	VII
SUMMARY	IX
NURSING EDUCATION	13
The situation in French-speaking countries.....	13
French-speaking Africa	14
French-speaking Europe.....	16
Middle East.....	18
North America	18
What about elsewhere in the world?.....	20
MAJOR INTERNATIONAL TRENDS	22
The reorganization of health systems and the expansion of professional roles.....	22
The development of advanced practice.....	24
The quest for effectiveness and efficiency: cost-benefits of nursing interventions	26
Patient safety and quality of care: the added value of nursing expertise	29
Public protection in a context of professional mobility	32
Nursing research to improve care and collective health.....	34
2nd and 3rd level university education in nursing	35
The urgent appeal of large international organizations	37
The International Council of Nurses (ICN).....	37
The Organization for Economic Co-operation and Development (OECD)	38
The World Health Organization (WHO)	38
The West African Health Organization (WAHO)	40
The United Nations Educational, Scientific and Cultural Organization (UNESCO).....	41
The International Organization of La Francophonie (IOF)	42
RECOMMENDATIONS.....	43
LIST OF REFERENCES	45



SIDIEF

SECRÉTARIAT INTERNATIONAL DES INFIRMIÈRES
ET INFIRMIERS DE L'ESPACE FRANCOPHONE

SIDIEF is an international non-governmental organization whose primary mission is to facilitate the sharing of nursing knowledge and experience throughout the French-speaking world in order to contribute to health development and the improvement of the quality of nursing care provided to populations.

SIDIEF has consultative status with bodies in the International Organization of La Francophonie (OIF). It is a global network made up of nursing leaders and some one hundred health care or educational associations and institutions in 25 French-speaking countries.

World Health

Key challenges facing population health:

- Access to care and health system costs
- Maternal and child health improvement
- Fight against malaria, HIV, tuberculosis and other communicable diseases
- Chronic disease management
- Ethical issues
- Population aging

And strategies for meeting them:

- New division of professional responsibilities and activities
- Professional education and autonomy
- Knowledge transfer and use of information technology
- North-South development partnerships

PREAMBLE

At the general assembly held in Marrakech (Morocco) on June 9, 2009, members unanimously recommended that SIDIIEF adopt an official position on the challenges facing 1st, 2nd and 3rd level university education in nursing in French-speaking countries.

More than 1400 nurses from over 25 countries participated in SIDIIEF's 4th World Conference in 2009. Many reported disparities and inequities in gaining access to nursing knowledge. This compromises their ability to contribute to improving health, public safety, quality of care and the renewal of clinical practice.

SIDIIEF's Board of Directors has made this a priority. At the same time, other international bodies that are promoting nursing knowledge recommend banking on the skills of professionals to meet key global health challenges^{1 2 3 4}.

*The goal of this position statement
is to explain why nurses
must have access
to university education
in order to acquire the skills necessary
to effect a genuine transformation
of health systems.*

1 Organization for Economic Co-operation and Development (OECD). (2008). *The looming crisis of the health workforce: How can OECD countries respond? Joint OECD-WHO report*. [www.sourceoecd.org/questions_sociales/9789264050778]; 16.07.2010.

2 International Council of Nurses (ICN). (2008). *Participation of nurses in health services decision making and policy development*. Geneva: ICN.

3 ICN. (2010). *Global issues and trends in nursing education*. Geneva: ICN.

4 OECD. (2004). *OECD Health Project – Towards High-Performing Health Systems – Summary Report*.

SUMMARY

A health system that invests in nursing expertise is making an informed choice that acts as a catalyst for a genuine transformation of health care in the 21st century.

Far from simply being a cost, the expenditure associated with providing nursing expertise has economic benefits, both for the health system and for society as a whole. Researchers estimate that 75% of the salary paid to a university-educated nurse is immediately offset by a reduction in direct medical and hospital costs attributed to errors, accidents, complications and mortality⁵. Added to this are indirect benefits for patients and relatives, such as improved overall pain management, compliance with treatment, improved quality of life, access to information and self-determination, as well as the adoption of primary, secondary and tertiary preventive health behaviours. Increasing the number of healthy life-years has a positive impact on the health, productivity and economy of societies.

Can we continue to doubt the value of nursing expertise when it is recognized that health care teams, where at least 60% of the members are university graduates, make a difference⁶? In addition to saving lives, preventing adverse events and reducing suffering, it is a matter of cooperating with other professionals, improving quality of care, ensuring good governance and reducing costs for the health system.

Patient safety is the primary parameter for refuting the position that a health system cannot afford to recruit or support nurses with a university degree. An optimal ratio of nurses educated at this level contributes directly to reducing costs associated with accidents and adverse events, estimated by the World Health Organization (WHO) to represent 10% of a country's health costs. This saving could be reinvested in supporting personnel, improving quality of care and developing innovative practices.

This is all the more interesting since most countries' systems are faced with finite financial resources and an unprecedented shortage of qualified professionals. At the same time, the complexity of population health needs and the rapid advancement of knowledge and technology mean that these systems must be reorganized and professional roles expanded. Local, community-based care and services, innovative approaches and the limitations of hospital-centred health care make imperative a new division of responsibilities between the main actors – nurses and physicians; advanced nursing practice is one aspect of this redefinition of roles.

At the same time, there is worldwide move to raise nursing education to university level. However, it must be acknowledged that a number of French-speaking countries are resisting this move. Initial nursing education is heterogeneous: the levels of course content, admission requirements, number of hours of training and the name of the diploma differ from one country to another and, in most cases, are not under the control of national education systems⁷. Furthermore, the three levels of university education in nursing

5 Dall, T.M., Chen, Y.J., Seifert, R.F., Maddox, P.J., Hogan, P.F. (2009). "The economic value of professional nursing", *Medical Care*, 47(1), 97-104.

6 Aiken, L.H., Clarke, S.P., Sloane, D.M., Lake, E.T., Cheney, T. (2008). "Effects of hospital care environment on patient mortality and nurse outcomes", *JONA*, 38(5), 223-229.

7 Centre for Innovation in Nursing Education (CIFI). (2010). *Analyse et mise en contexte des profils de formation infirmière dans différents pays francophones*: report written for SIDIIEF. Pepin, J., Ha, L. Montreal: CIFI, Faculty of Nursing, Université de Montréal.

are not accessible in many countries^{8 9}. The obvious lag in French-speaking countries in applying national education system standards to professional nursing education and in subscribing to international trends is particularly glaring in Africa. Access to university education in nursing is nonexistent, while it is in these very countries that the need for higher education is most pressing.

It is therefore imperative that all French-speaking countries recognize the significant economic contribution of nurses. Now a profession in its own right, nursing is part of the university system, including the 1st, 2nd and 3rd levels of studies. Profound changes must be made to ensure access to university education in nursing science; the future of health care is nothing like that of the past. It calls for practice to be based on scientific evidence provided by nursing research. A genuine transformation of nursing education is vital.

Moreover, large international organizations have fully understood this. Therefore, whether it is the International Council of Nurses (ICN)¹⁰ or the Organization for Economic Co-operation and Development (OECD)¹¹, both are calling upon countries to invest in raising the level of nursing education and support the introduction of nursing roles with a broad spectrum of responsibilities. A competent nursing body is essential in order to deal with the shortage of professionals and to facilitate access to care, improve the efficiency of health systems and contribute to collective health. Stressing the need for increased investment to meet these challenges, the World Health Organization (WHO)^{12 13 14} calls upon governments of all countries and especially those in the African region for knowledge-based unity of action. The strategic importance of scientific knowledge for long-term development means that no region of the world or professional group should be precluded from appropriating best practices. To this end, the United Nations Educational, Scientific and Cultural Organization (UNESCO)¹⁵ calls upon leaders of African countries to consider, as a priority, the investment in higher-level education and research. Lastly, the International Organization of La Francophonie (OIF)¹⁶ emphasizes the importance of the professional skills of teachers as well as the role of women and communities in sustainable development.

8 SIDIIEF and the Faculty of Nursing, Université Laval. (2008). *Profil de formation en soins infirmiers dans différents pays francophones*. [www.sidiief.org/publications].

9 CIFI. (2010). *Analyse et mise en contexte des profils de formation infirmière dans différents pays francophones*: report written for SIDIIEF. Pepin, J., Ha, L. Montreal: CIFI, Faculty of Nursing, Université de Montréal.

10 ICN. (2009). *Promoting the value and cost-effectiveness of nursing*. Geneva: ICN.

11 OECD. (2008). *The looming crisis of the health workforce: How can OECD countries respond? Joint OECD-WHO report*. [www.sourceoecd.org/questions_sociales/9789264050778]; 16.07.2010.

12 World Health Organization (WHO). (2008). *World Health Report. Primary Health Care – Now More than Ever*. Geneva: WHO. [www.who.int]; 30.09.2009.

13 WHO. (2009). *Global standards for the initial education of professional nurses and midwives*. Geneva: WHO. [www.who.int/hrh/nursingmidwifery/hrhglobalstandardseducation.pdf]; 30.08.2010.

14 WHO. (2007). *Nine Patient Safety Solutions*. Geneva: WHO.

15 United Nations Educational, Scientific and Cultural Organization (UNESCO). (2009). *World Conference on Higher Education – UNESCO appeals for investment and cooperation*, Communiqué 14.07.2009.

16 International Organization of La Francophonie (IOF). (2010). *Plan d'action 2008-2010*. [www.francophonie.org/-education-et-formation-html].

**URGING THEM TO ACT PROMPTLY,
SIDIIEF MAKES THE FOLLOWING
RECOMMENDATIONS TO GOVERNMENTS
OF FRENCH-SPEAKING COUNTRIES:**

- introduce a university education system that includes 1st, 2nd and 3rd levels of nursing science;
- make a bachelor's degree in nursing science the entry requirement to the nursing profession;
- invite the International Organization of La Francophonie (IOF) to support, through institutional, national, intra-and interregional cooperation mechanisms, university education in nursing and to make this a priority in African countries.

NURSING EDUCATION

THE SITUATION IN FRENCH-SPEAKING COUNTRIES

In the summer of 2010, SIDIIEF mandated the Centre for Innovation in Nursing Education (CIFI), which is part of the Faculty of Nursing of the Université de Montréal (Quebec, Canada), to describe and analyse the education profile of nurses in various French-speaking countries. This mandate followed an earlier descriptive study (2008) conducted by SIDIIEF in cooperation with the Faculty of Nursing of Université Laval (Quebec, Canada).

The findings of these studies were as follows^{17 18}:

- There is still considerable heterogeneity in the education profiles of nurses in French-speaking countries. The levels of course content, admission requirements, number of hours required to obtain a nursing diploma, name of the diploma and job title differ. The findings also show considerable heterogeneity with respect to a frame of reference for choosing the required skills and the educational content.
- Despite these differences, there is a trend to upgrade nursing education to university level.
- There is a lack of accessibility to the three levels of university education in nursing in many French-speaking countries and in African countries in particular.

The study conducted by CIFI¹⁹ shows that, on the whole, the duration of an initial nursing program is 3 to 4 years. While the same number of years of schooling does not necessarily mean the same education, for most programs, 15 to 17 years of schooling, including nursing school, are required to obtain a diploma for entry to the profession (ISCED²⁰ levels 4, 5B or 5A combined). However, four programs with a duration of only 12 to 14 years of total education, provide access to the profession (ISCED levels 3C or 4) – Lebanon, Mali, Democratic Republic of Congo and Quebec.

With respect to the names of diplomas, the European countries that participated in the study have adopted the changes arising from the Bologna Accord²¹: nurses now have access to a bachelor's degree (ISCED level 5A). France opted for a different strategy by calling the state diploma a bachelor's degree, indicating that only part of it, however, is taught in university. (ISCED level 5B recognized as 5A).

Overall, in the countries represented in this study, seven out of 21 curriculums lead to a bachelor's degree in nursing (ISCED level 5A). Nine curriculums lead to a State nursing diploma (*infirmière diplômée d'État; IDE*) (ISCED level 5B), while some others lead to a variety of titles: nursing diploma, generalist nursing diploma, general care nursing diploma, bachelor's degree in paramedical studies, diploma of college studies (DCS) (ISCED level 3B or 4). Programs for nursing assistants or health care aides were not examined in the study.

There is still considerable heterogeneity in the education profiles of nurses in French-speaking countries... Despite these differences, there is a trend to upgrade nursing education to university level.

17 SIDIIEF and the Faculty of Nursing, Université Laval. (2008). *Profil de formation en soins infirmiers dans différents pays francophones*. [www.sidiief.org/publications].

18 CIFI. (2010). *Analyse et mise en contexte des profils de formation infirmière dans différents pays francophones*: report written for SIDIIEF. Pepin, J., Ha, L. Montreal: CIFI, Faculty of Nursing, Université de Montréal.

19 Idem

20 International Standard Classification of Education (ISCED). (1997). *Classification instrument based on levels and fields of education produced by the United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute for Statistics to facilitate comparison of education statistics internationally*. [www.uis.unesco.org/ev.fr].

21 European Ministers of Education. (1999). Joint Declaration of the European Ministers of Education-June 19, 1999-Bologna. [www.europe-education-formation.fr/docs/Bologne].

With respect to post-diploma education, programs, areas of specialization, the duration of courses, the name of the diploma and admission requirements vary, in particular the requirement for previous clinical experience.

With respect to 2nd and 3rd level university education, a number of countries offer a master's program (ISCED level 5A, 6) in nursing science – French-speaking Switzerland, Lebanon, Canada and, more recently, France; three countries offer a program leading to a specialized graduate degree (*diplôme d'études supérieures spécialisées; DESS*) – Lebanon, Ivory Coast, Canada. There are three names given to the diplomas required for admission to 2nd level university education: a State nursing diploma for the specialized graduate degree program, a baccalaureate degree or a bachelor's degree for the master's degree program. The characteristics of these programs vary considerably. The only point of similarity with respect to 2nd level university education is the two-year duration of the master's program. Now well-established in North America, 3rd level university education in nursing science was introduced in French-speaking Switzerland in 2008 and is currently being developed in other European countries.

Despite these development efforts in French-speaking countries, initial education, admission requirements, names of diplomas, job titles and national standards vary from one country to the next. Significant differences exist with respect to higher-level nursing education, which remains inaccessible in several countries. In addition to the issue of quality of care, such heterogeneity raises the question of sustainable partnerships, in particular with Southern countries.

FRENCH-SPEAKING AFRICA

The duration of initial education programs in French-speaking African countries varies from 12 to 17 years. It is distressing to realize that access to university education is nonexistent, particularly in countries where the need for training leading to a professional qualification is pressing. Africa represents 11% of the world's population, but bears 24% of the morbidity burden – over 60% of people suffering from HIV/AIDS live there – and has only 3% of the health workforce²². In African communities, nursing and primary health care are closely linked to daily life, which calls for qualified workers capable of providing accessible, continuous, high-quality care.

In the absence of a university program and qualified nurse teachers, nursing education is most often provided by other health professionals, in particular physicians. This leads to difficulties in preparing nurses to fully assume their responsibilities given the new realities in health and social services.

African nurses, concerned by the widening gap between them and Northern countries, are demanding improvements in their training. They would like to be able to establish a real dialogue, on an equal footing, with their counterparts in other countries. Often isolated, they have little access to advanced scientific knowledge. While information technologies should, in principle, facilitate the sharing and circulation of knowledge, it must be remembered that nurses in the South often have little or no access to the Internet, and have little training in retrieving information from these new media.

Similarly, suitably qualified nurse educators do not have access to statutory higher-level teaching or scientific research positions. They generally have few means to update their knowledge using research findings. Disparities and inequities in the access to information and evidence-based results compromise not only the renewal of nursing practice, but also appropriate responses to current and changing community health needs. The absence of university education in nursing means that nursing research is not carried out and the data necessary for evidence-based practice in the specific context of health care in Africa cannot be obtained.

In Africa, nurses usually provide initial access to health care, particularly in community clinics, health centres and outposts. Although a nursing presence is also required at the intermediate and central levels of the health system, where the decisions that underpin health care orientations and policies are made, it must be acknowledged that too few nurses hold these strategic and influential positions.

The lack of access to university education in nursing in French-speaking African countries compromises collective efforts to improve health and social development, and delays progress toward the achievement of the Millennium Development Goals (MDGs).

Furthermore, the issue of nursing workforce migration is crucial in African countries owing to two factors frequently reported by nurses: 1) the absence or virtual absence of a career ladder allowing access to responsibilities based on education and 2) the lack of recognition of graduate degrees obtained by the few nurses granted scholarships to study abroad. Upon their return, they fail to receive a job title and remuneration consistent with their education; given these conditions, many choose not to return to their country.

Following Europe's example, most African French-language universities use the three-level higher education system – bachelor/master/doctorate (BMD), also known as the LMD system (Licence/Master/Doctorate) – for educational programs in other disciplines. The lack of access to university education in nursing in French-speaking African countries compromises collective efforts to improve health and social development, and delays progress toward the achievement of the Millennium Development Goals (MDGs)^{23 24 25}.

However, a promising force is emerging in some French-speaking African countries (North, Central and West Africa), where there is a desire to upgrade nursing education. For example, in Morocco, a bachelor's degree in paramedical studies, offered by the Institut de Formation aux Carrières de Santé (IFCS), is recognized for admission to specialty and master's degree programs in paramedical studies. In Algeria, on the Ivory Coast in particular, following a post-secondary school diploma (*baccalauréat académique*, *baccalauréat lycéen*), three years of study lead to a State nursing diploma. In Tunisia and Cameroon, a post-secondary school diploma and three years of study lead to a bachelor's degree in nursing.

23 WHO. (2008). *Closing the gap in a generation: Health equity through action on the social determinants of health*. Commission on Social Determinants of Health Report. Geneva: WHO.

24 WHO. (2008). *World Health Report. Primary Health Care – Now More than Ever*. Geneva: WHO. [www.who.int].

25 WHO. (1978). *Alma Ata, Primary Health Care*. Geneva: WHO.

FRENCH-SPEAKING EUROPE

In Europe, the Bologna Accord has converged higher education systems into three levels: bachelor/master/doctorate (BMD). Indeed, many countries have adopted the BMD system. Europe has initiated action that should, in the long term, result in the harmonization of academic degrees and the mutual recognition of competencies in many fields.

Nurses in Europe have been able to use the positive opening created by the Bologna Accord to initiate a genuine move to reflect, in health care settings, on the competencies required to meet the challenges facing health systems: complex variations in health care demand, demographic changes, rapid development of scientific knowledge and information technology. Increasingly mobile, these professionals were able to impress upon the authorities concerned that they would benefit from the greatest possible transfer of qualifications and the alignment of educational programs afforded by the BMD system.

French-speaking Switzerland has been a pioneer in the movement to raise the level of initial education in nursing. Since 2006, the minimum requirement for nursing practice has been a three-year bachelor's degree (ISCED level 5A) preceded by propaedeutic modules. A bachelor of science in nursing provides access to postgraduate and specialty programs. A master of science in nursing (2nd level) is also offered, while a 3rd level degree (ISCED level 6) in nursing was introduced at the Université de Lausanne in 2008.

In French-speaking Belgium, the standard qualification for entry to the profession is a nursing degree “bachelor/bachelier” obtained after three years of study in an institution of higher education at pre-university level (ISCED level 5B). This is the most common route, although a secondary option leading to a diploma is still offered (ISCED level 3 or 4). Over 40% of new bachelor graduates in nursing in Belgium pursue specialty education or a master's. This number is constantly growing. Many nurses therefore feel the need to acquire more nursing skills, more titles and qualifications in order to be more influential. Belgian universities in the Flemish community have introduced master's programs in nursing that are so increasingly successful that they offer strong competition to the former hospital management program. The French-speaking part of the country has chosen a different direction in creating a “nursing clinic” option as part of the master's of public health at the Université catholique de Louvain.

In France, the decision was made in 2009 to automatically award a “bachelor's degree” to nurses who obtain the State nursing diploma, on condition that it be awarded by an Institut de formation en soins infirmiers (IFSI) who has established a partnership with a university. An agreement sets forth the conditions of the partnership, the recognition of diplomas and the means to offer a sound program²⁶. In 2012, the graduates, having completed the three-year course at an IFSI in partnership with a university, will be the first to be recognized as having a bachelor's degree in nursing.

However, obtaining this degree does not mean that nursing education will be necessarily integrated into universities. Indeed, in July 2010, a parliamentary report declared that integrating nursing students into the first year of the bachelor's degree at university was unnecessary²⁷.

26 Décret n° 2010-1123 du 23.09.2010 relatif à la délivrance du grade de licence aux titulaires de certains titres ou diplômes relevant du livre III de la 4e partie du code de la santé publique (NOR: ESRS 1006738D) published in J. O. no. 0224, 26.09.2010, p. 17468 – texte no. 10. Paris.

27 Rapport d'information. (2010). Commission des Affaires sociales en conclusion des travaux de la mission d'information sur la formation des auxiliaires médicaux. Député Jacques Domergue. Document d'information de l'Assemblée nationale, no. 2712. Paris.

While nurses have had access to graduate degree programs for many years, especially in hospital management, public health and education, 2nd and 3rd level university education in nursing is still in its infancy. A first master of science in clinical nursing is being offered jointly by the Université de la Méditerranée (Aix-Marseille II) and the Department of Paramedical and Nursing Sciences at the École des hautes études en santé publique (EHESP)²⁸. At the same time and outside the field of nursing, a number of “master’s degree” projects have been announced, punctuating an effort to provide specialty training; this is notably the case for the “*puéricultrices*”.

Lastly, French nurses with a university degree in nursing from an English-speaking country are apparently not granted any equivalence allowing them to join French university research teams in the health field.

In Romania, two routes provide access to nursing education leading to different professional titles. Thus, following a three-year post-secondary course, a general care medical assistant diploma is awarded. After 5 years’ experience, specialization in various fields (e.g., medicine, surgery, pediatrics) leads to a title of specialized head medical assistant. The second route is a four-year 1st level university program following a post-secondary school diploma. The bachelor’s degree leads to the professional title of graduate medical assistant. This second route is the only path that allows access to 2nd and 3rd level programs in Romania.

Directive 2005/36²⁹ of the European Union on the recognition of academic degrees to ensure professional mobility has forced several European countries to increase the number of hours of professional education. Some have taken this opportunity to upgrade nursing education to the bachelor’s degree level at university. Moreover, although initial education is developing at university level, 2nd and 3rd level programs in nursing are in their infancy.

In early 2010, the European Commission launched an evaluation and review of Directive 2005/36 on the recognition of professional qualifications in Europe. In particular, it questioned the regulatory authorities of health professions governed by this text. With respect to the nursing profession, the Commission decided to consult and work on the following elements:

- make the requirements for admission to university the prerequisite for admission to nursing programs;
- integrate the nursing curriculum into universities and the BMD system to ensure alignment with the Bologna Accord;
- pursue the harmonization of common standards for initial and specialty education, objective which can only be facilitated by integrating the nursing curriculum into universities;
- consider a common definition of the requirements of continuing professional development and, when it is obligatory in the country of origin, make it mandatory in each country, in order to benefit from the automatic recognition of professional qualifications in another Union Member State.

The conclusions of the Commission’s work will be available in 2012.

²⁸ [www.ehesp.fr/formations].

²⁹ *La mobilité professionnelle en Europe: la reconnaissance des diplômes dans l’Union européenne dans le cadre de la Directive 2005/36/CE*. [www.ciep.fr/conferences/eric-naric]; [www.eur-lex.europa.eu]; 03.11.2010.

MIDDLE EAST

In Lebanon, there are a number of initial nursing education pathways. Three years of post-complementary studies at a technical training school lead to a technical baccalaureate and the title of nurse. An alternate route is to earn a secondary school diploma followed by three years of study in a technical school; this leads to a higher technical diploma in nursing and the title of graduate nurse. The third route is the university path: after a secondary school diploma and three or four years of study, a bachelor's degree leads to the title of graduate nurse. Only the third route grants access to 2nd level programs. Moreover, 15 universities, including six French-language universities, offer programs leading to a bachelor's degree in nursing.

Access to university programs for nurses has existed since 1979. Three French-language universities offer 2nd level programs that lead to a specialized graduate degree (surgery, community health, resuscitation, management) or a master's (nursing services administration, research, infection control, hospital management). Given the history of university education in nursing in Lebanon, the objective is to develop a doctoral program in nursing in the coming years.

NORTH AMERICA

Canada is greatly influenced by Commonwealth countries and their orientations in social policies and the development of professional practice. Professional nurses associations have issued guidelines that encompass practice, education and legislation: standards, evaluation procedures, program accreditation, quality criteria and expected outcomes for clients, professionals and the health system. Several Commonwealth countries have raised the level of initial nursing education (1st level university program) and offer 2nd and 3rd level university programs in nursing³⁰.

Given its proximity to the United States, Canada is even more influenced by that country. As early as 1965, the American Nurses Association (ANA) recommended that a baccalaureate be the requirement for entry to the profession. For the American Association of Colleges of Nursing (AACN), the skills and knowledge required for the practice of nursing are acquired at the university level and imply a baccalaureate in science. In 1996, due to the growing complexity of health needs, the National Advisory Council on Nurse Education and Practice (NACNEP)³¹ recommended that at least 66% of nursing staff in health care institutions have a baccalaureate degree in nursing, thus assuring professional competence in critical analysis, problem solving and leadership³².

In Canada, in 1982, the Canadian Nurses Association (CNA) and the Canadian Association of Schools of Nursing (CASN)³³ stated that a baccalaureate degree in nursing should be the entry-to-practice requirement for registered nurses. This position was reaffirmed recently by CASN³⁴. Except in Quebec, all provincial regulatory bodies in Canada have adopted this requirement.

30 Commonwealth Nurses Federation. (2005). *Strategic Directions 2005-2010*. [www.commonwealthnurses.org]; 01.10.2010.

31 National Advisory Council on Nurse Education and Practice. (1996). *Report to the Secretary of the Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, Division of Nursing*. Washington, D.C.

32 Goode, C.J., Pinkerton, S.E., McCausland, M.P., Southard, P. et al. (2001). "Documenting chief nursing officers' preferences for BSc prepared nurses", *JONA*, 31(2), 55-59.

33 Canadian Nurses Association (CNA) and Canadian Association of Schools of Nursing (CASN). (2004). *Joint Position Statement: Educational Preparation for Entry to Practice*. [www.cna-aiic.ca]; 21.11.2009.

34 CASN. (2010). *The Case for Healthier Canadians: Nursing Workforce Education for the 21st Century*. Ottawa: CASN. [www.casn.ca]; 21.05.2010.

Thus, in every Canadian province except Quebec, all nursing education is obtained in a university. A licence to practice is granted upon earning a baccalaureate degree, the first part of a continuum that includes 2nd and 3rd level university education.

Quebec, an officially unilingual French-language province, is the only province to grant a licence to practice after completion of a college (post-secondary) diploma program in nursing. It should be noted that access to nursing education at university level has existed in Quebec since the first half of the 20th century. Baccalaureate programs were offered to nursing diploma graduates as early as 1920–1930 at McGill University and the Université de Montréal³⁵. The idea that a baccalaureate degree in nursing signified entry to the profession was raised as early as the 1950s, but only became reality in 1957 at McGill University and in 1962 at the Université de Montréal. Despite the recognition that a licence to practice may be obtained through university education, only 10.4% of the nursing workforce holds one or more 1st level university certificates, 30.4% a baccalaureate degree and 3% 2nd or 3rd level degrees³⁶.

Quebec and France have recently signed an agreement for the mutual recognition of professional qualifications of nurses³⁷. Under this Mutual Recognition Agreement (MRA), anyone with a university degree, a bachelor's degree in Quebec's case or a State diploma (*infirmière diplômée d'État*; IDE) in France's case, can take advantage of this agreement. In other words, for Quebec, only nurses with a university degree are eligible for this Mutual Recognition Agreement. A college diploma in nursing, while sufficient to obtain a licence to practice nursing, is nonetheless not recognized under this agreement, since it is too far from European standards with respect to the hours requirement.

While Quebec has had a professional order for many decades, it should be noted that this is a very recent development elsewhere, for example in Lebanon (2003), Burkina Faso (2006) and France (2008). Thus, on the whole, in French-speaking countries, the profession lacks organization from professional and political perspectives. Consequently, the nursing community receives little recognition and support.

35 Cohen, Y., Pepin, J., Lamontagne, E. and Duquette, A. (2002). *Les sciences infirmières: genèse d'une discipline*. Montreal: Les Presses de l'Université de Montréal.

36 Ordre des infirmières et infirmiers du Québec (OIIQ). (2010). Direction des affaires externes et des statistiques sur l'effectif. Westmount: OIIQ.

37 OIIQ. (2010). "Entente France-Québec sur la reconnaissance mutuelle des qualifications professionnelles des infirmières", *Le Journal*, 7(1), Sept.-Oct., 4.

WHAT ABOUT ELSEWHERE IN THE WORLD?

A unanimous case is being made worldwide to upgrade nursing education to university level and the recent recommendation of the Institute of Medicine (IOM) of the National Academy of Sciences of the United States has added a sense of urgency. Since improving access to care is essential to the very transformation of health systems and relies more than ever on a high degree of professional autonomy, this American organization recommends setting a goal of increasing the percentage of the nursing workforce having a bachelor's degree to 80% by 2020 and doubling the number of nurses with a doctorate. To achieve this, at least 10% of baccalaureate graduates would have to pursue post-graduate education within 5 years of graduation³⁸.

In the last decade, some countries have decided to upgrade nursing education. The introduction of advanced nursing roles is a clear reflection of this. The United States was the precursor, followed by the United Kingdom, Australia and other Commonwealth countries. Thus in English-speaking countries, where

the professional culture was established and where 2nd and 3rd level university education already existed, the move became inevitable³⁹. For example, in the United States in 2008, half of the total nursing workforce held a 1st, 2nd or 3rd level degree⁴⁰. In Europe, the United Kingdom is at the forefront and supports new nursing roles⁴¹.

A unanimous case is being made worldwide to upgrade nursing education to university level... A university degree is becoming the minimum requirement for entry to the practice of nursing in English-speaking, Hispanic and Asian regions as well as in some Arab countries.

Reports and position statements have multiplied in response to health system reforms and the shortage of health professionals. They stress the need for better preparation for new professionals to ensure individual, family and community safety^{42 43}. A university degree is

becoming the minimum requirement for entry to the practice of nursing in English-speaking, Hispanic and Asian regions as well as in some Arab countries⁴⁴.

IN SHORT, nursing education in French-speaking countries is a mosaic of profiles, qualifications and titles. Nursing education programs, strictly speaking, differ substantially from one country to the other. Consequently, the standards and criteria that provide access to a regulated status and professional titles also differ.

38 Institute of Medicine. (2010). *The future of nursing: Leading changes, advancing health*. Washington, D.C., National Academies Press. [www.nap.edu/catalog/phprecord_id=12894].

39 Desrosiers, G. (2009). "La pratique avancée, un avenir, une nouvelle formation pour les infirmières", *Info Nursing*, no. 150, Oct. 2009, Brussels, Association belge des praticiens de l'art infirmier (acn).

40 US Department of Health and Human Services, Health Resources Services Administration. (2010). *The Registered Nurse Population: Initial Findings from the 2008 National Sample Survey of Registered Nurses*. [www.bhpr.hrsa.gov/healthworkforce/msurvey].

41 Desrosiers, G. (2009). "La pratique avancée, un avenir, une nouvelle formation pour les infirmières", *Info Nursing*, no. 150, Oct. 2009, Brussels, Association belge des praticiens de l'art infirmier (acn).

42 ICN, Florence Nightingale International Foundation (FNIF). (2006). *Global Nursing Shortage: Priority Areas for Intervention*. Geneva: Switzerland.

43 WHO. (2009). *Global standards for the initial education of professional nurses and midwives*. Geneva: WHO. [www.who.int/hrh/nursing_midwifery/hrh_global_standards_education/fr].

44 CIFI. (2010). *Analyse et mise en contexte des profils de formation infirmière dans différents pays francophones*: report written for SIDIIEF. Pepin, J., Ha, L. Montreal: CIFI, Faculty of Nursing, Université de Montréal, p. 21.

This is why SIDIIEF insists that French-speaking countries harmonize their education standards, thereby overcoming the fragmentation, splintering and inaccessibility to the university sector which still exist for still too many nurses. This will also make the profession more attractive to young people, in an economic context where the average level of education has increased from that of a secondary school diploma to that of a bachelor's degree.

This trend to upgrade nursing education to university level will only grow. Indeed, a solid education and better utilization of professional skills at the advanced level are necessary to meet key global health challenges.

In writing this position statement, SIDIIEF's intention is not to develop a work plan for the harmonization of educational programs, but to explain why nursing education at the university level should be the entry requirement to the nursing profession. SIDIIEF also insists that nursing education be part of a university stream including not only 1st and 2nd levels, but also the doctoral level in nursing science; this represents a change from a generic "paramedical" profile.

MAJOR INTERNATIONAL TRENDS

Global health challenges are forcing all governments to improve the accessibility and effectiveness of health care in order to ensure quality at an acceptable cost. Health systems must therefore be transformed and those that instigate profound changes will reap the greatest benefits. Given an unprecedented willingness to collaborate in improving health care, health professionals, in particular nurses, are invited to show leadership and demonstrate their capacity for innovation so as to contribute to a genuine transformation.

THE REORGANIZATION OF HEALTH SYSTEMS AND THE EXPANSION OF PROFESSIONAL ROLES

In recent years, health systems in all countries have been faced with significant financial constraints at a time of increasing care and services costs. Shortages of qualified professionals arose with unanticipated swiftness. At the same time, the complexity of population health needs, the prevalence and importance of chronic disease, the rapid development of scientific knowledge and the introduction of information and communication technologies have resulted in a reorganization of care and services. Furthermore, hospitals, with their costly technical support centres, have been forced to reduce the length of hospital stays. Hence a large proportion of care has been directed to the community in non-hospital facilities: the need for home care and local, community-based care and services have disrupted traditional roles and forced professionals to quickly modify their approach.

Henceforth, health systems will be seeking professionals with new skills^{45 46}, and the trend will only grow. Reflecting the situation in several countries, it is estimated that in 2020, 75% of nurses will be working in the community, whereas the opposite was true in 2000⁴⁷, when three in every four nurses worked in hospital settings. In this context, the more effective use of nurses' capabilities represents an unprecedented challenge.

Henceforth, health systems will be seeking professionals with new skills, and the trend will only grow... the more effective use of nurses' capabilities represents an unprecedented challenge.

Globally, nurses are the largest professional body in the health field; such human potential, well prepared and adequately mobilized, is clearly in a position to contribute to the positive development of health systems. In this regard, nurses are cognizant of the goals of effectiveness and efficiency; they are major players in personal, family and community care, practicing at the intersection of policy and personal concerns⁴⁸. However, their role is influenced by the vision of decision makers and the resulting government choices.

45 WHO. (2008). *World Health Report. Primary Health Care – Now More Than Ever*. Geneva: WHO. [www.who.int] ; 30.09.2009.

46 Desrosiers, G. (2009). "La pratique avancée, un avenir, une nouvelle formation pour les infirmières", *Info Nursing*, no. 150, Oct. 2009, Brussels, Association belge des praticiens de l'art infirmier (acn).

47 CNA. (2006). *Toward 2020: Visions for Nursing*. Ottawa: CNA.

48 Falk Rafael, A. (2005). "Speaking Truth to Power: Nursing's Legacy and Moral Imperative", *Advances in Nursing Science*, 28(3), 212-223.

On the basis of principles of equity and social justice, experts have already indicated that primary health care is a response to the health challenges of a changing world. Action should be focused on the empowerment of individuals and communities, an integral part of the philosophy of health system reforms in developed countries. The World Health Organization (WHO)⁴⁹ is calling for the active participation of the main health stakeholders in order to reshape health leadership around effective political power: countries are invited to close the health gap in a generation. Political will is essential to change things, for “the knowledge and the means to change are at hand”⁵⁰.

The transformation of a health system can only be achieved with the collaboration of doctors and nurses: the former influence the range of treatment offered, while nurses influence the effectiveness and efficiency of care and services as well as public health policies. Since physicians and nurses represent the two professions which support the health system is founded, they are called upon even more in times of shortages to redefine their respective approaches and create innovative models⁵¹.

These transformations lead us to re-examine the scope of professional practice and require a clear understanding of each group’s specific responsibilities. The transfer of responsibilities between doctors and nurses is recognized as a factor in the improvement and productivity of services⁵². Too often, doctors provide care that could clearly be provided by nurses; therefore, an effective redefinition of territories and the redeployment of nursing competencies must be systematically undertaken. Such an approach must be based on collaboration, research-based practice and the mastery of specific knowledge. Interprofessional cooperation can be achieved only if all stakeholders are able to interact and practice in a collegial manner.

Since nurses and physicians represent the two professions which support the health system, they are called upon even more in times of shortages to redefine their respective approaches and create innovative models.

In countries where the scope of practice confers all authority upon doctors, in Africa for example, the nursing profession finds itself limited to carrying out medical prescriptions in hospitals. But such a position hinders innovation, accessibility and public health initiatives, which means that it is no longer appropriate. The roles of medical assistants conferred upon nurses do not improve access to the health system, nor do they allow any initiative adapted to local conditions.

Moreover, in Northern countries, expanding the scope of practice goes hand in hand with nursing autonomy. A new division of responsibilities, in particular the introduction of advanced nursing roles and the application of treatment protocols, maximizes interprofessional cooperation, thus supporting nursing’s capacity for initiative and for an appreciation of doctors. There is a global trend toward a repositioning of the professional role of nurses and, consequently, toward raising the level of nursing education.

49 WHO. (2008). *Closing the gap in a generation: Health equity through action on the social determinants of health*. Commission on Social Determinants of Health Report. Geneva: WHO.

50 Idem, p. 34.

51 Desrosiers, G. (2009). “Libérer les talents”, *Perspective infirmière*, 6, 2, March-April, 34-36.

52 OECD. (2008). *The looming crisis of the health workforce: How can OECD countries respond? Joint OECD-WHO report*. [www.sourceocde.org/questions_sociales/9789264050778]; 16.07.2010.

The development of advanced practice

The pressing situation created by the shortage of qualified professionals, the assessment of evolving population health needs, the obligation to improve access to health care and services and the efforts to increase effectiveness and efficiency have all contributed significantly to the emergence of a broad-spectrum nursing role. Thus, a growing number of countries are using advanced nursing practice the value of which has been scientifically demonstrated⁵³.

The effectiveness of the advanced practitioner role has been demonstrated with respect to patient safety and satisfaction, the prevention of service disruptions, improved access to quality care, and cost savings by shortening the length of hospital stays and preventing re-admissions. This clinical expert role is supported by an in-depth analysis of the health needs of patients, families and communities, and integrates research-based practice into clinical assessment, decision making and intervention. Far from being the practice of an inexpensive doctor, advanced nursing practice has all the required potential to meet the complex health care needs of individuals, families and communities and the strengthening of inter-professional cooperation^{54 55 56 57}.

A recent review of the development of advanced practice in 12 OECD countries⁵⁸ (Australia, Belgium, Canada, Cyprus, United States, Finland, France, Ireland, Japan, Poland, Czech Republic, Romania) confirms the positive impact on the quality and cost of care. While the use of advanced roles varies from one country to the next, evaluations conducted in countries with a long experience, for instance in primary health care (e.g., English-speaking countries, Finland, Japan), show improved access to services and reduced waiting times. A high patient satisfaction rate can be explained by the time nurses spend with patients, the quality of the information shared, a better understanding of their health condition as well as an ability to participate in treatment and self-care.

Advanced nursing practice is supported by 2nd and 3rd level specialized programs in nursing science in several English-speaking countries. In Canada, programs for advanced nurse practitioners (ANPs) and clinical nurse specialists (CNSs) were introduced in the 1960s and the recommended educational standard⁵⁹ for advanced practice nurses is a master's degree from an accredited nurse practitioner or graduate nursing program. While established in several English-speaking countries where the professional nursing culture was strong and where 2nd level university education in nursing already existed⁶⁰, these programs are in their infancy in Quebec and Switzerland and are nonexistent or poorly developed in most French-speaking countries.

53 DiCenso, A., Bryant-Lukosius, D. (2010). *Clinical Nurse Specialists and Nurse Practitioners in Canada: A Decision Support Synthesis*. Commissioned Research Report. Ottawa: Canadian Health Services Research Foundation (CHSRF). [www.chsrf.ca]; 16.08.2010.

54 LaSala, C.A., Connors, P.M., Pedro, J.T., Phipps, M. (2007). "The role of the clinical nurse specialist in promoting EBP and effecting positive patient outcomes", *Journal of Continuing Education in Nursing*, 38(6), Nov.-Dec.

55 CNA. (2009). *Position Statement: Clinical Nurse Specialist*. [www.cna-aaiic.ca/cna/]; 21.11.2009.

56 DiCenso, A., Bryant-Lukosius, D. (2010). *Clinical Nurse Specialists and Nurse Practitioners in Canada: A Decision Support Synthesis*. Commissioned Research Report. Ottawa: Canadian Health Services Research Foundation (CHSRF). [www.chsrf.ca]; 16.08.2010.

57 Desrosiers, G. (2009). "La pratique avancée, un avenir, une nouvelle formation pour les infirmières", *Info Nursing*, no. 150, Oct. 2009, Brussels, Association belge des praticiens de l'art infirmier (acn).

58 OECD. (2010). *Nurses in Advanced Roles: A Description and Evaluation of Experiences in 12 Developed Countries*. [www.oecd.org]; 03.08.2010.

59 CNA. (2008). *Advanced Nursing Practice: A National Framework*. Ottawa: CNA.

60 Desrosiers, G. (2009). "La pratique avancée, un avenir, une nouvelle formation pour les infirmières", *Info Nursing*, no. 150, Oct. 2009, Brussels, Association belge des praticiens de l'art infirmier (acn).

Directly related to the major challenges facing world health, the educational institution's responsibility to prepare competent nurses continues to increase. For example, in Quebec, professional nursing and medical associations are urging universities to graduate more specialized nurse practitioners (SNPs) in fields such as mental health, pediatrics, health promotion, gerontology and hematology/oncology⁶¹. Quebec's Ministère de la Santé et des Services sociaux (MSSS) recently announced the creation of 500 specialized nurse practitioner positions, highlighting new approaches in primary health care⁶². The key functions emerging are: the evaluation of common health problems, the systematic follow-up of patients with chronic conditions and the development of public health programs⁶³.

The effectiveness of the advanced practitioner role has been demonstrated with respect to patient safety and satisfaction, the prevention of service disruptions, improved access to quality care, and cost savings by shortening the length of hospital stays and preventing readmissions.

In France, a recent protocol for cooperation between health professionals⁶⁴ finalized the legal aspects of the reorganization of their clinical activities. Section 51 of the *Loi sur la réforme de l'Hôpital et relative aux patients, à la santé et aux territoires (HPST)*; bill to reform the French health care system) specifies that health professionals may, on their own initiative, engage in a cooperative approach with the objective of transferring activities or health care acts to each other or reorganizing their form of intervention with the patient. For the Haute Autorité de santé (HAS; French national health authority), it is a matter of assessing the protocol's capacity to ensure clinical effectiveness, access to quality care as well as to control the risks inherent in the new patient management approach.

The development of advanced practice is therefore inevitable; however, it requires the establishment of a university stream comprising all three levels of nursing education. Consequently, the true implementation of this expert role is dependent on public health policies⁶⁵.

In the context of health system reorganization, the acceptance by other disciplines of new nursing skills represents an opportunity for the nursing profession: its proximity to patients and families and its understanding of the issues allow it to take the citizen's point of view to political and decision-making levels and thus to contribute to the restructuring of care and services and the future of health care.

61 Morin, D. (2009). *Du chaos au changement planifié... Analyse de la dynamique de transformation des pratiques infirmières*. Lecture given at the OIIQ's Annual Conference. October 2009. [www.oiiq.org].

62 OIIQ. (2010). "Une nouvelle attendue: création de 500 postes d'infirmières praticiennes spécialisées en soins de première ligne", *Le Journal*, 7(4), Sept.-Oct., 1.

63 Desrosiers, G. (2009). "La pratique avancée, un avenir, une nouvelle formation pour les infirmières", *Info Nursing*, no. 150, Oct. 2009, Brussels, Association belge des praticiens de l'art infirmier (acn).

64 Ministère de la Santé. (2009). *Réforme de l'Hôpital et relative aux patients, à la santé et aux territoires (HPST)*. Section 51 of Bill 2009-879 of July 21, 2009. Paris. [www.has-santé.fr]; 05.06.2011.

65 DiCenso, A., Bryant-Lukosius, D. (2010). *Clinical Nurse Specialists and Nurse Practitioners in Canada: A Decision Support Synthesis*. Commissioned Research Report. Ottawa: Canadian Health Services Research Foundation (CHSRF). [www.chsrf.ca]; 16.08.2010.

THE QUEST FOR EFFECTIVENESS AND EFFICIENCY: COST-BENEFITS OF NURSING INTERVENTIONS

In recent decades, the search for a solution to the shortage of nurses has too often been carried out in line with a short-sighted vision of quantity, rather than quality⁶⁶: professional nurses have been replaced by less qualified staff, assumed to be economically viable, for the more technical activities. Yet, it is recognized that an insufficient ratio of qualified nurses in the health care team jeopardizes client safety^{67 68 69} and does not produce the hoped-for gains in efficiency⁷⁰. There has been greater concern for the short-term expenditure than for the assessment of the medium- and long-term economic impact and the improvement in collective health.

The referent for such a model, whereby work is assigned to the least qualified and therefore least expensive medical assistant, partly ensures the delivery of physician-prescribed care, but deprives the health system of, among other things, nursing's sound clinical judgement and innovative clinical practice. To limit the analysis to nursing costs not only does a disservice to the clients, the staff and the entire health system⁷¹, but also runs counter to major international trends. A country that chooses to consider cost only deprives itself of important professional skills and, consequently, jeopardizes the efficiency of its health-care system. It should be noted that the system's acceptance of advanced nurse practitioners does not prevent them from delegating some nursing tasks to nursing aides.

Too often, nursing costs are seen, at political and administrative levels, as an obstacle rather than an advantage for the quality and continuity of care, staff development and collective health improvement^{72 73}. At a time when health system reconfigurations are aimed at cost reduction and service profitability, both of which require upgrading nursing education, the values underlying the nursing profession are too often in conflict with the objectives, beliefs and ideologies of health planners and public policy-makers. The financing of health institutions by global budgets, rather than by care episodes (e.g., by case, by homogeneous patient groups – HPGs), leads to a reduction in staffing costs; however, it clearly does not motivate the institution to attract the best-educated nurses. Nursing should no longer be considered a budget expenditure item, but rather a long-term efficiency factor that is essential to reshape health systems⁷⁴.

66 OIIQ. (2007). *Mémoire: Une nouvelle approche de planification des effectifs infirmiers: des choix à faire de toute urgence!* Westmount: OIIQ.

67 Aiken, L.H., Clarke, S.P., Sloane, D.M. et al. (2002). "Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction", *JAMA*, 288, 1987-1993.

68 Needleman, J., Buerhaus, P., Mattke, S. et al. (2002). "Nurse staffing levels and the quality of care in hospitals", *New England Journal of Medicine*, 346, 1715-1722.

69 Needleman, J., Buerhaus, P., Shane Pankratz, V., Leibson, C.L., Stevens, S.R., Harris, M. (2011). "Nurse staffing and inpatient hospital mortality", *New England Journal of Medicine*, 364(11), 1037-1045.

70 Aiken, L.H. (2008). "Economics of nursing", *Policy, politics, nursing practice*, 9(2), 73-79.

71 Dall, T.M., Chen, Y.J., Seifert, R.F., Maddox, P.J., Hogan, P.F. (2009). "The economic value of professional nursing", *Medical Care*, 47(1), 97-104.

72 Aiken, L.H. (2008). "Economics of nursing", *Policy, politics, nursing practice*, 9(2), 73-79.

73 Vanhook, P.M. (2007). "Cost-utility analysis: a method of quantifying the value of registered nurses", *OJIN: The Online Journal of Issues in Nursing*, 12(3), manuscript 5.

74 OECD. (2010). *Value for Money in Health Spending: OECD Health Policy Studies*. [www.oecd.org/ocdeLibrairie]; 04.07.2011.

Moreover, the value of nursing expertise in the organization of care and services is recognized. For instance, a review of 500 studies conducted around the world from 1998 to 2008 shows that appropriate qualified nurse staffing levels in different health care sectors are fundamental to good governance, patient involvement in their care, the quality of recruitment policies, retention and the well-being of professional staff in health care institutions⁷⁵. A systematic review and meta-analysis have shown that qualified nursing care is associated with better patient outcomes. They highlighted the association between qualified nurses, quality of patient care and patient safety. In these studies, the prevention of complications and adverse events created savings that largely offset the cost of qualified nurses⁷⁶.

The value of nursing expertise in the organization of care and services is recognized... A literature review highlighted the association between qualified nurses, quality of care and patient safety. In these studies, the prevention of complications and adverse events created savings that largely offset the cost of qualified nurses.

Researchers who examined the issue of the global shortage of qualified nurses⁷⁷ pointed out the success of principles advocated in “magnet hospitals”: 1) highly qualified nurses and nurse executives, 2) a participatory management style, 3) flexible schedules, 4) opportunities for promotion and 5) the emphasis on continuing education. The application of these principles (often called magnetism) is associated with measures that support considerable nursing autonomy, enable participation in decision making and facilitate career development. Launched in the 1980s in the United States, this organizational approach is used in various health care settings in different countries. Studies have demonstrated positive effects on patient safety, quality of care, and patient and staff satisfaction without any addition or increase in costs^{78 79}.

On this basis, contemporary orientations or models identify the mastery of professional nursing skills as one of the most influential factors in ensuring quality nursing outcomes at a reasonable cost. A solid foundation of knowledge in the field of nursing outcome indicators and their measurement will make it possible to share advances and plan staffing needs using the latest scientific evidence^{80 81 82}.

75 Flynn, M. (2009). “Nurse staffing levels revisited: a consideration in key issues in nurse staffing levels and skill mix research”, *Journal of Nursing Management*, 17(6), 759-766.

76 Kane, R.L., Shamlian, T.A., Mueller, C., Duval, S., Wilt, T.J. (2007). “The association of registered nurse staffing levels and patient outcomes. Systematic review and meta-analysis”, *Medical Care*, 45(12), 1195-1204.

77 ICN. (2004). *The global shortage of registered nurses: an overview and actions*, James Buchan and Lynn Calman. Geneva: ICN.

78 Aiken, L.H. (2005). “Extending the Magnet Concept to Developing and Transition Countries”, *Reflections on Nursing Leadership*, 31(1), 16-18.

79 Aiken, L.H. (2008). “Economics of nursing”, *Policy, politics, nursing practice*, 9(2), 73-79.

80 Doran, D.M. Ed. (2011). *Nursing Outcomes: The State of the Science* (2nd ed.). Sudbury, M.A.: Jones and Bartlett.

81 Doran, D., Mildon, B., Clarke, S. (2011). *Toward a National Report Card in Nursing: A Knowledge Synthesis*. Nursing Health Services Research Unit. Toronto: Faculty of Nursing, University of Toronto.

82 Sermeus, W., Aiken, L.H., Van den Heede, K., Rafferty, A.M., Griffiths, P., Moreno-Casbas, M.T. et al. (2011). “Nurse forecasting in Europe (RN4CAST): rationale, design and methodology”, *British Medical Journal*, 10(1), 6. Preliminary findings of an international study presented by W. Sermeus at the Symposium sur les enjeux de la formation infirmière à l’université. Brussels: Association belge des praticiens de l’art infirmier (acn); 25.05.2011.

The nursing community relies on the strength of its intra and extra-disciplinary cooperation to exercise the leadership necessary to successfully fulfill its social mandate. Knowledge-based leadership and influence will ensure sustainable cooperation. The knowledge that underpins nursing practice specifies nursing's particular contribution to individual, family and community health; in other words, the most important question for nurses "really concerns not what they *do*, but what they *know*⁸³."

The public is the first beneficiary and the health system has everything to gain from welcoming the expertise of highly qualified nurses: nursing labour costs represent a significant medium- and long-term investment.

Other recent research studies associate nursing expertise – expert practice (*Agir expert*)⁸⁴ – with effectiveness of care and services. For example, an appropriate proportion of nurses educated to baccalaureate or higher levels (at least 60%) in health care teams is associated with quality nursing outcomes, health cost containment and even has a positive impact on certain national productivity indicators. If only a portion of nursing activities could be transposed to economic parameters, some authors believe, based on a number of rigorous studies, that the average annual salary for a nurse – including fringe benefits – of US\$83 000 constitutes an investment, reducing medical costs and other expenditures associated with national productivity loss by US\$60 000. Public protection is added to these savings: reduced risks, complications or accidents for patients, reduced length of hospital stay, absenteeism and readmission rates. The public is the first beneficiary and the health system has everything to gain from welcoming the expertise of highly-qualified nursing: nursing labour costs represent a significant medium- and long-term investment⁸⁵.

The challenge lies in influencing decision-making processes so that financing nursing care is seen as an investment rather than an expenditure, since it contributes, in the medium and long term, to public protection, quality of care, improved collective health⁸⁶ and the economic development of societies⁸⁷.

83 Rogers, B.L. (2005). "Developing Nursing Knowledge", *Philosophical traditions and influences*. Philadelphia: Lippincott Williams and Wilkins, p.12.

84 Mondoux, J. (2003). "Les agirs", *Journal Dossier 1-2003 de la Croix-Rouge Suisse*, Bern.

85 Dall, T.M., Chen, Y.J., Seifert, R.F., Maddox, P.J., Hogan, P.F. (2009). "The economic value of professional nursing", *Medical Care*, 47(1), 97-104.

86 Vanhook, P.M. (2007). "Cost-utility analysis: a method of quantifying the value of registered nurses", *OJIN: The Online Journal of Issues in Nursing*, 12(3), manuscript 5.

87 Dall, T.M., Chen, Y.J., Seifert, R.F., Maddox, P.J., Hogan, P.F. (2009). "The economic value of professional nursing", *Medical Care*, 47(1), 97-104.

PATIENT SAFETY AND QUALITY OF CARE: THE ADDED VALUE OF NURSING EXPERTISE

The World Health Organization (WHO) reports that one in every 10 patients is thought to be a victim of preventable errors that directly affect the patient: pain, disability, physical and psychological trauma, and even death. The financial costs associated with this lack of safety have been estimated at approximately 10% of countries' total health costs⁸⁸. The WHO has therefore made patient safety a global priority⁸⁹.

According to the Organization for Economic Co-operation and Development (OECD), "One of the most important developments in health care over the past decade has been a popular awakening to problems of quality. In fact, across OECD countries, there is a large and expanding bank of evidence of serious shortcomings in quality that result in unnecessary deaths, disability, and poor health, and that add to costs. The problems are of three types: provision of inappropriate services, failures to administer appropriate care and mistakes in administering medicine⁹⁰."

Emphasizing the serious consequences for patients, staff and health systems, the International Council of Nurses (ICN)⁹¹ deplores the fact that inadequate preparation results in an increase in adverse events such as patient falls, medication errors, nosocomial infections, readmissions and a rise in mortality rates in health care institutions.

According to France's national health authority (Haute Autorité de santé; HAS), health care continues to be unsafe. Sustained efforts to reduce medical errors by 50% over the past ten years or so have fallen short. Believing that health care institutions must become high-reliability organizations like those in the nuclear or aviation industry, the HAS proposes five principles: transparency, integrated care platforms, patient involvement, joy and meaning in work and medical education reform. Deploping the fact that health professionals function in isolation, the HAS also insists on the need for a profound culture change which, from early education onward, should rely on interdisciplinary communication based on the exchange of scientific knowledge. Knowledge, the cornerstone of cooperation between professionals, is vital to genuine progress in patient safety and the prevention of adverse events⁹².

Nursing expertise saves lives and prevents many adverse events. Supported by evidence⁹³ that links significant decreases in mortality rates to an increase in the number of bachelor-educated nurses, access to university education should be endorsed, especially for reasons of patient safety⁹⁴.

88 WHO - *World Alliance for Patient Safety*. (2005). *Global Patient Safety Challenge*. Geneva: WHO. [www.who.int/patient safety]; 24.08.2010.

89 WHO. (2007). *Nine Patient Safety Solutions*. Geneva: WHO.

90 OECD. (2004). *OECD Health Project – Toward High-Performing Health Systems*, p. 12.

91 ICN. (2002). *Patient Safety*. Geneva: ICN.

92 Leape L., Berwick D., Clancy C., Conway J., Gluck P., Guest J., et al. "Transforming healthcare: a safety imperative", *Qual Saf Health Care*. 2009 Dec.;18(6): 424-428 in Brami, J. (2010). *Résultats décevants en matière de sécurité des soins*. Haute Autorité de santé (HAS). DCP et Pratiques, no. 47; 02.09.2010.

93 Aiken, L.H., Clarke, S.P., Cheung, R.B., Sloane, D.M. (2003). "Educational levels of hospital nurses and surgical patient mortality", *JAMA*, 290, 1617-1623.

94 Reams, S. and Stricklin, S.M. (2006). "Bachelor of Science in nursing completion: a matter of patient safety", *JONA*, 36, 7/8, 354-356.

Far from being just a personal preference, a university degree can be life-saving. In settings where at least 60% of nurses are educated at the baccalaureate level or higher, complications can be prevented.

A health care institution that respects both an optimal ratio of nurses holding a baccalaureate or higher degree – at least 60% – and a realistic workload would not only see substantial decreases in mortality rates and complications, but also improved retention of its professional personnel.

Recent, rigorous studies confirm this: mortality rates due to complications decreased significantly in various health care environments, including from 27 to 12 per 1000 admissions in surgical units^{95 96 97 98}.

In other words, each 10% increase in the proportion of nurses with a baccalaureate or higher degree is associated with a 5% decline in the risk of mortality or complications. This implies that a health care institution that respects both an optimal ratio of nurses holding a baccalaureate or higher degree – at least 60% – and a realistic workload would not only see substantial decreases in mortality rates and complications⁹⁹ but also improved retention of its professional personnel¹⁰⁰.

In these studies, higher mortality rates were observed in hospitals where only 20% of nurses held bachelor's degrees and had a workload of 8 patients per nurse. The authors believe the optimal scenario for patient safety is a staffing level of at least 60% bachelor-educated nurses and a 4:1 patient-to-nurse ratio^{101 102}.

A cost-effectiveness analysis of nurse staffing in medical and surgical units showed that an 8:1 patient-to-nurse ratio, though less expensive a priori, is associated with a patient mortality rate of 2.39%. If the workload is reduced to 4 patients per nurse, this rate decreases to 1.83%. Despite the costs of additional qualified nurses, the authors believe that a 4:1 patient-to-nurse ratio is efficient and also safer. The benefits of lives saved, the prevention of complications and length of hospital stay outweigh the costs attributable to patient care in these units¹⁰³.

A study conducted in Belgium, the first of its kind in Europe according to the author¹⁰⁴, compared the costs of optimal qualified nurse staffing levels (75th percentile) in cardiac surgery units with the benefits of reducing mortality rates. According to the study, optimal staffing levels reduced the mortality rate by 45.9 cases per year and generated 458.86 life-years gained annually; which corresponds to 26 372 euros per avoided death and 2939 euros per life-year gained. Undeniable benefits such as life expectancy, quality of life and national productivity lead the authors to conclude that optimal nurse staffing levels should be considered in staffing decisions.

95 Aiken, L.H., Clarke, S.P., Cheung, R.B., Sloane, D.M. (2003). "Educational levels of hospital nurses and surgical patient mortality", *JAMA*, 290, 1617-1623.

96 Aiken, L.H., Clarke, S.P., Sloane, D.M., Lake, E.T., Cheney, T. (2008). "Effects of hospital care environment on patient mortality and nurse outcomes", *JONA*, 38(5), 223-229.

97 Estabrooks, C.A., Midodzi, W.K., Cummings, G.G., Ricker, K.L., Giovanetti, P. (2005). "The impact of hospital nursing characteristics on 30-day mortality", *Nursing Research*, 54(2), 74-84.

98 Tourangeau, A.E., Doran, D.M., McGillis Hall, L. et al. (2007). "Impact of hospital nursing care on 30-day mortality for acute medical patients", *Journal of Advanced Nursing*, 57, 32-44.

99 Aiken, L.H., Clarke, S.P., Cheung, R.B., Sloane, D.M. (2003). "Educational levels of hospital nurses and surgical patient mortality", *JAMA*, 290, 1617-1623.

100 Aiken, L.H., Clarke, S.P., Sloane, D.M., Lake, E.T., Cheney, T. (2008). "Effects of hospital care environment on patient mortality and nurse outcomes", *JONA*, 38(5), 223-229.

101 Aiken, L.H., Clarke, S. P., Sloane, D.M. et al. (2002). "Hospital nurse staffing and patient mortality, nurse burnout and job dissatisfaction", *JAMA*, 288(16), 1987-1993.

102 Aiken, L.H. (2008). "Economics of nursing", *Policy, politics, nursing practice*, 9(2), 73-79.

103 Rothberg, M.B., Abraham, I., Lindenauer, P.K., Rose, D.N. (2005). "Improving nurse to patient staffing ratios as a cost-effective safety intervention", *Medical Care*, 43(8), 785-791.

104 Van den Heede, K. (2010). "Increasing nurse staffing levels in Belgian cardiac surgery centres: a cost-effective patient safety intervention?", *Journal of Advanced Nursing*, 66(6), 1291-1296.

Owing to the importance and convergence of the findings of research studies conducted over the past decade, patient safety is the primary parameter used to demonstrate the added value of training leading to a professional qualification in relation to effective work organization. The more consideration given to the educational level of nurses in the composition of health care teams, the higher the level of patient safety and the more notable the benefits. Among other things, the prevention of avoidable accidents and the reduction of nosocomial infections, length of hospital stay and readmission rates help save lives, reduce suffering and offset health system costs. For many, the economic value of professional nursing is beyond doubt¹⁰⁵.

Patient safety is the strongest component of a case for the provision of nursing services¹⁰⁶ since it represents an opportunity to revise the position that maintains that a health system does not have the means to recruit and support nurses with baccalaureate or higher degrees. An optimal ratio of nurses educated at these levels in the health care team has all the potential to become a benefit for the health system: it directly reduces costs attributed to accidents and adverse events, estimated by the WHO to represent 10% of a country's health costs. This saving could be reinvested in recruitment, on-the-job training, the retention of qualified personnel and the quality rating of health care institutions.

It goes without saying that such decisions are dependent upon what a government is willing to do to bring about profound changes in the organization of its health system, improve patient safety and provide professional working environments conducive to effectiveness and efficiency.

Patient safety and quality of care go hand in hand¹⁰⁷. Nursing expertise is based on the ability to make informed, scientifically based decisions, exercise sound clinical judgement, take appropriate action, often in very short time spans, make assessments and adjust interventions in a process of interprofessional cooperation and technology use. The optimization of competencies is clearly becoming an essential, indeed crucial, aspect in improving patient safety, the quality of the nurse-patient relationship and the exchange of health-related information.

Nurse expertise saves lives and prevents many adverse events... among other things, the prevention of avoidable accidents and the reduction of nosocomial infections, length of hospital stay and readmission rates... helps reduce suffering and offset health system costs. For many, the economic value of professional nursing is beyond doubt.

Advances in science and technology and the nature of nursing settings have reshaped nursing practice substantially with the result that a baccalaureate degree is now the entry-level requirement for practice, part of an education continuum from the baccalaureate to higher levels and research^{108 109}. Furthermore, the WHO's urgent appeal to ensure public safety calls upon all countries to upgrade nursing education¹¹⁰.

105 Dall, T.M., Chen, Y.J., Seifert, R.F., Maddox, P.J., Hogan, P.F. (2009). "The economic value of professional nursing", *Medical Care*, 47(1), 97-104.

106 Aiken, L.H. (2008). "Economics of nursing", *Policy, politics, nursing practice*, 9(2), 73-79.

107 Pringle, D. (2004). "Dot: From the editor-in-chief. Quality goes beyond safety: shifting shifts", *Nursing Leadership*, 17(3), 1-4.

108 Aiken, L.H. (2011). "Nurses for the future", *New England Journal of Medicine*, 364:3 [http://www.nejm.org/]; 20.01.2011.

109 Benner, P., Sutphen, M., Leonard, V. Day, L. (2010). *Educating nurses, a call for radical transformation*. San Francisco: Jossey-Bass.

110 WHO. (2007). *Nine Patient Safety Solutions*. Geneva: WHO.

PUBLIC PROTECTION IN A CONTEXT OF PROFESSIONAL MOBILITY

Public protection is a major responsibility; it is imperative for the nursing profession and other health care personnel. In a context of professional mobility, the heterogeneity of initial education programs raises a number of concerns.

Demands to upgrade nursing education have increased worldwide and the result is a diversity of programs, often offered online, for an international clientele. From a globalization perspective, it is especially important to identify quality indicators for nursing education to ensure public protection in a context of workforce mobility.

Leaders in the nursing profession, a regulated profession in which the lives and safety of the public rely on the mastery of specific skills, have everything to gain from engaging in interdisciplinary dialogue and determining the parameters that will ensure the development of the skills required to respond to population health needs¹¹¹.

Based on research findings, statements of competencies shared across the health professions have been the subject of reports, including *Health Professions Education: A Bridge to Quality*¹¹². This report establishes a clear connection between the need for shared competencies and the delivery of safe, quality care. Drawing on this report, the authors of *Quality and Safety Education for Nurses*^{113 114} propose state-

ments regarding the knowledge, skills and attitudes required for each competency and that must be developed during nursing education.

From a globalization perspective, it is especially important to identify quality indicators for nursing education to ensure public protection in a context of workforce mobility.

Agreements between provinces or countries, such as the Mutual Recognition Agreement (MRA) between France and Quebec, are intended to facilitate the migration of nurses to settings other than the one in which they studied. This quest for mobility cannot be

accepted without minimum standards on which the competent authorities agree.

For the European Commission (EC), the mutual recognition of qualifications between Member States is a fundamental characteristic of a Single Market. Attracting fully qualified professionals is seen as a key growth factor in all 27 Member States. Adopted in 2005, the Professional Qualifications Directive¹¹⁵ underwent evaluation in 2010 prior to an extensive consultation in the preparation of the Green Paper the Commission intends to publish in 2011. The European Federation of Nurses Associations (EFN) and other national nurses associations will have to be vigilant and ensure their voices are heard in unison.

111 ICN. (2010). *Global issues and trends in nursing education*. Geneva: ICN.

112 Institute of Medicine. (2003). *Health professions education: A bridge to quality*. Washington D.C., National Academies Press.

113 Cronenwett, L., Sherwood, G., Barnsteiner, J., Dish, J., Johnson, J., Mitchell, P. et al. (2007). "Quality and safety education for nurses", *Nursing Outlook*, 55(3), 122-131.

114 Bargagliotti, L.A., Lancaster, J. (2007). "Quality and safety education in nursing: more than new wine in old skins", *Nursing Outlook*, 55(3), 156-158.

115 Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications (OJ L 255, 30.09.2005, p. 22).

In its consultation document¹¹⁶, the Directorate General of Internal Market and Services focuses on three major challenges to consider: 1) simplifying the system for citizens, 2) integrating professions into the Single Market in the 21st century and 3) injecting more confidence into the system. This means retaining automatic recognition of qualifications when education and training are comparable. In the case of seven health professions, including medicine and nursing, European legislators decided to harmonize the education requirements and obliged Member States to automatically recognize qualifications fulfilling these requirements.

It is noted that an insufficient level of harmonization of the content of nursing and midwifery could make it difficult for them to integrate smoothly into the health system. There is a need to update minimum requirements: through the reform of national higher education systems, mainly as a result of the Bologna Accord, through a stronger focus on output-based training and the skills that graduates must acquire. It is suggested that admission requirements for nursing and midwifery be raised to those for university entry; that the minimum duration of the program be increased; that course content be clarified and updated and "common trunks" identified. For some, there is a desire for more transparency concerning curriculum content: others argue the relevance of accreditation programs for institutions.

It therefore seems advisable that, in their mandate, French-speaking countries promote exchanges on these standards in order to prepare nurses for professional practice that ensures public protection, encourages the pursuit of education at higher levels and the development of research.

Yet, as mentioned previously, the pursuit of 2nd and 3rd level university studies in nursing is fundamental to ensure the education of competent faculty capable of preparing advanced practitioners, clinical nurse specialists and researchers. The development of research in nursing science is essential to the renewal of nursing practice and the advancement of knowledge.

For the European Commission (EC), the mutual recognition of qualifications between Member States is a fundamental characteristic of a Single Market in the 21st century... this means retaining automatic recognition when education and experience are comparable.

116 European Commission (EC). (2011). *Consultation paper by DG Internal Market and Services on the Professional Qualifications Directive*. [http://ec.europa.eu/internal_market/].

NURSING RESEARCH TO IMPROVE CARE AND COLLECTIVE HEALTH

The development of a body of nursing knowledge has made it possible to renew and evaluate many nursing interventions. New knowledge has made it possible to explore and define new approaches and identify original evaluation parameters. As indicated previously, numerous research studies have shown that qualified nursing care makes a difference to the safety and lives of individuals. Several research studies have made it possible to initiate changes essential to the restructuring of health care and services¹¹⁷.

Research opens the way to reviewing practice, improving skills and clarifying nursing's scientific basis. Examples include the wound care best practice¹¹⁸, pain management¹¹⁹, fall prevention, seniors' independence¹²⁰, and assistance for the families and friends of individuals who are cognitively impaired¹²¹.

Deeply rooted in tradition and nursing priorities for action, health promotion and disease prevention are demonstrated by individual interventions. A better understanding of the impact of social disparities

The development of a body of nursing knowledge has made it possible to renew and evaluate many nursing interventions...

Examples include wound care best practice, pain management, fall prevention, seniors' independence, and assistance for the families and friends of individuals...

on health and the need to take action at the systemic level are central to complex problem-solving strategies from a population health perspective^{122 123 124}. The ecological approach in health promotion, which fosters interprofessional cooperation, obliges taking action at the systemic level in order to improve living environments and public policies¹²⁵. For example, the ecological approach was implemented in a tobacco control policy in Quebec¹²⁶.

The work of a team of researchers from the Research Chair in Nursing Care for Seniors and Their Families¹²⁷ contributed to, among other things, the formulation of Quebec's Home Support Policy and the creation of a support fund for family caregivers of seniors. The Ministère de la Famille et des Aînés called on this team to identify the best nursing care for families of seniors. This means that the results of nursing research have all the potential necessary to influence decisions at strategic levels.

117 CNA. (2010). *Evidence-Based Decision Making and Nursing Practice: Position Statement*. Ottawa: CNA-AIIC. [www.cna-aiic.ca]; 20.11.2010.

118 OIIQ. (2007). *Les soins de plaies au cœur du savoir infirmier - De l'évaluation à l'intervention pour mieux prévenir*. Westmount: OIIQ.

119 Savoie, M. and Lemay, S. (2007). "Perceptions de la douleur chronique de soignants oeuvrant auprès d'anciens combattants", *La geronitoise*, 18(2), pp. 5-8.

120 Edwards, N., MacDonald, J. (2008). "Nurse researchers contributing to seniors' independence in the community", *Canadian Journal of Nursing Research*, 20(1), 103-108.

121 Ducharme, F. (2009). *Desjardins Research Chair in Nursing Care for Seniors and Their Families; annual report*. Faculty of Nursing, Université de Montréal in collaboration with the Institut universitaire de gériatrie de Montréal. [www.chairedesjardins.umontreal.ca/fr-bibliotheque].

122 Bisaillon, A., Beaudet, N., Sauvé, M.S., Boisvert, N., Richard, L., Gendron, S. (2010). "L'approche populationnelle au quotidien", *Perspective infirmière*, 7(1), 58-62.

123 Beaudet, N. (2008). *La pratique infirmière en promotion de la santé en CSSS, mission CLSC: de la volonté à la réalité*. Rapport synthèse, 11(2), 1-12.

124 Potvin, L., Bilodeau, A., Gendron, S. (2008). "Trois défis pour l'évaluation en promotion de la santé", *Promotion & Education*, suppl. 1, 17-21.

125 Richard, L., Fortin, S., Bérubé F. (2004). "Prévention et promotion de la santé pour les enfants et les jeunes et enjeux de la pratique infirmière en CLSC", *Santé Publique*, 16(2), 273-285.

126 Richard, L., Lehoux, P., Breton E., Denis, J.L., Labrie, L., Léonard, C. (2004). "Implementing the ecological approach in tobacco control programs: Results of a case study", *Evaluation and program planning*, 27, 409-421.

127 Ducharme, F. (2009). Report submitted to the Parliamentary Committee on Bill no. 6, an Act to establish a seniors caregivers support fund. [www.chairedesjardins.umontreal.ca/fr-bibliotheque].

The impact of nursing interventions is beyond doubt; it has been demonstrated and it is in this perspective that practice based on research takes on added importance. For nearly 15 years, critical analyses of the best research studies in nursing science published around the world have been available to caregivers^{128 129}.

2ND AND 3RD LEVEL UNIVERSITY EDUCATION IN NURSING

One of the first doctorate programs (Ph.D.) in nursing¹³⁰ was established at New York University in the United States in 1934, while the first scientific research journal, *Nursing Research* appeared in 1952¹³¹. Based on research findings, not only has a unique body of nursing knowledge been created, but also diversified curriculums that include specific competencies have been developed. Despite the early beginnings of nursing research, it is still in its infancy in several French-speaking countries.

In Canadian schools of nursing, the advent of master's programs (2nd level) coincided with the beginnings of research. In Canada, nursing research was first established in 1971¹³². The same is true of Quebec¹³³ where the first research grants were awarded to professors at McGill University and the Université de Montréal. When restructuring its granting agencies, the National Health Research and Development Program reserved a separate place for nursing research, the first time the contribution of nursing to the development of knowledge was recognized in a French-speaking country. These research studies were already focusing on the development of practice, the formulation and systematic evaluation of clinical and community interventions. The publication of *Nursing Papers* – renamed *Canadian Journal of Nursing Research* – by the McGill group¹³⁴ confirmed a genuine interest in research.

It was therefore not by chance that in 1993, the two Montreal universities launched a joint doctorate program in nursing, the 5th doctoral program in Canada and the 1st in the French language. Since 2005, the University of Ottawa has offered its doctorate program in nursing in French, while Université Laval (Quebec city) launched its own program in 2010. For almost 15 years, the Université de Sherbrooke has offered a nursing option at the doctoral level.

In Europe, it should be noted that the first doctoral program in nursing in French was introduced at the Université de Lausanne, Switzerland in 2008. While university education in nursing is still in its infancy, these European nurses have shown leadership in conducting research studies and developing structured research programs whose value is recognized, in particular by the Swiss National Science Foundation (SNSF)¹³⁵.

128 *Evidence-Based-Nursing Journal*. [<http://ebn.bmj.com>]; 19.12.2009.

129 *Soins et Preuves*, French edition of Evidence-Based Nursing. [www.sophia-fondation-genevri.org/fr/soins-preuves/accueil.php]; 20.12.2009.

130 [www.nyu.edu/gradschools/nursingmedicine]; 21.07.2010.

131 [www.sharonbsn.tripod.com/history]; 21.07.2010.

132 Stinson, S., Kerr, J. (ed.). (1986). *International issues in nursing research: Philadelphia, Croom Helm*.

133 Cohen, Y., Pepin, J., Lamontagne, E. and Duquette, A. (2002). *Les sciences infirmières: genèse d'une discipline*. Montreal: Les Presses de l'Université de Montréal.

134 Canadian Journal of Nursing Research. [www.cjnr.mcgill.ca]; 03.11.2010.

135 Swiss National Science Foundation (SNSF). [www.snf.ch/fr]; 03.11.2010.

A new hospital nursing research program was also launched in France in May 2010¹³⁶. This program concerns both professional nursing practice and its organization; it relates to nursing in its broadest sense, encompassing primary and secondary prevention. However, its funding is accessible only to health care institutions and in particular university hospital centres, following project validation by the administration of the ministère de la Santé. This limits the boundaries of nursing research to a vision that is always strongly hospital centred.

...it is important that nursing science make itself known in French, that professors have access to international research groups, that student mobility be encouraged among French-speaking countries, that alliances between universities be strengthened and that curriculums be internationalized.

In today's international context where, in general, many countries have made significant progress in university education in nursing and are recognized worldwide, it is important that nursing science make itself known in French, that professors have access to international research groups, that student mobility be encouraged among French-speaking countries, that alliances between universities be strengthened and that curriculums be internationalized.

136 Ministère de la Santé. (2009). *Circulaire ministérielle no. DHOS/MOPRC/RH1/2009/299 du 28 septembre 2009 relative au programme hospitalier de recherche infirmière pour 2010*. Paris.

THE URGENT APPEAL OF LARGE INTERNATIONAL ORGANIZATIONS

The International Council of Nurses (ICN)

The International Council of Nurses (ICN) supports national nurses associations in their efforts to improve access to higher level education that will prepare nurses to conduct research, critically evaluate research findings and transfer knowledge to nursing practice. Higher level education and research are prerequisites for ensuring quality interventions and evaluating the effectiveness and efficiency of nursing care¹³⁷. With rising health needs and costs, nurses must define, examine and evaluate the health outcomes of nursing interventions. They will then be able to argue in favour of making appropriate initial and continuing education a requirement for practice along with lifelong learning programs¹³⁸.

For the ICN, the nursing profession's authority comes from knowledge based on nursing research. The ICN calls upon nurses to invest in every aspect of their scope of practice, which includes participating in the planning and management of nursing services and health policy-making. Clinicians, researchers, teachers and managers must acquire specific competencies in order to assume a decision-making role and cooperate significantly at all levels of the health system^{139 140}.

Very concerned by the global shortage of qualified nursing personnel, the ICN promotes the knowledge and skills required to provide primary health care. By improving equity and access to health care and services, nurses add value to outcomes of care and their role must be strengthened at all levels of the health system¹⁴¹.

For ICN, the nursing profession's authority comes from knowledge based on nursing research.

The ICN points out that nurses are the main providers of community-based care and maintain connections between individuals, families and communities. Working with other health care professionals, nurses provide care and carry out health promotion activities as well as explore innovative means while preventing disease and disability.

137 ICN. (2007). *Nursing research*. Position statement. Geneva: ICN.

138 ICN. (2001). *Promoting the value and cost-effectiveness of nursing*. Position statement. Geneva: ICN.

139 ICN. (2004). *Scope of nursing practice*. Position statement. Geneva: ICN.

140 ICN. (2010). *Global issues and trends in nursing education*. Geneva: ICN.

141 ICN. (2007). *Nurses and primary health care*. Position statement. Geneva: ICN.

The Organization for Economic Co-operation and Development (OECD)

The Organization for Economic Co-operation and Development (OECD) focuses the attention of member countries' decision-makers on the main challenges they must meet to improve the performance of their national health systems. Meeting these challenges means tackling difficult questions such as: What can be done to ensure that today's spending on health will be sustainable tomorrow? What is needed

to improve the quality and safety of health care and to ensure that health systems are responsive to real needs? How should equitable and timely access to care be supported? And lastly, what can be done to optimize the use of resources?

The OECD recommends investing in the professional capabilities required to respond to key global health issues.

In answer to these questions, the OECD recommends investing in the professional capabilities required to respond to key global health issues. Moreover, the highest-performing countries have readily

expanded professional roles, creating a new division of responsibilities between the main actors in the system, doctors and nurses. Thus, the OECD promotes the development of advanced nursing practice to ensure access to safe, quality health care for populations¹⁴².

The World Health Organization (WHO)

The World Health Organization (WHO) appeals to all countries to ensure that global advances in knowledge lead to greater health equity: cooperation, unity of action, support for complete, universal health care, cost containment and the optimization of professional capabilities in order to respond to increasingly complex health needs. Expectations regarding universal health improvement have never been higher¹⁴³.

The WHO's orientations are meant for all governments as well as for all health professionals. All advocate more effective interventions in order to meet the key challenges facing health systems: ensuring access to safe, effective, high-quality health care and services in a perspective of sustainable development. All governments are called upon to invest in the WHO's orientations in order to achieve these objectives in cooperation with health professionals.

The WHO acknowledges Africa's unique situation where the objectives of health system reform create problems that are difficult to resolve¹⁴⁴. For example, in sub-Saharan Africa, 36 out of 46 countries suffer from a shortage of qualified health professionals. This goes hand in hand with the emigration of an estimated 20 000 nurses and physicians each year. Without being the leading cause, but rather a factor that has a negative impact on the situation of health systems that have a high morbidity burden, this brain drain has consequences at two levels: 1) it leads to a rise in morbidity and mortality rates due to malaria, for example, and 2) it makes it impossible to establish or maintain quality health care institutions. The shortage of qualified professionals has negative repercussions on the development of countries¹⁴⁵.

142 OECD. (2004). *OECD Health Project – Towards High-Performing Health Systems* – Summary Report.

143 WHO. (2008). *World Health Report. Primary Health Care – Now More than Ever*. Geneva: WHO. [www.who.int]; 30.09.2009.

144 WHO. (2006). *Global Shortage of Health Workers and its Impact*. Geneva: WHO. [www.who.int/mediacentre/factsheets/fs302/fr/index.html].

145 "Limit the shortage of doctors: a public health priority in Africa", *Santé/Afrique Avenir*; 20.10.2010.

Therefore it is not by chance that, in its strategic directions for 2010–2015 for the African region, the WHO¹⁴⁶ is seeking to increase the knowledge capital and identify the best strategies for health research development. The WHO advocates strengthening health systems through ongoing support for the primary health care approach. Noting that health is an essential component of human development, the strategic plan sets out key health objectives for African populations: maternal and child health, actions to combat HIV/AIDS, malaria, tuberculosis and polio, intensifying the fight against communicable and noncommunicable diseases and accelerating action on health determinants while insisting on strengthening health promotion measures.

Concerned by the fact that life expectancy is less than 50 years in several African countries, the WHO's Commission on Social Determinants of Health¹⁴⁷ denounces health inequities and makes an urgent appeal to countries to close the health gap in a generation. The Commission believes that the action should be focussed on the empowerment of individuals and communities. Political will is essential to fully implement primary health care, for "the knowledge and the means to change are at hand"¹⁴⁸ ».

As mentioned previously, since access to 1st, 2nd and 3rd level university education is nonexistent in French-speaking Africa, the need is most pressing there.

Nurse educators have few means to update their knowledge using research findings. Referred to as the "digital divide," the many disparities and inequities in access to information and communication technologies compromise advances in knowledge, continuing education and career path development. While nurse professors and researchers enjoy the same status and privileges as university faculty in developed countries, the picture is quite different in French-speaking Africa where the debate on scientific research and higher-level education is only beginning¹⁴⁹.

The WHO's orientations are meant for all governments as well as for all health professionals. All advocate more effective interventions in order to meet the key challenges facing health systems: ensuring access to safe, effective, high-quality health care and services in a perspective of sustainable development. All governments are called upon to invest in the WHO's orientations in order to achieve these objectives in collaboration with health professionals.

146 WHO. (2010). *Achieving Sustainable Health Development in the African Region: Strategic Directions for WHO 2010-2015*. Geneva: WHO. [www.afro.who.int/fr/rdo]; 31.10.2010.

147 WHO. (2008). *Closing the gap in a generation: Health equity through action on the social determinants of health*. Commission on Social Determinants of Health Report. Geneva: WHO.

148 Idem, p. 34.

149 Koffi, K., Lebœuf, D. (2007). "Les compétences infirmières en recherche scientifique, un standard universel", *Soins*, 717, 47-51.

The West African Health Organization (WAHO)

The West African Health Organization is a specialized agency of the Economic Community of West African States (ECOWAS). With its 15 member states, ECOWAS is the most populated of African regional communities. Established in 1975, its mission is to promote cooperation and development in all spheres of economic activity and reduce obstacles to the free movement of people, products and services and the harmonization of regional public policies. Its rate of economic growth is less than 7%, the minimum rate required to achieve the Millennium Development Goals (MDGs)¹⁵⁰.

The West African Health Organization works to improve health care and services in the region. Its activities are aimed at harmonizing national policies and promoting resource sharing, cooperation and the exchange of information in order to find, strategically and collectively, solutions to major health problems.

In its 2009–2013 strategic plan, WAHO recommends improving the quality of the health systems. Improving population health and health care management necessarily require health professionals to have a more appropriate and higher-level education for health professionals.

In its 2009–2013 strategic plan, WAHO¹⁵¹ recommends improving the quality of the health system. Improving population health and health care management necessarily require health professionals to have a more appropriate and higher-level education. The need for appropriate preparation of educators is particularly acute. The harmonization of policies is expected to foster the reciprocal recognition of diplomas, the development, promotion and dissemination of research results as well as the upgrading of qualifications and the number of health officers. A program to monitor the health care situation is being developed.

150 [www.bidc-ebid.org]; [www.wahooas.org]; 08.06.2011.

151 West African Health Organization (WAHO). (2008). *Strategic Plan 2009-2013*. [www.wahooas.org/docsPS2_français2009-2013]; 14.06.2011.

The United Nations Educational, Scientific and Cultural Organization (UNESCO)

Concerned by the impact of globalization on the expansion of education around the world, the United Nations Educational, Scientific and Cultural Organization (UNESCO) gave priority to Africa at the World Conference on Higher Education, which brought together more than 1000 participants from nearly 150 countries at UNESCO headquarters from July 5 to 8, 2009¹⁵².

“At no time in history has it been more important to invest in higher education” affirms the communiqué¹⁵³ adopted following the conference. Thus UNESCO made an urgent appeal to national leaders concerning the social responsibility of higher education. Governments were called upon to increase investment in this sector, encourage diversity and strengthen regional cooperation to meet societal needs. The past decade provides evidence that higher education and research contribute to the reduction of poverty, sustainable development and the achievement of the internationally agreed-upon development goals, which include the Millennium Development Goals (MDGs) and Education for All (EFA)¹⁵⁴.

The final document of the conference calls for the revitalization of higher education in Africa: the adoption of differentiated approaches to meet rapidly increasing demand, the strengthening of regional cooperation through the recognition of qualifications, quality assurance, good governance, research and innovation as well as through the use of information and communication technologies. Decision-makers in higher education are asked to update initial and continuing education for teachers to provide learners with the knowledge and skills they need in the 21st century.

“At no time in history has it been more important to invest in higher education”...

UNESCO also stresses the relevance and importance of exchanges between the Association of African Universities (AAU), the Association of Commonwealth Universities (ACU) and the Agence universitaire de la Francophonie (AUF) on the issue of governance and higher education models.

152 UNESCO. (2009). *World Conference on Higher Education 2009: The New Dynamics of Higher Education and Research for Societal Change and Development*. Paris: UNESCO. [www.unesco.org/fileadmin/multimedia/HQ]; 31.10.2010.

153 UNESCO. (2009). *World Conference on Higher Education - UNESCO appeals for investment and cooperation*, Communiqué 14.07.2009.

154 UNESCO. (2010). *Education and the MDGs*. [www.portal.unesco.org/education/fr/]; 31.10.2010; Education for All. [www.un.org/globalissues/africa]; 28.10.2010.

The International Organization of La Francophonie (IOF)

The International Organization of La Francophonie (IOF) calls for increased efficiency in educational systems in order to achieve Education for All (EFA). It is committed to improving the professional competencies of teachers and other actors in the education sector, in particular with respect to the modernization of pedagogical tools. After achieving progress in providing equal access to primary education for boys and girls, efforts are now being focussed on the teaching staff, where women are well represented, and in particular on those responsible for teaching health workers.

The IOF holds a special place for French-speaking women in the development of their society, in regional and international meetings and forums where they can be heard. Since they can work with

It is in a global context of education, development of scientific knowledge, quality assurance in partnership with communities – and especially, with women – that sustainable development in French-speaking countries will take place.

target communities in rural and periurban areas on the management and maintenance of local job and wealth creation projects, women are key actors in sustainable development. The appropriation of information and communication technologies by women is an important preoccupation for the IOF.

It is in a global context of education, development of scientific knowledge, quality assurance in partnership with communities – and especially with women – that sustainable development in

French-speaking countries will take place¹⁵⁵.

IN SHORT, large international organizations advocate knowledge-based unity of action to resolve major societal problems, promote innovation and contribute to the development of countries. One and all are invited to share knowledge and work together to reduce inequities with due respect for the diversity of cultures, health and social conditions, national educational systems, universities' areas of expertise and the use of information and communication technologies.

RECOMMENDATIONS

Over one million French-speaking nurses constitute an undeniable force and a remarkable potential at the service of population health. SIDIIEF considers it vital to invest in the university education of nurses and nursing research in order to meet the challenges of effectiveness, efficiency and innovation in health systems. These are closely associated with patient safety and responses to the latest epidemiological data.

Given the wealth of scientific evidence, SIDIIEF is appalled to realize that nursing education in French-speaking countries has been allowed to lag behind. Expert opinions, commission reports, and recommendations all point toward a transformation of education to adapt health care to the realities of the 21st century. Nurses in French-speaking countries wonder about decision-makers' lack of interest in optimizing the capabilities of nursing, a professional body so central to population health.

SIDIIEF questions certain political choices in health and deplores their inconsistency. It asserts the right of nurses to contribute fully to improving quality of life and reducing human suffering through the maximum use of their particular skills and knowledge.

SIDIIEF joins large international organizations in favour of policies that promote access to higher education: nurses have an indisputable need for the tools of progress and development, namely, university education and scientific research, if global health inequalities are to be reduced. It is, above all, a matter of social justice¹⁵⁶ between peoples, and also a question of equity for a predominantly female group that is still too often denied access to higher education.

156 Benner, P., Sutphen, M., Leonard, V. Day, L. (2010). *Educating nurses, a call for radical transformation*. San Francisco: Jossey-Bass.

Given:

- the inexorable need to respond to key global health challenges, in particular the management of chronic disease, mental disorders, population aging, communicable diseases, maternal and child mortality, harmful lifestyle habits, health disparities;
- the urgency of making health care, mainly primary care, accessible, as an essential response to evolving population health needs and the strengthening of health systems;
- the obvious need to expand nursing roles and ensure interprofessional cooperation between nurses and physicians to achieve the effectiveness and efficiency sought by all health systems;
- that nursing practice must rely on clinical judgement based on scientific knowledge acquired through nursing research and on the mastery of new technologies, thereby ensuring patient safety and quality of care;
- that access to the 1st, 2nd and 3rd levels of university education in nursing is a requirement to:
 - significantly strengthening the quality and safety of population health care
 - firmly establishing nursing education in its own professional discipline
 - ensuring that the requisite scientific and technological knowledge is acquired
 - preparing future educators and researchers
 - developing research in order to ensure innovative clinical approaches
- French-speaking countries clearly lag behind in subscribing to international trends in nursing education in a context of professional mobility;
- glaring inequities facing a large majority of nurses in French-speaking African countries due to their lack of access to 1st, 2nd and 3rd levels of university education in nursing;
- the ICN, OECD and WHO appeal to all countries to invest more in nursing education to ensure access to effective, safe, efficient care and to reduce the costs of poor quality care.

Urging them to act promptly, SIDIIEF makes the following recommendations to governments of French-speaking countries:

- introduce a university education system that includes 1st, 2nd and 3rd levels of nursing science;
- make a bachelor's degree in nursing science the entry requirement to the nursing profession;
- invite the International Organization of La Francophonie (IOF) to support, through institutional, national, intra-and interregional cooperation mechanisms, university education in nursing and to make this a priority in African countries.

LIST OF REFERENCES

- Aiken, L.H. (2005). "Extending the Magnet Concept to Developing and Transition Countries", *Reflections on Nursing Leadership*, 31(1), 16-18.
- Aiken, L.H. (2008). "Economics of nursing", *Policy, politics, nursing practice*, 9(2), 73-79.
- Aiken, L.H. (2011). "Nurses for the future", *New England Journal of Medicine*, 364:3. [<http://nejm.org/>]; 20.01.2011.
- Aiken, L.H., Clarke, S.P., Cheung, R.B. and Sloane, D.M. (2003). "Educational levels of hospital nurses and surgical patient mortality", *Journal of the American Medical Association (JAMA)*, 290, 1617-1623.
- Aiken, L.H., Clarke, S.P., Sloane, D.M. et al. (2002). "Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction", *Journal of the American Medical Association (JAMA)*, 288, 1987-1993.
- Aiken, L.H., Clarke, S.P., Sloane, D.M., Lake, E.T., Cheney, T. (2008). "Effects of hospital care environment on patient mortality and nurse outcomes", *Journal of Nursing Administration (JONA)*, 38(5), 223-229.
- Bargagliotti, L.A., Lancaster, J. (2007). "Quality and safety education in nursing: more than new wine in old skins", *Nursing Outlook*, 55(3), 156-158.
- Beaudet, N. (2008). *La pratique infirmière en promotion de la santé en CSSS, mission CLSC: de la volonté à la réalité*. Rapport synthèse, 11(2), 1-12.
- Benner, P., Sutphen, M., Leonard, V., Day, L. (2010). *Educating nurses, a call for radical transformation*. San Francisco: Jossey-Bass.
- Bisaillon, A., Beaudet, N., Sauvé, M.S., Boisvert, N., Richard, L., Gendron, S. (2010). "L'approche populationnelle au quotidien", *Perspective infirmière*, 7(1), 58-62.
- Canadian Association of Schools of Nursing (CASN). (2010). *The Case for Healthier Canadians: Nursing Workforce Education for the 21st Century*. Ottawa: CASN. [www.casn.ca]; 21.05.2010.
- Canadian Journal of Nursing Research. [www.cjnr.mcgill.ca]; 03.11.2010.
- Canadian Nurses Association (CNA) and Canadian Association of Schools of Nursing (CASN). (2004). *Joint Position Statement: Educational Preparation for Entry to Practice*. [www.cna-aiic.ca]; 21.11.2009.
- Canadian Nurses Association (CNA). (2006). *Toward 2020: Visions for Nursing*. Ottawa: CNA.
- Canadian Nurses Association (CNA). (2008). *Advanced Nursing Practice: A National Framework*. Ottawa: CNA.
- Canadian Nurses Association (CNA). (2009). *Position Statement: Clinical Nurse Specialist*. [www.cna-aiic.ca/cna/]; 21.11.2009.

Canadian Nurses Association (CNA). (2010). *Evidence-Based Decision-Making and Nursing Practice: Position Statement*. Ottawa: CNA-AIIC. [www.cna-aiic.ca]; 20.11.2010.

Centre for Innovation in Nursing Education (CIFI). (2010). *Analyse et mise en contexte des profils de formation infirmière dans différents pays francophones*: report written for SIDIIEF. Pepin, J., Ha, L. Montreal: CIFI, Faculty of Nursing, Université de Montréal.

Cohen, Y., Pepin, J., Lamontagne, E. et Duquette, A. (2002). *Les sciences infirmières: genèse d'une discipline*. Montreal: Les Presses de l'Université de Montréal.

Commonwealth Nurses Federation. (2005). *Strategic Directions 2005-2010*. [www.commonwealthnurses.org]; 01.10.2010.

Cronenwett, L., Sherwood, G., Barnsteiner, J., Dish, J., Johnson, J., Mitchell, P. et al. (2007). "Quality and safety education for nurses", *Nursing Outlook*, 55(3), 122-131.

Dall, T.M., Chen, Y.J., Seifert, R.F., Maddox, P.J., Hogan, P.F. (2009). "The economic value of professional nursing", *Medical Care*, 47(1), 97-104.

Décret n° 2010-1123 du 23.09.2010 relatif à la délivrance du grade de licence aux titulaires de certains titres ou diplômes relevant du livre III de la 4^e partie du code de la santé publique (NOR: ESRS 1006738D) published in J. O. no. 0224, 26.09.2010, p. 17468 – texte no. 10. Paris.

Desrosiers, G. (2009). "La pratique avancée, un avenir, une nouvelle formation pour les infirmières", *Info Nursing*, no.150, Oct. 2009, Brussels, Association belge des praticiens de l'art infirmier (acn).

Desrosiers, G. (2009). "Libérer les talents", *Perspective infirmière*, 6, 2, March-April, 34-36.

DiCenso, A., Bryant-Lukosius, D. (2010). *Clinical Nurse Specialists and Nurse Practitioners in Canada: A Decision Support Synthesis*. Commissioned Research Report. Ottawa: Canadian Health Services Research Foundation (CHSRF). [www.chsrf.ca]; 16.08.2010.

Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications (OJ L 255 of 30.09.2005, p. 22).

Doran, D., Mildon, B., Clarke, S. (2011). *Toward a National Report Card in Nursing: A Knowledge Synthesis*. Nursing Health Services Research Unit. Toronto: Faculty of Nursing, University of Toronto.

Doran, D.M. Ed. (2011). *Nursing Outcomes: The State of the Science* (2nd ed.). Sudbury, M.A.: Jones and Bartlett.

Ducharme, F. (2009). *Desjardins Research Chair in Nursing Care for Seniors and Their Families; annual report*. Faculty of Nursing, Université de Montréal in collaboration with the Institut universitaire de gériatrie de Montréal. [www.chairedesjardins.umontreal.ca/fr-bibliotheque].

Ducharme, F. (2009). Report submitted to the Parliamentary Committee on Bill no. 6, an Act to establish a seniors caregivers support fund. [www.chairedesjardins.umontreal.ca/fr-bibliotheque].

- Edwards, N., MacDonald, J. (2008). "Nurse researchers contributing to seniors' independence in the community", *Canadian Journal of Nursing Research*, 20(1), 103-108.
- Estabrooks, C.A., Midodzi, W.K., Cummings, G.G., Ricker, K.L., Giovanetti, P. (2005). "The impact of hospital nursing characteristics on 30-day mortality", *Nursing Research*, 54(2), 74-84.
- European Commission (EC). (2011). *Consultation paper by DG Internal Market and Services on the Professional Qualifications Directive*. [http://ec.europa.eu/internal_market/].
- European Ministers of Education. (1999). Joint Declaration of the European Ministers of Education- June 19, 1999-Bologna. [www.europe-education-formation.fr/docs/Bologne].
- Evidence-Based-Nursing Journal*. [<http://ebn.bmj.com>]; 19.12.2009.
- Falk Rafael, A. (2005). "Speaking Truth to Power: Nursing's Legacy and Moral Imperative", *Advances in Nursing Science*, 28(3), 212-223.
- Flynn, M. (2009). "Nurse staffing levels revisited: a consideration in key issues in nurse staffing levels and skill mix research", *Journal of Nursing Management*, 17(6), 759-766.
- Goode, C.J., Pinkerton, S.E., McCausland, M.P., Southard, P. et al. (2001). "Documenting chief nursing officers' preferences for BSc prepared nurses", *Journal of Nursing Administration (JONA)*, 31(2), 55-59.
- Institute of Medicine. (2003). *Health professions education: A bridge to quality*. Washington D.C., National Academies Press.
- Institute of Medicine. (2010). *The future of nursing: Leading changes, advancing health*. Washington, D.C.: National Academies Press. [www.nap.edu/catalog/phprecord_id=12894].
- International Council of Nurses (ICN). (2001). *Promoting the value and cost-effectiveness of nursing*. Position statement. Geneva: ICN.
- International Council of Nurses (ICN). (2002). *Patient safety*. Geneva: ICN.
- International Council of Nurses (ICN). (2004). *Scope of nursing practice*. Position statement. Geneva: ICN.
- International Council of Nurses (ICN). (2004). *The global shortage of registered nurses: an overview of issues and actions*, James Buchan and Lynn Calman. Geneva: ICN.
- International Council of Nurses (ICN). (2007). *Nursing research*. Position statement. Geneva: ICN.
- International Council of Nurses (ICN). (2007). *Nurses and primary health care*. Position statement. Geneva: ICN.
- International Council of Nurses (ICN). (2008). *Participation of nurses in health services decision making and policy development*. Geneva: ICN.
- International Council of Nurses (ICN). (2009). *Promoting the value and cost-effectiveness of nursing*. Geneva: ICN.

International Council of Nurses (ICN). (2010). *Global issues and trends in nursing education*. Geneva: ICN.

International Council of Nurses (ICN), Florence Nightingale International Foundation (FNIF). (2006). *Global Nursing Shortage: Priority Areas for Intervention*. Geneva: Switzerland.

International Organization of La Francophonie (IOF). (2010). *Plan d'action 2008-2010*. [www.francophonie.org/-education-et-formation-html].

International Standard Classification of Education (ISCED). (1997). *Classification instrument based on levels and fields of education produced by the United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute for Statistics to facilitate comparison of education statistics internationally*. [www.uis.unesco.org/ev.fr].

Kane, R.L., Shamlan, T.A., Mueller, C., Duval, S., Wilt, T.J. (2007). "The association of registered nurse staffing levels and patient outcomes. Systematic review and meta-analysis", *Medical Care*, 45(12), 1195-1204.

Koffi, K., Leboeuf, D. (2007). "Les compétences infirmières en recherche scientifique, un standard universel", *Soins*, 717, 47-51.

La mobilité professionnelle en Europe: la reconnaissance des diplômes dans l'Union européenne dans le cadre de la Directive 2005/36/CE. [www.ciep.fr/conferences/eric-naric]; [www.eur-lex.europa.eu]; 03.11.2010.

LaSala, C.A., Connors, P.M., Pedro, J.T., Phipps, M. (2007). "The role of the clinical nurse specialist in promoting EBP and effecting positive patient outcomes", *Journal of Continuing Education in Nursing*, 38(6), Nov.-Dec.

Leape L., Berwick D., Clancy C., Conway J., Gluck P., Guest J., et al. "Transforming healthcare: a safety imperative". *Qual Saf Health Care*. 2009 Dec.;18(6): 424-428 in Brami, J. (2010). *Résultats décevants en matière de sécurité des soins*. Haute Autorité de santé (HAS). DCP et Pratiques, no. 47; 02.09.2010.

"Limit the shortage of doctors: a public health priority in Africa." *Santé/Afrique Avenir*; 20.10.2010.

Ministère de la Santé. (2009). *Circulaire ministérielle no. DHOS/MOPRC/RH1/2009/299 du 28 septembre 2009 relative au programme hospitalier de recherche infirmière pour 2010*. Paris.

Ministère de la Santé. (2009). Réforme de l'Hôpital et relative aux patients, à la santé et aux territoires (HPST). Section 51 of Bill 2009-879 of July 21, 2009. Paris. [www.has-santé.fr]; 05.06.2011.

Mondoux, J. (2003). "Les agirs", *Journal Dossier 1-2003 de la Croix-Rouge Suisse*, Bern.

Morin, D. (2009). *Du chaos au changement planifié... Analyse de la dynamique de transformation des pratiques infirmières*. Lecture given at the OIIQ's Annual Conference. October 2009. [www.oiiq.org].

National Advisory Council on Nurse Education and Practice. (1996). *Report to the Secretary of the Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, Division of Nursing*. Washington, D.C.

- Needleman, J., Buerhaus, P., Mattke, S. et al. (2002). "Nurse staffing levels and the quality of care in hospitals", *New England Journal of Medicine*, 346, 1715-1722.
- Needleman, J., Buerhaus, P., Shane Pankratz, V., Leibson, C.L., Stevens, S.R., Harris, M. (2011). "Nurse staffing and inpatient hospital mortality", *New England Journal of Medicine*, 364(11), 1037-1045.
- Ordre des infirmières et infirmiers du Québec (OIIQ). (2007). *Les soins de plaies au coeur du savoir infirmier - De l'évaluation à l'intervention pour mieux prévenir*. Westmount: OIIQ.
- Ordre des infirmières et infirmiers du Québec (OIIQ). (2007). *Mémoire: Une nouvelle approche de planification des effectifs infirmiers: des choix à faire de toute urgence!* Westmount: OIIQ.
- Ordre des infirmières et infirmiers du Québec (OIIQ). (2010). "Entente France-Québec sur la reconnaissance mutuelle des qualifications professionnelles des infirmières", *Le Journal*, 7(1), Sept.-Oct., 4.
- Ordre des infirmières et infirmiers du Québec (OIIQ). (2010). "Une nouvelle attendue: création de 500 postes d'infirmières praticiennes spécialisées en soins de première ligne", *Le Journal*, 7(4), Sept.-Oct., 1.
- Ordre des infirmières et infirmiers du Québec (OIIQ). (2010). Direction des affaires externes et des statistiques sur l'effectif. Westmount: OIIQ.
- Organization for Economic Co-operation and Development (OECD). (2004). *OECD Health Project – Towards High-Performing Health Systems*, p. 12.
- Organization for Economic Co-operation and Development (OECD). (2004). *OECD Health Project – Towards High-Performing Health Systems – Summary Report*.
- Organization for Economic Co-operation and Development (OECD). (2008). *The looming crisis of the health workforce: How can OECD countries respond? Joint OECD-WHO report*. [www.sourceocde.org/questions sociales/9789264050778]; 16.07.2010.
- Organization for Economic Co-operation and Development (OECD). (2010). *Nurses in Advanced Roles: A Description and Evaluation of Experiences in 12 Developed Countries*. [www.oecd.org]; 03.08.2010.
- Organization for Economic Co-operation and Development (OECD). (2010). *Value for Money in Health Spending: OECD Health Policy Studies*. [www.ocde.org/ocdeLibrairie]; 04.07.2011.
- Potvin, L., Bilodeau, A., Gendron, S. (2008). "Trois défis pour l'évaluation en promotion de la santé", *Promotion & Education*, suppl. 1, 17-21.
- Pringle, D. (2004). "Dot: From the editor-in-chief. Quality goes beyond safety: shifting shifts", *Nursing Leadership*, 17(3), 1-4.
- Rapport d'information*. (2010). Commission des Affaires sociales en conclusion des travaux de la mission d'information sur la formation des auxiliaires médicaux. Député Jacques Domergue. Document d'information de l'Assemblée nationale, no. 2712. Paris.

- Reams, S. and Stricklin, S.M. (2006). "Bachelor of Science in nursing completion: a matter of patient safety", *Journal of Nursing Administration (JONA)*, 36, 7/8, 354-356.
- Richard, L., Fortin, S., Bérubé, F. (2004). "Prévention et promotion de la santé pour les enfants et les jeunes et enjeux de la pratique infirmière en CLSC", *Santé Publique*, 16(2), 273-285.
- Richard, L., Lehoux, P., Breton E., Denis, J.L., Labrie, L., Léonard, C. (2004). "Implementing the ecological approach in tobacco control programs: Results of a case study", *Evaluation and program planning*, 27, 409-421.
- Rogers, B.L. (2005). "Developing Nursing Knowledge", *Philosophical traditions and influences*. Philadelphia: Lippincott Williams and Wilkins, p.12.
- Rothberg, M.B., Abraham, I., Lindenauer, P.K., Rose, D.N. (2005). "Improving nurse to patient staffing ratios as a cost-effective safety intervention", *Medical Care*, 43(8), 785-791.
- Savoie, M. and Lemay, S. (2007). "Perceptions de la douleur chronique de soignants oeuvrant auprès d'anciens combattants", *La gérontoise*, 18(2), pp. 5-8.
- Secrétariat international des infirmières et infirmiers de l'espace francophone (SIDIIEF) and the Faculty of Nursing, Université Laval (2008). *Profil de formation en soins infirmiers dans différents pays francophones*. [www.sidiief.org/publications].
- Sermeus, W., Aiken, L.H., Van den Heede, K., Rafferty, A.M., Griffiths, P., Moreno-Casbas, M.T. et al. (2011). "Nurse forecasting in Europe (RN4CAST): rationale, design and methodology", *British Medical Journal*, 10(1), 6. Preliminary findings of an international study presented by W. Sermeus at the Symposium sur les enjeux de la formation infirmière à l'université. Brussels: Association belge des praticiens de l'art infirmier (acn); 25.05.2011.
- Soins et Preuves*, French edition of Evidence-Based Nursing. [www.sophia-fondation-genevrievier.org/fr/soins-preuves/accueil.php]; 20.12.2009.
- Stinson, S., Kerr, J. (ed.). (1986). *International issues in nursing research: Philadelphia, Croom Helm*.
- Swiss National Science Foundation (SNSF). [www.snf.ch/fr]; 03.11.2010.
- Tourangeau, A.E., Doran, D.M., McGillis Hall, L. et al. (2007). "Impact of hospital nursing care on 30-day mortality for acute medical patients", *Journal of Advanced Nursing*, 57, 32-44.
- UNESCO. (2009). *World Conference on Higher Education - UNESCO appeals for investment and co-operation*, Communiqué 14.07.2009.

UNESCO. (2009). *World Conference on Higher Education 2009: The New Dynamics of Higher Education and Research for Societal Change and Development*. Paris: UNESCO.
[www.unesco.org/fileadmin/multimedia/HQ]; 31.10.2010.

UNESCO. (2010). *Education and the MDGs*.
[www.portal.unesco.org/education/fr/]; 31.10.2010; Education for All.
[www.un.org/globalissues/africa]; 28.10.2010.

US Department of Health and Human Services, Health Resources Services Administration. (2010). *The Registered Nurse Population: Initial Findings from the 2008 National Sample Survey of Registered Nurses*. [www.bhpr.hrsa.gov/healthworkforce/msurvey].

Van den Heede, K. (2010). "Increasing nurse staffing levels in Belgian cardiac surgery centres: a cost-effective patient safety intervention?", *Journal of Advanced Nursing*, 66(6), 1291-1296.

Vanhook, P.M. (2007). "Cost-utility analysis: a method of quantifying the value of registered nurses", *OJIN: The Online Journal of Issues in Nursing*, 12(3), manuscript 5.

West African Health Organisation (WAHO). (2008). *Strategic Plan 2009-2013*.
[www.whaoas.org/docsPS2_français2009-2013]; 14.06.2011.

World Health Organization (WHO). (1978). *Alma Ata, Primary Health Care*. Geneva: WHO.

World Health Organization (WHO) - *World Alliance for Patient Safety*. (2005). *Global patient safety challenge*. Geneva: WHO. [www.who.int/patient_safety]; 24.08.2010.

World Health Organization (WHO). (2006). *Global Shortage of Health Workers and its Impact* Geneva: WHO. [www.who.int/mediacentre/factsheets/fs302/fr/index.html].

World Health Organization (WHO). (2007). *Nine Patient Safety Solutions*. Geneva: WHO.

World Health Organization (WHO). (2008). *Closing the gap in a generation: Health equity through action on the social determinants of health*. Commission on Social Determinants of Health Report. Geneva: WHO.

World Health Organization (WHO). (2008). *World Health Report. Primary Health Care – Now More than Ever*. Geneva: WHO. [www.who.int]; 30.09.2009.

World Health Organization (WHO). (2009). *Global standards for initial nursing and midwifery education*. Geneva: WHO. [www.who.int/hrh/nursing_midwifery/hrh_global_standards_education/fr].

World Health Organization (WHO). (2009). *Global standards for the initial education of professional nurses and midwives*. Geneva: WHO.
[www.who.int/hrh/nursing_midwifery/hrh_global_standards_education/fr].

World Health Organization (WHO). (2009). *Global Shortage of Health Workers and its Impact*. Geneva: WHO. [www.who.int/mediacentre/factsheets/fs302/20091110].

World Health Organization (WHO). (2010). *Achieving Sustainable Health Development in the African Region: Strategic Directions for WHO 2010-2015*. Geneva: WHO. [www.afro.who.int/fr/rdo]; 31.10.2010.

[www.bidc-ebid.org]; [www.wahooas.org]; 08.06.2011.

[www.ehesp.fr/formations].

[www.nyu.edu/gradschools/nursingmedicine]; 21.07.2010.

[www.sharonbsn.tripod.com/history]; 21.07.2010.